United States Air Force
611th Air Support Group/
Civil Engineering Squadron

Elmendorf AFB, Alaska

Final

Remedial Investigation and Feasibility Study

Barter Island Radar Installation, Alaska

Volume 2 of 2
(Includes Appendices D through G)

DISTRIBUTION STATEMENT A
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APPENDIX D

SAMPLE COLLECTION LOGS

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SAMPLE COLLECTION LOGS FOR THE OLD LANDFILL (LF01)

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF01-S01

RADAR STATION: Barter WEATHER: Sunny, breezy, 40°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Head of stream draining base of bermed retaining wall.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 10:00 (8/21), 10:40 (8/20) DEPTH OF SAMPLE (feet): 0-6"

SAMPLE DESCRIPTION/COMMENTS: At depth because upper sediments are constantly being reworked by wave action, well sorted sands, minor intermixed gravels, moist texture.

SAMPLING METHOD: Dedicated scoop and hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:40	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

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SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SD01

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: South/southwest

FIXED POINT: Discharge of culvert at southeast corner of LF01, at road intersection between LF01 and sewage lagoon.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 10:40 DEPTH OF SAMPLE (feet):

SAMPLE DESCRIPTION/COMMENTS: Upgradient sample for LF01, but also downgradient sample for sewage lagoon. Careful for potential pathogens.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
10:30	7.6	1,660	4°C		NR
10:40	7.5	1,640	4°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:40	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SD02

RADAR STATION: Barter WEATHER: Sunny, clear, slight wind

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Small pond with sludge from old landfill - may include biological waste.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): 0 to 0.5

SAMPLE DESCRIPTION/COMMENTS: May include biological/human waste. Crushed drum/bbl in small liquid filled depression. Material appears to be from LF01. Sands and silts, minor gravels, high feed content.

SAMPLING METHOD: Dedicated dipper/scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
10:42	7.2	1,380	7°C	0.1	
11:05	7.5	1,180	3°C	0.1	

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:50	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SD03

RADAR STATION: Barter WEATHER: Sunny, warm, breezy

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Stream channel approximately east of center of top row of seawall bags.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 11:44 DEPTH OF SAMPLE (feet): 0 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Light brown, silty sand and gravels, saturated.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SW01

RADAR STATION: Barter WEATHER: Sunny, breezy, 40°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: 240°

FIXED POINT: Northwest end of culvert at road intersection between LF01 and sewage lagoon.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 10:30 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Upper end of stream that provides head for groundwater to pass through the central area of landfill.

SAMPLING METHOD: Dedicated beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
10:30	7.6	1,660	4°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:30	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	✓	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓		✓		TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SW02

RADAR STATION: Barter WEATHER: Sunny, clear, slight wind

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Small pond/depression with sludge from old landfill, may include human waste.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: May include human/biological waste. Crushed drum/bbl in small liquid filled depression. Material appears to be from LF01.

SAMPLING METHOD: Bottle/bailer

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:05	7.5	1,180	3°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SW03

RADAR STATION: Barter WEATHER: Sunny, warm, breezy

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Located in channel approximately east of center of top row of seawall bags.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 11:44 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Iron stained, cloudy, some colloidal material. Organic and metallic-like odor.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:48	7.1	400	8°C	0.98	

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	✓	4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓		✓		TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SW04

RADAR STATION: Barter WEATHER: Sunny, cool, 40°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: Small pond north of sewage lagoon, north of Southeast end of LF01, east of culvert sampled by SD01.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, PG

TIME SAMPLED: 14:45 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: This pond provides head to drive leachate into LF01 and constitutes an upgradient sample.

SAMPLING METHOD: Dedicated beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
14:50	6.2	1,380	7°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:30	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	✓	4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓		✓		TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-LF01-2SW01

RADAR STATION: Barter WEATHER: Sunny, clear, warm, 45°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:40 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: Recollect due to technical difficulties at Barrow lab. Water is green and opaque.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
14:45	7.8	1,370	4°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-LF01-2SW02

RADAR STATION: Barter WEATHER: Sunny, clear, 45°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: 200 feet south of main road in main channel.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:10 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Recollect for TPH due to technical difficulties at lab.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:10	7.5	1,040	3°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-LF01-2SW03

RADAR STATION: Barter WEATHER: Sunny, clear, 40°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:20 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: Recollect due to technical difficulties at lab.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:25		1,550	5°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-LF01-2SW04

RADAR STATION: Barter WEATHER: Sunny, warm, clear, 45°F

SITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Recollect due to technical difficulties at lab. Dark green and opaque. Collected from ponded area adjacent to road.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes MS/MSD

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:35	8.6	>1,990	5°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE POL CATCHMENT (LF03)

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF03-S01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool. 30°F

SITE/AOC: POL Catchment, LF03 FEET FROM FIXED POINT: 90 MAGNETIC HEADING: 50°

FIXED POINT: The east corner of the southern support of the exposed pipeline.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:20 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: 50% cobbles, 50% gravel, sample mostly gravel/Stain at base of berm along drainage ditch of POL tank 18, HC odor (leaking under berm). Note steel in area may affect magnetic readings.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

		BARROW LAB				ANCHORAGE LAB		
ANALYSES	✓	CONTAINERS		ANALYSES	✓	CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-S01-.75

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 3 MAGNETIC HEADING: 35°

FIXED POINT: Drain pipe from 18 DFA tank. Distance measured in line with pipe

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 13:17 DEPTH OF SAMPLE (feet): 8" below surface

SAMPLE DESCRIPTION/COMMENTS: Bottom of eroded gulley at end of pipe.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-S02-.75

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 7 MAGNETIC HEADING: 55°

FIXED POINT: Drain pipe 65 Diesel

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 13:22 DEPTH OF SAMPLE (feet): 8" below surface

SAMPLE DESCRIPTION/COMMENTS: Bottom of eroded gulley at end of pipe.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-S03-.75

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 115°

FIXED POINT: Intersection of north-south Berm Road and the east-west Berm Road.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 13:32 DEPTH OF SAMPLE (feet): 8" below surface

SAMPLE DESCRIPTION/COMMENTS: Eroded gulley in northeast side of north-south Berm Road at bottom of gulley cut into road bank.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, mild, high 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 70 MAGNETIC HEADING: _____

FIXED POINT: Drain pipe from 18 DFA tank.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): Surface sediment 3-4"

SAMPLE DESCRIPTION/COMMENTS: South edge of standing body of water at base of drainage from POL.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD02

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°

FIXED POINT: South of intersection of north-south Berm Road and the north side east-west Berm Road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:45 DEPTH OF SAMPLE (feet): 0-6" below surface along shore

SAMPLE DESCRIPTION/COMMENTS: Edge of shoreline silt and clay, black organics, vegetation material.

SAMPLING METHOD: Spade and scoop disposable

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF03-SD08

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD03-1.0

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°

FIXED POINT: South of intersection of north-south Berm Road and the north side east-west Berm Road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, PG

TIME SAMPLED: 15:58 DEPTH OF SAMPLE (feet): 12-16" below surface

SAMPLE DESCRIPTION/COMMENTS: Edge of shoreline silt and clay, black clay, vegetation material, reducing environment.

SAMPLING METHOD: Spade and scoop disposable

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD04

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 125 MAGNETIC HEADING: 310°

FIXED POINT: Northeast corner of the DLM Building.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:00 DEPTH OF SAMPLE (feet): Surface to 6" below

SAMPLE DESCRIPTION/COMMENTS: Edge of shoreline northeast corner of catchment basin at south east-west Berm Road. Silt and black clay, and organics reducing environment, vegetation material.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD05-1.0

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 125 MAGNETIC HEADING: 310°

FIXED POINT: Northeast corner of the DLM Building.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:05 DEPTH OF SAMPLE (feet): 12-16" sample layer

SAMPLE DESCRIPTION/COMMENTS: Northeast corner of catchment basin at south east-west Berm. At the edge of shoreline. Silt, black clay and organics reducing environment, vegetation material on bottom.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD06

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 54 MAGNETIC HEADING: 80°

FIXED POINT: Intersection of north-south Berm Road and the north east-west Berm Road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:35 DEPTH OF SAMPLE (feet): Surface sediment sample

SAMPLE DESCRIPTION/COMMENTS: Southern side of drain pipe, north of POL catchment basin, roots, gravel, silt bottom.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD07

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 21 MAGNETIC HEADING: 100°

FIXED POINT: Interseciton north-south Berm Road and the north east-west Berm Road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:42 DEPTH OF SAMPLE (feet): Surface sediment 6" deep

SAMPLE DESCRIPTION/COMMENTS: Small water filled depression on north side of berm at northern edge of POL catchment basin.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SD08

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 40°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°

FIXED POINT: South of intersection of north-south Berm Road and the north side east-west Berm Road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, PG

TIME SAMPLED: 15:45 DEPTH OF SAMPLE (feet): 0-6" below surface along shore

SAMPLE DESCRIPTION/COMMENTS: Edge of shoreline, silt and black clay organics, vegetation material.

SAMPLING METHOD: Spade and disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF03-SD02

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/01/93 SAMPLE ID: BTR-LF03-2SD09

RADAR STATION: Barter WEATHER: Cloudy and cold, 25°F

SITE/AOC: Catchment Basin FEET FROM FIXED POINT: 19 MAGNETIC HEADING: East

FIXED POINT: Sample at 19 feet east of SD06/SW03 on east side of conduit.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT

TIME SAMPLED: 16:30 DEPTH OF SAMPLE (feet): 18 inches

SAMPLE DESCRIPTION/COMMENTS: Sample taken from tundra sod/peat at 6-18-inch depth composite. Tundra had neither appearance nor odor of petroleum.

SAMPLING METHOD: Scoop into jar

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/01/93 SAMPLE ID: BTR-LF03-2SD10

RADAR STATION: Barter WEATHER: Cloudy and cold, 25°F

SITE/AOC: Catchment Basin FEET FROM FIXED POINT: 41 MAGNETIC HEADING: North

FIXED POINT: Sample taken 41 feet north of SD03/SW06, 1 foot west of conduit.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT

TIME SAMPLED: 16:50 DEPTH OF SAMPLE (feet): 18 inches

SAMPLE DESCRIPTION/COMMENTS: Sample taken 41 feet north of SD03/SW06.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
NR					

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SW01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, high 40°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 70 MAGNETIC HEADING: 5

FIXED POINT: Drain pipe from 18 DFA tank in POL.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:50 DEPTH OF SAMPLE (feet): Surface 6" deep water body

SAMPLE DESCRIPTION/COMMENTS: Small body of water at eastern base of drainage area of POL entering POL catchment basin - standing water at north shoreline.

SAMPLING METHOD: Dipped VOA, dipped bottle into surface water.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:45	7.3	1300	7°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SW02

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: 175°

FIXED POINT: Intersection of north-south Berm Road and the north east-west Berm Road

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 14:25 DEPTH OF SAMPLE (feet): Surface water 6" deep

SAMPLE DESCRIPTION/COMMENTS: Vegetative material and silt bottom; sampled in 6" of water, 2 feet away from shoreline.

SAMPLING METHOD: Disposable bailer

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:55	8.0	1040	11°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/18/93 SAMPLE ID: BTR-LF03-SW03

RADAR STATION: Barter WEATHER: Sunny, clear, calm, mild, 40's°F

SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 54 MAGNETIC HEADING: 80°

FIXED POINT: Intersection of north-south Berm Road and the east-west Berm Road on the west side of the wcatchment basin.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:05 DEPTH OF SAMPLE (feet): Surface water 16" deep

SAMPLE DESCRIPTION/COMMENTS: Small water filled depression along southern end of 2-inch drainage pipeline. Sample media is mud, vegetable material bottom. North of POL catchment basin.

SAMPLING METHOD: Dipped bottle

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:13	6.9	1,000	8°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS	✓	250 ml		---
				TSS	✓	250 ml		---
				TOC	✓	500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE CURRENT LANDFILL (LF04)

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-LF04-S01

RADAR STATION: Barter WEATHER: Sunny, warm, clear

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: Western tributary

FIXED POINT: Confluence of first tributary with drainage ditch west of LF01, south of ocean.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 09:40 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: Well graded, well sorted fine sands. Moist, moderate organics. 10 feet upstream in west direction of tributary off main drainage.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF04-S02

RADAR STATION: Barter WEATHER: Sunny, windy, cold

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 45 MAGNETIC HEADING: Northwest

FIXED POINT: Northwest corner of landfill.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 19:45 DEPTH OF SAMPLE (feet):

SAMPLE DESCRIPTION/COMMENTS: Purpose is to detect leachate along NW side. Sample was collected on north side of drainage ditch and was collected in debris strewn area.

SAMPLING METHOD: Spade and Scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB	✓			SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF04-SD01

RADAR STATION: Barter WEATHER: Partly foggy, cold

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: South (true)

FIXED POINT: South end of culvert between LF01 and LF04.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: Less than 50% sewage. Highly odiferous, silty, sludge. Culvert runs under landfill gravel access road. Water is putrid green from which sediment is collected.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF04-SD02

RADAR STATION: Barter WEATHER: Sunny, breezy, cold

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 85 MAGNETIC HEADING: North

FIXED POINT: Confluence of tributary and main ditch.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: Sample collected at confluence of tributary from west location 85' north of culvert on main road.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/03/93 SAMPLE ID: BTR-LF04-2SD03

RADAR STATION: Barter WEATHER: Windy, cold, clear, 35°F

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: North (true)

FIXED POINT: 25 feet north and downstream of first tributary confluence north of main road.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: Fine sands and gravels, saturated. No odor or contamination observed.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
					TPH	✓			

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/03/93 SAMPLE ID: BTR-LF04-2SD04

RADAR STATION: Barter WEATHER: Windy, cold, 35°F

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 80 MAGNETIC HEADING: N

FIXED POINT: 130 feet due west and upstream of first tributary north of main road and 80 feet north of north boundary of current landfill

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, DP, PG

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: High organic material and tundra material. No odor or sheen observed. Garbage present in vicinity.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
					TPH				

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF04-SW01

RADAR STATION: Barter WEATHER: Sunny, breezy, cold

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: South (true)

FIXED POINT: South end of culvert between LF01 and LF04 (see map).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Cloudy, brown, highly odiferous. Readings not taken due to high organic content.

SAMPLING METHOD: Dedicated beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	✓	4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓		✓		TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-LF04-SW02

RADAR STATION: Barter WEATHER: Sunny, windy, cold

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: ~30 feet up tributary MAGNETIC HEADING: ~West

FIXED POINT: Approximate confluence of streams (~85' north of main road). Sample is ~ 30 feet up tributary (see map).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, DP

TIME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Water sample has odor present

SAMPLING METHOD: Direct in bottle

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	✓	4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓		✓		TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/01/93 SAMPLE ID: BTR-LF04-2SW01

RADAR STATION: Barter WEATHER: Cloudy, cool 40°F

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: South end of culvert between LF01 and LF04 (see map).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:50 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Clear, cold, cloudy, brown, highly odiferous. Reading not taken due to high organic content.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
14:51	7.5	980	3°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/01/93 SAMPLE ID: BTR-LF04-2SW02

RADAR STATION: Barter WEATHER: Cloudy, cold 40°F

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: South (true)

FIXED POINT: Confluence of southern tributary and main stream (about 85' north of main road).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:58 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Confluence of tributary leading to main channel, (~75 feet north of main road).

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:00	7.5	470	4°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/03/93 SAMPLE ID: BTR-LF04-2SW03

RADAR STATION: Barter WEATHER: Windy, cold, 35°F

SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 25' north and downstream MAGNETIC HEADING:

FIXED POINT: Confluence southern tributary and of main stream (about 25' north of main road).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, DP

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet):

SAMPLE DESCRIPTION/COMMENTS: Clear, cold, no odor or sheen observed.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
14:10	8.1	626	4°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz
				TPH	✓		

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE CONTAMINATED DITCH (SD08)

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-S01-3

RADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 16.5' MAGNETIC HEADING: East (true)

FIXED POINT: 16.5 feet east of warehouse building's seventh piling from south end.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 13:55 DEPTH OF SAMPLE (feet): ~3 feet

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded gravel in a medium-coarse grained sandy matrix. Dark staining and heavy petroleum odor. Replicate location, sample BTR-SD08-S10.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-S10-3

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:57	BZ=0	0	NR		
13:58	HS=157ppm	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SD08-S02-3

RADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 3 MAGNETIC HEADING: NE

FIXED POINT: Sample collected 3 feet centrally north of concrete pad located 10 feet from northeast corner of warehouse WH1.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:45 DEPTH OF SAMPLE (feet): 3

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded gravel in a medium-coarse grained sandy matrix. Dark staining and heavy petrol odor. Augur cuttings have petroleum odor. Photo 34 is erroneous photo. Use photo 35 for sample location. Location between buildings WH1 and WH7

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:40	BZ=0	0	NR		
14:42	BH=317	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SD08-S03-3.5

RADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: NW

FIXED POINT: Location is northernmost at road, west of north end of DLM building centered between WH7 and DLM.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:59 DEPTH OF SAMPLE (feet): 3.5

SAMPLE DESCRIPTION/COMMENTS: Media is cobbles, gravel, sands, i.e. gravel fill. Sample is photo 36. Sample location due north (true) of SO4, centered between WH7 and DLM building.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:56	BZ=0 ppm	0	NR		
14:57	BH=10 ppm	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SD08-S04-2.5

RADAR STATION: Barter WEATHER: Sunny, breezy, 40°F

SITE/AOC: SD08, Ditch Source FEET FROM FIXED POINT: 28', 11.5' MAGNETIC HEADING: N/A

FIXED POINT: From southeast corner of WH7, location is 28' north and 11.5' east (true).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:10 DEPTH OF SAMPLE (feet): 2.5 below surface

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded gravel in a medium-coarse grained sandy matrix. Dark staining of heavy petrol odor. Photo 36. Strong petroleum odor present in cuttings.

SAMPLING METHOD: Spade, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:59	BZ=0	0	NR		
15:01	BH=100 ppm	0	NR		
15:10	BZ=0				

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SD08-S05-3

RADAR STATION: Barter WEATHER: Sunny, windy, clear, 45°F

SITE/AOC: SD08, Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: South (true)

FIXED POINT: 100 feet south of CP baydoor. Center southend DLM building. (measured down center line of DLM building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 16:14 DEPTH OF SAMPLE (feet): Collected at 3 feet.

SAMPLE DESCRIPTION/COMMENTS: Southernmost point between warehouse and CP. 100 feet south of CP baydoors. Photo 1 is of sample location.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:10	BH=5	0	NR		
16:12	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SD08-S06-2

RADAR STATION: Barter WEATHER: Sunny, windy, clear, 45°F

SITE/AOC: Ditch Source, SD08 FEET FROM FIXED POINT: 50 MAGNETIC HEADING: East

FIXED POINT: North of northeast corner of DLM warehouse, 50 feet east of catchment basin.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 10:58 DEPTH OF SAMPLE (feet): 1.5-2.0

SAMPLE DESCRIPTION/COMMENTS: Dark brown silt and clay loam, moist, high organic content.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:57	BH=0	0	NR		
10:58	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SD08-S07-3

RADAR STATION: Barter WEATHER: Sunny, windy, clear, 45°F

SITE/AOC: Ditch Source, SD08 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: Westerly

FIXED POINT: Warehouse (WH1) source pipe measured perpendicular to building wall.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:30 DEPTH OF SAMPLE (feet): 3 feet below surface

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded pebbles and gravel in a medium-coarse grained sand matrix, light brown, moist, compact. Upgradient sample for plume.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:29	BH=0 ppm	0	NR		
11:30	BZ=0 ppm	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SD08-S10-3

RADAR STATION: Barter WEATHER: Sunny, warm, windy, 45°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 16.5' MAGNETIC HEADING: East (true)

FIXED POINT: 16.5 feet east of warehouse building (WH1).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): 3

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded gravel in a medium-coarse grained sandy matrix. Dark staining and heavy petrol odor. Sample time on COC is 13:55 so that replicate is not incicated to lab.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-S01-3

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:57	BZ=0	0	NR		
13:58	HS=157	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S11-3.5

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 168 MAGNETIC HEADING: South

FIXED POINT: SE corner foundation post of DLM building. Contamination observed at 125' from fixed point at 3' depth

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, ML

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): 3.5

SAMPLE DESCRIPTION/COMMENTS: Sands, gravel, fill material. Same location as BTR-SD08-2S12.

SAMPLING METHOD: Hand auger, disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
15:10	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S12-4.5

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 168 MAGNETIC HEADING: 180° (South)

FIXED POINT: The southeast corner foundation post of the DLM building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, ML

TIME SAMPLED: 15:45 DEPTH OF SAMPLE (feet): 4.5

SAMPLE DESCRIPTION/COMMENTS: Sample collected in the same location as 2S11. Media had a prominant petroleum odor. Sands, gravel, fill material.

SAMPLING METHOD: Hand auger, disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S13-3.5

RADAR STATION: Barter WEATHER: Raining, 30°F

SITE/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: ~90°

FIXED POINT: 100 feet from southeast corner of A-module train building, 80 feet from westernmost utility pole.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, PG, ML, JM, DP

TIME SAMPLED: 16:12 DEPTH OF SAMPLE (feet): 3.5

SAMPLE DESCRIPTION/COMMENTS: Sand and gravel fill. Initial Hanby sample indicates slight contamination. Saturated sample approximately 3 feet below initial water.

SAMPLING METHOD: Hand auger, disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-2S14-3.5

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S14-3.5

RADAR STATION: Barter WEATHER: Raining, 30°F

SITE/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: ~90°

FIXED POINT: 100 feet from southeast corner of A-module train building, 80 feet from westernmost utility pole.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, JM, DP

TIME SAMPLED: 16:12 DEPTH OF SAMPLE (feet): 3.5

SAMPLE DESCRIPTION/COMMENTS: Sand and gravel fill, saturated. Initial Hanby sample indicates slight contamination.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-2S13-3.5

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S15-4

RADAR STATION: Barter WEATHER: Overcast, damp, cold

SITE/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 16 MAGNETIC HEADING: South (true)

FIXED POINT: Post under module train 43 feet west of southeast corner. Sample location is 16 feet perpendicular to building from of this post.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, PG, JM

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): 4

SAMPLE DESCRIPTION/COMMENTS: Soil is clean to 4 feet. Gravel fill material.

SAMPLING METHOD: Hand auger and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SD08-2S16-1

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 20 MAGNETIC HEADING: NE

FIXED POINT: 20 feet northeast of the fourth utility poles at toe of berm.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, PG, JM

TIME SAMPLED: 18:45 DEPTH OF SAMPLE (feet): 1 foot

SAMPLE DESCRIPTION/COMMENTS: Sample collected at toe of berm on east side of pad. Sample collected at 1 foot below surface. Minor tundra material mixed with sands and gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD01

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: S, upstream

FIXED POINT: Log jam at north end of ditch at beach.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:36 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sediments have odor, water is fairly clear with iron staining.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:36	8.5	1,230	8°C		.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
15:30	BZ=0	0	NR		
15:36	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD02

RADAR STATION: Barter WEATHER: Sunny, windy, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 210 MAGNETIC HEADING: S, Upstream

FIXED POINT: Log jam at north end of ditch (stream mouth) at beach, 210 feet from log jam at west side tributary.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, RT

TIME SAMPLED: 16:29 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample location at convergence at tributary and main ditch. Northernmost tributary, west side main stream.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:14	7.7	870	6°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:10	BZ=0	0	NR		
16:13	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD03

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 310 MAGNETIC HEADING: S, Upstream

FIXED POINT: 310 feet south from log jam on east side of ditch.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 16:42 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample location water has iron staining, relatively clear low flow rate.

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:39	7.4	1190	6°C		.0002

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:36	BZ=0	0	NR		
16:39	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD04

RADAR STATION: Barter WEATHER: Sunny, windy, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 360 MAGNETIC HEADING: S, Upstream

FIXED POINT: 360 feet south from log jam on east side of ditch at confluence of tributary and the main ditch.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 16:52 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Media is moist fine sands to coarse gravels.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:51	7.3	1010	8°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:51	BZ=0	0	NR		
16:53	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD05

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, windy

SITE/AOC: Conataminated Ditch, SD08 FEET FROM FIXED POINT: 410 MAGNETIC HEADING: S, upstream

FIXED POINT: 410 feet south from log jam on east side of ditch.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 17:46 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sediments are fine sands, iron staining. Photo 26, water is relatively clear.

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-SD09

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:59	7.4	990	8°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:57	BZ=0	0	NR		
16:59	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC	✓	500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SD09

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, windy, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 410 MAGNETIC HEADING: South upstream

FIXED POINT: 410 feet south from log jam on east side of ditch.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 17:46 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sediments are fine sands, iron staining. Photo 26, water is relatively clear.

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SD08-SD05

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:59	7.4	990	8°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:57	BZ=0	0	NR		
16:59	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)	✓	1 liter	8 oz
PESTICIDES				TOTAL METALS	✓	1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SW01

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: S Upstream

FIXED POINT: Log jam at north end of ditch (mouth of stream) at beach.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 15:36 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Water is clear, with no sediment and no turbidity.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:36	8.5	1,230	8°C		.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
15:30	BZ=0	0	NR		
15:36	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	✓	4 oz
PCB				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS	✓	250 ml		---
				TSS	✓	250 ml		---
				TOC	✓	500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SW02

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 210 MAGNETIC HEADING: S upstream

FIXED POINT: 210 feet south from log jam; at west side tributary.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 16:29 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Sample location at convergence at tributary and main ditch. Northernmost tributary, west side of main stream.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:14	7.7	870	6°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:10	BZ=0	0	NR		
16:13	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SW03

RADAR STATION: Barter WEATHER: Sunny, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 310 MAGNETIC HEADING: S Upstream

FIXED POINT: 310 feet south from log jam on east side of ditch.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 16:45 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Water has iron staining, relatively clear, low flow rate. Sample location photo 24.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:39	7.4	1,190	6°C		.0002

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:36	BZ=0	0	NR		
16:39	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SW04

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, windy, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 410 MAGNETIC HEADING: S Upstream

FIXED POINT: 410 feet south from log jam on east side of ditch. North of tributary.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 17:46 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Water is yellowish, relatively clear. Sample location photo 26.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ■ Duplicate of Water Sample ID BTR-SD08-SW08

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:59	7.4	990	8°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:57	BZ=0	0	NR		
16:59	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓				TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-SD08-SW08

RADAR STATION: Barter WEATHER: Sunny, partly cloudy, windy, 40°F

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 410 MAGNETIC HEADING: S Upstream

FIXED POINT: 410 feet south from log jam on east side of ditch.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 17:46 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Water is yellowish, relatively clear. Sample location, photo 26.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ■ Duplicate of Water Sample ID BTR-SD08-SW04

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:59	7.4	990	8°C		NR

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
16:57	BZ=0	0	NR		
16:59	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)	✓	1 liter	8 oz
PESTICIDES				TOTAL METALS	✓	1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS	✓	1 liter	---
VOC-BTEX 8020	✓			TDS	✓	250 ml	---
				TSS	✓	250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE OLD RUNWAY DUMP (LF12)

SAMPLE COLLECTION LOG

DATE: 08/22/93 SAMPLE ID: BTR-LF12-S01

RADAR STATION: Barter WEATHER: 40°F, foggy, calm to variable light winds

SITE/AOC: Old Runway Dump, LF12 FEET FROM FIXED POINT: 20 MAGNETIC HEADING: East

FIXED POINT: Sample location is from west shoreline boundary (see map).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, TM

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): Surface grab sample

SAMPLE DESCRIPTION/COMMENTS: Sands and gravel fill material, pebble and gravel removed prior to sampling. Note: diesel operated vehicle generally downwind but winds were variable, vehicle kept on standby because a sow and 2 cubs were seen in the area this morning.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/22/93 SAMPLE ID: BTR-LF12-S02

RADAR STATION: Barter WEATHER: Foggy, misty, cool, calm, 40°F

SITE/AOC: Old Runway Dump, LF12 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: East

FIXED POINT: Sample collected from west side of spit. (See map)

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, RO

TIME SAMPLED: 15:33 DEPTH OF SAMPLE (feet): Surface grab samples

SAMPLE DESCRIPTION/COMMENTS: Wet gravelly sand, poorly sorted medium-coarse sand; sampled sand and small pebbles, removed coarse pebbles. Note: Diesel powered vehicle was operating nearby but generally downwind. Note that winds were variable. Vehicle kept running and bear watch alert as a sow and 2 cubs were observed earlier this morning.

SAMPLING METHOD: Disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/22/93 SAMPLE ID: BTR-LF12-S03

RADAR STATION: Barter WEATHER: Foggy, misty, cool, calm, 40's°F

SITE/AOC: Old Runway Dump, LF12 FEET FROM FIXED POINT: 150 MAGNETIC HEADING: East

FIXED POINT: Same location is east of shoreline on spit. (see map)

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, RO

TIME SAMPLED: 15:38 DEPTH OF SAMPLE (feet): Surface grab samples

SAMPLE DESCRIPTION/COMMENTS: Medium to fine poorly sorted sand. Vehicle present during sampling but generally downwind. Winds were variable, however. Vehicle was diesel powered. Polar bear watch as one was spotted this morning (a sow and 2 cubs).

SAMPLING METHOD: Disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB	✓			SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE HEATED STORAGE (SS13)

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-S01

RADAR STATION: Barter WEATHER: Sunny, clear, 50°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: East (true)

FIXED POINT: East end of north culvert, due east of heated storage building (SS13) 1 foot from end of culvert.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 11:50 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Silt, sand, and gravel fill, moist.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:50	BZ=0	0	NR		
11:52	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-S02

RADAR STATION: Barter WEATHER: Sunny, warm, 50°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: East (true)

FIXED POINT: Under heated storage building between third and fourth tier at west end about 25 feet east of building's west end.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 14:06 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Beneath building SS13 on southwest side. Silt, sand, and gravel fill. Petroleum odor present. Sampled surface stain.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:00	BZ=2	0	NR		
14:04	BZ=1	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓			SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-S03

RADAR STATION: Barter WEATHER: Sunny, warm, 50°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: N/A

FIXED POINT: Mid point under heated storage building about 35 feet west of east end.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 14:06 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Beneath SS13 on southeast side. Silt, sand and gravel fill.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:56	BZ=0	0	NR		
14:06	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-S04

RADAR STATION: Barter WEATHER: Sunny, warm, 50°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 8 MAGNETIC HEADING: Westerly

FIXED POINT: 8 feet west of heated storage building along centerline (east-west).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, RT

TIME SAMPLED: 14:10 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Silt, sand, and gravel fill, moist, 8 feet due west of heated storage building in trough leading to small pond. Heavy petroleum odor.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:08	BZ=0	0	NR		
14:15	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS13-2S05-1

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 170 MAGNETIC HEADING: Westerly

FIXED POINT: Measured along building's centerline from the center post of the west side of the heated storage building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, ML

TIME SAMPLED: 13:35 DEPTH OF SAMPLE (feet): 1

SAMPLE DESCRIPTION/COMMENTS: Gravel and organic matter. Sample collected from material under tundra. Additional contamination observed at 70 feet and 85 feet.

SAMPLING METHOD: Deconned shovel and disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS13-2S06-1

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 87 MAGNETIC HEADING: 190°

FIXED POINT: The southwest corner foundation post of the heated storage building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, ML

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): 1

SAMPLE DESCRIPTION/COMMENTS: Sample type gravel and organic material. Contamination was observed at 25 feet from post and 78 feet from post in the drainage ditch along the south side of gravel pad.

SAMPLING METHOD: Deconned shovel and disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:00	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS13-2S07-1

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: 70°

FIXED POINT: The southwest corner of the heated storage building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, ML

TIME SAMPLED: 14:15 DEPTH OF SAMPLE (feet): 1

SAMPLE DESCRIPTION/COMMENTS: Gravel with some fine sands. No staining or odor. The culvert located on the south face of the heated storage at southwest end of building.

SAMPLING METHOD: Deconned shovel and disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-SD01

RADAR STATION: Barter WEATHER: Sunny, light breeze, 40°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 12 MAGNETIC HEADING: East (true) ~90°

FIXED POINT: East end of northern most culvert, due east of culvert, 12 feet.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, PG

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): 0-0.5

SAMPLE DESCRIPTION/COMMENTS: Rounded to subrounded gravels in a silt and medium-coarse grained sand matrix. Moist.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:50	BZ=0	0	NR		
11:52	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-SD02

RADAR STATION: Barter WEATHER: Cloudy, breezy, 40°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 8 MAGNETIC HEADING: East (true)

FIXED POINT: Third Culvert to south. (The culvert roughly in line with southern edge of SS13 gravel pad.)

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, PG

TIME SAMPLED: 13:46 DEPTH OF SAMPLE (feet): Collected at 0.6-1 foot

SAMPLE DESCRIPTION/COMMENTS:

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:47	7.2	990	8°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:49	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-SD03

RADAR STATION: Barter WEATHER: Partly cloudy, breezy, 40°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 6' MAGNETIC HEADING: ~90°

FIXED POINT: Second culvert to south off southeast corner of heated storage.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, RT

TIME SAMPLED: 13:20 DEPTH OF SAMPLE (feet): 0-6"

SAMPLE DESCRIPTION/COMMENTS: Media is sediment in water with heavy iron staining, minor organic material present. Water is stagnant.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:14	BZ=0	0	NR		
13:20	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓			SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SD06

RADAR STATION: Barter WEATHER: Sunny, windy

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: North (true)

FIXED POINT: 100 feet north of gravel road (Airport Road) at east-west section of creek.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:25 DEPTH OF SAMPLE (feet): Sediment 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample is at the east-west creek area, 100 feet north of gravel road. Sand, silts, gravels (coarse), limonite, stains minor organic sheens.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:25	8	920	7°C	Fresh Water	.01

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:25	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SD07

RADAR STATION: Barter WEATHER: Cloudy, breezy, 30°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: North (true)

FIXED POINT: 60 feet north of Airport road culvert opening along south side of creek bed.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:42 DEPTH OF SAMPLE (feet): 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample collected from sediment with little iron staining.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:42	7.7	880	7°C	Fresh Water	.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:45	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SD08

RADAR STATION: Barter WEATHER: Cloudy, breezy, 30°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: Vicinity MAGNETIC HEADING: N

FIXED POINT: Airport Road culvert outfall facing north.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:56 DEPTH OF SAMPLE (feet): 0-6" below surface

SAMPLE DESCRIPTION/COMMENTS: Sheen present on water above sediments. Iron staining present, little organic material.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
12:00	7.5	790	6°C	Fresh Water	.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:56	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES	✓				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-SW01

RADAR STATION: Barter WEATHER: Sunny, light breeze

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 12 MAGNETIC HEADING: East (true) ~90°

FIXED POINT: East end of culvert, due east of culvert, 12 feet.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, RT

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): From water below surface

SAMPLE DESCRIPTION/COMMENTS: Runoff pond at east side of culvert. Water has slight green tint. Minor organic material suspended in sample.

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
12:01	7.4	1,080	9°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:59	BZ=0 / BG=0	0	NR		
12:01	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)	✓	1 liter	8 oz
PESTICIDES				TOTAL METALS	✓	1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS	✓	1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-SS13-SW02

RADAR STATION: Barter WEATHER: Partly cloudy, breezy

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 6 MAGNETIC HEADING: ~90°

FIXED POINT: Second culvert to south off southeast corner of heated storage.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, RT

TIME SAMPLED: 13:25 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Sample collected six feet east of culvert at southeast corner of heated storage. Photos 11 and 12.

SAMPLING METHOD: Dedicated beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:28	7.9	1,260	9°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
13:27	BZ=0	0	NR		
13:30	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SW05

RADAR STATION: Barter WEATHER: Sunny, winds ~20 mph

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: North (true)

FIXED POINT: 100 feet north of gravel road (Airport Road) at east-west section of creek.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:25 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Sand, silts, gravels (course), limonite, stains, minor organic sheens.

SAMPLING METHOD: Disposable spoons

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:25	8	920	7°C	NR	.2 of 1000

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:30	BG=0 / BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SW06

RADAR STATION: Barter WEATHER: Sunny, cold

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: North (true)

FIXED POINT: 60 feet north of Airport road culvert opening along south side of creek bed.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:42 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Sample collected from middepth with interfacing scoop from small pool. Sample collected along south edge of drainage ditch.

SAMPLING METHOD: Deconned beaker

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
11:42	7.7	880	7°C	Fresh Water	.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
11:40	BZ=0	0	NR		
11:45	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-SS13-SW07

RADAR STATION: Barter WEATHER: Cloudy, breezy, 40°F

SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: Vicinity MAGNETIC HEADING: North

FIXED POINT: Airport Road culvert outfall facing north.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 11:56 DEPTH OF SAMPLE (feet): Surface water

SAMPLE DESCRIPTION/COMMENTS: Sheen present when sampling. Sheen not collected in sample, photo 31.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
12:00	7.5	790	6°C	Fresh Water	.001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE GARAGE (SS14)

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-S01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F

SITE/AOC: Garage SS14 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 60°

FIXED POINT: Corrugated culvert pipe east side of road, extending from east end of SS14 garage facing tundra into low drainage area.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:25 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Dark brown silty clay, some gravel at base of gravel pad and tundra. Sample location is 15' easterly in line with culvert.

SAMPLING METHOD: Spade and scoop disposable

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES	✓				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-S02-2.0

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 60°

FIXED POINT: Corrugated culvert pipe east side of road, extending from east end of SS14 garage facing tundra into low drainage area.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:35 DEPTH OF SAMPLE (feet): 2.0-2.4

SAMPLE DESCRIPTION/COMMENTS: Dark brown silty clay, some gravel, some water, base of gravel pad and tundra; strong apparent HC odors.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-S03-3

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 10 MAGNETIC HEADING: 115°

FIXED POINT: From northeast foundation corner (concrete) of SS14 garage.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): 2.5-3.0

SAMPLE DESCRIPTION/COMMENTS: Dark brown silty clay, some gravel, some rock, apparent strong TCE odors.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS14-S06

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-S04-2

RADAR STATION: Barter WEATHER: Sunny, warm, clear, slight breeze, high 40's°F

SITE/AOC: Garage SS14 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: 235°

FIXED POINT: Fuel shut off valve west end of SS14 garage.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:40 DEPTH OF SAMPLE (feet): 1.5-2.0

SAMPLE DESCRIPTION/COMMENTS: Gravelly sand, 60% sand, 40% gravel below gravel pad at west end of SS14 garage, strong HC odors. Low area at this locations underlain by electric cables and has been saturated with diesel. Two holes about 30' west and 32' southwest of SO4 yield 1,000 ppm ambient near hole. Insulation on electric cables under west end of garage is deteriorating. Area is hazardous.

SAMPLING METHOD: Spade and scoop, disposable

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-S06-3

RADAR STATION: Barter WEATHER: Sunny, warm, breezy, clear, high 40's°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 10 MAGNETIC HEADING: 115°

FIXED POINT: Northeast foundation corner (concrete) of SS14 garage.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): 2.5-3.0

SAMPLE DESCRIPTION/COMMENTS: Dark brown silty clay, some gravel, some rock, apparant strong TCE odors.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS14-S03

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS14-2S05-2

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 50 MAGNETIC HEADING: NE

FIXED POINT: 50 feet from north culvert, northeast of culvert in grassy area.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 09:45 DEPTH OF SAMPLE (feet): 2

SAMPLE DESCRIPTION/COMMENTS: Sample at grassy area, peat/sod matrix. No visible contamination or petroleum sheens or odor. Photo 18 and 19.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:00	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS14-2S07-4

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: Garage SS14 FEET FROM FIXED POINT: 34 MAGNETIC HEADING: West (true)

FIXED POINT: From the center post of west end of garage (measured parallel to building, generally west).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:45 DEPTH OF SAMPLE (feet): 4 feet to tundra

SAMPLE DESCRIPTION/COMMENTS: Average sample depth was to the subsurface water layer or approximately 2.5 feet. Peat and sod at 4 feet. Sample collected at 4 feet. Heavy petroleum odor and staining present. Photo 22 is an error.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
10:45	BZ=0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
					TPH	✓			

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-SS14-2S08-3

RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 42 MAGNETIC HEADING: NE ≈ 45°

FIXED POINT: The northeast corner foundation post of garage building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, ML

TIME SAMPLED: 10:15 DEPTH OF SAMPLE (feet): 3

SAMPLE DESCRIPTION/COMMENTS: Collected at auger refusal, approximately 3 feet. Sands and gravel fill material. This sample is BTR-SS14-2S06-3 on COCs.

SAMPLING METHOD: Hand auger and disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
Sample originally submitted to lab as 2S06. Should be changed to 2S08.					

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)					

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-SD01

RADAR STATION: Barter WEATHER: Sunny, warm, clear, breezy, 50's°F

SITE/AOC: Garage SS14 FEET FROM FIXED POINT: 22 MAGNETIC HEADING: 275°

FIXED POINT: Southwest foundation post of SS13 heated garage next to wooden wall.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 13:30 DEPTH OF SAMPLE (feet): Surface - 6"

SAMPLE DESCRIPTION/COMMENTS: Black stained silty clay, little gravel, HC odor in discharge area of drain pipe west of SS13 heated storage garage.

SAMPLING METHOD: Spade and scoop disposable

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)	✓	1 liter	8 oz
PESTICIDES				TOTAL METALS	✓	1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-SS14-SW01

RADAR STATION: Barter WEATHER: Sunny, clear, mild, calm, 50's°F

SITE/AOC: SS14 Garage FEET FROM FIXED POINT: 35 MAGNETIC HEADING: 230°

FIXED POINT: Southwest foundation support column of SS13 heated storage next to wooden wall.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 13:55 DEPTH OF SAMPLE (feet): Surface to 4-6"

SAMPLE DESCRIPTION/COMMENTS: Impounded drainage pond shallow, silty, slightly greenish brown. Sample collected along bank on far side of pond, west from SS13 heated storage building.

SAMPLING METHOD: Dedicated beaker, dipped bottle

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:50	7.9	1,390	11°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE WEATHER STATION BUILDING (SS15)
(Formerly identified as AOC1)

SAMPLE COLLECTION LOG

DATE: 8-16-93 SAMPLE ID: BTR-SS15-S01

RADAR STATION: Barter WEATHER: Partly cloudy, breezy, mild, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 27 MAGNETIC HEADING: 270°

FIXED POINT: Northeast base corner of the diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:20 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Stained soil next to base of oil tank fill area surface sample on gravel pad. Forty mL, 8 oz bottle. Gravel pad 50% rock, 50% gravel, separated gravel from rock for sampling.

SAMPLING METHOD: Scoop (disposable)

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-16-93 SAMPLE ID: BTR-SS15-S02-2.0

RADAR STATION: Barter WEATHER: Partly cloudy, breezy, mild, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 2 MAGNETIC HEADING: 2°

FIXED POINT: Northeast base corner of the diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:35 DEPTH OF SAMPLE (feet): 2

SAMPLE DESCRIPTION/COMMENTS: Stained soil northeast corner of diesel tank on gravel pad, stained rock and gravel. 40 mL, 8 oz bottle. Gravel pad 50% rock, 50% gravel, separated rock from gravel for sampling.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-16-93 SAMPLE ID: BTR-SS15-S03

RADAR STATION: Barter WEATHER: Cloudy, breezy, cool, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: 30°

FIXED POINT: Northeast corner of the diesel tank tower base.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:45 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Gravel surface 10 feet northeast of diesel tank gravel pad edge. Sample collected on the gravel pad sample media is gravel, and rock. Separated rock from gravel for sampling.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-16-93 SAMPLE ID: BTR-SS15-S04

RADAR STATION: Barter WEATHER: Cloudy, breezy, cool, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 344°

FIXED POINT: Northeast base corner of the diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 17:00 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Surface gravel area north of diesel tank, edge of gravel pad. Gravel pad 50% gravel, 50% rock (cobble), separated rock from gravel for sampling.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-16-93 SAMPLE ID: BTR-SS15-S05

RADAR STATION: Barter WEATHER:

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 21'6" MAGNETIC HEADING: 270°

FIXED POINT: Northeast base corner of diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 17:05 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Face of gravel pad northwest of diesel tank. Gravel pad 50% rock (cobble), 50% gravel, separated rock from gravel for sampling.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS15-2S06

RADAR STATION: Barter WEATHER: Partly cloudy, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 23 MAGNETIC HEADING: East (True)

FIXED POINT: 23 feet east from northeast corner of diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): 6"

SAMPLE DESCRIPTION/COMMENTS: Fine sands with gravel. No visual or odiferous media. Sample collected at 6 inches below surface. Photos 5, 6, and 7.

SAMPLING METHOD: Disposable spoon.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
14:20	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS15-2S07-2

RADAR STATION: Barter WEATHER: Partly cloudy

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: North (True)

FIXED POINT: Sample location 26 feet north of northeast corner of diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT

TIME SAMPLED: 14:45 DEPTH OF SAMPLE (feet): 18 to 24 inches

SAMPLE DESCRIPTION/COMMENTS: Fine sands with gravel fill. Water at 4 inches. No visual or odiferous soils. Clean washed gravels. Collected at 1.5 feet. Photos 8 and 9.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS15-2S08-2

RADAR STATION: Barter WEATHER: Partly cloudy, 40°F

SITE/AOC: Weather Station Building, SS15 FEET FROM FIXED POINT: 23 MAGNETIC HEADING: Northeast (true)

FIXED POINT: 23 feet northeast of northeast corner of diesel tank tower.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT

TIME SAMPLED: 15:00 DEPTH OF SAMPLE (feet): 2

SAMPLE DESCRIPTION/COMMENTS: Gravel with fine sands, water at 2 feet.

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		
15:00	BZ = 0	0	NR		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE WHITE ALICE FACILITY (SS16)
(Formerly identified as AOC7)

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S01

RADAR STATION: Barter WEATHER: Clear, sunny, 50°F

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: Northwest

FIXED POINT: Midway between entry stairway and end of east transformer at front door.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB

TIME SAMPLED: 10:31 DEPTH OF SAMPLE (feet): 0.1 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Medium to fine sand with small pebbles. Sample colelcted beneath sand blasting sand on surface. Collected near north/front door.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S02 (composite of 3 grabs)

RADAR STATION: Barter WEATHER: Clear, sunny, 50°F

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 6, 3, 6 MAGNETIC HEADING: _____

FIXED POINT: East door

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB

TIME SAMPLED: 10:39 DEPTH OF SAMPLE (feet): 0.1 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Medium to fine sand with small pebbles, sample sites arranged in even triangle with apex pointed toward east door center (See map).

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S03 (compsite of 2 grabs)

RADAR STATION: Barter WEATHER: Foggy, 40°F, gusts to 15 mph

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 4, 6 MAGNETIC HEADING: Southeast

FIXED POINT: East side of south door entry way (wooden steps).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 19:15 DEPTH OF SAMPLE (feet): 0.1 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Composite of two grab samples one foot farther away from door than Hanby samples. Medium to fine sands with small pebbles.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S04 (composite of 2 grabs)

RADAR STATION: Barter WEATHER: Foggy, 40°F, gusts to 15 mph

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 4, 6 MAGNETIC HEADING: _____

FIXED POINT: West side of south door entry way steps. (wooden steps)

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 19:18 DEPTH OF SAMPLE (feet): 0.1 to 0.5 feet

SAMPLE DESCRIPTION/COMMENTS: Composite of two grab samples one foot farther away from door than Hanby samples were taken. Medium to fine sand with small pebbles.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S05 (composite of 3 grabs)

RADAR STATION: BTR WEATHER: Foggy, 40°F, gusts to 15 mph

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 6, 3, 6 MAGNETIC HEADING: _____

FIXED POINT: West door of White Alice building

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 19:31 DEPTH OF SAMPLE (feet): 0.1 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Sample sites arranged in a uniform triangle in front of door with apex pointing toward doors center (see map). Medium to fine sand with small pebbles.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S06

RADAR STATION: Barter WEATHER: Foggy, 40°F, gusts to 15 mph

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: _____

FIXED POINT: Midway between center of east transformer and building on south side of transformer, north side of building.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 19:55 DEPTH OF SAMPLE (feet): 0.1 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Medium to fine sand with small pebbles. Sample collected beneath cleaning sand (sand blasting aggregate).

SAMPLING METHOD: _____

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-SS16-S07

RADAR STATION: Barter WEATHER: 34°F, windy, cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 2' MAGNETIC HEADING: North

FIXED POINT: North side of building between building and the west transformer.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 20:00 DEPTH OF SAMPLE (feet): Surface 0 - 6 inches

SAMPLE DESCRIPTION/COMMENTS: Collected between White Alice building and Transformer on north side of building. Sample collected below transformer drain.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS16-S06

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S08

RADAR STATION: Barter WEATHER: 34°F, light winds, cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: South (true)

FIXED POINT: One foot perpendicular to pad in front of drain valve.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, JB

TIME SAMPLED: 15:14 DEPTH OF SAMPLE (feet): 1 to 1.5 feet beneath SS16-S07

SAMPLE DESCRIPTION/COMMENTS:

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH		1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓			SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020				TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S09

RADAR STATION: Barter WEATHER: 34°F, light winds, cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 5.5 MAGNETIC HEADING: Easterly

FIXED POINT: SE corner of western transformer pad.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, JB

TIME SAMPLED: 15:20 DEPTH OF SAMPLE (feet): 0.1 to 0.4

SAMPLE DESCRIPTION/COMMENTS: Gravelly sand/Sample collected at a point beneath enclosed Arctic entrance way. Measure-easterly in line with southern edge of pad from southeast corner.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S10

RADAR STATION: Barter WEATHER: 34°F, windy, cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 5.5 MAGNETIC HEADING: South

FIXED POINT: From edge of transformer pad in line with valved drain line.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 15:22 DEPTH OF SAMPLE (feet): 0.2 to 0.4

SAMPLE DESCRIPTION/COMMENTS: Mixed to coarse sand and small pebble gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS16-2S11

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH		1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB	✓			SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020				TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S11

RADAR STATION: Barter WEATHER:

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: South (true)

FIXED POINT: Edge of north side of building

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 15:28 DEPTH OF SAMPLE (feet): 0 - 6"

SAMPLE DESCRIPTION/COMMENTS: Mixed sand and gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS16-S10

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S12

RADAR STATION: Barter WEATHER: 34°F, light wind, cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: ~3 feet MAGNETIC HEADING: 330°

FIXED POINT: 12.5' southwest of westernmost post and 3'3" northwest of northwest corner of building

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, JB

TIME SAMPLED: 15:29 DEPTH OF SAMPLE (feet): 0 - 0.5 feet

SAMPLE DESCRIPTION/COMMENTS: Sand with small pebble gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-1-93 SAMPLE ID: BTR-SS16-2S13-1.5

RADAR STATION: Barter WEATHER: 34°F, light winds, partly cloudy

SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 5 MAGNETIC HEADING: SW

FIXED POINT: Concrete pad of transformer

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, DP

TIME SAMPLED: 16:45 DEPTH OF SAMPLE (feet): 1 to 1.5

SAMPLE DESCRIPTION/COMMENTS: Wet gravelly sand.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE POL TANKS (ST17)
(Formerly identified as AOC8)

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-ST17-S02

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F

SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 18 MAGNETIC HEADING: 55°

FIXED POINT: The east corner of the southern support of the exposed pipeline.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:00 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: 50% cobbles, 50% gravel, sampled mostly gravel/area at head of drainage ditch, base of berm gravel. Note steel in area may affect magnetic readings.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-ST17-S03

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F

SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 148 MAGNETIC HEADING: 55°

FIXED POINT: Southeast support of the south insulated sewage drain pipe, north of POL berm.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 10:45 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Black organic silty clay. Strong septic odor (reducing); Hydrocarbon odor along shoreline of lagoon.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-ST17-S04

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F

SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 51 MAGNETIC HEADING: 60°

FIXED POINT: Southeast support of the south insulated sewage drain pipe, north of POL berm.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Black organic silty clay muck, reducing environment, strong hydrocarbon odor, slight septic odor. Leachate, some gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-ST17-S06

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-ST17-S05-1.5

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F variable

SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 73 MAGNETIC HEADING: 5°

FIXED POINT: From the NW corner foundation post of the storage building 05. Northwest of DLM warehouse building #68.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:35 DEPTH OF SAMPLE (feet): 1.5 hand auger

SAMPLE DESCRIPTION/COMMENTS: Sand, some gravel and pebbles at base of POL 18 berm facing east - didn't sample rock (equivalent to 15% of sample area)/no visible signs of HC contamination. Steel in area may affect magnetic readings.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/20/93 SAMPLE ID: BTR-ST17-S06

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F

SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 51 MAGNETIC HEADING: 60°

FIXED POINT: Southeast support of the south insulated sewage drain pipe, north of POL berms.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Black organic silty clay muck, reducing environment, strong hydrocarbon odor, slight septic odor, some gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-ST17-S04

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE FUEL TANKS (ST18)
(Formerly identified as AOC9)

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 40°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 51 MAGNETIC HEADING: 10°

FIXED POINT: From the northeast corner of the northern MOGAS tank support column to intersect east west centerline of tanks.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:30 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Upgradient sample. Collect below surface material. Presence of HC odor may be confused with nearby diesel spill to northeast. 60% sand, 30% gravel, 10% cobble. Sampled consists of sand and gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S02

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 21 MAGNETIC HEADING: 15°

FIXED POINT: From the northeast corner support column of the northern MOGAS tank intersecting easterly line from southern end of tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:20 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample should represent berm leachate or hydrostatic level of contaminant in gravel approximately 5' from berm. Gravel pad at base of berm 45% gravel, 35% cobble, 20% sand and silt.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S03

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 34 MAGNETIC HEADING: South (true)

FIXED POINT: From the northeast corner support column of the northern MOGAS storage tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample is about 11 feet from base of berm. Collected just below surface material in reddish stained material 45% cobble, 45% gravel. Sampled gravel and some organic silty clay.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-ST18-S10

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S04

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 40°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: 125°

FIXED POINT: South discharge MOGAS tank drain.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 18:50 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Collected from MOGAS day tank berm drain discharge. Collected beneath washed surface material. Eroded gulley below drain pipe at the southern end. 50% gravel, 50% cobble. Sampled mostly gravel from gravel pad berm.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S05

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 40°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 44 MAGNETIC HEADING: 145°

FIXED POINT: From the northeast corner support column of the northern MOGAS storage tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 18:40 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sampled berm leachate draining into small pond near pad. Sample just below surface material. Base of berm 50% gravel, 50% cobble. Sampled mostly gravel. with some organics.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S06

RADAR STATION: Barter WEATHER: Sunny, windy, cool, clear 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: ~180° (south)

FIXED POINT: Southern (discharge) end of middle culvert on south side of berm.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing tanks 10, 11, 12 and 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S07

RADAR STATION: Barter WEATHER: Sunny, foggy, cool, breezy 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: South (true)

FIXED POINT: Southern (discharge) end of diesel tank cell drain pipe at SW corner of site.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:50 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sampled gravelly material from discharge of berm drain pipe from diesel tank cell berm. Sampled below washed surface material.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S08-0.75

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 54 MAGNETIC HEADING: 105° true south

FIXED POINT: From southeast corner support column of the nothern MOGAS storage tank. Due south (true) of sample S05 and tank #10.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:10 DEPTH OF SAMPLE (feet): Beneath tundra, 6-8"

SAMPLE DESCRIPTION/COMMENTS: Upgradient to southeast (magnetic) of drainage path that carries leachate from berm to southwest eventually to contaminated ditch. Black organic clay, some cobbles, some gravel, sampled clay mostly and gravel. Sample collected from tundra bank south of sample S05 and tank #10.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S09-1.5

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 71 MAGNETIC HEADING: 330°

FIXED POINT: From valve on tank #10 facing northwest, parallel to north-south centerline of tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:45 DEPTH OF SAMPLE (feet): 1.5 auger

SAMPLE DESCRIPTION/COMMENTS: Northerly sample delineating pad area on roadway. Sand, gravel, and cobbles. Two additional auger hole 10' and 20' beyond SO9 in same direction yield 39 and 0 ppm OVM holespace readings respectively.

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER	SOIL			WATER		SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB				SVOC (8270)		1 liter		8 oz
PESTICIDES				TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓			TDS		250 ml		---
				TSS		250 ml		---
				TOC		500 ml		4 oz
				TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-S10

RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy 40's°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 34 MAGNETIC HEADING: 90°

FIXED POINT: From the northeast corner support column of the northern MOGAS storage tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sample is about 11 feet from base of berm. 45% cobble, 45% gravel. Sampled gravel and some organic silty clay.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-ST18-S03

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/03/93 SAMPLE ID: BTR-ST18-2S11-2

RADAR STATION: Barter WEATHER:

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 40 MAGNETIC HEADING: True N

FIXED POINT: Tank 10, 40 feet from northwest corner and inline with west edge.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): 1.5 to 2.0

SAMPLE DESCRIPTION/COMMENTS: Typical gravel pad material - mixed small pebble gravel and poorly sorted sand. Strong diesel smell.

SAMPLING METHOD: Disposable scoop and auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/03/93 SAMPLE ID: BTR-ST18-2S12-2

RADAR STATION: Barter WEATHER: Cold, windy, 40°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 40 MAGNETIC HEADING: True N

FIXED POINT: Tank 13, 40 feet from northwest corner and inline with west edge.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB

TIME SAMPLED: 14:50 DEPTH OF SAMPLE (feet): 1.5 to 2.0

SAMPLE DESCRIPTION/COMMENTS: Typical gravel pad material - mixed small pebble gravel and poorly sorted sand. Faint diesel smell.

SAMPLING METHOD: Disposable scoop and auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-SD01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 42°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 51 MAGNETIC HEADING: 150°

FIXED POINT: From the southwest corner of the southern tank support column diesel tank.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML, JB

TIME SAMPLED: 15:35 DEPTH OF SAMPLE (feet): Surface 0-6"

SAMPLE DESCRIPTION/COMMENTS: Sediments from intermittent stream. Most downgradient samples from leachate pathway. Sample media is gravel, sample mostly gravel, little sand, little silt.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-ST18-SW01

RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool 43°F

SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 65 MAGNETIC HEADING: 175°

FIXED POINT: From the southwest corner of the southern tank support column of diesel tank.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML, JB

TIME SAMPLED: 15:08 DEPTH OF SAMPLE (feet): Surface 6-8"

SAMPLE DESCRIPTION/COMMENTS: Sample evaluates intermittent stream flow from pad area and is last downgradient sample. Apparent visible sheen on surface water after sampling initiated.

SAMPLING METHOD: Dipped bottle

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
15:30	7.7	1200	10°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)	✓	1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010		1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS	✓	250 ml	---
				TSS	✓	250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE OLD DUMP SITE (LF19)
(Formerly identified as AOC10)

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S01-1.5

RADAR STATION: Barter WEATHER: Sunny, warm 55°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:50 DEPTH OF SAMPLE (feet): 1.5

SAMPLE DESCRIPTION/COMMENTS: Sample location near center of landfill. Sands and gravels (fill material).

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S02-2

RADAR STATION: Barter WEATHER: Sunny, warm, calm, 50°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: _____

TIME SAMPLED: 15:10 DEPTH OF SAMPLE (feet): 1.5 to 2.0

SAMPLE DESCRIPTION/COMMENTS: Sample location at north end of tributary, subsurface 1 to 2 feet.

SAMPLING METHOD: Disposable spoon to obtain depth.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S03

RADAR STATION: Barter WEATHER: Sunny and warm, calm, 50°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, PG

TIME SAMPLED: 15:20 DEPTH OF SAMPLE (feet): Interface surface

SAMPLE DESCRIPTION/COMMENTS: Stained layer on north end of landfill along seawall. About 10 feet above beach. Well sorted sands (fill material), moist.

SAMPLING METHOD: _____

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S04-2.5

RADAR STATION: Barter WEATHER: Sunny, warm, 55°F, slight breeze

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: ~90° (east)

FIXED POINT: Confluence with contaminated ditch.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 13:45 DEPTH OF SAMPLE (feet): 2 to 2.5

SAMPLE DESCRIPTION/COMMENTS: Minor silts, sands, gravels, moist, light gray. Sample location roughly 80' SE of confluence with contaminated ditch and 150' SW of bifurcation in tributary. Sample collected adjacent to tributary/Replicate of S06.

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF19-S06

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S05-2

RADAR STATION: Barter WEATHER: Sunny, warm, 55°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 135 MAGNETIC HEADING: East

FIXED POINT: 135' due east from contaminated ditch, 45 feet south of tributary, north of main road.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): 1.5 to 2.0

SAMPLE DESCRIPTION/COMMENTS: Collect at similar depth as SO4 and SO6, if visible contamination, relocate SE. Silt to clay loam, high organic content, moist, permafrost at 2' (auger refusal).

SAMPLING METHOD: Spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-S06-2.5

RADAR STATION: Barter WEATHER: Sunny, warm, 55°F, slight breeze

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: ~90°

FIXED POINT: Confluence with contaminated ditch

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 13:45 DEPTH OF SAMPLE (feet): 2 to 2.5

SAMPLE DESCRIPTION/COMMENTS: Replicate of BTR-LF19-S04

SAMPLING METHOD: Hand auger

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF19-S04

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-2-93 SAMPLE ID: BTR-LF19-2S06-1.5

RADAR STATION: Barter WEATHER: Foggy, misty, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 40 MAGNETIC HEADING: North

FIXED POINT: 40 feet north of main road, 50 feet southeast and upgradient of LF19-S05.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, DP

TIME SAMPLED: 09:45 DEPTH OF SAMPLE (feet): 1.5

SAMPLE DESCRIPTION/COMMENTS: Dark brown, near saturation, abundant roots, some intermittent gravels.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-2-93 SAMPLE ID: BTR-LF19-2S07

RADAR STATION: Barter WEATHER: Misty, foggy, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: South side of main road between culverts leading from MOGAS area.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM, DP

TIME SAMPLED: 10:15 DEPTH OF SAMPLE (feet): 0 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Sand and gravel fill material. Collected at southwest upgradient boundary, south of the two drainage culverts confluence leading from MOGAS storage.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-2-93 SAMPLE ID: BTR-LF19-2S08-1

RADAR STATION: Barter WEATHER: Cold, cloudy, calm, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: West ~270°

FIXED POINT: Intersection of Airport Road and Gravel Landfill Access Road.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, PG, JM

TIME SAMPLED: 10:50 DEPTH OF SAMPLE (feet): 1

SAMPLE DESCRIPTION/COMMENTS: Sands and gravel near saturation, high organic musky odor.

SAMPLING METHOD: Hand auger, scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF19-2S09-1

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-2-93 SAMPLE ID: BTR-LF19-2S09-1

RADAR STATION: Barter WEATHER: Foggy, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: ~280°

FIXED POINT: Center line of main road and gravel road on the old dump

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: DP, JM, PG

TIME SAMPLED: 10:50 DEPTH OF SAMPLE (feet): 1 Foot

SAMPLE DESCRIPTION/COMMENTS: Sands and gravels, near saturation, high organic musky odor. Collected at one foot depth. Sample west of intersection of main road and dump road.

SAMPLING METHOD: Hand auger and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-LF19-208-1

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-SD01

RADAR STATION: Barter WEATHER: Sunny, warm, 55°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: 30 feet due east of main SD08 tributary, up from tributary confluence.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 13:05 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: In secondary tributary east of confluence with drainage ditch (SD08).

SAMPLING METHOD: Disposable spoon

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-2-93 SAMPLE ID: BTR-LF19-2SD02

RADAR STATION: Barter WEATHER: Foggy, misty, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 80 MAGNETIC HEADING: North

FIXED POINT: 150 feet northeast of LF19-SD01, 80 feet north of main road is where sample was collected.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM. DP

TIME SAMPLED: 10:00 DEPTH OF SAMPLE (feet): 0 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Upstream plume definition of culvert, tributary to SD08 contaminated ditch. Silts, sands, and gravel, dark color, high organics.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-21-93 SAMPLE ID: BTR-LF19-SW01

RADAR STATION: Barter WEATHER: Foggy, misty, 40°F

SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: 90° ~ East

FIXED POINT: 30 feet upstream from confluence of SD08 drainage channel.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG, JM

TIME SAMPLED: 13:05 DEPTH OF SAMPLE (feet): Surface Water

SAMPLE DESCRIPTION/COMMENTS: Surface water sample collected from second tributary east of convergence with drainage ditch (SD08). Fine grained silts and gravels, petroleum sheen observed.

SAMPLING METHOD:

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:10	6.8	1,980	4°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB	✓			SVOC (8270)	✓	1 liter	8 oz
PESTICIDES	✓			TOTAL METALS	✓	1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS	✓	1 liter	---
VOC-BTEX 8020	✓			TDS	✓	250 ml	---
				TSS	✓	250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE BLADDER DIESEL SPILL (SS20)
(Formerly identified as AOC14)

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S01-0.75

RADAR STATION: Barter WEATHER: Foggy, cool, breezy, misty 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 91 MAGNETIC HEADING: 225°

FIXED POINT: Southern most guard post for guylines from radar dome (see map).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, RO

TIME SAMPLED: 19:15 DEPTH OF SAMPLE (feet): 6"-8" (Water at 1 foot - loss of hole integrity)

SAMPLE DESCRIPTION/COMMENTS: 40% cobble, 40% gravel, 20% sand. Sampled mostly gravel and sand.

SAMPLING METHOD: Shovel away surface rock sample with disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S02-0.75

RADAR STATION: Barter WEATHER: Foggy, wet, cool, calm ~40°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 93 MAGNETIC HEADING: 265°

FIXED POINT: Northwest corner of module train B (see map).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, RO

TIME SAMPLED: 18:55 DEPTH OF SAMPLE (feet): 6"-8" (Lack of stability, hole collapsed)

SAMPLE DESCRIPTION/COMMENTS: 50% gravel, 48% rock, 2% sand. Sampled gravel, sand, little rock.

SAMPLING METHOD: Shovel off top layer of rock - disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S03-1

RADAR STATION: Barter WEATHER: Foggy, moist, cool, breezy 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 35 MAGNETIC HEADING: 180°

FIXED POINT: Utility pole on shoulder of road to weather station radar module.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, RO

TIME SAMPLED: 19:35 DEPTH OF SAMPLE (feet): 1.0 water-sheen

SAMPLE DESCRIPTION/COMMENTS: Auger to contaminant, tundra, or excess water / hole collapse. Visible sheen at 1 foot. 50% gravel, 50% rock. Sampled gravel.

SAMPLING METHOD: Shoved away gravel - disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S04-1

RADAR STATION: Barter WEATHER: Foggy, misty, cool, breezy 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 35 MAGNETIC HEADING: 180°

FIXED POINT: Utility pole on shoulder of road to weather station radar module.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, RO

TIME SAMPLED: 19:35 DEPTH OF SAMPLE (feet): 1.0 water visible sheen

SAMPLE DESCRIPTION/COMMENTS: Visible sheen at 1 foot. 50% gravel, 50% rock. Sampled gravel.

SAMPLING METHOD: Shoved away surface gravel. Disposable scoop.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-SS20-S03

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SD01

RADAR STATION: Barter WEATHER: Foggy, misty, breezy, cool 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 115 MAGNETIC HEADING: 255°

FIXED POINT: From northwest corner southern module train.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 20:10 DEPTH OF SAMPLE (feet): Surface sediment

SAMPLE DESCRIPTION/COMMENTS: 6-8" below water surface (depth of water) and a few inches into sediment vegetable material, clay silt and gravel.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
19:45	7.8	1560	10°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SD02

RADAR STATION: Barter WEATHER: Foggy, misty, breezy, cool 40°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 130 MAGNETIC HEADING: 250°

FIXED POINT: From northwest corner of southern module train - train B.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 20:25 DEPTH OF SAMPLE (feet): Sediment surface

SAMPLE DESCRIPTION/COMMENTS: Vegetable material, clay-silt, and gravel. In 6-8" of water; sediment sample collected a few inches into sediment layer.

SAMPLING METHOD: Auger/spade and scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SW01

RADAR STATION: Barter WEATHER: Cloudy, overcast, temperature in lower 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 115 MAGNETIC HEADING: 255°

FIXED POINT: Northwest corner of southern module train (see map).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:05 DEPTH OF SAMPLE (feet): 0-6" See comment.

SAMPLE DESCRIPTION/COMMENTS: Near shore sample. Triple volume (MS/MSD) for Barrow; Anchorage sample was also collected. A lot of living organisms in water.

SAMPLING METHOD: Bottle dipped

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ■ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
19:05	7.4	1460	6°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SW02

RADAR STATION: Barter WEATHER: Cloudy, overcast, temperature in lower 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 130 MAGNETIC HEADING: 250°

FIXED POINT: Northwest corner of southern most module train (see map).

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:45 DEPTH OF SAMPLE (feet): 0-8"

SAMPLE DESCRIPTION/COMMENTS: In 6-8" of water along west bank of pond.

SAMPLING METHOD:

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ■ Duplicate of Water Sample ID BTR-SS20-SW03

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
19:45	7.8	1560	10°C		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SW03

RADAR STATION: Barter WEATHER: Overcast, temperature in lower 40's°F

SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 130 MAGNETIC HEADING: 250°

FIXED POINT: From northwest corner northern module train B.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 19:45 DEPTH OF SAMPLE (feet): 0-8"

SAMPLE DESCRIPTION/COMMENTS: In 6-8" of water along west bank of pond across from SW01.

SAMPLING METHOD: Dipped bottle

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ■ Duplicate of Water Sample ID BTR-SS20-SW02

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
19:45	7.8	1560	10°C		

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE JP-4 SPILL (SS21)
(Formerly identified as AOC15)

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS21-S01

RADAR STATION: Barter WEATHER: Foggy, misty, cool

SITE/AOC: JP-4 Spill, SS21 FEET FROM FIXED POINT: 40' MAGNETIC HEADING: Southwest

FIXED POINT: Turn in fence line and in line with north edge of northern tank.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, PG

TIME SAMPLED: 18:30 DEPTH OF SAMPLE (feet): 0-6"

SAMPLE DESCRIPTION/COMMENTS: Four closely spaced grab samples from closely spaced small seeps. Sample media is compacted gravel fill.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES	✓				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	3 x 40 ml		8 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS21-S02

RADAR STATION: Barter WEATHER: Foggy, cool

SITE/AOC: JP-4 Spill, SS21 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: Northwest

FIXED POINT: Adjacent to turn in fence line near bend in pipeline.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG/JM

TIME SAMPLED: 18:45 DEPTH OF SAMPLE (feet): 0-6"

SAMPLE DESCRIPTION/COMMENTS: Scraped surface before sampling. Fine - med sands and gravels; heavy petroleum odor and staining.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	3 x 40 ml		8 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8/21/93 SAMPLE ID: BTR-SS21-S03

RADAR STATION: Barter WEATHER: Foggy, cool, 40°F

SITE/AOC: JP-4 Spill, SS21 FEET FROM FIXED POINT: 15' MAGNETIC HEADING: Easterly ~90°

FIXED POINT: Pipeline west of culvert in line with pipe entrance on east side of building 2002.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: PG/JM

TIME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): 0 - 0.5", Surface

SAMPLE DESCRIPTION/COMMENTS: Fine sands and silts and sludges. Heavy petroleum odor.

SAMPLING METHOD: Dedicated scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		8 oz
PCB		1 liter		8 oz	SVOC (8270)		1 liter		8 oz
PESTICIDES		1 liter		8 oz	TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	3 x 40 ml		8 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓	3 X 40 ml		8 oz	TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/1/93 SAMPLE ID: BTR-SS21-2S04

RADAR STATION: Barter WEATHER: Foggy, cool, misty

SITE/AOC: JP-4 Spill, SS21 FEET FROM FIXED POINT: 47' MAGNETIC HEADING: NW ~300°

FIXED POINT: Southern telephone pole along fence line.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, RT

TIME SAMPLED: 19:15 DEPTH OF SAMPLE (feet): 0-6", Surface

SAMPLE DESCRIPTION/COMMENTS: Sample collected in compacted gravels with fine sands. No odor or sheen present.

SAMPLING METHOD:

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	3 x 40 ml		8 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓	3 x 40 ml			TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9/1/93 SAMPLE ID: BTR-SS21-2S05

RADAR STATION: Barter WEATHER: Foggy cool, misty, ~40°F

SITE/AOC: JP-4 Spill, SS21 FEET FROM FIXED POINT: 26' MAGNETIC HEADING: NW

FIXED POINT: Southern flange joint adjacent to the bend in the pipeline, near the end of the fence.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JB, RT

TIME SAMPLED: 19:29 DEPTH OF SAMPLE (feet): 0-6", Surface

SAMPLE DESCRIPTION/COMMENTS: Sample media is wet compact gravel with fine sands. the area appears to be lower or slightly depressed compared to the rest of the area. Sample collected ~2' down slope from cable tie-down.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	3 x 40 ml	8 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR BACKGROUND (BKGD)

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-S01

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 300 MAGNETIC HEADING: 210°

FIXED POINT: From the southwest corner of the most south communication radar (Alascom)

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): 0.5

SAMPLE DESCRIPTION/COMMENTS: Beneath tundra, dark black soil, roots flat low lying field south of Alascom radar.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-BKGD-S04

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES	✓				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-S02

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 300 MAGNETIC HEADING: 195°

FIXED POINT: From the southwest corner of the most southern communication radar (Alascom)

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 11:25 DEPTH OF SAMPLE (feet): 0.5

SAMPLE DESCRIPTION/COMMENTS: Underneath tundra, low lying flat area south of Alascom earth station, dark black soil, roots.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-S03

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 305 MAGNETIC HEADING: 155°

FIXED POINT: From south of ladder on west troposphere antenna signal generator.

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 15:10 DEPTH OF SAMPLE (feet): 0.5

SAMPLE DESCRIPTION/COMMENTS: Beneath tundra, black soil, roots, relatively flat open area south of troposhere antennas.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB	✓			SVOC (8270)		1 liter	8 oz
PESTICIDES	✓			TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-S04

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 300 MAGNETIC HEADING: 210°

FIXED POINT: From the southwest corner of the most south communication radar (Alascom).

SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): 0.5

SAMPLE DESCRIPTION/COMMENTS: Beneath tundra, black soil roots, flat low lying area south of Alascom radar.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID BTR-BKGD-S01

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES	✓				TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-SD01

RADAR STATION: Barter WEATHER: Sunny, clear, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 30 MAGNETIC HEADING: South

FIXED POINT: Where road meets freshwater lake at shore of freshwater lake 30 feet south of road along shoreline.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): 1

SAMPLE DESCRIPTION/COMMENTS: Gravel bottom, some plants, mud. Plants along shoreline down to water edge.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-SD02

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 240 MAGNETIC HEADING: 115°

FIXED POINT: From south ladder of east troposphere antenna signal generator.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:25 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: A lot of vegetation along shoreline, vegetation matting on bottom, some silt mixed in.

SAMPLING METHOD: Disposable scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)		3 x 40 ml	4 oz
PCB	✓			SVOC (8270)		1 liter	8 oz
PESTICIDES	✓			TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 9-3-93 SAMPLE ID: BTR-BKGD-2SD03

RADAR STATION: Barter WEATHER: Misty, foggy, balmy

SITE/AOC: BKGD FEET FROM FIXED POINT: _____ MAGNETIC HEADING: 180°

FIXED POINT: 200 feet due south from eastern projector tower of white alice complex.

SAMPLE MATRIX: ☐ Soil (S) ■ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, JM

TIME SAMPLED: 13:30 DEPTH OF SAMPLE (feet): 0 to 0.5

SAMPLE DESCRIPTION/COMMENTS: Tundra mat, saturated, no odor. This sample is BTR-BKGD-2SD02 on the COCs.

SAMPLING METHOD: Scoop

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-SW01

RADAR STATION: Barter WEATHER: Sunny, clear, windy, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 30 MAGNETIC HEADING: South

FIXED POINT: Where road meets fresh water lake at fresh water lake, 30 feet south of road along shore line.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Wavy (0.5 foot waves), windy, clear water, cold, clean looking, clean smelling.

SAMPLING METHOD: Subsurface. Dipped bottles filled in lake, transferred to VOAs (dip bottle beneath surface and fill), filter TDS, DIS metals.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
13:40	7.7	620	41°F		<0.0005

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓		✓		TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-SW02

RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F

SITE/AOC: BKGD FEET FROM FIXED POINT: 240 MAGNETIC HEADING: 115°

FIXED POINT: From south ladder on east troposphere antenna signal generator.

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML

TIME SAMPLED: 16:09 DEPTH OF SAMPLE (feet): Surface

SAMPLE DESCRIPTION/COMMENTS: Northern edge of pond along bank, a lot of pond vegetation along shoreline, clear water, vegetation mat on bottom.

SAMPLING METHOD: Subsurface. Dipped bottles below surface to collect water for water samples.

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY
16:00	8.0	530	41°F		<0.0001

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓				TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR QA/QC

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-AB01

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, JM, PG

TIME SAMPLED: 15:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

■ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

		BARROW LAB				ANCHORAGE LAB			
ANALYSES	✓	CONTAINERS			ANALYSES	✓	CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-AB02

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, PG

TIME SAMPLED: 15:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

■ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-AB03

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, JB

TIME SAMPLED: 12:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

■ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-EB01

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, JM, PG

TIME SAMPLED: 15:30 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB	✓			SVOC (8270)	✓	1 liter	8 oz
PESTICIDES	✓			TOTAL METALS	✓	1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-EB02

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, PG, RO, JM

TIME SAMPLED: 16:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH	✓	1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB	✓			SVOC (8270)	✓	1 liter	8 oz
PESTICIDES	✓			TOTAL METALS	✓	1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS	✓	1 liter	---
VOC-BTEX 8020	✓			TDS	✓	250 ml	---
				TSS	✓	250 ml	---
				TOC	✓	500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-EB03

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, ML, RT, RO

TIME SAMPLED: 16:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-EB03A

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM

TIME SAMPLED: 16:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	✓	1 liter		---
VOC-BTEX 8020	✓				TDS	✓	250 ml		---
					TSS	✓	250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-EB04

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RO, ML, PG

TIME SAMPLED: 18:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-EB05

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, PG

TIME SAMPLED: 14:30 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB	✓				SVOC (8270)	✓	1 liter		8 oz
PESTICIDES	✓				TOTAL METALS	✓	1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC	✓	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/01/93 SAMPLE ID: BTR-EB06

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, JB

TIME SAMPLED: 18:30 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	✓				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/02/93 SAMPLE ID: BTR-EB07

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, PG, RT, ML

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
					TPH	✓			

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/03/93 SAMPLE ID: BTR-EB08

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, PG, RT, ML

TIME SAMPLED: 14:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ■ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH	✓	1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
					TPH	✓			

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/16/93 SAMPLE ID: BTR-TB01

RADAR STATION: Barter WEATHER: _____

SITE/AOC: Contaminted Ditch, SD08 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, JM, PG

TIME SAMPLED: 15:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: Trip blank collected for SD08 samples on 08/16/93

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

■ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/17/93 SAMPLE ID: BTR-TB02

RADAR STATION: Barter WEATHER: _____

SITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: RT, RO, ML

TIME SAMPLED: 10:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: Trip blank collected for SD08 samples on 08/17/93

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

■ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS WATER		BARROW LAB CONTAINERS SOIL	ANALYSES	✓	ANCHORAGE LAB CONTAINERS WATER		ANCHORAGE LAB CONTAINERS SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/18/93 SAMPLE ID: BTR-TB03

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM

TIME SAMPLED: 10:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

■ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/20/93 SAMPLE ID: BTR-TB04

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, RT, RO

TIME SAMPLED: 10:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

■ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS		ANALYSES	✓	ANCHORAGE LAB CONTAINERS	
		WATER	SOIL			WATER	SOIL
TPH		1 liter	8 oz	VOC (8260)	✓	3 x 40 ml	4 oz
PCB				SVOC (8270)		1 liter	8 oz
PESTICIDES				TOTAL METALS		1 liter	8 oz
HVOC 8010	✓	1 x 40 ml	4 oz	DISS METALS		1 liter	---
VOC-BTEX 8020	✓			TDS		250 ml	---
				TSS		250 ml	---
				TOC		500 ml	4 oz
				TCLP		2 liters	2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 08/21/93 SAMPLE ID: BTR-TB05

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: ML, PG, JM

TIME SAMPLED: 16:00 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: _____

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

■ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	✓	1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020	✓				TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOG

DATE: 09/03/93 SAMPLE ID: BTR-IDW-01

RADAR STATION: Barter WEATHER: _____

SITE/AOC: _____ FEET FROM FIXED POINT: _____ MAGNETIC HEADING: _____

FIXED POINT: _____

SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)

SAMPLERS: JM, PG

TIME SAMPLED: 13:45 DEPTH OF SAMPLE (feet): _____

SAMPLE DESCRIPTION/COMMENTS: Investigation derived waste.

SAMPLING METHOD: Grab

QA/QC SAMPLES COLLECTED: ☐ Equipment Blank (EB) ☐ QA/QC Extra Volumes

☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID _____

☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID _____

WATER PARAMETERS					
TIME	PH	CONDUCTIVITY	TEMPERATURE	SPECIFIC GRAVITY	TURBIDITY

MONITORING READINGS					
TIME	PID READING (ppm)	CG/LEL (%)	HANBY SCREENING (standard/ppm)		

BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)

✓ CHECK ANALYSES REQUESTED

ANALYSES	✓	BARROW LAB CONTAINERS			ANALYSES	✓	ANCHORAGE LAB CONTAINERS		
		WATER		SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	✓	3 x 40 ml		4 oz
PCB					SVOC (8270)	✓	1 liter		8 oz
PESTICIDES					TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		---
VOC-BTEX 8020					TDS		250 ml		---
					TSS		250 ml		---
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)
(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

APPENDIX E

CHAIN-OF-CUSTODY FORMS

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

Anchorage

NO. 0376

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) M. Lemmel, Jeffrey Munnell, Randolph Ostlund

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	TOX	T. ORG	D. ORG	TOC	TOX	TD	REMARKS
SD08	8.0	1600		X	BTR SD08 WEB /	8	X	X	X	X	X	X	X	
BKGD		1400		X	BTR BKGD SD01 /	8	X	X	X	X	X	X	X	
BKGD		1609		X	BTR BKGD SD02 /	8	X	X	X	X	X	X	X	
BKGD	V	1430		X	BTR BKGD SD01 /	4	X	X	X		X			
SD08		1000		X	BTR SD08 TB /	2	X							
					Relinquished to Dennis Page M. Lemmel 8-7-92 17:30									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/7/92 1900	FED EX 804406957			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

CF03

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD (Anchorage)

NO. 0377

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Peter G. M. Sloan Gregg Mundt

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SOIL	TOTAL METAL	DISS METAL	TOC	TPH	TDS	REMARKS
SD08	8.16	1746		X	BTR SD08 SL004	9	X	X	X	X	X	X	X	
BKGD	8.17	1125		X	BTR BKGD SD2	4	X	X	X		X			
SD08	8.17	1530		X	BTR SD08 SED	6	X	X	X		X			
					Relinquished to									
					Dennis Paige									
					M. Lemmon 8-17-93 17:30									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8.17.93 1900	FED EX 804140695 1			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 378

PROJ. NO.	PROJECT NAME
BARTEK	DEW LINE

SAMPLERS: (Signature) K. Mcnutt Robert Tarpley

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SVOA	TOX	PEST				REMARKS
SS13	8-18	1200		X	BTR SS13 SW01		X	X	X	X				
~~STE~~	~~8-18~~	~~1200~~		~~X~~	~~BTR SS13 SW01~~		X	X	X					
LF03	8-18	1200		X	BTR LF03 SW01		X	X						
LF03	8-18	1150		X	BTR LF03 SW01		X	X			X	X	X	
SS13	8-18	1406			BTR SS13 SD2/3		X	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
K Mcnutt	8/18/93 16:00			8/18/93 17 30	FED EX 804140745
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0383

PROJ. NO.	PROJECT NAME
BARGE	DEN LINE

SAMPLERS: (Signature) J Mansell Robert Taffe

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	TOX METALS	TOX METALS	TOX METALS	TOX ORG	TOX ORG	TOX ORG	REMARKS
SS13	8-18	1305		X	BTR SS13 SW02	6	X	X	X	X				
									CP					
LF03	8.18	1505		X	BTR LF03 SL003	7	X	X	X		X	X	X	
LF03	8.18	1542		X	BTR LF03 SD07	2	X	X			X			
SS13	8.18	1600		X	BTR SS13 SED2	7	X	X	X	X	X			
										CP				

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
J Mansell	8/18/93 16:00			8/18/93 17:30	FEDEX 804107450
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 387 R-6

PROJ. NO.	PROJECT NAME
BARTER	DEAD LINE

SAMPLERS: (Signature) Mary Ste Kammel, Beth F. M. Chan
Terry Mercuff

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BNA + TPH	PCB	RST	TPH			REMARKS
AOC15	8-21	1830		X	BTR-AOC15-S01	2		X		X	X			
	8-21	1845		X	BTR-AOC15-S02	2		X			X			
	8-21	1900		X	BTR-AOC15-S03	2		X			X			
AOC07	8-21	1915		X	BTR-AOC07-S03	1			X		X			
	8-21	1918		X	BTR-AOC07-S04	1			X		X			
	8-21	1931		X	BTR-AOC07-S05	1			X		X			
	8-21	1955		X	BTR-AOC07-S06	1			X		X			
	8-21	2000		X	BTR-AOC07-S07	1			X		X			
TB	8-21	1600		X	BTR-TB-05	2	X→DS							
			1											
AOC14	8-21	2010		X	BTR-AOC14-SD01	2	X				X			
	8-21	1935		X	BTR-AOC14-S04	2	X				X			
	8-21	2025		X	BTR-AOC14-SD02	4	X				X			MS/MSD
	8-21	1935		X	BTR-AOC14-S03	2	X				X			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mary Ste Kammel, Beth F. M. Chan	8/21/93 2200			8/22/93 1700	8-22-93 1700
	8-22-93 2154	FBI Shirley Dorn 8-22-93 2155			

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0389

PROJ. NO.	PROJECT NAME
BARIER	DEW LINE

SAMPLERS: (Signature)

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX + TMB	PCBs	PAHs	TPH	REMARKS
ACCN	8-21	1905		X	BTR ACCN-S001	12	X				X	MS/MSD
"	8-21	1855		X	BTR-ACCN-S02	2	X				X	
"	8-21	1915		X	BTR-ACCN-S01	2	X				X	
"	8-21	1945		X	BTR-ACCN-S002	4	X				X	
"	8-21	1945		X	BTR-ACCN-S003	4	X				X	
LF12	8-22	1533		X	BTR-LF12-S02	2		X	X		X	
"	8-22	1538		X	BTR-LF12-S03	2		X	X		X	
"	8-22	1530		X	BTR-LF12-S01	2		X	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	8/21/93 1700			8/22/93 1700	8-22-93 1700
	8-22-93 21:56	8-22-93 21:50			
		Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARROW 5

NO. 390 FEB

PROJ. NO.: BARROW

PROJECT NAME: DEW LINE

SAMPLERS: (Signature) Mengistu Lemma, Bob [illegible], Terry Mumbl

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX + ETHOX	PCBs	RESI	TPH	REMARKS
SS14	8-21	1355		X	BTR-SS14-S001	5	X		X	X		
	8-21	1025		X	BTR-SS-14-S01	2	X	X	X	X		
	8-21	1035		X	BTR-SS14-S02	2	X	X		X		
	8-21	1100		X	BTR-SS14-S03	2	X	X		X		
	8-21	1140		X	BTR-SS14-S04	2	X	X		X		
	8-21	1100		X	BTR-SS14-S06	2	X	X		X		
	8-21	~~1850~~ 1830		X	BTR-SS14-DUP01	2	X			X		
ACC10	8-21	1305		X	BTR-ACC10-S01	2	X			X		
	8-21	1450		X	BTR-ACC10-S01	2	X	X	X	X		
	8-21	1510		X	BTR-ACC10-S02	2	X	X		X		
	8-21	1520		X	BTR-ACC10-S03	2	X	X		X		
	8-21	1345		X	BTR-ACC10-S04	2	X	X	X	X		
	8-21	1430		X	BTR-ACC10-S05	2	X	X		X		
	8-21	1395		X	BTR-ACC10-S06	2	X	X		X		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mengistu Lemma, Bob [illegible]	8/21/93 1700			8/22/93 700	8-22-93 1700
	8-22-93 2155	8.22.93			
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARROW 4

NO. 0392 FOB

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Margaretta Lemmon, Beth Forman

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BTEX	BTEX + TPH	TPH	TOC	REMARKS
ACC09	8-20	1508		X	BTR-ACC09-S001		X				X	
EB	8-20	1600		X	BTK-EB-04	5		X	X		X	
NB	8-21	1500		X	BTK-NB-02	3	X	X				
ACC10	8-21	1305		X	BTK-ACC10-S001	5		X	X	X	X	
ACC07	8-21	1031		X	BTK-ACC07-S01	1			X			
ACC07	8-21	1039	X	X	BTK-ACC07-S02	1			X			
LF01	8-21	1000		X	BTR-LF01-S01	4		X	X		X			MS/MSD
LF04	8-21	1140		X	BTK-LF04-S01	2		X	X		X	
EB	8-21	1430		X	BTR-EB-05	5		X	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Margaretta Lemmon, Beth Forman	8/21/93 2200			8/22/93 1700	8-22-93 17 UB
	8-22-93 2157	8.22.93 DHC 21:58			

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 393

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Randolph Ottlund

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC Bag	PAH/PHENOLICS	TCL PEST	TPH	REMARKS
AOC09	8.20	1535		X	BTR-AOC09-S1001		X			X	HCID

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Randolph Ottlund	8/21/93 1700			8/21/93 1500	CAPE SMYTHE AIR TO MARK AIR
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARKAY (3)

NO. 0394 P-B

PROJ. NO.	PROJECT NAME
BARIER	DEW LINE

SAMPLERS: (Signature)

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	HCID	REMARKS
AOC08	8-20	1020		X	BTR-AOC08-S01	2	X X	
	8-20	1000		X	BTR-AOC08-S02	2	X X	
	8-20	1045		X	BTR-AOC08-S03	2	X X	
	8-20	1100		X	BTR-AOC08-S04	2	X X	
	8-20	1135		X	BTR-AOC08-S05	2	X X	
	8-20	1100		X	BTR-AOC08-S06	2	X X	
AOC09	8-20	1930		X	BTR-AOC09-S01	2	X X	
	8-20	1920		X	BTR-AOC09-S02	2	X X	
	8-20	1850		X	BTR-AOC09-S03	2	X X	
8-20	1900	1900		X	BTR-AOC09-S10	2	X X	
	8-20	1850		X	BTR-AOC09-S04	2	X X	
	8-20	1840		X	BTR-AOC09-S05	2	X X	
	8-20	1835		X	BTR-AOC09-S06	2	X X	
	8-20	1550		X	BTR-AOC09-S07	2	X X	
	8-20	1910		X	BTR-AOC09-S08	2	X X	
	8-20	1945		X	BTR-AOC09-S09	2	X X	

HCID

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	8/20/93 2200			8/21/93 1500	CAPE SMYTHE AIR TO MARK AIR
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARREL

NO. 395

PROJ. NO.	PROJECT NAME
BARREL	PEDLINE

SAMPLERS: (Signature) Margaret Lemmon Robert Taffe

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX	BTEX + TVOC	TPH	REMARKS
LF04	8.20	1530		X	BTR-LF04-SD01 /	5	X	X		X	
	8.20	1900		X	BTR-LF04-SD02 /	5	X	X		X	
	8.20	1945		X	BTR-LF04-SD03 /	2	X	X		X	
	8.20	1530		X	BTR-LF04-SD01 /	2	X	X		X	
	8.20	1900		X	BTR-LF04-SD02 /	2	X	X		X	
	8.20	1945		X	BTR-LF04-SD03 /	2	X	X		X	
LF01	8.20	1040		X	BTR-LF01-SD01 /	2	X	X		X	
	8.20	1100		X	BTR-LF01-SD02 /	2	X	X		X	~~HS/MSD~~ DUP
	8.20	1144		X	BTR-LF01-SD03 /	2	X	X		X	
TB	8.20	1000		X	BTR-TB-01 /	2	X				

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Margaret Lemmon Robert Taffe	8/20/93 2000		HEART DUP	8/21/93 1500	CAPE SMYTHE AIR → MARKHAM
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0396F-B

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Mary Jo Lemire

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX + TMB	PCB	PAH	REMARKS
LF01	8.20	1145		X	FTR-LF01-S001	15	X	X		X	MS/MSD
	8.20	1144		X	FTR-LF01-S003	5		X	X	X	
	8.20	1100		X	FTR-LF01-S002	5		X	X	X	
	8.20	1030		X	FTR-LF01-S001	5		X	X	X	

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mary Jo Lemire	8/20/93 2200			8/21/93 1500	CAPE SMYTHE AIR TO MARK AIR
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 397

PROJ. NO.	PROJECT NAME
BARIER	DEAD LINE

SAMPLERS: (Signature) M. Lemmon Randolph Cartland
poor copy

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX	PAH	PCB	TPH	REMARKS
LF03	8/18	1600		X	BTR LF03 SD04	2	X				X	
LF03	8-18	1605		X	BTR LF03 SD05	2	X				X	
LF03	8-18	1558		X	BTR LF03 SD03	2	X				X	
SS13	8-18	1600		X	BTR SS13 SEB2	5	X		X	X	X	
SS13	8-18	1600		X	BTR SS13 WEB2	5	X		X	X	X	

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	8/18/93 1630	[illegible]	[illegible]	8/18/93 1730	MARK AIR 800 440-7455
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0398

PROJ. NO.	PROJECT NAME
BATTEL	DEW LINE

SAMPLERS: (Signature) L Mowell, Robert Taffee, M.L. Mims

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	VOC BTEX + TVOC	PCB'S	PEST. TPH	REMARKS
SS13	8.18	1346		X	BTR SS13 SD02			X	X	X	
SS13	1358	1400		X	BTR SS13 SD03			X	X	X	
SS13	8.18	1406		X	BTR SS13 S03			X	X	X	
SS13	8.18	1410		X	BTR SS13 S04			X	X	X	
SS13	8-18	1325		X	BTR SS13 SW08	4	X			X	
~~SW~~ DP											
LF03	8-18	1425		X	BTR LF03 SW02	4	X			X	
LF03	8.18	1505		X	BTR LF03 SW03	4	X			X	
LF03	8.18	1542		X	BTR LF03 SD07	2		X		X	
LF03	8.18	1535		X	BTR LF03 SD06	2		X		X	
LF03	8.18	1515		X	BTR LF03 SD08	2		X		X	
LF03	8.18	1518		X	BTR LF03 SD09	2		X		X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
L Mowell, M.L. Mims	8/18 1600			8/18 1730	8041407452
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 399

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) L Mowatt, Robert Stringfellow

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	WC BTR	BTR/LINE	BTR/BT	PET	TPH	REMARKS
SD08	8.18	1130		X	BTR SD08 S07	3	X			X		
SD08	8.18	1058		X	BTR SD08 S06	2	X			X		
SS13	8.18	1150		X	BTR SS13 S01	2	X	X		X		
SS13	8.18	1200		X	BTR SS13 S001	4	X			X		
SS13	8.18	1200		X	BTR SS13 SD01	4	X	X		X		MS/MSD
LF03	8.18	1150		X	BTR SS LF03 SD01	4	X	X		X		
LF03	8.18	1200		X	BTR LF03 S001	2	X			X		
LF03	8.18	1317		X	BTR LF03 S01	2		X		X		
LF03	8.18	1322		X	BTR LF03 S02	2		X		X		
LF03	8.18	1332		X	BTR LF03 S03	2		X		X		
SS13	8-18	1400		X	BTR SS13 S02	2		X	X	X		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
K. Mowatt	8/18/93 16:00			8/18/93 1730	FEDEX AIRBILL 8041407150
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD (3)

NO. 0400

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Terry Mundell

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	UOA	Si-Ni-Ti	T. Metals	D. Metals	TOC	TSS	TDS	REMARKS
SS13	8-18	1600		X	BTR SS13 LOEB	9	X	X	X	X	X	X	X	
LF03	8-10	1000		X	BTR LF03 TB	2	X							date is 8/18

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Terry Mundell	8-18-93 1730			8-18-93 1730	FED EX 804140741502
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

Anchorage

NO. 0405

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Robert Taaffe, Gerry Mundell, Seth Shaw

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH	Lead	Xylene	1,1 Dichloroethene	Benzene	TCE	1,2 Dichloroethane
SD08	8.16	1146		X	BTR SD08 SD08	9	X	X	X	X	X	X	X
SD08	8.16	1746		X	BTR SD08 SD05	4	X	X	X		X		
SD08	8.16	1500		X	BTR SD08 AP	2	X						
SD08	8.16	1500		X	BTR SD08 TB	2	X						

YR MO NO.

REMARKS

Relinquished to Dennis Page
Robert Taaffe
8-16-93 1845

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	8.16.93 1900	FEDEX 804406940
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)

Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	Date / Time	Remarks:

ICF KAISER ENGINEERS

Anchorage

CHAIN OF CUSTODY RECORD

NO. 0406

PROJ. NO.	PROJECT NAME
BARROW	DEW LINE

SAMPLERS: (Signature) Tony Morell, Peter J. McGrann

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SEMI	TOTAL METAL	DISSOLVED METAL	TOC	TDS
ACC1	8-16	1645		X	BTR ACC1 SD02	2	X	X				
SD08	8-16	1536		X	BTR SD02 SD01	9	Y	X	X	Y	Y	Y
SD08	8-16	1536		X	BTR "DUP" SD01	4	Y	Y	X		X	
SD08	8-16	1746		X	BTR SD08 SD09	4	Y	Y	X		X	
					Relinquished to Dennis Paggett Peter J. McGrann							

REMARKS

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/16/90	Federal Express Airbill # 8[illegible]1406140			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 407

PROJ. NO.	PROJECT NAME
BARROW	DEW LINE

SAMPLERS: (Signature) M. Lemmo, Robert Traylor, Randolph Arthur

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	BTEX + TVOC	TCL	PEST	TPH			REMARKS
BKGD	8-17	1430		X	BTR BKGD SD01	2	X	X	X	X	X			
		1510		X	BTR BKGD SO3	2		X	X	X	X			
		1609		X	BTR BKGD SW02	5		X	X	X	X			
		1610		X	BTR BKGD SW01	5		X	X	X	X			
		1625		X	BTR BKGD SD02	2		X	X	X	X			
SD08		1400		X	BTR SD08 S10	2		X			X			
		1355		X	BTR SD08 S01	2		X			X			
		1459		X	BTR SD08 S03	2		X			X			
		1614		X	BTR SD08 S05	2		X			X			
		1510		X	BTR SD08 S04	2		X			X			
		1000		X	BTR SD08 TB	2		X						
					Relinquished to Dennis Paige									
					M. Lemmo 8-17-93 / 17:30									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8-17-93 / 1900	MARK AIL			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0408

PROJ. NO.	PROJECT NAME
BARGER	DEN LINE

SAMPLERS: (Signature) M. Lemmon

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA BTEX	BTEX + TMB	PCB	TPH			REMARKS
SD08	8.17	1156		X	BTR SD08 SD08 /	4	X→		X	X			MS MSD
SD08		1125		X	BTR SD08 SD08 /	2	X→			X			
SD08		1142		X	BTR SD08 SD07 /	2	X→			X			
BKGD		1200		X	BTR ~~SBEB~~ BKGD BP804 /	2	X→	X	X	X			
BKGD		1200		X	BTR ~~SDO~~ DP BKGD 901 /	2		X	X	X	X		
BKGD		1135		X	BTR BKGD 902 /	2		X	X	X	X		
SD08		1145		X	BTR SD08 SD09 /	2		X			X		
SD08		1530		X	BTR SD08 SEB /	5		X	X	X	X		
					Relinquished to								
					Dennis Paige								
					M. Lemmon 8-17-93 / 17:30								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/18 19 00	MARK AIR			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARTER

NO. 409

PROJ. NO.	PROJECT NAME
BARTER	DEN LINE

SAMPLERS (Signature) Barbara J. M. Graham

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX+TMB	PAH	TPH			REMARKS
SD08	8.17	1156		X	BTR SD08 SD07	12	X→VOA			X			MS/MSD
		1125		X	BTR SD08 SD05	4	X→VOA			X			
		1142		X	BTR SD08 SD06	4	X→VOA			X			
		1600		X	BTR SD08 WEB		X	X	X	X			
					Relenquished to Dennis Doyle M. Lemmon 8.17.93/1730								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8.17.93 1900	MARK AIR			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0410

PROJ. NO.	PROJECT NAME
BARGE	DEN LINE

SAMPLERS: (Signature) Robert Taaffe, Peter Chan, Jerry Mendl

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Un Filt	Bkgd Filt	Rinse	Trip Filt	REMARKS
SD08	8-16	1536		X	BTK SD08 SLUDGE	4	X			X	
"	"	1629		X	BTK SD08 SLUDGE	4	X			X	
"	"	1645		X	BTK SD08 SLUDGE	4	X			X	
"	"	1746		X	BTK SD08 SLUDGE	4	X			X	
"	"	1746		X	BTK SD08 SLUDGE	4	X			X	
"	"	1500		X	BTK SD08 AB	2	X	X			
"	"	1500		X	BTK SD08 TB	2	X	X			
					Relinquished to Dennis Page Robert Taaffe 8-16-93 1845						

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/16/93 1900	MARK AIR			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 411

PROJ. NO.	PROJECT NAME
BAKER	DEN LINE

SAMPLERS: (Signature) Randolph Ostlund, M. Lemma

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC BTEX	BTEX + HVOC	PCB	Pest	TPH	REMARKS
ACC1	8.16	1620		✓	ESTR ACC1 SO1		X			X		
		1635		✓	BTR ACC1 SO2		X			X		
		1645		✓	BTK ACC1 SO3		X			X		
		1700		✓	BTR ACC1 SO4		X			X		
		1705		✓	BTK ACC1 SO5		X			X		
SD08	8.16	1536		✓	BTR SD08 SD01		X			X		
		1609		✓	BTK SD08 SD02		X			X		
		1642		✓	BTK SD08 SD03		X			X		
		1652		✓	BTK SD08 SD04		X			X		
		1746		✓	BTR SD08 SD05		X			X		
		1746		✓	BTR SD08 SD09		X			X		
					Relinquished to Denise							
					Date 8/15/93 @ 1700							
					Randolph Ostlund							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	8/16/93 1900	MARK AIR			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

BARIEK (Cover 1) 2 of 2

CHAIN OF CUSTODY RECORD

NO. 0474

PROJ. NO. BARIEK

PROJECT NAME DEW LINE

SAMPLERS: (Signature) Jerry Mundell, Bob Mahon

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX	BTEX + TPH	TPH	PCB	REMARKS
LF01	9/1	1440		X	BTR LF01 2SW01	1			X		
LF01	9/1	1510		X	BTR LF01 2SW02	1			X		
LF01	9/1	1520		X	BTR LF01 2SW03	1			X		
LF01	9/1	1530		X	BTR LF01 2SW04	3			X		MS/MSD
LF04	9/1	1450		X	BTR LF04 2SW01	1			X		
LF04	9/1	1458		X	BTR LF04 2SW02	1			X		
AOC7	9/1	1514		X	BTR AOC7 2SD8-1.0	1				X	
AOC7	9/1	1520		X	BTR AOC7 2SD9	1				X	
AOC7	9/1	1522		X	BTR AOC7 2S10	1				X	
AOC7	9/1	1528		X	BTR AOC7 2S11	1				X	
AOC7	9/1	1529		X	BTR AOC7 2S12	1				X	
~~AOC7~~	~~9/1~~	DP									
AOC7	9/1	1645		X	BTR AOC7 2S13	1				X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jerry Mundell	9/1/93 1745			9/2/93 1150	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

BARTER Island 1 of 2

NO. 475 x 08

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Mengistu Lemma

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTX	BTX+HMC	TPH	REMARKS
LF03	9/1	1630		X	BTR LF03 2S09	2	X	X		
LF03	9/1	1650		X	BTR LF03 2S10	2	X	X		
					ACC1 2S06					
~~ACC1~~	9/1	1430		X	BTR ~~ACC1~~ 2S11	2	X	X		
ACC1	9/1	1445		X	BTR ACC1 2S07	2	X	X		
ACC1	9/1	1500		X	BTR ACC1 2S08 1.5	2	X	X		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mengistu Lemma	9/1/93 1745			9/2/93 0750	CARE MAY TAKE
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

DIKTEK (COOLER 2)

NO. 0476 FMD

PROJ. NO.	PROJECT NAME
BARTEK	DEAD LINE

SAMPLERS: (Signature) Jerry Mundell

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	3TEX	BTEX+TVOC	TPH	TOC	REMARKS
EB	9/1	1830		X	BTR EB 06 /	5		X	X	X	VOA NOT PRESERVED
AOC15	9/1	1915		X	BTR AOC15 2504 /	2		X	X		
AOC15	9/1	1929		X	BTR AOC15 2505 /	2		X	X		
AOC10	9/2	1000		X	BTR AOC10 2502 /	2		X	X		
AOC10	9/2	1045		X	BTR AOC10 2506-1.5 /	2		X	X		
AOC10	9/2	1015		X	BTR AOC10 2507 /	2		X	X		
AOC10	9/2	1050		X	BTR AOC10 2508 /	2		X	X		
AOC10	9/2	1050		X	BTR AOC10 2509 /	2		X	X		
SS14	9/2	0945		X	BTR SS14 2505 /	2	X		X		
SS14	9/2	1015		X	BTR SS14 2508-3 /	2	X		X		
SS14	9/2	1045		X	BTR SS14 2507 /	2	X		X		
BB	9/2	1200		X	BTR AB 03 /	3		X			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jerry Mundell	9/1/95 1945			9/2/95 1750	CHUCK SMITH
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

BARTER ROUND 2 — SPEEDMARK AIRBILL # 0956-7655

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 477

PROJ. NO. BARTER — PROJECT NAME: DEN LINE

SAMPLERS: (Signature) James Manuel, Peter J. M. Jean, Robert Taffe, Margaret Lemmel

YR/MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	TPH	Chemi	REMARKS
SS14	9/2	0945		X	BTR - SS14 - 2505 /	1	X			
SS14	9/2	1015		X	BTR - SS14 - 2506-3	1	X			
SS14	9/2	1045		X	BTR - SS14 - 2507 /	2	X	X		
ADC9	9/3	1430		X	BTR - ADC9 - 2511 - 1.5 /	2	X		X	
EB	9/2	1400		X	BTR - EB - 07 /	4	X	X		
SS13	9/2	1335		X	BTR - SS13 - 2505 /	1	X			
SS13	9/2	1415		X	BTR - SS13 - 2507 /	1	X			
SS13	9/2	1400		X	BTR - SS13 - 2506 /	2	X	X		
EB	9/3	1400		X	BTR EB 08 /	2	X	X		
LF04	9/3	1400		X	BTR LF04 2SW03 /	4	X	X		
LF04	9/3	1400		X	BTR LF04 2SD03 /	2	X	X		
LF04	9/3	1430		X	BTR LF04 2SD04 /	1	X			
BKG1	9/3	1330		X	BTR BKG1 2SD02 /	2	X	X		ips??? is this 2SD03 ??? Sof 9/30/93

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
James Manuel, Margaret Lemmel	9/3/93 1900			9/3/93 2000	SPEEDMARK
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

BARTER Round 2

CHAIN OF CUSTODY RECORD

NO. 0478

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) Jerry Mundell, Bob S. M. Chan, Robert Taffe, Marjorie Lemmon

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCB + Lipids	PCB + Lipids	TPH					REMARKS
EB	9/2	1400		X	BTR EB 07 /	4		X	X					VOAs NOT PRESERVED
EB	9/3	1400		X	BTR EB 08 /	4		X	X					VOAs NOT PRESERVED.
SS13	9/2	1335		X	BTR SS13 2505 /	2	X		X					
SS13	9/2	1400		X	BTR SS13 2506 /	2	X		X					
SS13	9/2	1415		X	BTR SS13 2507 /	2	X		X					
		1500												
SD08	9/2	1530		X	BTR SD08 2511 /	2	X		X					
SD08	9/2	1545		X	BTR SD08 2512 /	2	X		X					
SD08	9/2	1612		X	BTR SD08 2513-4	2	X		X					
SD08	9/2	1612		X	BTR SD08 2514-4 /	2	X		X					
SD08	9/2	1715		X	BTR SD08 2515-5	2	X		X					
SD08	9/2	1845		X	BTR SD08 2516-1 /	2	X		X					
LF04	9/3	1400		X	BTR LF04 2D003 /	4	X-SO		X					VOAs NOT PRESERVED
LF04	9/3	1430		X	BTR LF04 2SD04 /	2		X	X					
LF04	9/3	1400		X	BTR LF04 2SD03 /	2		X	X					
BKGD	9/3	1330		X	BTR BKGD 2D03 /	2		X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jerry Mundell, Marjorie Lemmon	11/2/93 1900			9/3/93 2230	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

BARTER ROUND 2

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 479

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	YR MO / NO.
BARTER	DEW LINE		

SAMPLERS: (Signature)

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BTEX	TPH	REMARKS
AOC9	9/3	1450		X	BTR-AOC9-2SD1.5	2	X	X	
AOC9	9/3	1430		X	BTR-AOC9-3I-1.5	2	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	9/3/93 1900			9/3/93 2230	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

ANCHORAGE

NO. 0493

PROJ. NO.	PROJECT NAME
BAKTER	DEW LINE

SAMPLERS: (Signature) Mengyu Lemmer, Beth F. McGuire, Dennis Mandell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	TOTAL	DISSOLVED	TOTAL	DISSOLVED	TOC	TOX	REMARKS
SS14	8-21	1355		X	BTR-SS14-SD01	6	X	X	X	X				
↓	8-21	1330		X	BTR-SS14-SD01	3	X	X	X					
↓	8-21	1140		X	BTR-SS14-S04	3	X	X	X					
ACC10	8-21	1345		X	BTR-ACC10-S04	3	X	X	X		X			
↓	8-21	1450		X	BTR-ACC10-S01	3	X	X	X					
↓	8-21	1345		X	BTR-ACC10-S04	3	X	X	X					
ACC15	8-21	1845		X	BTR-ACC15-S02	2	X	X			X			
TB	8-21	1600		X	BTR-TB-05	2	X							

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mengyu Lemmer, Beth F. McGuire	8/21/KB 2200			8/22/KB 1400	FED EX 804329555
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 497

PROJ. NO.	PROJECT NAME
BIKER	DEID LINE

SAMPLERS: (Signature) [illegible]

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	SEMI-VOL	T. METALS	TCLP VOC	TCLP SEMI	TCLP T. METALS	REMARKS
LF04	8.20	530		X	BTR-LF04-SD01	9	X	X	X	X	X	X	X	
	8.20	2100		X	BTR-LF04-SD02	9	X	X	X	X	X	X	X	
	8.20	1530		X	BTR-LF04-SD01	3	X	X	X		X			
	8.20	1900		X	BTR-LF04-SD01	3	X	X	X		X			
LF01	8.20	1144		X	BTR-LF01-SD03	3	X	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	8/20/13 2200	[signature]	FED EX 804114067854	8/21/13 1500	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0498

PROJ. NO.	PROJECT NAME
BARTEK	DEAD LINE

SAMPLERS: (Signature) Randolph Orthmeyer Margaret Kemna

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC							REMARKS
AOC 08	8-20	1020		X	BTR-AOC08-S01	2	X	X						
	8-20	1100		X	BTR-AOC08-S04	2	X	X						
	8-20	1100		X	BTR-AOC08-S06	2	X	X						
AOC 09	8-20	1535		X	BTR-AOC09-SD01	2	X	X			X			
	8-20	1720		X	BTR-AOC09-S02	2	X	X			X			
	8-20	1508		X	BTR-AOC09-SD01	7	X	X			X	X	X	
TB	8-20	1000		X	BTR-TB-04	2	X							
EB	8-20	1800		X	BTR-EB-04	6	X	X	X		X			
~~AB~~	~~8-20~~													

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Randolph Orthmeyer Margaret Kemna	8/20/93 2200			8/22/93 1900	FEDEX 804310 3555
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 499

PROJ. NO.	PROJECT NAME
BAKTEK	DEID LINE

SAMPLERS: (Signature) [illegible]

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	T. METALS	T. METALS	TOC	TOX	REMARKS
LFO1	8.20	1445		X	FTP-LFO1-SL004 /	22	X	X	X	X	X	DIS. TO BE FILTERED AT LAB. "DISSOLVED" NON FILTERED METALS ARE NOT PRESERVED ← will lab figure it out 9/30 SF
	~~8.20~~	~~1144~~		X	~~FTP LFO1 SL003~~			X	if			
	8.20	1144		X	FTK-LFO1-SL003 /	9						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	8/20/93 2200	[illegible]	FED EX 804140698 4		CAPE SAY THE AIR TO FED EX
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

BARTER ROUND 2

SPEED MARK 0956-7655 AIRBILL.

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 0481

PROJ. NO.	PROJECT NAME
BARTER	OBW LINE

SAMPLERS: (Signature) Jerry Mundell, Deb F. M. Jean

YR MO NO.

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	TOTAL METALS	SEMI	REMARKS
IOW	9/3/93	1345		X	BTR-IOW-01	6	X	X	X	

0956 7655

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Jerry Mundell	9/3/93 1600			9/3/93 2000	SPEED MARK
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD

NO. 491

PROJ. NO.	PROJECT NAME
BTRK	DEW LINE

SAMPLERS: (Signature) Margaret Lemmon, Beth M. Gran

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SEMI-VOA	TPH/BTEX	TDS METALS	TCLP METALS		REMARKS
AB	8-21	1500		X	BTK-AB-02	3	X						
LF01	8-21	1000		X	BTK-LF01-S01	6	X	X	X		X		
EB	8-21	1430		X	BTK-EB-085	6	X	X	X		X		
AOC10	8-21	1305			BTK-AOC10 S001	9	X	X	X	X	X	X	X

YR MO NO.

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Margaret Lemmon, Beth M. Gran	8/21 2200			8/22/93 0900	FEDEX 804312955 5
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

ICF KAISER ENGINEERS

CHAIN OF CUSTODY RECORD (ANCHORAGE (6))

NO. 0492

PROJ. NO.	PROJECT NAME
BARTER	DEW LINE

SAMPLERS: (Signature) [illegible] Mike Smith, Terry Morrell

STAT. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA	SEMI VOA	TOTAL METAL	DISSOLVED METAL	TOC	TSS	TDS	REMARKS
AOCN	8-21	2010		X	BTR - AOC14-SD01	3	X	X	X		X			
	8-21	1935		X	BTR - AOC14 - S04	3	X	X	X		X			
	8-21	1935		X	BTR - AOC14 - S03	3	X	X	X		X			
	8-21	1855		X	BTR - AOC14 - S02	3	X	X	X		X			
	8-21	1905		X	BTR - AOC14 - SD01	8	X	X			X	X	X	
LFB	8-22	1530		X	BTR - LF12 - S01	34	X	X	X		X			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible] Mike Smith, Terry Morrell	8/21/KB 2200	[illegible]	[illegible]	8/22/KB 1400	FEDEX 806210955
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks:	

APPENDIX F

ANALYTICAL DATA

1. SUMMARY TABLES OF ANALYTICAL DATA (presented in Sections 3.0 and 4.0)
2. CROSS-REFERENCE TABLE FOR SAMPLE IDENTIFICATION
3. ANALYTICAL DATA (for each site CT&E Data is presented first followed by F&B Data)

1. SUMMARY TABLES OF ANALYTICAL DATA (presented in Sections 3.0 and 4.0)

2. CROSS-REFERENCE TABLE FOR SAMPLE IDENTIFICATION

CROSS-REFERENCE SAMPLE IDENTIFICATION

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Old Landfill (LF01)									
BTR-LF01-S01	BTR-LF01-S01	LF01	491	392	93.4303-2	322	93.4303	#6-08/24/93 #6-08/23/93	Soil
BTR-LF01-S01SD	BTR-LF01-S01	LF01	491	392	93.4303-4	322msd	93.4303	#6-08/24/93 #6-08/23/93	Soil Spike Duplicate
BTR-LF01-S01S	BTR-LF01-S01	LF01	491	392	93.4303-3	322ms	93.4303	#6-08/24/93 #6-08/23/93	Soil Spike
BTR-LF01-S01DP	BTR-LF01-S01	LF01	491		93.4303-9		93.4303		Soil Duplicate
BTR-LF01-SD01	BTR-LF01-SD01	LF01		395		1344		#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SD02	BTR-LF01-SD02	LF01		395		1342		#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SD03	BTR-LF01-SD03	LF01	497	395	93.4286-5	1344	93.4286	#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SW01	BTR-LF01-SW01	LF01		396		1372 1374		#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW02	BTR-LF01-SW02	LF01		396		1368 1370		#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW03	BTR-LF01-SW03	LF01	499	396	93.4285-2	1362 1364	93.4285	#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW04	BTR-LF01-SW04	LF01	499	396	93.4285-1	1348 1354	93.4285	#5-08/31/93 #3&4-08/31/93	Surface Water

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Old Landfill (LF01) (Continued)									
BTR-LF01-SW04DP	BTR-LF01-SW04	LF01		396		1356dup		#5-08/31/93 #3&4-8/31/93	Surface Water Duplicate
BTR-LF01-SW04S	BTR-LF01-SW04	LF01		396		1358ms		#5-08/31/93 #3&4-08/31/93	Surface Water Spike
BTR-LF01-2SW01	BTR-LF01-2SW01	LF01		474		1663		#5-09/06/93	Surface Water
BTR-LF01-2SW02	BTR-LF01-2SW02	LF01		474		1664		#5-09/06/93	Surface Water
BTR-LF01-2SW03	BTR-LF01-2SW03	LF01		474		1665		#5-09/06/93	Surface Water
BTR-LF01-2SW04	BTR-LF01-2SW04	LF01		474		1666		#5-09/06/93	Surface Water

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
POL Catchment (LF03)									
BTR-LF03-S01	BTR-AOC08-S01	LF03	498	394	93.4302-1	1290	93.4302	#6-08/31/93 #1&2-08/31/93	Soil
BTR-LF03-S01S	BTR-AOC08-S01	LF03	498		93.4302-2				Soil
BTR-LF03-S01SD	BTR-AOC08-S01	LF03	498		93.4302-3				Soil
BTR-LF03-S01-0.75	BTR-LF03-S01	LF03	399		93.4216-7		93.4216		Soil
BTR-LF03-S02-0.75	BTR-LF03-S02	LF03	399		93.4216-8		93.4216		Soil
BTR-LF03-S03-0.75	BTR-LF03-S03	LF03	399		93.4216-9		93.4216		Soil
BTR-LF03-SD01	BTR-LF03-SD01	LF03	378 399		93.4216-3 93.4216-11		93.4212 93.4216		Sediment
BTR-LF03-SD02	BTR-LF03-SD02	LF03	398		93.4219-13		93.4219		Sediment
BTR-LF03-SD03	BTR-LF03-SD03	LF03	397		93.4215-5		93.4215		Sediment
BTR-LF03-SD04	BTR-LF03-SD04	LF03	397		93.4215-1		93.4215		Sediment
BTR-LF03-SD04DP	BTR-LF03-SD04	LF03	397		93.4215-3		93.4215		Sediment Duplicate
BTR-LF03-SD04S	BTR-LF03-SD04	LF03	397		93.4215-2		93.4215		Sediment Spike
BTR-LF03-SD05	BTR-LF03-SD05	LF03	397		93.4215-4		93.4215		Sediment
BTR-LF03-SD06	BTR-LF03-SD06	LF03	398		93.4219-11		93.4219		Sediment
BTR-LF03-SD07	BTR-LF03-SD07	LF03	383 398		93.4213-3 93.4219-10		93.4213 93.4219		Sediment

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F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
POL Catchment (LF03) (Continued)									
BTR-LF03-SD08	BTR-LF03-SD08	LF03	398		93.4219-12		93.4219		Field Replicate Sediment
BTR-LF03-2SD09	BTR-LF03-2SD09	LF03		475		1678		#5-09/05/93 #3&4-09/06/93	Sediment
BTR-LF03-2SD10	BTR-LF03-2SD10	LF03		475		1680		#5-09/05/93 #3&4-09/06/93	Sediment
BTR-LF03-SW01	BTR-LF03-SW01	LF03	378 399		93.4212-4 93.4216-6		93.4212 93.4216		Surface Water
BTR-LF03-SW02	BTR-LF03-SW02	LF03	398		93.4219-8		93.4219		Surface Water
BTR-LF03-SW03	BTR-LF03-SW03	LF03	383 398		93.4213-2 93.4219-9		93.4213 93.4219		Surface Water

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Current Landfill (LF04)									
BTR-LF04-S01	BTR-LF04-S01	LF04		392		326		#5-08/24/93 #6-08/23/93 #3&4-08/24/93	Soil
BTR-LF04-S02	BTR-LF04-S02	LF04		395		1334		#6-08/31/93 #1&2-08/31/93	Soil
BTR-LF04-SD01	BTR-LF04-SD01	LF04	497	395	93.4286-3	1336	93.4286	#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF04-SD02	BTR-LF04-SD02	LF04	497	395	93.4286-4	1338	93.4286	#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF04-2SD03	BTR-LF04-2SD03	LF04	477	478	93.4616-15	1742	93.4616	#6-09/05/93 #1&2-09/06/93	Sediment
BTR-LF04-2SD04	BTR-LF04-2SD04	LF04	477	478	96.4616-16	1744	93.4616	#6-09/05/93 #1&2-09/06/93	Sediment
BTR-LF04-SW01	BTR-LF04-SW01	LF04	497	395	93.4286-1	1324 1326	93.4286	#5-08/31/93 #3&4-08/31/93	Sediment
BTR-LF04-SW02	BTR-LF04-SW02	LF04	497	395	93.4286-2	1328 1330	93.4286	#5-08/31/93 #3&4-08/31/93	Sediment
BTR-LF04-2SW01	BTR-LF04-2SW01	LF04		474		1669		#5-09/06/93	Surface Water
BTR-LF04-2SW02	BTR-LF04-2SW02	LF04		474		1670		#5-09/06/93	Surface Water
BTR-LF04-2SW03	BTR-LF04-2SW03	LF04	477	478	93.4616-14	1747 1748	93.4616	#5-09/06/93 #1&2-09/07/93	Surface Water

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Contaminated Ditch (SD08)									
BTR-SD08-S01-3	BTR-SD08-S01	SD08	407		93.4199-9		93.4199		Soil
BTR-SD08-S02-3	BTR-SD08-S02	SD08	408		93.4203-7		93.4203		Soil
BTR-SD08-S03-3.5	BTR-SD08-S03	SD08	407		93.4199-10		93.4199		Soil
BTR-SD08-S04-2.5	BTR-SD08-S04	SD08	407		93.4199-12		93.4199		Soil
BTR-SD08-S05-3	BTR-SD08-S05	SD08	407		93.4199-11		93.4199		Soil
BTR-SD08-S06-2	BTR-SD08-S06	SD08	399		93.4216-2		93.4216		Soil
BTR-SD08-S07-3	BTR-SD08-S07	SD08	399		93.4216-1		93.4216		Soil
BTR-SD08-S10-3	BTR-SD08-S10	SD08	407		93.4199-8		93.4199		Field Replicate Soil
BTR-SD08-2S11-3.5	BTR-SD08-2S11	SD08		478		1730		#6-09/05/93 #1&2-09/06/93	Soil
BTR-SD08-2S12-4.5	BTR-SD08-2S12	SD08		478		1732		#6-09/05/93 #1&2-09/06/93	Soil
BTR-SD08-2S13-3.5	BTR-SD08-2S13-4	SD08		478		1734		#6-09/05/93 #1&2-09/06/93	Soil
BTR-SD08-2S14-3.5	BTR-SD08-2S14-4	SD08		478		1736		#6-09/05/93 #1&2-09/06/93	Field Replicate Soil
BTR-SD08-2S15-4	BTR-SD08-2S15-5	SD08		478		1738		#6-09/05/93 #1&2-09/06/93	Soil
BTR-SD08-2S16-1	BTR-SD08-2S16-1	SD08		478		1740		#6-09/05/93 #1&2-09/06/93	Soil

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F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Contaminated Ditch (SD08) (Continued)									
BTR-SD08-SD01	BTR-SD08-SD01	SD08	406 411		93.4178-3 93.4198-8		93.4178 93.4198		Soil
BTR-SD08-SD02	BTR-SD08-SD02	SD08	411		93.4198-9		93.4198		Soil
BTR-SD08-SD03	BTR-SD08-SD03	SD08	411		93.4198-10		93.4198		Soil
BTR-SD08-SD04	BTR-SD08-SD04	SD08	411		93.4198-11		93.4198		Soil
BTR-SD08-SD05	BTR-SD08-SD05	SD08	405 411		93.4173-6 93.4198-12		93.4173 93.4198		Sediment
BTR-SD08-SD05DP	BTR-SD08-SD05	SD08	405		93.4173-7		93.4173		Sediment Duplicate
BTR-SD08-SD05S	BTR-SD08-SD05	SD08	405		93.4173-8		93.4173		Sediment Spike
BTR-SD08-SD05SD	BTR-SD08-SD05	SD08	405		93.4173-11		93.4173		Sediment Spike Duplicate
BTR-SD08-SD09	BTR-SD08-SD09	SD08	406 411		93.4178-4 93.4198-13		93.4178 93.4198		Field Replicate Sediment
BTR-SD08-SW01	BTR-SD08-SW01	SD08	410 406		93.4197-1 93.4178-2		93.4197 93.4178		Surface Water
BTR-SD08-SW02	BTR-SD08-SW02	SD08	410		93.4197-2		93.4197		Surface Water
BTR-SD08-SW03	BTR-SD08-SW03	SD08	410		93.4197-3		93.4197		Surface Water
BTR-SD08-SW04	BTR-SD08-SW04	SD08	410 377		93.4197-4 93.4175-1		93.4197 93.4175		Surface Water

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Contaminated Ditch (SD08) (Continued)									
BTR-SD08-SW08	BTR-SD08-SW08	SD08	405 410		93.4173-1 93.4197-5		93.4173 93.4197		Field Duplicate Surface Water
BTR-SD08-SW08DP	BTR-SD08-SW08	SD08	405		93.4173-4		93.4173		Surface Water Duplicate
BTR-SD08-SW08S	BTR-SD08-SW08	SD08	405		93.4173-2 93.4173-5		93.4173		Surface Water Spike
BTR-SD08-SW08SD	BTR-SD08-SW08	SD08	405		93.4173-3		93.4173		Surface Water Spike Duplicate

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Old Runway Dump (LF12)									
BTR-LF12-S01	BTR-LF12-S01	LF12	492	389	93.4305-10	416	93.4305	#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF12-S01DP	BTR-LF12-S01	LF12		389		416dup		#6-08/23/93	Soil Duplicate
BTR-LF12-S02	BTR-LF12-S02	LF12		389		412		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF12-S03	BTR-LF12-S03	LF12		389		414		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF12-S03DP	BTR-LF12-S03	LF12		414		413dup 414dup		#6-08/23/93 #1&2-08/24/93	Soil Duplicate
BTR-LF12-S03S	BTR-LF12-S03	LF12		414		414ms		#6-08/23/93 #1&2-08/24/93	Soil Spike
BTR-LF12-S03SD	BTR-LF12-S03	LF12		414		414msd		#6-08/23/93 #1&2-08/24/93	Soil Spike Duplicate

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Heated Storage (SS13)									
BTR-SS13-S01	BTR-SS13-S01	SS13	399		93.4216-3		93.4216		Soil
BTR-SS13-S02	BTR-SS13-S02	SS13	399 378		93.4216-10 93.4212-5		93.4216 93.4212		Soil
BTR-SS13-S02SD	BTR-SS13-S02	SS13	398		93.4219-3		93.4219		Soil Spike Duplicate
BTR-SS13-S03	BTR-SS13-S03	SS13	398		93.4219-5		93.4219		Soil
BTR-SS13-S04	BTR-SS13-S04	SS13	398		93.4219-6		93.4219		Soil
BTR-SS13-2S05-1	BTR-SS13-2S05	SS13	477	478	93.4616-10	1724	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-2S06-1	BTR-SS13-2S06	SS13	477	478	93.4616-12	1726	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-2S07-1	BTR-SS13-2S07	SS13	477	478	93.4616-11	1728	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-SD01	BTR-SS13-SD01	SS13	399 378		93.4216-5 93.4212-2		93.4216 93.4212		Sediment
BTR-SS13-SD02	BTR-SS13-SD02	SS13	398		93.4219-1		93.4219		Sediment
BTR-SS13-SD02S	BTR-SS13-SD02S	SS13	398		93.4219-2		93.4219		Sediment Spike
BTR-SS13-SD03	BTR-SS13-SD03	SS13	398		93.4219-4		93.4219		Sediment
BTR-SS13-SD06	BTR-SD08-SD06	SS13	408		93.4203-2		93.4203		Sediment
BTR-SS13-SD07	BTR-SD08-SD07	SS13	408		93.4203-3		93.4203		Sediment
BTR-SS13-SD08	BTR-SD08-SD08	SS13	408		93.4203-1		93.4203		Sediment

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Heated Storage (SS13) (Continued)									
BTR-SS13-SW01	BTR-SS13-SW01	SS13	399 378		93.4216-4 93.4212-1		93.4216 93.4212		Surface Water
BTR-SS13-SW02	BTR-SS13-SW02	SS13	383 398		93.4213-1 93.4219-7		93.4213 93.4219		Surface Water
BTR-SS13-SW05	BTR-SD08-SW05	SS13	409		93.4206-2		93.4206		Surface Water
BTR-SS13-SW06	BTR-SD08-SW06	SS13	409		93.4206-3		93.4206		Surface Water
BTR-SS13-SW07	BTR-SD08-SW07	SS13	409		93.4206-1		93.4206		Surface Water

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Garage (Building 2) (SS14)									
BTR-SS14-S01	BTR-SS14-S01	SS14		390		339		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS14-S02-2.5	BTR-SS14-S02	SS14		390		341		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS14-S03-3	BTR-SS14-S03	SS14		390		343		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS14-S04-2	BTR-SS14-S04	SS14	493	390	93.4301-7	345	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS14-S06-3	BTR-SS14-S06	SS14		390		347		#6-08/23/93 #1&2-08/24/93	Field Replicate Soil
BTR-SS14-2S05-2	BTR-SS14-2S05	SS14	477	476	93.4616-1	1706	93.4616	#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS14-2S07-4	BTR-SS14-2S07	SS14	477	476	93.4616-3	1710	93.4616	#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS14-2S07-4S	BTR-SS14-2S07	SS14	477		93.4616-4		93.4616		Soil Spike
BTR-SS14-2S07-4SD	BTR-SS14-2S07	SS14	477		93.4616-5		93.4616		Soil Spike Duplicate
BTR-SS14-2S08-3	BTR-SS14-2S06-3	SS14	477	476	93.4616-2	1708	93.4616	#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS14-2S08-3DP	BTR-SS14-2S06-3	SS14		476		1708dup		#5-09/05/93 #3&4-09/06/93	Soil Duplicate
BTR-SS14-2S08-3S	BTR-SS14-2S06-3	SS14		476		1708ms		#5-09/05/93 #3&4-09/06/93	Soil Spike

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Garage (Building 2) (SS14) (Continued)									
BTR-SS14-2S08-3SD	BTR-SS18-2S06-3	SS14		476		1708msd		#5-09/05/93 #3&4-09/06/93	Soil Spike Duplicate
BTR-SS14-SD01	BTR-SS14-SD01	SS14	493	390	93.4301-4	349	93.4301	#6-08/23/93 #1&2-08/24/93	Sediment
BTR-SS14-SD01DP	BTR-SS14-SD01	SS14	493		93.4301-6		93.4301		Sediment Duplicate
BTR-SS14-SD01S	BTR-SS14-SD01	SS14	493		93.4301-5		93.4301		Sediment Spike
BTR-SS14-SD01SD	BTR-SS14-SD01	SS14	493		93.4301-17		93.4301		Sediment Spike Duplicate
BTR-SS14-SW01	BTR-SS14-SW01	SS14	493	390	93.4301-1	333 334 336	93.4301	#6-08/23/93 #1&2-08/24/93	Surface Water
BTR-SS14-SW01DP	BTR-SS14-SW01	SS14	493		93.4301-3		93.4301		Surface Water Duplicate
BTR-SS14-SW01S	BTR-SS14-SW01	SS14	493		93.4301-2		93.4301		Surface Water Spike
BTR-SS14-SW01SD	BTR-SS14-SW01	SS14	493		93.4301-16		93.4301		Surface Water Spike Duplicate

CT&E - Commercial Testing and Engineering Co.
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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Weather Station Building (SS15)									
BTR-SS15-S01	BTR-AOC1-S01	SS15	411		93.4198-1		93.4198		Soil
BTR-SS15-S01S	BTR-AOC1-S01	SS15	411		93.4198-2		93.4198		Soil Spike
BTR-SS15-S01SD	BTR-AOC1-S01	SS15	411		93.4198-3		93.4198		Soil Spike Duplicate
BTR-SS15-S02	BTR-AOC1-S02	SS15	411		93.4198-4		93.4198		Soil
BTR-SS15-S03	BTR-AOC1-S03	SS15	406 411		93.4178-1 93.4198-5		93.4178 93.4198		Soil
BTR-SS15-S04	BTR-AOC1-S04	SS15	411		93.4198-6		93.4198		Soil
BTR-SS15-S05	BTR-AOC1-S05	SS15	411		93.4198-7		93.4198		Soil
BTR-SS15-2S06	BTR-AOC1-2S06	SS15		475		1682		#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS15-2S07-2	BTR-AOC1-2S07[a]	SS15		475		1684		#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS15-2S08-2	BTR-AOC1-2S08-1.5[a]	SS15		475		1686		#5-09/05/93 #3&4-09/06/93	Soil

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.
[a] These samples were both misnumbered by F&B as BTR-AOC1-2S06.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
White Alice Facility (SS16)									
BTR-SS16-S01	BTR-AOC07-S01	SS16		392		320		#6-08/23/93	Soil
BTR-SS16-S02	BTR-AOC07-S02	SS16		392		321		#6-08/23/93	Soil
BTR-SS16-S03	BTR-AOC07-S03	SS16		387		370		#6-08/23/93	Soil
BTR-SS16-S04	BTR-AOC07-S04	SS16		387		371		#6-08/23/93	Soil
BTR-SS16-S05	BTR-AOC07-S05	SS16		387		372		#6-08/23/93	Soil
BTR-SS16-S06	BTR-AOC07-S06	SS16		387		373		#6-08/23/93	Soil
BTR-SS16-S07	BTR-AOC07-S07	SS16		387		374		#6-08/23/93	Field Replicate Soil
BTR-SS16-2S08-1.5	BTR-AOC7-2S08-1.0	SS16		474		1671		#5-09/04/93	Soil
BTR-SS16-2S09	BTR-AOC7-2S09	SS16		474		1672		#5-09/04/93	Soil
BTR-SS16-2S10	BTR-AOC7-2S10	SS16		474		1673		#5-09/04/93	Soil
BTR-SS16-2S11	BTR-AOC7-2S11	SS16		474		1674		#5-09/04/93	Field Replicate Soil
BTR-SS16-2S12	BTR-AOC7-2S12	SS16		474		1675		#5-09/04/93	Soil
BTR-SS16-2S13-1.5	BTR-AOC7-2S13	SS16		474		1676		#5-09/04/93	Soil

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CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
POL Tanks (ST17)									
BTR-ST17-S02	BTR-AOC08-S02	ST17		394		#6-08/31/93 #1&2-08/31/93		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST17-S03	BTR-AOC08-S03	ST17		394		#6-08/31/93 #1&2-08/31/93		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST17-S04	BTR-AOC08-S04	ST17	498	394	93.4302-4	#6-08/31/93 #1&2-08/31/93	93.4302	#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST17-S05-1.5	BTR-AOC08-S05	ST17		394		#6-08/31/93 #1&2-08/31/93		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST17-S06	BTR-AOC08-S06	ST17	498	394	93.4302-5	#6-08/31/93 #1&2-08/31/93	93.4302	#6-08/31/93 #1&2-08/31/93	Field Replicate Soil

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Fuel Tanks (ST18)									
BTR-ST18-S01	BTR-AOC09-S01	ST18		394		1302		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S02	BTR-AOC09-S02	ST18	498	394	93.4302-7	1304	93.4302	#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S03	BTR-AOC09-S03	ST18		394		1306		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S04	BTR-AOC09-S04	ST18		394		1310		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S05	BTR-AOC09-S05	ST18		394		1312		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S06	BTR-AOC09-S06	ST18		394		1314		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S07	BTR-AOC09-S07	ST18		394		1322		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S08-0.75	BTR-AOC09-S08	ST18		394		1316		#6-08/31/93	Soil
BTR-ST18-S09-1.5	BTR-AOC09-S09	ST18		394		1318		#6-08/31/93 #1&2-08/31/93	Soil
BTR-ST18-S09DP	BTR-AOC09-S09	ST18		394		1318dup		#6-08/31/93 #1&2-08/31/93	Soil Duplicate
BTR-ST18-S09S	BTR-AOC09-S09	ST18		394		1318ms		#6-08/31/93 #1&2-08/31/93	Soil Spike
BTR-ST18-S09SD	BTR-AOC09-S09	ST18		394		1318msd		#6-08/31/93 #1&2-08/31/93	Soil Spike Duplicate

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Fuel Tanks (ST18) (Continued)									
BTR-ST18-S10	BTR-AOC09-S10	ST18		394		1308		#6-08/31/93 #1&2-08/31/93	Field Replicate Soil
BTR-ST18-2S11-2	BTR-AOC9-2S11-1.5	ST18	477	479	93.7616-6	1754	93.4616	#1&2-08/31/93	Soil
BTR-ST18-2S11-2S	BTR-AOC9-2S11-1.5	ST18	477		93.4616-7		93.4616		Soil Spike
BTR-ST18-2S11-2SD	BTR-AOC9-2S11-1.5	ST18	477		93.4616-8		93.4616		Soil Spike Duplicate
BTR-ST18-2S12-2	BTR-AOC9-2S12-1.5[a]	ST18		479		1752		#1&2-09/06/93	Soil
BTR-ST18-2S12-2DP	BTR-AOC9-2S12-1.5[a]	ST18		479		1752dup		#6-09/05/93 #1&2-09/06/93	Soil Duplicate
BTR-ST18-2S12-2S	BTR-AOC9-2S12-1.5[a]	ST18		479		1752ms		#6-09/05/93 #1&2-09/06/93	Soil Spike
BTR-ST18-2S12-2SD	BTR-AOC9-2S12-1.5[a]	ST18		479		1752msd		#6-09/05/93 #1&2-09/06/93	Soil Spike Duplicate
BTR-ST18-SW01	BTR-AOC09-SW01	ST18	498	392	93.4302-8	317	93.4302	#3&4-08/24/93	Surface Water
BTR-ST18-SD01	BTR-AOC09-SD01	ST18	498	393	93.4302-6	1320	93.4302	#6-08/31/93 #1&2-08/31/93	Sediment

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.
[a] F&B misnumbered this sample as BTR-AOC09-2S14.5

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Old Dump Site (LF19)									
BTR-LF19-S01-1.5	BTR-AOC10-S01	LF19	493	390	93.4301-9	353	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-SF19-S02-2	BTR-AOC10-S02	LF19		390		355		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-S03	BTR-AOC10-S03	LF19		390		357		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-S04-2.5	BTR-AOC10-S04	LF19	493	390	93.4301-8	359	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-S04-2.5S	BTR-AOC10-S04	LF19	493		93.4301-14		93.4301		Soil Spike
BTR-LF19-S04-2.5SD	BTR-AOC10-S04	LF19	493		93.4301-15		93.4301		Soil Spike Duplicate
BTR-LF19-S05-2	BTR-AOC10-S05	LF19		390		361		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-S06-2.5	BTR-AOC10-S06	LF19	493	390	93.4301-10	363	93.4301	#6-08/23/93 #1&2-08/24/93	Field Replicate Soil
BTR-LF19-2S06-1.5	BTR-AOC10-2S06-1.5	LF19		476		1698		#5-09/05/93 #3&4-09/06/93	Soil
BTR-LF19-2S07	BTR-AOC10-2S07	LF19		476		1700		#5-09/05/93 #3&4-09/06/93	Soil
BTR-LF19-2S08-1	BTR-AOC10-2S08	LF19		476		1702		#5-09/05/93 #3&4-09/06/93	Soil
BTR-LF19-2S09-1	BTR-AOC10-2S09	LF19		476		1704		#5-09/05/93 #3&4-09/06/93	Field Replicate Soil

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Old Dump Site (LF19) (Continued)									
BTR-LF19-SD01	BTR-AOC10-SD01	LF19		390		351		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-2SD02	BTR-AOC10-2SD02	LF19		476		1696		#5-09/05/93 #3&4-09/06/93	Soil
BTR-LF19-SW01	BTR-AOC10-SW01	LF19	491	392	93.4303-6	307	93.4303	#3&4-08/24/93	Surface Water
BTR-LF19-SW01DP	BTR-AOC10-SW01	LF19	491		93.4303-8		93.4303		Surface Water Duplicate
BTR-LF19-SW01S	BTR-AOC10-SW01	LF19	491		93.4303-7		93.4303		Surface Water Spike
BTR-LF19-SW01SD	BTR-AOC10-SW01	LF19	491		93.4303-10		93.4303		Surface Water Spike Duplicate

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Bladder Diesel Spill (SS20)									
BTR-SS20-S01-0.75	BTR-AOC14-S01	SS20		389		402		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS20-S02-0.75	BTR-AOC14-S02	SS20	492	389	93.4305-6	400	93.4305	#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS20-S03-1	BTR-AOC14-S03	SS20	492	387	93.4305-5	385 386	93.4305	#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS20-S04-1	BTR-AOC14-S04	SS20	492	387	93.4305-4	380	93.4305	#6-08/23/93 #1&2-08/24/93	Field Replicate Soil
BTR-SS20-SD01	BTR-AOC14-SD01	SS20	492	387	93.4305-1	378	93.4305	#6-08/23/93 #1&2-08/24/93	Sediment
BTR-SS20-SD01DP	BTR-AOC14-SD01	SS20	492		93.4305-3		93.4305		Sediment Duplicate
BTR-SS20-SD01S	BTR-AOC14-SD01	SS20	492		93.4305-2		93.4305		Sediment Spike
BTR-SS20-SD01SD	BTR-AOC14-SD01	SS20	492		93.4305-11		93.4305		Sediment Spike Duplicate
BTR-SS20-SD02	BTR-AOC14-SD02	SS20		387		381 382		#6-08/23/93 #1&2-08/24/93	Sediment
BTR-SS20-SD02DP	BTR-AOC14-SD02	SS20		387		384dup		#6-08/23/93 #1&2-08/24/93	Sediment Duplicate
BTR-SS20-SD02S	BTR-AOC14-SD02	SS20		387		384ms		#6-08/23/93 #1&2-08/24/93	Sediment Spike

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Bladder Diesel Spill (SS20) (Continued)									
BTR-SS20-SD02SD	BTR-AOC14-SD02	SS20		387		384msd		#6-08/23/93 #1&2-08/24/93	Sediment Spike Duplicate
BTR-SS20-SW01	BTR-AOC14-SW01	SS20	492	387 389	93.4305-7	388 398	93.4305	#6-08/23/93 #1&2-08/24/93	Surface Water
BTR-SS20-SW01DP	BTR-AOC14-SW01	SS20	492	387 389		397dup		#1&2-08/24/93	Surface Water Duplicate
BTR-SS20-SW01S	BTR-AOC14-SW01	SS20	492	387 389	93.4305-8	396ms	93.4305	#1&2-08/24/93	Surface Water Spike
BTR-SS20-SW01SD	BTR-AOC14-SW01	SS20	492	387 389	93.4305-9	395msd	93.4305	#1&2-08/24/93	Surface Water Spike Duplicate
BTR-SS20-SW02	BTR-AOC14-SW02	SS20		389		403 406		#6-08/23/93 #1&2-08/24/93	Field Duplicate Surface Water
BTR-SS20-SW03	BTR-AOC14-SW03	SS20		389		407 410		#6-08/23/93 #1&2-08/24/93	Surface Water

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
JP-4 Spill (SS21)									
BTR-SS21-S01	BTR-AOC15-S01	SS21		387		364		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS21-S02	BTR-AOC15-S02	SS21	493	387	93.4301-11	366	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS21-S03	BTR-AOC15-S03	SS21		387		369		#6-08/23/93 #1&2-08/24/93	Soil
BTR-SS21-S04	BTR-AOC15-S04	SS21		476		1692		#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS21-2S05	BTR-AOC15-2S05	SS21		476		1694		#5-09/05/93 #3&4-09/06/93	Soil

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
Background									
BTR-BKGD-S01	BTR-BKGD-S01	Background	408		93.4203-5		93.4203		Soil
BTR-BKGD-S02	BTR-BKGD-S02	Background	408 377		93.4203-6 93.4175-2		93.4203 93.4175		Soil
BTR-BKGD-S03	BTR-BKGD-S03	Background	407		93.4199-4		93.4199		Soil
BTR-BKGD-S04	BTR-BKGD-S04	Background	408		93.4203-4		93.4203		Field Replicate Soil
BTR-BKGD-SD01	BTR-BKGD-SD01	Background	407 376		93.4199-1 93.4179-4		93.4199 93.4179		Sediment
BTR-BKGD-SD01SD	BTR-BKGD-SD01	Background	407		93.4199-3		93.4199		Sediment Spike Duplicate
BTR-BKGD-SD01S	BTR-BKGD-SD01	Background	407		93.4199-2		93.4199		Sediment Spike
BTR-BKGD-SD02	BTR-BKGD-SD02	Background	407		93.4199-7		93.4199		Sediment
BTR-BKGD-2SD02	BTR-BKGD-2SD02[a] BTR-BKGD-2SD03	Background	477	478	93.4616-17	1746	93.4616	#6-09/05/93 #1&2-09/06/93	Sediment
BTR-BKGD-SW01	BTR-BKGD-SW01	Background	407 376		93.4199-6 93.4179-2		93.4199 93.4179		Surface Water
BTR-BKGD-SW02	BTR-BKGD-SW02	Background	407 376		93.4199-5 93.4179-3		93.4199 93.4179		Surface Water

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.
[a] This sample was incorrectly labeled as BTR-BKGD-2SD02 on the COC to F&B.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
QA/QC									
BTR-AB01	BTR-SD08-AB01	QA/QC	405 410		93.4173-9 93.4197-6		93.4173 93.4197		Ambient Blank
BTR-AB02	BTR-AB-02	QA/QC	491	392	93.4303-1	315	93.4303	#3&4-08/24/93	Ambient Blank
BTR-AB03	BTR-AB-03	QA/QC		476		1712		#1&2-09/04/93	Ambient Blank
BTR-EB01	BTR-SD08-SEB	QA/QC	408		93.4175-3 93.4203-8		93.4175 93.4203		Equipment Blank
BTR-EB02	BTR-SD08-WEB	QA/QC	409 376		93.4206-4 93.4179-1		93.4206 93.4179		Equipment Blank
BTR-EB03A	BTR-SS13-WEB	QA/QC	397 400		93.4215-7 93.4211-1		93.4215 93.4211		Equipment Blank
BTR-EB03	BTR-SS13-SEB2	QA/QC	383 397		93.4213-4 93.4215-6		93.4213 93.4215		Equipment Blank
BTR-EB04	BTR-EB-04	QA/QC	498	392	93.4302-10	311	93.4302	#3&4-08/24/93	Equipment Blank
BTR-EB04DP	BTR-EB-04	QA/QC	498		93.4302-12		93.4302		Equipment Blank Duplicate
BTR-EB04S	BTR-EB-04	QA/QC	498		93.4302-11		93.4302		Equipment Blank Spike
BTR-EB04SD	BTR-EB-04	QA/QC	498		93.4302-14		93.4302		Equipment Blank Spike Duplicate
BTR-EB05	BTR-EB-05	QA/QC	491	392	93.4303-5	332	93.4303	#3&4-08/24/93	Equipment Blank

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND TABLE SAMPLE IDENTIFICATION	FIELD CHAIN-OF-CUSTODY AND DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	FIELD BATCH IDENTIFICATION		LABORATORY IDENTIFICATION		LABORATORY BATCH IDENTIFICATION		SAMPLE DESCRIPTION
			CT&E	F&B	CT&E	F&B	CT&E	F&B	
QA/QC (Continued)									
BTR-EB06	BTR-EB-06	QA/QC		476		1688 1690		#5-09/06/93 #1&2-09/04/93	Equipment Blank
BTR-EB07	BTR-EB-07	QA/QC	477	478	93.4616-9	1715 1716	93.4616	#5-09/06/93 #1&2-09/06/93	Equipment Blank
BTR-EB08	BTR-EB-08	QA/QC	477	478	93.4616-13	1719 1720	93.4616	#5-09/06/93 #1&2-09/06/93	Equipment Blank
BTR-TB01	BTR-SD08-TB01	QA/QC	491 376		93.4173-10 93.4179-5		93.4173 93.4179		Trip Blank
BTR-TB02	BTR-SD08-TB02	QA/QC	410		93.4197-7		93.4197		Trip Blank
BTR-TB03	BTR-LF03-TB03	QA/QC	400		93.4211-2		93.4211		Trip Blank
BTR-TB04	BTR-TB-04	QA/QC	498	395	93.4302-9	1346	93.4302	#3&4-08/31/93	Trip Blank
BTR-TB05	BTR-TB-05	QA/QC		387 493		375		#1&2-08/24/93	Trip Blank
BTR-IDW-01	BTR-IDW-01	QA/QC	481		93.4615-1		93.4615		Decontamination Wastewater

CT&E - Commercial Testing and Engineering Co.
F&B - Friedman and Bruya, Inc.

3. ANALYTICAL DATA

ANALYTICAL DATA SHEETS FOR THE OLD LANDFILL (LF01)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-2
Client Sample ID :BTR-LF01-S01 ~~-0.15~~
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 10:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. NO SURROGATE WAS ADDED TO THE 8270 DURING EXTRACTION.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.025	UJ (A)	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromochloromethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromodichloromethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromoform	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromomethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
n-Butylbenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
sec-Butylbenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
tert-Butylbenzne	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Carbon Tetrachloride	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Chlorobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroform	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloromethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
2-Chlorotoluene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
4-Chlorotoluene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromochloromethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
12Dibromo3Chloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dibromoethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromomethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichlorobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichlorobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,4-Dichlorobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Dichlorodifluoromethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloroethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
cis-1,2-Dichloroethene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
trans1,2-Dichloroethene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
2,2-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloropropene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Ethylbenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Hexachlorobutadiene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
Isopropylbenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM

VALIDATION QUALIFIER (COMMENT)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B S[redacted]
ANCHORAGE, AK 9[redacted]
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4303-2
Client Sample ID :BTR-LF01-S01
Matrix :SOIL

compiled by: BFM 11.7.94

		Validation Qualifier	Comments					
p-Isopropyltoluene	0.025	UJ	(A)	mg/Kg	EPA 8260	08/25	09/05	SGT
Methylene Chloride	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Napthalene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
n-Propylbenzene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Styrene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1112-Tetrachloroethane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1122-Tetrachloroethane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Tetrachloroethene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Toluene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,2,3-Trichlorobenzene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,2,4-Trichlorobenzene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,1,1-Trichloroethane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,1,2-Trichloroethane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Trichloroethene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Trichlorofluoromethane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,2,3-Trichloropropane	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,2,4-Trimethylbenzene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
1,3,5-Trimethylbenzene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Vinyl Chloride	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
p+m-Xylene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
o-Xylene	0.025	UJ		mg/Kg	EPA 8260	08/25	09/05	SGT
Semivolatile Organics					EPA 8270			
Phenol	0.230	UR	(A)	mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
bis(2-Chloroethyl)ether	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2-Chlorophenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
1,3-Dichlorobenzene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
1,4-Dichlorobenzene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Benzyl Alcohol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
1,2-Dichlorobenzene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2-Methylphenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
bis(2-Chloroisopropyl)e	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
4-Methylphenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
n-Nitroso-di-n-Propylam	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Hexachloroethane	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Nitrobenzene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Isophorone	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2-Nitrophenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2,4-Dimethylphenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Benzoic Acid	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
bis(2-Chloroethoxy)Meth	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2,4-Dichlorophenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
1,2,4-Trichlorobenzene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Naphthalene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
4-Chloroaniline	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Hexachlorobutadiene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
4-Chloro-3-Methylphenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2-Methylnaphthalene	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
Hexachlorocyclopentadie	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2,4,6-Trichlorophenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]
2,4,5-Trichlorophenol	0.230	UR		mg/Kg	EPA 8270	09/04	09/29	MT[redacted]

VALIDATION QUALIFIER (COMMENTS)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-2
Client Sample ID :BTR-LF01-S01
Matrix :SOIL

VALIDATION QUALIFIER (COMMENTS)

2-Chloronaphthalene	0.230	UR(H)	mg/Kg	EPA 8270		09/04 09/29	MTI
2-Nitroaniline	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Dimethylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Acenaphthylene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
2,6-Dinitrotoluene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
3-Nitroaniline	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Acenaphthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
2,4-Dinitrophenol	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
4-Nitrophenol	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Dibenzofuran	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
2,4-Dinitrotoluene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Diethylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
4-Chlorophenyl-Phenylet	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Fluorene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
4-Nitroaniline	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
4,6-Dinitro-2-Methylphe	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
n-Nitrosodiphenylamine	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
4-Bromophenyl-Phenyleth	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Hexachlorobenzene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Pentachlorophenol	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Phenanthrene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Anthracene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
di-n-Butylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Fluoranthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Pyrene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Butylbenzylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
3,3-Dichlorobenzidine	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Benzo(a)Anthracene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Chrysene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
bis(2-Ethylhexyl)Phthal	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
di-n-Octylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Benzo(b)Fluoranthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Benzo(k)Fluoranthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Benzo(a)Pyrene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Indeno(1,2,3-cd)Pyrene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Dibenz(a,h)Anthracene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Benzo(g,h,i)Perylene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1900		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	56	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	19		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	4650		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4.1		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	3.3		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4303-2
Client Sample ID :BTR-LF01-S01
Matrix :SOIL

Iron	5000		mg/Kg	EPA 6010	08/27	08/29	DFT
Lead	5.6	U	mg/Kg	EPA 6010	08/27	08/29	DFT
Magnesium	990		mg/Kg	EPA 6010	08/27	08/29	DFT
Manganese	52		mg/Kg	EPA 6010	08/27	08/29	DFT
Molybdenum	2.8	U	mg/Kg	EPA 6010	08/27	08/29	DFT
Nickel	4.3		mg/Kg	EPA 6010	08/27	08/29	DFT
Potassium	280	U	mg/Kg	EPA 6010	08/27	08/29	DFT
Selenium	5.6	U	mg/Kg	EPA 6010	08/27	08/29	DFT
Silver	2.8	U	mg/Kg	EPA 6010	08/27	08/29	DFT
Sodium	78		mg/Kg	EPA 6010	08/27	08/29	DFT
Thallium	0.27	U	mg/Kg	EPA 7841	08/26	08/28	KAI
Vanadium	4.9		mg/Kg	EPA 6010	08/27	08/29	DFT
Zinc	12		mg/Kg	EPA 6010	08/27	08/29	DFT
TOC, Soil	820		mg/Kg	PSEP Ref Lab			

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-4
Client Sample ID :BTR-LF01-S01 DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 10:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	1500		mg/Kg	EPA 6010		08/27	08/29	DFL
Antimony	56	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Arsenic	5.6	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Barium	15		mg/Kg	EPA 6010		08/27	08/29	DFL
Beryllium	2.8	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Cadmium	2.8	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Calcium	3600		mg/Kg	EPA 6010		08/27	08/29	DFL
Chromium	3.2		mg/Kg	EPA 6010		08/27	08/29	DFL
Cobalt	5.6	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Copper	3.1		mg/Kg	EPA 6010		08/27	08/29	DFL
Iron	5200		mg/Kg	EPA 6010		08/27	08/29	DFL
Lead	5.6	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Magnesium	920		mg/Kg	EPA 6010		08/27	08/29	DFL
Manganese	56		mg/Kg	EPA 6010		08/27	08/29	DFL
Molybdenum	2.8	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Nickel	4.3		mg/Kg	EPA 6010		08/27	08/29	DFL
Potassium	280	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Selenium	5.6	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Silver	2.8	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Sodium	59		mg/Kg	EPA 6010		08/27	08/29	DFL
Thallium	0.28	U	mg/Kg	EPA 7841		08/26	08/28	KAW
Vanadium	4.2		mg/Kg	EPA 6010		08/26	08/28	KAW
Zinc	11		mg/Kg	EPA 6010		08/26	08/28	KAW

* See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-3
Client Sample ID :BTR-LF01-S01 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 10:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. FOR SPIKE CONCENTRATION, SEE QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.476		mg/Kg	EPA 8260		08/25	09/05	SGM
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromoform	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chlorobenzene	0.465		mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroform	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethene	0.306		mg/Kg	EPA 8260		08/25	09/05	SGM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1939

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-3
Client Sample ID :BTR-LF01-S01 SPIKE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Methylene Chloride	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Napthalene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Styrene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Toluene	0.453		mg/Kg	EPA 8260	08/25 09/05	SGI
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Trichloroethene	0.411		mg/Kg	EPA 8260	08/25 09/05	SGI
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,2,3-Trichloropropane	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,2,4-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
1,3,5-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Vinyl Chloride	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
p+m-Xylene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
o-Xylene	0.025	U	mg/Kg	EPA 8260	08/25 09/05	SGI
Semivolatile Organics				EPA 8270		
Phenol	1.79		mg/Kg	EPA 8270	09/04 09/29	MTT
bis(2-Chloroethyl)ether	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Chlorophenol	1.72		mg/Kg	EPA 8270	09/04 09/29	MTT
1,3-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,4-Dichlorobenzene	1.71		mg/Kg	EPA 8270	09/04 09/29	MTT
Benzyl Alcohol	2.00	U	mg/Kg	EPA 8270	09/04 09/29	
1,2-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Methylphenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
bis(2-Chloroisopropyl)e	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Methylphenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
n-Nitroso-di-n-Propylam	1.94		mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachloroethane	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Nitrobenzene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Isophorone	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Nitrophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4-Dimethylphenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Benzoic Acid	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
bis(2-Chloroethoxy)Meth	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4-Dichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,2,4-Trichlorobenzene	1.99		mg/Kg	EPA 8270	09/04 09/29	MTT
Naphthalene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Chloroaniline	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachlorobutadiene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Chloro-3-Methylphenol	2.00		mg/Kg	EPA 8270	09/04 09/29	MTT
2-Methylnaphthalene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachlorocyclopentadie	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4,6-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4,5-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-3
Client Sample ID :BTR-LF01-S01 SPIKE
Matrix :SOIL

2-Chloronaphthalene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
2-Nitroaniline	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Dimethylphthalate	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Acenaphthylene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
2,6-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
3-Nitroaniline	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Acenaphthene	2.00		mg/Kg	EPA 8270		09/04 09/29	MTT
2,4-Dinitrophenol	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Nitrophenol	2.25		mg/Kg	EPA 8270		09/04 09/29	MTT
Dibenzofuran	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
2,4-Dinitrotoluene	2.02		mg/Kg	EPA 8270		09/04 09/29	MTT
Diethylphthalate	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Chlorophenyl-Phenylet	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Fluorene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Nitroaniline	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4,6-Dinitro-2-Methylphe	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
n-Nitrosodiphenylamine	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Bromophenyl-Phenyleth	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Hexachlorobenzene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Pentachlorophenol	2.71		mg/Kg	EPA 8270		09/04 09/29	MTT
Phenanthrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Anthracene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
di-n-Butylphthalate	2.33		mg/Kg	EPA 8270		09/04 09/29	MTT
Fluoranthene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Pyrene	2.08		mg/Kg	EPA 8270		09/04 09/29	MTT
Butylbenzylphthalate	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
3,3-Dichlorobenzidine	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(a)Anthracene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Chrysene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04 09/29	MTT
di-n-Octylphthalate	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(b)Fluoranthene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(k)Fluoranthene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(a)Pyrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Indeno(1,2,3-cd)Pyrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Dibenz(a,h)Anthracene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(g,h,i)Perylene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1900		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	98		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	100		mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	41		mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	52		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	5670		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	110		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	100		mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	110		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-3
Client Sample ID :BTR-LF01-S01 SPIKE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Iron	5500	mg/Kg	EPA 6010	08/27 08/29	DFT
Lead	98	mg/Kg	EPA 6010	08/27 08/29	DFT
Magnesium	2100	mg/Kg	EPA 6010	08/27 08/29	DFT
Manganese	170	mg/Kg	EPA 6010	08/27 08/29	DFT
Molybdenum	100	mg/Kg	EPA 6010	08/27 08/29	DFT
Nickel	110	mg/Kg	EPA 6010	08/27 08/29	DFT
Potassium	1200	mg/Kg	EPA 6010	08/27 08/29	DFT
Selenium	100	mg/Kg	EPA 6010	08/27 08/29	DFT
Silver	18	mg/Kg	EPA 6010	08/27 08/29	DFT
Sodium	1200	mg/Kg	EPA 6010	08/27 08/29	DFT
Thallium	2.8	mg/Kg	EPA 7841	08/26 08/28	KAV
Vanadium	110	mg/Kg	EPA 6010	08/27 08/29	DFT
Zinc	110	mg/Kg	EPA 6010	08/27 08/29	DFT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-9
Client Sample ID :BTR-LF01-S01 SPIKE DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 10:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. FOR SPIKE CONCENTRATION SEE QC PACKAGE. 8270: SAMPLE WAS SPIKED WITH 100 PPM SPIKE. THIS SAMPLE IS A SPIKE DUP FOR 8270/8260.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.482		mg/Kg	EPA 8260		08/25	09/05	SGM
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromoform	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chlorobenzene	0.480		mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloroform	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloroethene	0.296		mg/Kg	EPA 8260		08/25	09/05	SGM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-9
Client Sample ID :BTR-LF01-S01 SPIKE DUPLICATE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Isopropylbenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Methylene Chloride	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Napthalene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Styrene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Toluene	0.470		mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Trichloroethene	0.423		mg/Kg	EPA 8260	08/25	09/05	SGM
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichloropropane	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,3,5-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Vinyl Chloride	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
p+m-Xylene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
o-Xylene	0.025	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Semivolatile Organics				EPA 8270			
Phenol	1.63		mg/Kg	EPA 8270	09/04	09/29	MTT
bis(2-Chloroethyl)ether	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2-Chlorophenol	1.60		mg/Kg	EPA 8270	09/04	09/29	MTT
1,3-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
1,4-Dichlorobenzene	1.66		mg/Kg	EPA 8270	09/04	09/29	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/29	MTT
1,2-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2-Methylphenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
bis(2-Chloroisopropyl)e	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
4-Methylphenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
n-Nitroso-di-n-Propylam	1.63		mg/Kg	EPA 8270	09/04	09/29	MTT
Hexachloroethane	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
Nitrobenzene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
Isophorone	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2-Nitrophenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2,4-Dimethylphenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
Benzoic Acid	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
bis(2-Chloroethoxy)Meth	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2,4-Dichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
1,2,4-Trichlorobenzene	1.77		mg/Kg	EPA 8270	09/04	09/29	MTT
Naphthalene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
4-Chloroaniline	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
Hexachlorobutadiene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
4-Chloro-3-Methylphenol	1.68		mg/Kg	EPA 8270	09/04	09/29	MTT
2-Methylnaphthalene	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
Hexachlorocyclopentadie	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT
2,4,6-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04	09/29	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5533 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-9
Client Sample ID :BTR-LF01-S01 SPIKE DUPLICATE
Matrix :SOIL

2,4,5-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
2-Chloronaphthalene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
2-Nitroaniline	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Dimethylphthalate	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Acenaphthylene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
2,6-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
3-Nitroaniline	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Acenaphthene	1.61		mg/Kg	EPA 8270	09/04 09/29	MT
2,4-Dinitrophenol	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Nitrophenol	2.00		mg/Kg	EPA 8270	09/04 09/29	MT
Dibenzofuran	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
2,4-Dinitrotoluene	1.64		mg/Kg	EPA 8270	09/04 09/29	MT
Diethylphthalate	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Chlorophenyl-Phenylet	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Fluorene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Nitroaniline	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
4,6-Dinitro-2-Methylphe	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
n-Nitrosodiphenylamine	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Bromophenyl-Phenyleth	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Hexachlorobenzene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Pentachlorophenol	2.64		mg/Kg	EPA 8270	09/04 09/29	MT
Phenanthrene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Anthracene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	T
di-n-Butylphthalate	1.93		mg/Kg	EPA 8270	09/04 09/29	
Fluoranthene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	
Pyrene	1.70		mg/Kg	EPA 8270	09/04 09/29	
Butylbenzylphthalate	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
3,3-Dichlorobenzidine	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(a)Anthracene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Chrysene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	09/04 09/29	MT
di-n-Octylphthalate	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(b)Fluoranthene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(k)Fluoranthene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(a)Pyrene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Indeno(1,2,3-cd)Pyrene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Dibenz(a,h)Anthracene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(g,h,i)Perylene	0.230	U	mg/Kg	EPA 8270	09/04 09/29	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.
UA = Unavailable
NA = Not Analyze
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-5
Client Sample ID :BTR-LF01-SD03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69965
Report Completed :11/03/93
Collected :08/20/93 @ 11:44 hrs.
Received :08/23/93 @ 13:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. 8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Bromobenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Bromochloromethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Bromodichloromethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Bromoform	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Bromomethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
n-Butylbenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
sec-Butylbenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
tert-Butylbenzne	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Carbon Tetrachloride	0.030	U	mg/kg	EPA 8260	n/a	08/24	09/06	KWM
Chlorobenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Chloroethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Chloroform	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Chloromethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
2-Chlorotoluene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
4-Chlorotoluene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Dibromochloromethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
12Dibromo3Chloropropane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,2-Dibromoethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Dibromomethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,2-Dichlorobenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,3-Dichlorobenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,4-Dichlorobenzene	0.044		mg/kg	EPA 8260		08/24	09/06	KWM
Dichlorodifluoromethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloroethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,2-Dichloroethane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloroethene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
cis-1,2-Dichloroethene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
trans1,2-Dichloroethene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,2-Dichloropropane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,3-Dichloropropane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
2,2-Dichloropropane	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloropropene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Ethylbenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Hexachlorobutadiene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM
Isopropylbenzene	0.030	U	mg/kg	EPA 8260		08/24	09/06	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1939

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-5
Client Sample ID :BTR-LF01-SD03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Methylene Chloride	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Napthalene	0.105		mg/kg	EPA 8260		08/24 09/06	KWM
n-Propylbenzene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Styrene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1112-Tetrachloroethane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1122-Tetrachloroethane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Tetrachloroethene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Toluene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1,2,3-Trichlorobenzene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1,2,4-Trichlorobenzene	0.046		mg/kg	EPA 8260		08/24 09/06	KWM
1,1,1-Trichloroethane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1,1,2-Trichloroethane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Trichloroethene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Trichlorofluoromethane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1,2,3-Trichloropropane	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
1,2,4-Trimethylbenzene	0.041		mg/kg	EPA 8260		08/24 09/06	KWM
1,3,5-Trimethylbenzene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Vinyl Chloride	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
p+m-Xylene	0.033		mg/kg	EPA 8260		08/24 09/06	KWM
o-Xylene	0.030	U	mg/kg	EPA 8260		08/24 09/06	KWM
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	3600		mg/Kg	EPA 6010		08/31 09/02	DFL
Antimony	64	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Arsenic	6.4	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Barium	76		mg/Kg	EPA 6010		08/31 09/02	DFL
Beryllium	3.2	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Cadmium	3.2	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Calcium	10600		mg/Kg	EPA 6010		08/31 09/02	DFL
Chromium	6.6		mg/Kg	EPA 6010		08/31 09/02	DFL
Cobalt	6.4	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Copper	14		mg/Kg	EPA 6010		08/31 09/02	DFL
Iron	12000		mg/Kg	EPA 6010		08/31 09/02	DFL
Lead	29		mg/Kg	EPA 6010		08/31 09/02	DFL
Magnesium	2700		mg/Kg	EPA 6010		08/31 09/02	DFL
Manganese	170		mg/Kg	EPA 6010		08/31 09/02	DFL
Molybdenum	3.2	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Nickel	8.6		mg/Kg	EPA 6010		08/31 09/02	DFL
Potassium	610		mg/Kg	EPA 6010		08/31 09/02	DFL
Selenium	64	U	mg/Kg	EPA 6010		08/31 09/06	DLG
Silver	3.2	U	mg/Kg	EPA 6010		08/31 09/02	DFL
Sodium	160		mg/Kg	EPA 6010		08/31 09/02	DFL
Thallium	0.28	U	mg/Kg	EPA 6010		08/31 09/02	DLG
Vanadium	11		mg/Kg	EPA 7841		08/30 09/01	KAW
Zinc	55		mg/Kg	EPA 6010		08/31 09/02	DFL

* See Special Instructions Above
** See Sample Remarks Above
J = Undetected, Reported value is the practical quantification limit.
) = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-2
Client Sample ID :BTR-LF01-SW03
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69963
Report Completed :09/14/93
Collected :08/20/93 @ 11:44 hrs
Received :08/23/93 @ 13:30 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,2-Dichloroethane	0.0039		mg/L	EPA 8260		08/31	08/31	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KWM
p-Isopropyltoluene	0.0017		mg/L	EPA 8260		08/31	08/31	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-2
Client Sample ID :BTR-LF01-SW03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Semivolatile Organics				EPA 8270			
Phenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
bis(2-Chloroethyl)ether	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2-Chlorophenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
1,3-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
1,4-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Benzyl Alcohol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
1,2-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2-Methylphenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
bis(2-Chloroisopropyl)e	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
4-Methylphenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
n-Nitroso-di-n-Propylam	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Hexachloroethane	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Nitrobenzene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Isophorone	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2-Nitrophenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2,4-Dimethylphenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Benzoic Acid	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
bis(2-Chloroethoxy)Meth	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2,4-Dichlorophenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
1,2,4-Trichlorobenzene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Naphthalene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
4-Chloroaniline	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Hexachlorobutadiene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
4-Chloro-3-Methylphenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2-Methylnaphthalene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
Hexachlorocyclopentadie	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2,4,6-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2,4,5-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/27	08/29	MT
2-Chloronaphthalene	0.022	U	mg/L	EPA 8270	08/27	08/29	MT

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
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REPORT of ANALYSIS

Chemlab Ref.# :93.4285-2
Client Sample ID :BTR-LF01-SW03
Matrix :WATER

VALIDATION QUALIFIER (COMMENT)

2-Nitroaniline	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Dimethylphthalate	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Acenaphthylene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
2,6-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
3-Nitroaniline	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Acenaphthene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrophenol	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
4-Nitrophenol	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Dibenzofuran	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Diethylphthalate	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
4-Chlorophenyl-Phenylet	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Fluorene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
4-Nitroaniline	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
4,6-Dinitro-2-Methylphe	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
n-Nitrosodiphenylamine	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
4-Bromophenyl-Phenyleth	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Hexachlorobenzene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Pentachlorophenol	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Phenanthrene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Anthracene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Butylphthalate	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Fluoranthene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Pyrene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Butylbenzylphthalate	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
3,3-Dichlorobenzidine	0.022	UJ(D)	mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Anthracene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Chrysene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
bis(2-Ethylhexyl)Phthal	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Octylphthalate	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(b)Fluoranthene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(k)Fluoranthene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Pyrene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Indeno(1,2,3-cd)Pyrene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Dibenz(a,h)Anthracene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(g,h,i)Perylene	0.022	U	mg/L	EPA 8270		08/27 08/29	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.18		mg/L	EPA 6010		08/28 08/30	DL
Antimony	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Barium	0.12		mg/L	EPA 6010		08/28 08/30	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Cadmium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Calcium	130		mg/L	EPA 6010		08/28 08/30	DL
Chromium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Cobalt	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Copper	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Iron	15		mg/L	EPA 6010		08/28 08/30	DL
Lead	0.1	U	mg/L	EPA 6010		08/28 08/30	DL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562
FAX: (907) 56

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-2
Client Sample ID :BTR-LF01-SW03
Matrix :WATER

		Validation Qualifier (Comment)					
Magnesium	55		mg/L	EPA 6010		08/28	08/30 DL
Manganese	1.5		mg/L	EPA 6010		08/28	08/30 DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30 DL
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30 DL
Potassium	9.4		mg/L	EPA 6010		08/28	08/30 DL
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30 DL
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30 DL
Sodium	160		mg/L	EPA 6010		08/28	08/30 KA
Thallium	0.0050	U	mg/L	EPA 7841		08/28	08/30 DL
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30 DL
Zinc	0.05	U	mg/L	EPA 6010			
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30 DI
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30 DI
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30 DI
Barium	0.089		mg/L	EPA 6010		08/28	08/30 DI
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30 DI
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30 DI
Calcium	130		mg/L	EPA 6010		08/28	08/30 DI
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30 DI
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30 DI
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30 DI
Iron	0.24		mg/L	EPA 6010		08/28	08/3
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30
Magnesium	54		mg/L	EPA 6010		08/28	08/30 D
Manganese	1.4		mg/L	EPA 6010		08/28	08/30 D
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Potassium	9.1		mg/L	EPA 6010		08/28	08/30 D
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30 D
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Sodium	150		mg/L	EPA 6010		08/28	08/30 D
Thallium	0.0050	U	mg/L	EPA 7841		08/28	08/30 D
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Zinc	0.05	U	mg/L	EPA 6010			
TOC, Nonpurgable				EPA 9060	n/a		08/31
...TOC Range	53.3-54.3		mg/L	EPA 9060			08/31
...TOC Concentration	53.9	J(C.1)	mg/L	EPA 9060			
Residue, Non-Filterable	82		mg/L	EPA 160.2		08/24	08/24
Residue,Filterable(TDS)	1226	J (B)	mg/L	EPA 160.1	500	08/26	08/27

Compiled: SNF 12.7.94

original by D.L. 11/21/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-1
Client Sample ID :BTR-LF01-SW04
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69963
Report Completed :09/14/93
Collected :08/20/93 @ 14:45 hr
Received :08/23/93 @ 13:30 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloroethane	**0.0039**		**mg/L**	EPA 8260		08/31	08/31	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-1
Client Sample ID :BTR-LF01-SW04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Toluene	0.0025		mg/L	EPA 8260	08/31	08/31	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroethyl)ether	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chlorophenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
1,3-Dichlorobenzene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
1,4-Dichlorobenzene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Benzyl Alcohol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
1,2-Dichlorobenzene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylphenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroisopropyl)e	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
4-Methylphenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
n-Nitroso-di-n-Propylam	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachloroethane	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Nitrobenzene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Isophorone	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2-Nitrophenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dimethylphenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Benzoic Acid	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroethoxy)Meth	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dichlorophenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
1,2,4-Trichlorobenzene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Naphthalene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloroaniline	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorobutadiene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloro-3-Methylphenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylnaphthalene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorocyclopentadie	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,6-Trichlorophenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,5-Trichlorophenol	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chloronaphthalene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-1
Client Sample ID :BTR-LF01-SW04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Dimethylphthalate	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Acenaphthylene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
2,6-Dinitrotoluene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
3-Nitroaniline	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Acenaphthene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
2,4-Dinitrophenol	0.020	U	mg/L	EPA 8270		08/26 09/03	G
4-Nitrophenol	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Dibenzofuran	0.020	U	mg/L	EPA 8270		08/26 09/03	G
2,4-Dinitrotoluene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Diethylphthalate	0.020	U	mg/L	EPA 8270		08/26 09/03	G
4-Chlorophenyl-Phenylet	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Fluorene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
4-Nitroaniline	0.020	U	mg/L	EPA 8270		08/26 09/03	G
4,6-Dinitro-2-Methylphe	0.020	U	mg/L	EPA 8270		08/26 09/03	G
n-Nitrosodiphenylamine	0.020	U	mg/L	EPA 8270		08/26 09/03	G
4-Bromophenyl-Phenyleth	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Hexachlorobenzene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Pentachlorophenol	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Phenanthrene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Anthracene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
di-n-Butylphthalate	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Fluoranthene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Pyrene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Butylbenzylphthalate	0.020	U	mg/L	EPA 8270		08/26 09/03	G
3,3-Dichlorobenzidine	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Benzo(a)Anthracene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Chrysene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
bis(2-Ethylhexyl)Phthal	0.020	U	mg/L	EPA 8270		08/26 09/03	G
di-n-Octylphthalate	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Benzo(b)Fluoranthene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Benzo(k)Fluoranthene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Benzo(a)Pyrene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Indeno(1,2,3-cd)Pyrene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Dibenz(a,h)Anthracene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Benzo(g,h,i)Perylene	0.020	U	mg/L	EPA 8270		08/26 09/03	G
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Barium	0.12		mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Calcium	190		mg/L	EPA 6010		08/28 08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Iron	3.2		mg/L	EPA 6010		08/28 08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-1
Client Sample ID :BTR-LF01-SW04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Magnesium	78		mg/L	EPA 6010		08/28 08/30	DL
Manganese	0.56		mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Potassium	110		mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Sodium	440		mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.005	U	mg/L	EPA 7841		08/28 08/30	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Antimony	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Barium	0.11		mg/L	EPA 6010		08/28 08/30	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Cadmium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Calcium	180		mg/L	EPA 6010		08/28 08/30	DL
Chromium	0.05	U	mg/L	EPA 6010		08/28 08/30	
Cobalt	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Copper	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Iron	0.34		mg/L	EPA 6010		08/28 08/30	DL
Lead	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Magnesium	76		mg/L	EPA 6010		08/28 08/30	DL
Manganese	0.48		mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Potassium	101		mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Sodium	410		mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.0050	U	mg/L	EPA 7841		08/28 08/30	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
TOC, Nonpurgable				EPA 9060	n/a		
...TOC Range	94.7-100		mg/L	EPA 9060		08/31	CM
...TOC Concentration	98.0		mg/L	EPA 9060		08/31	CM
Residue, Non-Filterable	200		mg/L	EPA 160.2		08/24 08/24	GP
Residue,Filterable(TDS)	2416		mg/L	EPA 160.1	500	08/26 08/27	RJ

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-LF01-S01	BTR-LF01-S01	BTR-LF01-S01	BTR-LF01-SD01	BTR-LF01-SD02	BTR-LF01-SD03
F&BI Number	322	322 ms	322 msd	1340	1342	1344
Sample Type	soil	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/31/93	8/31/93	8/31/93
% Dry Weight	88			91	46	45
Sequence Date	#6-08/24/93	#6-08/24/93	#6-08/24/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
Leaded Gas						
JP-4	<50			<50	<110	<110
Lube Oil	<100			<110	<220	530
Diesel	<50 R	71	70	<50	<110	<110 J
Spike Level		500	500			
Unknown Semi-volatile						
Pentacosane	90	103	100	113	109	98
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
PCB 1221	<0.5 R			<0.1	<0.1	<0.1
PCB 1232	<0.5			<0.1	<0.1	<0.1
PCB 1016	<0.5			<0.1	<0.1	<0.1
PCB 1242	<0.5			<0.1	<0.1	<0.1
PCB 1248	<0.5			<0.1	<0.1	<0.1
PCB 1254	<0.5	99	110	<0.1	<0.1	<0.1
PCB 1260	<0.5			<0.1	<0.1	<0.1
Spike Level		5	5			
Dibutyl Chlorendate	120	130	110	91	91	108
Sequence Date	#6-08/23/93					
alpha-BHC	<0.02					
beta-BHC	<0.02					
gamma-BHC	<0.02					
delta-BHC	<0.02					
Heptachlor	<0.02					
Aldrin	<0.02					
Heptachlor Epoxide	<0.02					
Endosulfan I	<0.02					
DDE	<0.02					
Dieldrin	<0.02					
Endrin	<0.02					
Endosulfan II	<0.02					
DDD	<0.02					
Endrin Aldehyde	<0.02					
DDT	<0.02					
Endosulfan Sulfate	<0.02					
Endrin Ketone	<0.02					
Methoxy Chlor	<0.2					
Chlordane	<1					
Dibutyl Chlorendate	120					
Spike Level						
Vol Sequence				#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93
CCl4				<0.02 J	<0.04 J	<0.04 J
TCA				<0.02 J	<0.04 J	<0.04 J
Benzene				<0.02	<0.04	<0.04
TCE				<0.02 J	<0.04 J	<0.04 J
Toluene				<0.02	<0.04	<0.04
PCE				<0.02 J	<0.04 J	<0.04 J
Ethylbenzene				<0.02	<0.04	<0.04
Xylenes				~~0.08~~ <0.04	<0.08	<0.08
Gasoline				<2 J	<4 J	<4 J
Spike level						
BFB				106	108	109

Smf 11.11.94

ICF ID	BTR-LF01-SW01	BTR-LF01-SW01	BTR-LF01-SW02	BTR-LF01-SW02	BTR-LF01-SW03
F&BI Number	1372	1374	1368	1370	1362
Sample Type	water	water	water	water	water
Date Received	8/30/93	8/30/93	8/30/93	8/30/93	8/30/93
% Dry Weight					
Sequence Date	#5-08/31/93		#5-08/31/93		#5-08/31/93
Leaded Gas	n		n		n
JP-4	<200		<200		<200
Lube Oil	<2000		<2000		<2000
Diesel	~~<200~~ <1000 R		~~<200~~ <1000		~~<200~~ <1000
Spike Level					
Unknown Semi-volatile					
Pentacosane	100		103		102
Sequence Date	#5-08/31/93		#5-08/31/93		#5-08/31/93
PCB 1221	<2 R		<2 J		<2
PCB 1232	<2		<2		<2
PCB 1016	<2		<2		<2
PCB 1242	<2		<2		<2
PCB 1248	<2		<2		<2
PCB 1254	<2		<2		<2
PCB 1260	<2		<2		<2
Spike Level					
Dibutyl Chlorendate	100		103		102
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#3&4-08/31/93		#3&4-08/31/93	
CCl4		<1		<1	
TCA		<1		<1	
Benzene		<1		<1	
TCE		<1		<1	
Toluene		56		<1	
PCE		<1		<1	
Ethylbenzene		<1		<1	
Xylenes		<2		<2	
Gasoline		<100 J		<100 J	
Spike level					
BFB		86		100	

11.11.94 Gaf

ICF ID	BTR-LF01-SW03	BTR-LF01-SW04	BTR-LF01-SW04	BTR-LF01-SW04	BTR-LF01-SW04
F&BI Number	1364	1348	1354	1356 dup	1358 ms
Sample Type	water	water	water	water	water
Date Received	8/30/93	8/30/93	8/30/93	8/30/93	8/30/93
% Dry Weight					
Sequence Date		#5-08/31/93			
Leaded Gas		n			
JP-4		<200			
Lube Oil		<2000			
Diesel		~~<200~~ <1000			
Spike Level					
Unknown Semi-volatile					
Pentacosane		101			
Sequence Date		#5-08/31/93			
PCB 1221		<2 J			
PCB 1232		<2			
PCB 1016		<2			
PCB 1242		<2			
PCB 1248		<2			
PCB 1254		<2			
PCB 1260		<2			
Spike Level					
Dibutyl Chlorendate		101			
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#3&4-08/31/93		#3&4-08/31/93	#3&4-08/31/93	#3&4-08/31/93
CCl4	<1		<1	<1	89
TCA	<1		<1	<1	71
Benzene	<1		1	<1	79
TCE	<1		<1	<1	74
Toluene	<1		<1	1 carryover	89
PCE	<1		<1	<1	70
Ethylbenzene	<1		<1	<1	85
Xylenes	<2		<2	<2	80
Gasoline	<100 J		<100 J	<100	
Spike level					
BFB	77		108	90	86

11.11.94 SMC

ICF ID	BTR-LF01-2SW01	BTR-LF01-2SW02	BTR-LF01-2SW03	BTR-LF01-2SW04
F&BI Number	1663	1664	1665	1666
Sample Type	water	water	water	water
Date Received	9/2/93	9/2/93	9/2/93	9/2/93
% Dry Weight				
Sequence Date	#5-09/06/93	#5-09/06/93	#5-09/06/93	#5-09/06/93
Leaded Gas				
JP-4	<1000	<1000	<1000	<1000
Lube Oil	<2000	<2000	<2000	<2000
Diesel	<1000	<1000	<1000	<1000
Spike Level				
Unknown Semi-volatile				
Pentacosane	140	150	130	120
Sequence Date				
PCB 1221				
PCB 1232				
PCB 1016				
PCB 1242				
PCB 1248				
PCB 1254				
PCB 1260				
Spike Level				
Dibutyl Chlorendate				
Sequence Date				
alpha-BHC				
beta-BHC				
gamma-BHC				
delta-BHC				
Heptachlor				
Aldrin				
Heptachlor Epoxide				
Endosulfan I				
DDE				
Dieldrin				
Endrin				
Endosulfan II				
DDD				
Endrin Aldehyde				
DDT				
Endosulfan Sulfate				
Endrin Ketone				
Methoxy Chlor				
Chlordane				
Dibutyl Chlorendate				
Spike Level				
Vol Sequence				
CCl4				
TCA				
Benzene				
TCE				
Toluene				
PCE				
Ethylbenzene				
Xylenes				
Gasoline				
Spike level				
BFB				

ANALYTICAL DATA SHEETS FOR THE POL CATCHMENT (LF03)

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

changed Site location
2Feb 58mf

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4302-1 LF03
Client Sample ID :BTR-~~A0C08~~-S01
Matrix :SOIL ST17 8mf 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 10:20 hr
Received :08/24/93 @ 12:00 hr
Technical Director: STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Bromobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Bromoform	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Bromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
n-Butylbenzene	3.70	D	mg/Kg	EPA 8260		08/25	09/06	SG
sec-Butylbenzene	1.62	D	mg/Kg	EPA 8260		08/25	09/06	SG
tert-Butylbenzne	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Chloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Chloroform	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Chloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Ethylbenzene	0.313	D	mg/Kg	EPA 8260		08/25	09/06	SG
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260		08/25	09/06	SG
Isopropylbenzene	0.409	D	mg/Kg	EPA 8260		08/25	09/06	SG
p-Isopropyltoluene	1.69	D	mg/Kg	EPA 8260		08/25	09/06	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1960

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

changed site location
2568158 SMP

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-1, LF#3
Client Sample ID :BTR-~~A0C08~~-S01
Matrix :SOIL

ST7 SMP 11.3.94

Methylene Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Napthalene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
n-Propylbenzene	0.920	D	mg/Kg	EPA 8260	08/25	09/06	SGI
Styrene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Toluene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trimethylbenzene	15.0	D	mg/Kg	EPA 8260	08/25	09/06	SGI
1,3,5-Trimethylbenzene	0.783	D	mg/Kg	EPA 8260	08/25	09/06	SGI
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/06	SGI
p+m-Xylene	1.54	D	mg/Kg	EPA 8260	08/25	09/06	SGI
o-Xylene	1.60	D	mg/Kg	EPA 8260	08/25	09/06	SGI
	3.14						
Semivolatile Organics				EPA 8270			
Phenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
bis(2-Chloroethyl)ether	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2-Chlorophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
1,3-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
1,4-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzyl Alcohol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
1,2-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
bis(2-Chloroisopropyl)e	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
n-Nitroso-di-n-Propylam	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Hexachloroethane	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Nitrobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Isophorone	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2-Nitrophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4-Dimethylphenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzoic Acid	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
bis(2-Chloroethoxy)Meth	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4-Dichlorophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
1,2,4-Trichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Naphthalene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Chloroaniline	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Hexachlorobutadiene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Chloro-3-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2-Methylnaphthalene	3.47		mg/Kg	EPA 8270	09/03	09/24	MTT
Hexachlorocyclopentadie	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4,6-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4,5-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2-Chloronaphthalene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

Changed site location
Jacobs SMF

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4302-1, LF03
Client Sample ID :BTR-~~A0C08~~-S01
Matrix :SOIL ~~SED~~
SMF 11-3-94

2-Nitroaniline	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Dimethylphthalate	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Acenaphthylene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,6-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
3-Nitroaniline	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Acenaphthene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4-Dinitrophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Nitrophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Dibenzofuran	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
2,4-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Diethylphthalate	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Chlorophenyl-Phenylet	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Fluorene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Nitroaniline	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4,6-Dinitro-2-Methylphe	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
n-Nitrosodiphenylamine	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
4-Bromophenyl-Phenyleth	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Hexachlorobenzene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Pentachlorophenol	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Phenanthrene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Anthracene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
di-n-Butylphthalate	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Fluoranthene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Pyrene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Butylbenzylphthalate	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
3,3-Dichlorobenzidine	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzo(a)Anthracene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Chrysene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
bis(2-Ethylhexyl)Phthal	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
di-n-Octylphthalate	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzo(b)Fluoranthene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzo(k)Fluoranthene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzo(a)Pyrene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Indeno(1,2,3-cd)Pyrene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Dibenz(a,h)Anthracene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT
Benzo(g,h,i)Perylene	2.10	U	mg/Kg	EPA 8270	09/03	09/24	MTT

See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Arranged site location
2 Feb 95 SMF

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-2 LF03
Client Sample ID :BTR-~~AOC08~~-S01 SPIKE
Matrix :SOIL ~~5717~~ SMF 12.595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 10:20 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Moustead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. 8270: DUE TO A HIGH HYDROCARBON INTERFERENCE IN THE SAMPLE, NO SPIKE RECOVERIES COULD BE CALCULATED.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Semivolatile Organics				EPA 8270				
Phenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
bis(2-Chloroethyl)ether	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Chlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,3-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,4-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Benzyl Alcohol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,2-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]
2-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]
bis(2-Chloroisopropyl)e	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
n-Nitroso-di-n-Propylam	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachloroethane	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Nitrobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Isophorone	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Nitrophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4-Dimethylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Benzoic Acid	**		mg/Kg	EPA 8270		09/03	09/20	MTT
bis(2-Chloroethoxy)Meth	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4-Dichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,2,4-Trichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Naphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Chloroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachlorobutadiene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Chloro-3-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Methylnaphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachlorocyclopentadie	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4,6-Trichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4,5-Trichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Chloronaphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Nitroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Dimethylphthalate	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Acenaphthylene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,6-Dinitrotoluene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
3-Nitroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Acenaphthene	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]
						09/03	09/20	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

Changed site location on 2lcb's Soil

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-2 LFD
Client Sample ID :BTR-~~A0C08~~-S01 SPIKE
Matrix :SOIL ~~STT~~ Soil 1B5.95

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,4-Dinitrophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitrophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenzofuran	**	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrotoluene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Diethylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Chlorophenyl-Phenylet	**	mg/Kg	EPA 8270	09/03 09/20	MT
Fluorene	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitroaniline	**	mg/Kg	EPA 8270	09/03 09/20	MT
4,6-Dinitro-2-Methylphe	**	mg/Kg	EPA 8270	09/03 09/20	MT
n-Nitrosodiphenylamine	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Bromophenyl-Phenyleth	**	mg/Kg	EPA 8270	09/03 09/20	MT
Hexachlorobenzene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Pentachlorophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
Phenanthrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Butylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Butylbenzylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
3,3-Dichlorobenzidine	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Chrysene	**	mg/Kg	EPA 8270	09/03 09/20	MT
bis(2-Ethylhexyl)Phthal	**	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Octylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(b)Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(k)Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Indeno(1,2,3-cd)Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenz(a,h)Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(g,h,i)Perylene	**	mg/Kg	EPA 8270	09/03 09/20	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

duplicate location
2 for BS and

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-3, LF03
Client Sample ID :BTR-~~A0C08~~-S01 SPIKE DUPLICATE
Matrix :SOIL ~~ST17~~ BNA 12.595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 11:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Ameterd

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. 8270: DUE TO A HIGH HYDROCARBON INTERFERENCE IN THE SAMPLE, NO SPIKE RECOVERIES COULD BE CALCULATED.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
bis(2-Chloroethyl)ether	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Chlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,3-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,4-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Benzyl Alcohol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,2-Dichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]
2-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]
bis(2-Chloroisopropyl)e	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
n-Nitroso-di-n-Propylam	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachloroethane	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Nitrobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Isophorone	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Nitrophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4-Dimethylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Benzoic Acid	**		mg/Kg	EPA 8270		09/03	09/20	MTT
bis(2-Chloroethoxy)Meth	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4-Dichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
1,2,4-Trichlorobenzene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Naphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Chloroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachlorobutadiene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
4-Chloro-3-Methylphenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Methylnaphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Hexachlorocyclopentadie	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4,6-Trichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,4,5-Trichlorophenol	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Chloronaphthalene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2-Nitroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Dimethylphthalate	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Acenaphthylene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
2,6-Dinitrotoluene	**		mg/Kg	EPA 8270		09/03	09/20	MTT
3-Nitroaniline	**		mg/Kg	EPA 8270		09/03	09/20	MTT
Acenaphthene	**		mg/Kg	EPA 8270		09/03	09/20	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

chemical site location
2Feb95 Suf

Chemlab Ref.# :93.4302-3, LF03 REPORT of ANALYSIS
Client Sample ID :BTR-~~AOC08~~-S01 SPIKE DUPLICATE
Matrix :SOIL ~~SR7~~ Suf 12.5.95

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

2,4-Dinitrophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitrophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenzofuran	**	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrotoluene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Diethylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Chlorophenyl-Phenylet	**	mg/Kg	EPA 8270	09/03 09/20	MT
Fluorene	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitroaniline	**	mg/Kg	EPA 8270	09/03 09/20	MT
4,6-Dinitro-2-Methylphe	**	mg/Kg	EPA 8270	09/03 09/20	MT
n-Nitrosodiphenylamine	**	mg/Kg	EPA 8270	09/03 09/20	MT
4-Bromophenyl-Phenyleth	**	mg/Kg	EPA 8270	09/03 09/20	MT
Hexachlorobenzene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Pentachlorophenol	**	mg/Kg	EPA 8270	09/03 09/20	MT
Phenanthrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Butylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Butylbenzylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
3,3-Dichlorobenzidine	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Chrysene	**	mg/Kg	EPA 8270	09/03 09/20	MT
bis(2-Ethylhexyl)Phthal	**	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Octylphthalate	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(b)Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(k)Fluoranthene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Indeno(1,2,3-cd)Pyrene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenz(a,h)Anthracene	**	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(g,h,i)Perylene	**	mg/Kg	EPA 8270	09/03 09/20	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-7
Client Sample ID :BTR LF03 S01 -0.75
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 13:17 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	97.4		%	SM17 2540G			08/22	MY
Hydrocarbons EPH	[redacted]		mg/Kg	3510/3550/8100M		08/22	08/24	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/25	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-7
Client Sample ID :BTR LF03 S01-0.75 Tank Area 5
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23 JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21	08/23 JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23 JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23 JL

Special Instructions Above
See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

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NA = Not Analyzed
LT = Less Than
GT = Greater Than

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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-8
Client Sample ID :BTR LF03 S02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 13:22 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	98.2		%	SM17 2540G			08/22	M
Hydrocarbons EPH	[redacted]		mg/Kg	3510/3550/8100M		08/22	08/24	JBI
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	[redacted]
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	[redacted]
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
CE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-8
Client Sample ID :BTR LF03 S02
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLI
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLI

* See Special Instructions Above
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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-9
Client Sample ID :BTR LF03 S03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 13:32 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	90.8		%	SM17 2540G			08/22	MY
Hydrocarbons EPH	[illegible]		mg/Kg	3510/3550/8100M		08/22	08/24	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/25	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Client Sample ID :BTR LF03 S03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLJ
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLJ
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLJ
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLJ

* = See Special Instructions Above
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U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-11
Client Sample ID :BTR LF03 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 12:00 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. SAMPLE NOT RECORDED ON CHAIN OF CUSTODY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	38.7		%	SM17 2540G			08/22	MY
Hydrocarbons EPH	2250	D	mg/Kg	3510/3550/8100M		08/22	08/24	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	12.7		mg/Kg	EPA 5030/8015m		08/21	08/27	WLS
Benzene	0.070	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Toluene	0.070	U	mg/Kg	EPA 8020		08/21	08/24	
Ethylbenzene	0.323		mg/Kg	EPA 8020		08/21	08/24	
p&m Xylene	0.642		mg/Kg	EPA 8020		08/21	08/24	
o-Xylene	0.185		mg/Kg	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Transi2Dichloroethylene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Transi,3Dichloropropene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Vinyl Chloride	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroethane	0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-11
Client Sample ID :BTR LF03 SD01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.070	U	mg/Kg	EPA 8010	08/21	08/24	JLE
2-Chloroethylvinylether	0.070	U	mg/Kg	EPA 8010	08/21	08/24	JLE
1,3-Dichlorobenzene	0.070	U	mg/Kg	EPA 8010	08/21	08/24	JLE
1,2-Dichlorobenzene	0.070	U	mg/Kg	EPA 8010	08/21	08/24	JLE

e Special Instructions Above
ee Sample Remarks Above
: Undetected, Reported value is the practical quantification limit.
: Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4212-3
Client Sample ID :BTR LF03 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69840
Report Completed :10/08/93
Collected :08/18/93 @ 12:00 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromobenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromochloromethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromodichloromethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromoform	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromomethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
nButylbenzene	0.635	J	mg/Kg	EPA 8260		08/24	09/01	[redacted]
sec-Butylbenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
tert-Butylbenzne	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Carbon Tetrachloride	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chlorobenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroform	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloromethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2-Chlorotoluene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
4-Chlorotoluene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromochloromethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
12Dibromo3Chloropropane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dibromoethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromomethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,4-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dichlorodifluoromethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloroethane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
cis-1,2-Dichloroethene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
trans1,2-Dichloroethene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloropropene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Ethylbenzene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	[redacted]
Hexachlorobutadiene	0.400	U	mg/Kg	EPA 8260		08/24	09/01	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-3
Client Sample ID :BTR LF03 SD01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Isopropylbenzene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
p-Isopropyltoluene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Methylene Chloride	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Napthalene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
n-Propylbenzene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Styrene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1112-Tetrachloroethane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1122-Tetrachloroethane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Tetrachloroethene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Toluene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichlorobenzene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trichlorobenzene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,1-Trichloroethane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,2-Trichloroethane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichloroethene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichlorofluoromethane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichloropropane	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trimethylbenzene	0.638	D	mg/Kg	EPA 8260	08/24 09/01	KWM
1,3,5-Trimethylbenzene	0.536	D	mg/Kg	EPA 8260	08/24 09/01	KWM
Vinyl Chloride	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
p+m-Xylene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
o-Xylene	0.400	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Semivolatile Organics				EPA 8270		
Phenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
bis(2-Chloroethyl)ether	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Chlorophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
1,3-Dichlorobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
1,4-Dichlorobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzyl Alcohol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
1,2-Dichlorobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Methylphenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
bis(2-Chloroisopropyl)e	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Methylphenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
n-Nitroso-di-n-Propylam	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Hexachloroethane	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Nitrobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Isophorone	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Nitrophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,4-Dimethylphenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzoic Acid	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
bis(2-Chloroethoxy)Meth	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,4-Dichlorophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
1,2,4-Trichlorobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Naphthalene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Chloroaniline	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Hexachlorobutadiene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Chloro-3-Methylphenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Methylnaphthalene	3.44	J	mg/Kg	EPA 8270	08/31 09/07	MTT
Hexachlorocyclopentadie	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,4,6-Trichlorophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-3
Client Sample ID :BTR LF03 SD01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,4,5-Trichlorophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Chloronaphthalene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2-Nitroaniline	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Dimethylphthalate	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Acenaphthylene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,6-Dinitrotoluene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
3-Nitroaniline	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Acenaphthene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,4-Dinitrophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Nitrophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Dibenzofuran	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
2,4-Dinitrotoluene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Diethylphthalate	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Chlorophenyl-Phenylet	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Fluorene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Nitroaniline	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4,6-Dinitro-2-Methylphe	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
n-Nitrosodiphenylamine	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
4-Bromophenyl-Phenyleth	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Hexachlorobenzene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Pentachlorophenol	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Phenanthrene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Anthracene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
di-n-Butylphthalate	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Fluoranthene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Pyrene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Butylbenzylphthalate	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
3,3-Dichlorobenzidine	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzo(a)Anthracene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Chrysene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
bis(2-Ethylhexyl)Phthal	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
di-n-Octylphthalate ene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzo(b)Fluoranthene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzo(k)Fluoranthene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzo(a)Pyrene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Indeno(1,2,3-cd)Pyrene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Dibenz(a,h)Anthracene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT
Benzo(g,h,i)Perylene	3.5	U	mg/Kg	EPA 8270	08/31 09/07	MTT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-13
Client Sample ID :BTR LF03 SD02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 15:45 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	82.8		%	SM17 2540G			08/21	MDU
Hydrocarbons EPH	1940	D	mg/Kg	3510/3550/8100M		08/21	08/25	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.500	U	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SGM
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SGM
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SGM
m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SGM
ylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SGM
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM
4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STR
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4219-13
Client Sample ID :BTR LF03 SD02
Matrix :SOIL

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SGM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SGM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SGM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STR.
ANCHORAGE, AK 99
TEL: (907) 562-2
FAX: (907) 561-5

Chemlab Ref.# :93.4215-5
Client Sample ID :BTR LF03 SD03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 15:58
Received :08/20/93 @ 11:30
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ir
Percent Solids	89.9		%	SM17 2540G			08/22	
Hydrocarbons EPH	2610	D	mg/Kg	3510/3550/8100M		08/22	08/24	
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	6.30		mg/Kg	EPA 5030/8015m		08/21	08/26	W
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/26	W
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/26	W
Ethylbenzene	0.034		mg/Kg	EPA 8020		08/21	08/26	W
p&m Xylene	0.089		mg/Kg	EPA 8020		08/21	08/26	W
o-Xylene	0.038		mg/Kg	EPA 8020		08/21	08/26	W

* See Special Instructions Above
See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4215-1
Client Sample ID :BTR LF03 SD04
Matrix :SOIL

5633 [redacted]
ANCHORAGE [redacted]
TEL: (907) 562-
FAX: (907) 561-

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:00
Received :08/20/93 @ 11:30
Technical Director: STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	I
Percent Solids	61.8		%	SM17 2540G			08/22	
Hydrocarbons EPH	28600	D	mg/Kg	3510/3550/8100M		08/22	08/24	
VPH & BTEX								
Hydrocarbons VPH	78.5		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	
Benzene	0.035	U	mg/Kg	EPA 8020		08/21	08/25	
Toluene	0.116		mg/Kg	EPA 8020		08/21	08/25	
Ethylbenzene	0.739		mg/Kg	EPA 8020		08/21	08/25	
p&m Xylene	2.02		mg/Kg	EPA 8020		08/21	08/25	
o-Xylene	1.55		mg/Kg	EPA 8020		08/21	08/25	

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4215-3
Client Sample ID :BTR LF03 SD04 DUPLICATE
Matrix :SOIL

5633 B STR
ANCHORAGE, AK 9
TEL: (907) 562-
FAX: (907) 561-

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:00
Received :08/20/93 @ 11:30
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. PLEASE SEE QA/QC PACKAGE FOR SPIKING CONCENTRATIONS AND RECOVERIES. SPIKE DILUTED OUT DUE TO HIGH EPH CONCENTRATION. 93.4214-9 AND 93.4214-10 SPIKED ON SAME DAY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	I
Percent Solids	61.8		%	SM17 2540G			08/22	
Hydrocarbons EPH	20700	D	mg/Kg	3510/3550/8100M		08/22	08/24	

* See Special Instructions Above
* See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4215-2
Client Sample ID :BTR LF03 SD04 SPIKE
Matrix :SOIL

5633 [redacted]ER,
ANCHORAG[redacted]
TEL: (907) [redacted]2-2
FAX: (907) 561-5

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:00
Received :08/20/93 @ 11:30
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. PLEASE SEE QA/QC PACKAGE FOR SPIKING CONCENTRATIONS AND RECOVERIES. SPIKE DILUTED OUT DUE TO HIGH EPH CONCENTRATION. 93.4214-9 AND 93.4214-10 SPIKED ON SAME DAY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ir
Percent Solids	61.8		%	SM17 2540G			08/22	
Hydrocarbons EPH	21700	D	mg/Kg	3510/3550/8100M		08/22	08/25	

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyz[redacted]
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4215-4
Client Sample ID :BTR LF03 SD05
Matrix :SOIL

5633 B STRI
ANCHORAGE, AK 99
TEL: (907) 562-2
FAX: (907) 561-5

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:05
Received :08/20/93 @ 11:30
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ir
Percent Solids	56.6		%	SM17 2540G			08/22	
Hydrocarbons EPH	10700	D	mg/Kg	3510/3550/8100M		08/22	08/24	J
VPH & BTEX								
Hydrocarbons VPH	67.9		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	W
Benzene	0.040	U	mg/Kg	EPA 8020		08/21	08/25	W
Toluene	0.108		mg/Kg	EPA 8020		08/21	08/25	W
Ethylbenzene	0.982		mg/Kg	EPA 8020		08/21	08/25	W
p&m Xylene	2.97		mg/Kg	EPA 8020		08/21	08/25	W
o-Xylene	2.33		mg/Kg	EPA 8020		08/21	08/25	W

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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-11
Client Sample ID :BTR LF03 SD06
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 15:35 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 183 MG/KG OF EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	66.7		%	SM17 2540G			08/21	MD(
Hydrocarbons EPH	268	D	mg/Kg	3510/3550/8100M		08/21	08/25	JB
VPH & BTEX								
Hydrocarbons VPH	0.600	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WL
Benzene	0.030	U	mg/Kg	EPA 8020		08/21	08/24	JL
Toluene	0.030	U	mg/Kg	EPA 8020		08/21	08/24	J
Ethylbenzene	0.030	U	mg/Kg	EPA 8020		08/21	08/24	J
p&m Xylene	0.030	U	mg/Kg	EPA 8020		08/21	08/24	JL
o-Xylene	0.030	U	mg/Kg	EPA 8020		08/21	08/24	JL
						08/21	08/24	JL
Halogenated Volatile Or								
Methylene Chloride	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1 Dichloroethylene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1 Dichloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloroform	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Carbontetrachloride	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1, 2 Dichloropropane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trichloroethylene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1,2 Trichloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Dibromochloromethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Tetrachloroethylene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chlorobenzene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trichlorofluoromethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trans12Dichloroethylene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,2 Dichloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1,1 Trichoroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromodichloromethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trans1,3Dichloropropene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
cis-1,3-Dichloropropene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromoform	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
1122-Tetrachloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloromethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromoethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Vinyl Chloride	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-11
Client Sample ID :BTR LF03 SD06
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.030	U	mg/Kg	EPA 8010	08/21 08/24	JLI
2-Chloroethylvinylether	0.030	U	mg/Kg	EPA 8010	08/21 08/24	JLI
1,3-Dichlorobenzene	0.030	U	mg/Kg	EPA 8010	08/21 08/24	JLI
1,2-Dichlorobenzene	0.030	U	mg/Kg	EPA 8010	08/21 08/24	JLI

* See Special Instructions Above
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U = Undetected, Reported value is the practical quantification limit.
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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-10
Client Sample ID :BTR LF03 SD07
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 15:42 hr
Received :08/20/93 @ 11:30 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Qualifier Comment

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	87.3		%	SM17 2540G			08/21	MDK
Hydrocarbons EPH	15.2		mg/Kg	3510/3550/8100M	(J) - J.1	08/21	08/26	JBE
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-10
Client Sample ID :BTR LF03 SD07
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/24	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL

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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-3
Client Sample ID :BTR LF03 SD07
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69842
Report Completed :09/20/93
Collected :08/18/93 @ 15:42 h
Received :08/20/93 @ 11:30 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Volatile Organics				EPA 8260				
Benzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Bromobenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Bromochloromethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Bromodichloromethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Bromoform	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Bromomethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
n-Butylbenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
sec-Butylbenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
tert-Butylbenzne	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Carbon Tetrachloride	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Chlorobenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Chloroethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Chloroform	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Chloromethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
2-Chlorotoluene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
4-Chlorotoluene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Dibromochloromethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
12Dibromo3Chloropropane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,2-Dibromoethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Dibromomethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,2-Dichlorobenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,3-Dichlorobenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,4-Dichlorobenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Dichlorodifluoromethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,1-Dichloroethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,2-Dichloroethane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,1-Dichloroethene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
cis-1,2-Dichloroethene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
trans1,2-Dichloroethene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,2-Dichloropropane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,3-Dichloropropane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
2,2-Dichloropropane	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
1,1-Dichloropropene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Ethylbenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Hexachlorobutadiene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
Isopropylbenzene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K
p-Isopropyltoluene	0.120	U	mg/Kg	EPA 8260		08/24	08/31	K

1/19/94

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-3
Client Sample ID :BTR LF03 SD07
Matrix :SOIL

Methylene Chloride	0.255	D	mg/Kg	J	EPA 8260	08/24	08/31
Napthalene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
n-Propylbenzene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
Styrene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1112-Tetrachloroethane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1122-Tetrachloroethane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
Tetrachloroethene	5.42	D	mg/Kg		EPA 8260	08/24	08/31
Toluene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,2,3-Trichlorobenzene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,2,4-Trichlorobenzene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,1,1-Trichloroethane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,1,2-Trichloroethane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
Trichloroethene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
Trichlorofluoromethane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,2,3-Trichloropropane	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,2,4-Trimethylbenzene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
1,3,5-Trimethylbenzene	0.379	D	mg/Kg		EPA 8260	08/24	08/31
Vinyl Chloride	0.120	U	mg/Kg		EPA 8260	08/24	08/31
p+m-Xylene	0.120	U	mg/Kg		EPA 8260	08/24	08/31
o-Xylene							

Semivolatile Organics					EPA 8270		
Phenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
bis(2-Chloroethyl)ether	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2-Chlorophenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
1,3-Dichlorobenzene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
1,4-Dichlorobenzene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Benzyl Alcohol	1.00	U	mg/Kg		EPA 8270	08/30	09/16
1,2-Dichlorobenzene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2-Methylphenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
bis(2-Chloroisopropyl)e	0.460	U	mg/Kg		EPA 8270	08/30	09/16
4-Methylphenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
n-Nitroso-di-n-Propylam	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Hexachloroethane	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Nitrobenzene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Isophorone	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2-Nitrophenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2,4-Dimethylphenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Benzoic Acid	0.460	U	mg/Kg		EPA 8270	08/30	09/16
bis(2-Chloroethoxy)Meth	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2,4-Dichlorophenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
1,2,4-Trichlorobenzene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Naphthalene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
4-Chloroaniline	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Hexachlorobutadiene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
4-Chloro-3-Methylphenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2-Methylnaphthalene	0.460	U	mg/Kg		EPA 8270	08/30	09/16
Hexachlorocyclopentadie	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2,4,6-Trichlorophenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2,4,5-Trichlorophenol	0.460	U	mg/Kg		EPA 8270	08/30	09/16
2-Chloronaphthalene	0.460	U	mg/Kg		EPA 8270	08/30	09/16

1/19/94

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TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-3
Client Sample ID :BTR LF03 SD07
Matrix :SOIL

2-Nitroaniline	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Dimethylphthalate	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Acenaphthylene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
2,6-Dinitrotoluene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
3-Nitroaniline	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Acenaphthene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
2,4-Dinitrophenol	0.460	U	mg/Kg	EPA 8270	08/30	09/16
4-Nitrophenol	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Dibenzofuran	0.460	U	mg/Kg	EPA 8270	08/30	09/16
2,4-Dinitrotoluene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Diethylphthalate	0.460	U	mg/Kg	EPA 8270	08/30	09/16
4-Chlorophenyl-Phenylet	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Fluorene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
4-Nitroaniline	0.460	U	mg/Kg	EPA 8270	08/30	09/16
4,6-Dinitro-2-Methylphe	0.460	U	mg/Kg	EPA 8270	08/30	09/16
n-Nitrosodiphenylamine	0.460	U	mg/Kg	EPA 8270	08/30	09/16
4-Bromophenyl-Phenyleth	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Hexachlorobenzene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Pentachlorophenol	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Phenanthrene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Anthracene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270	08/30	09/16
Fluoranthene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Pyrene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Butylbenzylphthalate	0.460	U	mg/Kg	EPA 8270	08/30	09/16
3,3-Dichlorobenzidine	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Benzo(a)Anthracene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Chrysene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	08/30	09/16
di-n-Octylphthalate	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Benzo(b)Fluoranthene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Benzo(k)Fluoranthene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Benzo(a)Pyrene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Indeno(1,2,3-cd)Pyrene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Dibenz(a,h)Anthracene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
Benzo(g,h,i)Perylene	0.460	U	mg/Kg	EPA 8270	08/30	09/16
TOC, Soil	19500		ppm	PSEP Ref Lab		

* See Special Instructions Above
** See Sample Remarks Above
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D = Secondary dilution.

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LT = Less Than
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COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-12
Client Sample ID :BTR LF03 SD08
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 15:45 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	86.6		%	SM17 2540G			08/21	MD
Hydrocarbons EPH	2460	D	mg/Kg	3510/3550/8100M		08/21	08/26	JB
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.429		mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SG
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SG
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SG
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SG
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	SG
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG
1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/25	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-12
Client Sample ID :BTR LF03 SD08
Matrix :SOIL

5633 B STREET
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FAX: (907) 561-5301

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25	SG

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
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TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-6
Client Sample ID :BTR LF03 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 11:50 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.612		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX								
Hydrocarbons VPH	0.367		mg/L	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.0027		mg/L	EPA 8020		08/23	08/23	JLB
Toluene	0.0010	U	mg/L	EPA 8020		08/23	08/23	JLB
Ethylbenzene	0.019		mg/L	EPA 8020		08/23	08/23	JLB
m Xylene	0.033		mg/L	EPA 8020		08/23	08/23	JLB
Xylene	0.0054		mg/L	EPA 8020		08/23	08/23	JLB
Halogenated Volatile Or								
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1,2 Dichloroethane	0.0046		mg/L	EPA 8010		08/23	08/23	JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Transi,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB
Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/23	08/23	JLB

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-6
Client Sample ID :BTR LF03 SW01
Matrix :WATER

2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010	08/23 08/23	JLE
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/23 08/23	JLE
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/23 08/23	JLE

See Special Instructions Above
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= Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4212-4
Client Sample ID :BTR LF03 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69840
Report Completed :10/08/93
Collected :08/18/93 @ 11:50 hrs
Received :08/20/93 @ 11:30 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0025		mg/L	EPA 8260		08/27	09/22	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
n-Butylbenzene	0.0024		mg/L	EPA 8260		08/27	09/22	KWM
sec-Butylbenzene	0.0010		mg/L	EPA 8260		08/27	09/22	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,2-Dichloroethane	0.0039		mg/L	EPA 8260		08/27	09/22	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Ethylbenzene	0.018		mg/L	EPA 8260		08/27	09/22	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/27	09/22	KWM
Isopropylbenzene	0.0029		mg/L	EPA 8260		08/27	09/22	KWM
p-Isopropyltoluene	0.0021		mg/L	EPA 8260		08/27	09/22	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-4
Client Sample ID :BTR LF03 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
Napthalene	0.035		mg/L	EPA 8260	08/27 09/22	KWM
n-Propylbenzene	0.0036		mg/L	EPA 8260	08/27 09/22	KWM
Styrene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
Toluene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
1,2,4-Trimethylbenzene	0.019		mg/L	EPA 8260	08/27 09/22	KWM
1,3,5-Trimethylbenzene	0.013		mg/L	EPA 8260	08/27 09/22	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/27 09/22	KWM
p+m-Xylene	0.029		mg/L	EPA 8260	08/27 09/22	KWM
o-Xylene	0.0043		mg/L	EPA 8260	08/27 09/22	KWM
Semivolatile Organics				EPA 8270		
Phenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroethyl)ether	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Chlorophenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
1,3-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
1,4-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Benzyl Alcohol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
1,2-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Methylphenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroisopropyl)e	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
4-Methylphenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
n-Nitroso-di-n-Propylam	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Hexachloroethane	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Nitrobenzene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Isophorone	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Nitrophenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
2,4-Dimethylphenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Benzoic Acid	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroethoxy)Meth	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
2,4-Dichlorophenol	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
1,2,4-Trichlorobenzene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Naphthalene	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
4-Chloroaniline	0.011	U	mg/L	EPA 8270	08/24 08/25	MTT
Hexachlorobutadiene	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
4-Chloro-3-Methylphenol	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Methylnaphthalene	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
Hexachlorocyclopentadie	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
2,4,6-Trichlorophenol	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
2,4,5-Trichlorophenol	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Chloronaphthalene	0.0106	U	mg/L	EPA 8270	08/24 08/25	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-4
Client Sample ID :BTR LF03 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

2-Nitroaniline	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Dimethylphthalate	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Acenaphthylene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
2,6-Dinitrotoluene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
3-Nitroaniline	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Acenaphthene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
2,4-Dinitrophenol	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
4-Nitrophenol	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Dibenzofuran	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
2,4-Dinitrotoluene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Diethylphthalate	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
4-Chlorophenyl-Phenylet	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Fluorene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
4-Nitroaniline	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
4,6-Dinitro-2-Methylphe	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
n-Nitrosodiphenylamine	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
4-Bromophenyl-Phenyleth	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Hexachlorobenzene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Pentachlorophenol	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Phenanthrene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Anthracene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
di-n-Butylphthalate	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Fluoranthene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Pyrene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Butylbenzylphthalate	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
3,3-Dichlorobenzidine	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Benzo(a)Anthracene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Chrysene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
bis(2-Ethylhexyl)Phthal	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
di-n-Octylphthalate	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Benzo(b)Fluoranthene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Benzo(k)Fluoranthene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Benzo(a)Pyrene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Indeno(1,2,3-cd)Pyrene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Dibenz(a,h)Anthracene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
Benzo(g,h,i)Perylene	0.0106	U	mg/L	EPA 8270		08/24	08/25	MTT
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	41.4-57.0		mg/L	EPA 9060			08/31	CMR
...TOC Concentration	48.1		mg/L	EPA 9060			08/31	CMR
Residue, Non-Filterable	71		mg/L	EPA 160.2		08/24	08/24	GPP
Residue,Filterable(TDS)	847		mg/L	EPA 160.1	500	08/24	08/25	RJK

*See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4219-8
Client Sample ID :BTR LF03 SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 14:25 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Hydrocarbons EPH	1.77		mg/L	3510/3550/8100M		08/27	08/28	JB
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/26	08/26	WL
Benzene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
Toluene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/26	08/26	
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/26	08/26	
o-Xylene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-9
Client Sample ID :BTR LF03 SW03
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 15:05 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Hydrocarbons EPH	1.20		mg/L	3510/3550/8100M		08/27	08/28	JE
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/26	08/26	WL
Benzene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
Toluene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
[redacted]m Xylene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
[redacted]Xylene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL

* See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-2
Client Sample ID :BTR LF03 SW03
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69842
Report Completed :09/20/93
Collected :08/18/93 @ 15:05 h
Received :08/20/93 @ 11:30 h
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloroethane	0.0044		mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-2
Client Sample ID :BTR LF03 SW03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Isophorone	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Naphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-2
Client Sample ID :BTR LF03 SW03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Acenaphthene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Fluorene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Phenanthrene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Anthracene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Fluoranthene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Pyrene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Chrysene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/24	08/25	MT
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	19.3-22.0		mg/L	EPA 9060			08/30	CMI
...TOC Concentration	21.0		mg/L	EPA 9060			08/30	CMI
Residue, Non-Filterable	12		mg/L	EPA 160.2		08/24	08/24	GPI
Residue,Filterable(TDS)	637		mg/L	EPA 160.1	500	08/24	08/25	RJI

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-LF03-S01	BTR-LF03-2SD09	BTR-LF03-2SD10
F&BI Number	1290	1678	1680
Sample Type	soil	soil	soil
Date Received	8/31/93	9/2/93	9/2/93
% Dry Weight	94	25	90
Sequence Date	#6-08/31/93	#5-09/05/93	#5-09/05/93
Leaded Gas			
JP-4	<50	<200	<50
Lube Oil	180 carryover	<400	<100
Diesel	~~12000~~ 6200	<200 J	<50 J
Spike Level			
Unknown Semi-volatile			
Pentacosane	119	80	78
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-08/31/93	#3&4-09/06/93	#3&4-09/06/93
CCl4		<0.4	<0.1
TCA		<0.4	<0.1
Benzene	<0.02	<0.08	<0.02
TCE		<0.4	<0.1
Toluene	0.08	<0.08	<0.02
PCE		<0.4	<0.1
Ethylbenzene	0.05	<0.08	<0.02
Xylenes	1.1 J	<0.2	<0.04
Gasoline	8.19 J	~~<4.8~~ 4.8 J	~~<1.2~~ 1.2 J
Spike level			
BFB	98	81	94

11-11-94

ANALYTICAL DATA SHEETS FOR THE CURRENT LANDFILL (LF04)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-3
Client Sample ID :BTR-LF04-SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69965
Report Completed :11/03/93
Collected :08/20/93 @ 15:30 hrs.
Received :08/23/93 @ 13:30 hrs.
Technical Director:STEPHEN C. EDE
Released By : S. C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. 8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Bromoform	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Bromomethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
n-Butylbenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
sec-Butylbenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
tert-Butylbenzne	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Chloromethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Ethylbenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM
Isopropylbenzene	0.200	U	mg/Kg	EPA 8260		08/24	09/06	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

REPORT of ANALYSIS OCR

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-3
Client Sample ID :BTR-LF04-SD01
Matrix :SOIL

p-Isopropyltoluene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Methylene Chloride	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Napthalene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
n-Propylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Styrene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Toluene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Trichloroethene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,2,4-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
1,3,5-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
p+m-Xylene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
o-Xylene	0.200	U	mg/Kg	EPA 8260		08/24 09/06	KWM
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	7500		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	260	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	26	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	120		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	13	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	13	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	10000		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	13	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	26	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	18		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	17000		mg/Kg	EPA 6010		08/27 08/29	DFL
Lead	26	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Magnesium	2800		mg/Kg	EPA 6010		08/27 08/29	DFL
Manganese	380		mg/Kg	EPA 6010		08/27 08/29	DFL
Molybdenum	13	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Nickel	16		mg/Kg	EPA 6010		08/27 08/29	DFL
Potassium	1300	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Selenium	26	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Silver	13	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Sodium	870		mg/Kg	EPA 6010		08/27 08/29	DFL
Thallium	1.3	U	mg/Kg	EPA 7841		08/26 08/28	KAW
Vanadium	21		mg/Kg	EPA 6010		08/27 08/29	DFL
Zinc	65		mg/Kg	EPA 6010		08/27 08/29	DFL
TOC, Soil	198000		ppm	PSEP Ref Lab			

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-4
Client Sample ID :BTR-LF04-SD02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69965
Report Completed :11/03/93
Collected :08/20/93 @ 19:00 hrs.
Received :08/23/93 @ 13:30 hrs.
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. CONTAINERS MARKED BTR-LF04-SD02.
8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Bromobenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Bromochloromethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Bromodichloromethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Bromoform	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Bromomethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
n-Butylbenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
sec-Butylbenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
tert-Butylbenzne	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Carbon Tetrachloride	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Chlorobenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Chloroethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Chloroform	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Chloromethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
2-Chlorotoluene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
4-Chlorotoluene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Dibromochloromethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Dibromomethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,1-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
trans1,2-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Ethylbenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM
Isopropylbenzene	0.020	U	mg/kg	EPA 8260		08/24	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-4
Client Sample ID :BTR-LF04-SD02
Matrix :SOIL

p-Isopropyltoluene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Methylene Chloride	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Napthalene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
n-Propylbenzene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Styrene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1112-Tetrachloroethane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1122-Tetrachloroethane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Tetrachloroethene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Toluene	0.026		mg/kg	EPA 8260		08/24 09/09	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,1,1-Trichloroethane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,1,2-Trichloroethane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Trichloroethene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Trichlorofluoromethane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,2,3-Trichloropropane	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Vinyl Chloride	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
p+m-Xylene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
o-Xylene	0.020	U	mg/kg	EPA 8260		08/24 09/09	KWM
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1900		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	55	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.5	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	30	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	7200		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	3.4		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.5	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	9.9		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	4700		mg/Kg	EPA 6010		08/27 08/29	DFL
Lead	6.1		mg/Kg	EPA 6010		08/27 08/29	DFL
Magnesium	3800		mg/Kg	EPA 6010		08/27 08/29	DFL
Manganese	40		mg/Kg	EPA 6010		08/27 08/29	DFL
Molybdenum	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Nickel	4.6		mg/Kg	EPA 6010		08/27 08/29	DFL
Potassium	280	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Selenium	5.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Silver	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Sodium	89		mg/Kg	EPA 6010		08/27 08/29	DFL
Thallium	0.26	U	mg/Kg	EPA 7841		08/26 08/28	KAW
Vanadium	6.3		mg/Kg	EPA 6010		08/27 08/29	DFL
Zinc	31		mg/Kg	EPA 6010		08/27 08/29	DFL
TOC, Soil	2860		ppm	PSEP Ref Lab			

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4616-15
Client Sample ID :BTR-LF04-2SD03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:00 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.
EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	87.1		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	18.3	U	mg/Kg	3510/3550/8100M		09/16	09/21	JBH
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015M		09/07	09/09	WLS
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-15
Client Sample ID :BTR-LF04-2SD03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Toluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
o-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1939

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-16
Client Sample ID :BTR-LF04-2SD04
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:30 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Ethylbenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Isopropylbenzene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM
p-Isopropyltoluene	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MCM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-16
Client Sample ID :BTR-LF04-2SD04
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Napthalene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
n-Propylbenzene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Styrene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Toluene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichloroethene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p+m-Xylene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM
o-Xylene	0.200	U	mg/Kg	EPA 8260	09/07 09/23	MCM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-1
Client Sample ID :BTR-LF04-SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69965
Report Completed :11/03/93
Collected :08/20/93 @ 15:30 hrs.
Received :08/23/93 @ 13:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichloroethane	0.0026		mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1928

REPORT of ANALYSIS #4

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-1
Client Sample ID :BTR-LF04-SW01
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Styrene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Toluene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.022	U	mg/L	EPA 8270	08/26	09/03	
bis(2-Chloroethyl)ether	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,3-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,4-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Benzyl Alcohol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,2-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroisopropyl)e	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
n-Nitroso-di-n-Propylam	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachloroethane	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Nitrobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Isophorone	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Nitrophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dimethylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Benzoic Acid	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroethoxy)Meth	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,2,4-Trichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Naphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloroaniline	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorobutadiene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloro-3-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylnaphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorocyclopentadie	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,6-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,5-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chloronaphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

5533 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-1
Client Sample ID :BTR-LF04-SW01
Matrix :WATER

		Qualifier			Comment				
2-Nitroaniline	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Dimethylphthalate	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Acenaphthylene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
2,6-Dinitrotoluene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
3-Nitroaniline	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Acenaphthene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
2,4-Dinitrophenol	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
4-Nitrophenol	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Dibenzofuran	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
2,4-Dinitrotoluene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Diethylphthalate	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
4-Chlorophenyl-Phenylet	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Fluorene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
4-Nitroaniline	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
4,6-Dinitro-2-Methylphe	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
n-Nitrosodiphenylamine	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
4-Bromophenyl-Phenyleth	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Hexachlorobenzene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Pentachlorophenol	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Phenanthrene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Anthracene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
di-n-Butylphthalate	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Fluoranthene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Pyrene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Butylbenzylphthalate	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
3,3-Dichlorobenzidine	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Benzo(a)Anthracene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Chrysene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
bis(2-Ethylhexyl)Phthal	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
di-n-Octylphthalate	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Benzo(b)Fluoranthene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Benzo(k)Fluoranthene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Benzo(a)Pyrene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Indeno(1,2,3-cd)Pyrene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Dibenz(a,h)Anthracene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Benzo(g,h,i)Perylene	0.022	U		mg/L		EPA 8270		08/26	09/03 GV
Total Metals Analysis	---					-			
ICP Screen, ICF						EPA	n/a		
Aluminum	0.74	U	J	mg/L	J.1	EPA 6010		08/28	08/30 DLG
Antimony	0.1	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Arsenic	0.1	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Barium	0.15		J	mg/L		EPA 6010		08/28	08/30 DLG
Beryllium	0.05	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Cadmium	0.05	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Calcium	120		J	mg/L		EPA 6010		08/28	08/30 DLG
Chromium	0.05	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Cobalt	0.1	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Copper	0.05	U	J	mg/L		EPA 6010		08/28	08/30 DLG
Iron	21		J	mg/L		EPA 6010		08/28	08/30 DLG
Lead	0.01	U	J	mg/L	J.1	EPA 6010		08/28	08/30 DLG

All chgs JL 2/2/94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5533 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-1
Client Sample ID :BTR-LF04-SW01
Matrix :WATER

		Qualifier			Comment				
Magnesium	41			mg/L	4.1	EPA 6010		08/28	08/30 DLG
Manganese	1.8			mg/L		EPA 6010		08/28	08/30 DLG
Molybdenum	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Nickel	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Potassium	5.2			mg/L		EPA 6010		08/28	08/30 DLG
Selenium	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Silver	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Sodium	100			mg/L		EPA 6010		08/28	08/30 KAW
Thallium	0.005	U		mg/L		EPA 7841		08/28	08/30 DLG
Vanadium	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Zinc	0.05	U	J	mg/L	J.1	EPA 6010			
Dissolved Metals Analys	---					EPA	n/a		
ICP Screen, ICF									
Aluminum	0.1	U	J	mg/L	J.1	EPA 6010		08/28	08/30 DLG
Antimony	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Arsenic	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Barium	0.061			mg/L		EPA 6010		08/28	08/30 DLG
Beryllium	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Cadmium	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Calcium	120			mg/L		EPA 6010		08/28	08/30
Chromium	0.05	U		mg/L		EPA 6010		08/28	08/30
Cobalt	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Copper	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Iron	0.89			mg/L		EPA 6010		08/28	08/30 DLG
Lead	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Magnesium	41			mg/L		EPA 6010		08/28	08/30 DLG
Manganese	0.26			mg/L		EPA 6010		08/28	08/30 DLG
Molybdenum	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Nickel	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Potassium	5	U		mg/L		EPA 6010		08/28	08/30 DLG
Selenium	0.1	U		mg/L		EPA 6010		08/28	08/30 DLG
Silver	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Sodium	100			mg/L		EPA 6010		08/28	08/30 KAW
Thallium	0.005	U		mg/L		EPA 7841		08/28	08/30 DLG
Vanadium	0.05	U		mg/L		EPA 6010		08/28	08/30 DLG
Zinc	0.05	U	J	mg/L	J.1	EPA 6010			
TOC, Nonpurgable						EPA 9060	n/a	08/31	CMR
...TOC Range	22.2-25.1			mg/L		EPA 9060		08/31	CMR
...TOC Concentration	23.4			mg/L		EPA 9060			
Residue, Non-Filterable	156			mg/L		EPA 160.2		08/24	08/24 GPP
Residue,Filterable(TDS)	905			mg/L		EPA 160.1	500		08/27 RJK

All chgs s.c 2/2/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1909

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-2
Client Sample ID :BTR-LF04-SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69965
Report Completed :11/03/93
Collected :08/20/93 @ 21:00 hrs.
Received :08/23/93 @ 13:30 hrs.
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Dichlorodifluoromethane	0.0037		mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichloroethane	0.0027		mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/30	08/30	KWM
p-Isopropyltoluene	0.0011		mg/L	EPA 8260		08/30	08/30	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-2
Client Sample ID :BTR-LF04-SW02
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Styrene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Toluene	0.0013		mg/L	EPA 8260	08/30	08/30	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Trichloroethene	0.0060		mg/L	EPA 8260	08/30	08/30	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/30	08/30	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.022	U	mg/L	EPA 8270	08/26	09/03	
bis(2-Chloroethyl)ether	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,3-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,4-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Benzyl Alcohol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,2-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroisopropyl)e	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
n-Nitroso-di-n-Propylam	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachloroethane	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Nitrobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Isophorone	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Nitrophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dimethylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Benzoic Acid	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
bis(2-Chloroethoxy)Meth	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4-Dichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
1,2,4-Trichlorobenzene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Naphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloroaniline	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorobutadiene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloro-3-Methylphenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Methylnaphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorocyclopentadie	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,6-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2,4,5-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/26	09/03	GV
2-Chloronaphthalene	0.022	U	mg/L	EPA 8270	08/26	09/03	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-2
Client Sample ID :BTR-LF04-SW02
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Dimethylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Acenaphthylene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,6-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
3-Nitroaniline	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Acenaphthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,4-Dinitrophenol	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4-Nitrophenol	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Dibenzofuran	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,4-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Diethylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4-Chlorophenyl-Phenylet	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Fluorene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4-Nitroaniline	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4,6-Dinitro-2-Methylphe	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
n-Nitrosodiphenylamine	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4-Bromophenyl-Phenyletn	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Hexachlorobenzene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Pentachlorophenol	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Phenanthrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Anthracene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
di-n-Butylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Fluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Pyrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Butylbenzylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
3,3-Dichlorobenzidine	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(a)Anthracene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Chrysene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
bis(2-Ethylhexyl)Phthal	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
di-n-Octylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(b)Fluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(k)Fluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(a)Pyrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Indeno(1,2,3-cd)Pyrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Dibenz(a,h)Anthracene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(g,h,i)Perylene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Barium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Calcium	58		mg/L	EPA 6010		08/28 08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Iron	2.4		mg/L	EPA 6010		08/28 08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1909

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4286-2
Client Sample ID :BTR-LF04-SW02
Matrix :WATER

Magnesium	29		mg/L	EPA 6010		08/28	08/30	DLG
Manganese	0.15		mg/L	EPA 6010		08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Potassium	12		mg/L	EPA 6010		08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Silver	0.5	U	mg/L	EPA 6010		08/28	08/30	DLG
Sodium	100		mg/L	EPA 6010		08/28	08/30	DLG
Thallium	0.005	U	mg/L	EPA 7841		08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Dissolved Metals Analys	---			-				
ICP Screen, ICP				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	59		mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Iron	2.2		mg/L	EPA 6010		08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Magnesium	28		mg/L	EPA 6010		08/28	08/30	DLG
Manganese	0.15		mg/L	EPA 6010		08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Potassium	10		mg/L	EPA 6010		08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Sodium	87		mg/L	EPA 6010		08/28	08/30	DLG
Thallium	0.005	U	mg/L	EPA 7841		08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	26.3-27-2		mg/L	EPA 9060			09/02	CMR
...TOC Concentration	26.6		mg/L	EPA 9060			09/02	CMR
Residue, Non-Filterable	22		mg/L	EPA 160.2		08/24	08/24	GPP
Residue,Filterable(TDS)	614		mg/L	EPA 160.1	500		08/27	RJK

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-14
Client Sample ID :BTR-LF04-2SW03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:00 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		09/08	09/09	DRS
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015M		09/10	09/10	WLS
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-14
Client Sample ID :BTR-LF04-2SW03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Toluene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/15	09/15	

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* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-LF04-S01	BTR-LF04-S02	BTR-LF04-SD01	BTR-LF04-SD02	BTR-LF04-2SD03	BTR-LF04-2SD04
F&BI Number	326	1334	1336	1338	1742	1744
Sample Type	soil	soil	soil	soil	soil	soil
Date Received	8/23/93	8/31/93	8/31/93	8/31/93	9/3/93	9/3/93
% Dry Weight	72	18	29	83	16	89
Sequence Date	#5-08/24/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-09/05/93	#6-09/05/93
Leaded Gas						
JP-4	<80	<280	<170	<60	<320	<60
Lube Oil	<140	<560	<340	<120	<640	<120
Diesel	<70 J	<340	<550	60	~~520~~ <310	<60
Spike Level						
Unknown Semi-volatile						
Pentacosane	108	103	75	105	102	84
Sequence Date	#6-08/23/93	#6-08/31/93	#6-08/31/93	#6-08/31/93		
PCB 1221	<0.5	<0.1	<0.1	<0.1		
PCB 1232	<0.5	<0.1	<0.1	<0.1		
PCB 1016	<0.5	<0.1	<0.1	<0.1		
PCB 1242	<0.5	<0.1	<0.1	<0.1		
PCB 1248	<0.5	<0.1	<0.1	<0.1		
PCB 1254	<0.7	<0.1	<0.1	<0.1		
PCB 1260	<0.5	<0.1	<0.1	<0.1		
Spike Level						
Dibutyl Chlorendate	120	99	90	90		
Sequence Date	#6-08/23/93					
alpha-BHC	<0.02					
beta-BHC	<0.02					
gamma-BHC	<0.02					
delta-BHC	<0.02					
Heptachlor	<0.02					
Aldrin	<0.02					
Heptachlor Epoxide	<0.02					
Endosulfan I	<0.02					
DDE	<0.02					
Dieldrin	<0.02					
Endrin	<0.02					
Endosulfan II	<0.02					
DDD	<0.02					
Endrin Aldehyde	<0.02					
DDT	<0.02					
Endosulfan Sulfate	<0.02					
Endrin Ketone	<0.02					
Methoxy Chlor	<0.2					
Chlordane	<1					
Dibutyl Chlorendate	120					
Spike Level						
Vol Sequence	#3&4-08/24/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-09/06/93	#1&2-09/06/93
CCl4	<0.03 J	~~<0.02~~ <0.1 J	~~<0.02~~ <0.06 J	~~<0.02~~ <0.03	<0.5 J	<0.1 J
TCA	<0.03 J	~~<0.02~~ <0.1 J	~~<0.02~~ <0.06 J	~~<0.02~~ <0.03	<0.5 J	<0.1 J
Benzene	<0.03	<0.1	<0.06	<0.03	<0.1	<0.02
TCE	<0.03 J	~~<0.02~~ <0.1 J	~~<0.02~~ <0.06 J	~~<0.02~~ <0.03	<0.5 J	<0.1 J
Toluene	<0.03	<0.1	<0.06	<0.03	<0.1	<0.02
PCE	<0.03 J	~~<0.02~~ <0.1 J	~~<0.02~~ <0.06 J	~~<0.02~~ <0.03	<0.5 J	<0.1 J
Ethylbenzene	<0.03	<0.1	<0.06	<0.03	<0.1	<0.02
Xylenes	<0.06	<0.2	<0.1	<0.05	0.2 J	<0.04
Gasoline	<2 J	<10 J	<6 J	<2 J	<5 J	8 diesel J
Spike level						
BFB	103	101	96	105	74	102

11.11.94 SMF

ICF ID	BTR-LF04-SW01	BTR-LF04-SW01	BTR-LF04-SW02	BTR-LF04-SW02	BTR-LF04-~~SW03~~ 25W003
F&BI Number	1324	1326	1328	1330	1747
Sample Type	water	water	water	water	water
Date Received	8/31/93	8/30/93	8/31/93	8/30/93	9/3/93
% Dry Weight					
Sequence Date	#5-08/31/93		#5-08/31/93		#5-09/06/93
Leaded Gas					
JP-4	<200		<200		<1000
Lube Oil	<2000		<2000		<2000
Diesel	~~<200~~ <1000		~~<200~~ <1000		<1000
Spike Level					
Unknown Semi-volatile					
Pentacosane	103		96		130
Sequence Date	#5-08/31/93		#5-08/31/93		
PCB 1221	<2		<2		
PCB 1232	<2		<2		
PCB 1016	<2		<2		
PCB 1242	<2		<2		
PCB 1248	<2		<2		
PCB 1254	<2		<2		
PCB 1260	<2		<2		
Spike Level					
Dibutyl Chlorendate	103		96		
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#3&4-08/31/93		#3&4-08/31/93	
CCl4		<1 J		<1 J	
TCA		<1 J		<1 J	
Benzene		<1		<1	
TCE		<1 J		36 J	
Toluene		<1		<1	
PCE		<1 J		<1 J	
Ethylbenzene		<1		<1	
Xylenes		<2		<2	
Gasoline		<100 J		<100 J	
Spike level					
BFB		77		105	

11.11.94 SMC

ICF ID	BRT-LF04-~~SW03~~ 2SW03	BTR-LF04-2SW01	BTR-LF04-2SW02
F&BI Number	1748	1669	1670
Sample Type	water	water	water
Date Received	9/3/93	9/2/93	9/2/93
% Dry Weight			
Sequence Date		#5-09/06/93	#5-09/06/93
Leaded Gas			
JP-4		<1000	<1000
Lube Oil		<2000	<2000
Diesel		<1000	<1000
Spike Level			
Unknown Semi-volatile			
Pentacosane		120	130
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-09/07/93		
CCl4	<5 J		
TCA	<5 J		
Benzene	<1		
TCE	8 J		
Toluene	<1		
PCE	<5 J		
Ethylbenzene	<1		
Xylenes	<2		
Gasoline	<50 J		
Spike level			
BFB	96		

ANALYTICAL DATA SHEETS FOR THE CONTAMINATED DITCH (SD08)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREE
ANCHORAGE, AK 9951
TEL (907) 562-234
FAX (907) 561-530

REPORT of ANALYSIS

[redacted]emlab Ref.# :93.4199-9
Client Sample ID :BTR SD08 S01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/24/93
Collected :08/17/93 @ 13:55 hr
Received :08/19/93 @ 18:45 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	97.3		%	SM17 2540G				
Hydrocarbons EPH	691	D	mg/Kg	3510/3550/8100M		08/20	08/21	DR
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	134		mg/Kg	EPA 5030/8015m		08/20	08/21	KW
Benzene	0.100	U	mg/Kg	EPA 8020		08/20	08/21	KW
Toluene	0.885		mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	1.59		mg/Kg	EPA 8020		08/20	08/21	KW
p&m Xylene	2.96		mg/Kg	EPA 8020		08/20	08/21	KW
[redacted]-Xylene	2.59		mg/Kg	EPA 8020		08/20	08/21	KW
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1,1 Dichloroethylene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1,1 Dichloroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Chloroform	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Carbontetrachloride	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1, 2 Dichloropropane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Trichloroethylene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1,1,2 Trichloroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Dibromochloromethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Tetrachloroethylene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Chlorobenzene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Trichlorofluoromethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Trans12Dichloroethylene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1,2 Dichloroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1,1,1 Trichoroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Bromodichloromethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Trans1,3Dichloropropene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
cis-1,3-Dichloropropene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Bromoform	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
1122-Tetrachloroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Chloromethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Bromoethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Vinyl Chloride	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
Chloroethane	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM
[redacted],4 Dichlorobenzene	0.075	U	mg/Kg	EPA 8010		08/20	08/21	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1904

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-9
Client Sample ID :BTR SD08 S01
Matrix :SOIL

2-Chloroethylvinylether	0.075	U	mg/Kg	EPA 8010	08/20	08/21	SG
1,3-Dichlorobenzene	0.075	U	mg/Kg	EPA 8010	08/20	08/21	SG
1,2-Dichlorobenzene	0.075	U	mg/Kg	EPA 8010	08/20	08/21	SG

See Special Instructions Above
See Sample Remarks Above
Undetected, Reported value is the practical quantification limit.
Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

[redacted]mlab Ref.# :93.4203-7
Client Sample ID :BTR SD08 S02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/25/93
Collected :08/17/93 @ 14:45 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN, C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	99.5		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	2260	D	mg/Kg	3510/3550/8100M		08/21	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	133	D	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Toluene	0.021		mg/Kg	EPA 8020		08/21	08/23	JLB
Ethylbenzene	0.113		mg/Kg	EPA 8020		08/21	08/23	JLB
p&m Xylene	0.571		mg/Kg	EPA 8020		08/21	08/23	JLB
[redacted]Xylene	0.683		mg/Kg	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
[redacted]4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1909

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4203-7
Client Sample ID :BTR SD08 S02
Matrix :SOIL

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLB
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLB
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLB

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

[redacted]lab Ref.# :93.4199-10
[redacted]ent Sample ID :BTR SD08 S03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :
Collected :08/17/93 @ 14:59 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	94.0		%	SM17 2540G				
Hydrocarbons EPH	7.03 ~~7.09~~		mg/Kg	3510/3550/8100M		08/20	08/21	DI
VPH & BTEX								
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/22	KV
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/22	KW
Toluene	0.024		mg/Kg	EPA 8020		08/20	08/22	KW
Ethylbenzene	0.027		mg/Kg	EPA 8020		08/20	08/22	KW
p&m Xylene	0.052		mg/Kg	EPA 8020		08/20	08/22	KW
[redacted]ylene	0.020		mg/Kg	EPA 8020		08/20	08/22	KW
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoform	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-10
Client Sample ID :BTR SD08 S03
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20 08/21	S(
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20 08/21	S(
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20 08/21	S(

See Special Instructions Above
* See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
) = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STR
ANCHORAGE AK 99
(907) 562-2
(907) 561-5

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-12
Client Sample ID :BTR SD08 S04
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/24/93
Collected :08/17/93 @ 15:10
Received :08/19/93 @ 18:45
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	92.3		%	SM17 2540G				
Hydrocarbons EPH	234		mg/Kg	3510/3550/8100M		08/20	08/21	D:
VPH & BTEX								
Hydrocarbons VPH	163		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KW
Benzene	---							
Toluene	0.100	U	mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	0.874		mg/Kg	EPA 8020		08/20	08/21	KW
p&m Xylene	3.01		mg/Kg	EPA 8020		08/20	08/21	KW
o-Xylene	8.85		mg/Kg	EPA 8020		08/20	08/21	KW
	3.68		mg/Kg	EPA 8020		08/20	08/21	KW
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoform	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1936

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-12
Client Sample ID :BTR SD08 S04
Matrix :SOIL

5633 B STRE
ANCHORAGE, AK 99
TEL. (907) 562-2
FAX (907) 561-5

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20	08/21
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/21
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/21

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-11
Client Sample ID :BTR SD08 S05
Matrix :SOIL

5633 B ST
ANCHORAGE AK 9
(907) 562
(907) 561

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/24/93
Collected :08/17/93 @ 16:14
Received :08/19/93 @ 18:45
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. 213 PPM OF EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	90.0		%	SM17 2540G				
Hydrocarbons EPH	742	D	mg/Kg	3510/3550/8100M		08/20	08/21	D
VPH & BTEX								
Hydrocarbons VPH	9.84		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	K
Benzene	0.100	U	mg/Kg	EPA 8020		08/20	08/21	K
Toluene	0.100	U	mg/Kg	EPA 8020		08/20	08/21	K
Ethylbenzene	0.279		mg/Kg	EPA 8020		08/20	08/21	K
p&m Xylene	1.01		mg/Kg	EPA 8020		08/20	08/21	K
o-Xylene	0.342		mg/Kg	EPA 8020		08/20	08/21	K
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Bromoform	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/22	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS #2

Chemlab Ref.# :93.4199-11
Client Sample ID :BTR SD08 S05
Matrix :SOIL

5633 B STRE
ANCHORAGE, AK 99
TEL: (907) 562-2
FAX: (907) 561-5

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20	08/22
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

5633 B STRE
ANCHORAGE, AK 99
TEL (907) 562-2
FAX (907) 561-5

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-2
Client Sample ID :BTR SD08 S06
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 10:58
Received :08/20/93 @ 11:30
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	33.7		%	SM17 2540G			08/22	
Hydrocarbons EPH	743	D	mg/Kg	3510/3550/8100M		08/22	08/24	JI
VPH & BTEX								
Hydrocarbons VPH	23.8		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WL
Benzene	0.080	U	mg/Kg	EPA 8020		08/21	08/25	WL
Toluene	0.532		mg/Kg	EPA 8020		08/21	08/25	WL
Ethylbenzene	0.080	U	mg/Kg	EPA 8020		08/21	08/25	WL
p&m Xylene	0.080	U	mg/Kg	EPA 8020		08/21	08/25	WL
o-Xylene	0.080	U	mg/Kg	EPA 8020		08/21	08/25	WL

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STRE
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REPORT of ANALYSIS

Chemlab Ref.# :93.4216-1
Client Sample ID :BTR SD08 S07
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 11:30
Received :08/20/93 @ 11:30
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. 18.9 MG/KG OF EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	93.8		%	SM17 2540G			08/22	
Hydrocarbons EPH	22.4		mg/Kg	3510/3550/8100M		08/22	08/24	J.
VPH & BTEX								
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	W
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	WL
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	WL
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	WL
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	WL
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/25	WL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

5633 B STRE
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Chemlab Ref.# :93.4199-8
Client Sample ID :BTR SD08 S10
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/24/93
Collected :08/17/93 @ 14:00
Received :08/19/93 @ 18:45
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	94.4		%	SM17 2540G				
Hydrocarbons EPH	535	D	mg/Kg	3510/3550/8100M		08/20	08/21	D
VPH & BTEX								
Hydrocarbons VPH	171		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KV
Benzene	0.200	U	mg/Kg	EPA 8020		08/20	08/21	KV
Toluene	0.182	J	mg/Kg	EPA 8020		08/20	08/21	KV
Ethylbenzene	2.14		mg/Kg	EPA 8020		08/20	08/21	KV
p&m Xylene	4.71		mg/Kg	EPA 8020		08/20	08/21	KV
o-Xylene	2.15		mg/Kg	EPA 8020		08/20	08/21	KV
Halogenated Volatile Or								
Methylene Chloride	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethylene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroform	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Carbontetrachloride	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1, 2 Dichloropropane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichloroethylene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,2 Trichloroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Dibromochloromethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Tetrachloroethylene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chlorobenzene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trichlorofluoromethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans12Dichloroethylene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,2 Dichloroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1,1,1 Trichoroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromodichloromethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Trans1,3Dichloropropene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
cis-1,3-Dichloropropene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoform	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
1122-Tetrachloroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloromethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Bromoethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Vinyl Chloride	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
Chloroethane	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG
,4 Dichlorobenzene	0.100	U	mg/Kg	EPA 8010		08/20	08/21	SG

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REPORT of ANALYSIS SCE

Chemlab Ref.# :93.4199-8
Client Sample ID :BTR SD08 S10
Matrix :SOIL

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2-Chloroethylvinylether	0.100	U	mg/Kg	EPA 8010	08/20	08/21
1,3-Dichlorobenzene	0.100	U	mg/Kg	EPA 8010	08/20	08/21
1,2-Dichlorobenzene	0.100	U	mg/Kg	EPA 8010	08/20	08/21

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-8
Client Sample ID :BTR SD08 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 15:36 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	87.3		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	4.00	U	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	2.97		mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
P&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
See Sample Remarks Above
Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Chemlab Ref.# :93.4178-3
Client Sample ID :BTR SD08 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69710
Report Completed :09/30/93
Collected :08/16/93 @ 15:36 hrs.
Received :08/19/93 @ 10:50 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G. 8270 EXTRACT LOST DURING EXTRACTION.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/20	08/28	[illegible]
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/20	08/28	[illegible]
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	[illegible]

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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-3
Client Sample ID :BTR SD08 SD01
Matrix :SOIL

p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Methylene Chloride	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Napthalene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Styrene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Toluene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Trichloroethene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
p+m-Xylene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
o-Xylene	0.020	U	mg/Kg	EPA 8260			08/20 08/28	KWI
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-	qual	com		
ICP Screen, ICF				EPA		n/a		
Aluminum	2800	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Antimony	54	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Arsenic	5.4	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Barium	27		mg/Kg	EPA 6010			08/24 08/25	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Calcium	12300		mg/Kg	EPA 6010			08/24 08/25	DFL
Chromium	4.4		mg/Kg	EPA 6010			08/24 08/25	DFL
Cobalt	5.4	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Copper	4.7		mg/Kg	EPA 6010			08/24 08/25	DFL
Iron	9800		mg/Kg	EPA 6010			08/24 08/25	DFL
Lead	5.4	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Magnesium	2600		mg/Kg	EPA 6010	J	I	08/24 08/25	DFL
Manganese	98		mg/Kg	EPA 6010	J	I	08/24 08/25	DFL
Molybdenum	5.4	U	mg/Kg	EPA 6010		compiled by BFM 11.8.94	08/24 08/25	DFL
Nickel	7.6		mg/Kg	EPA 6010			08/24 08/25	DFL
Potassium	440		mg/Kg	EPA 6010			08/24 08/25	DFL
Selenium	5.4	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Silver	2.7	U	mg/Kg	EPA 6010			08/24 08/25	DFL
Sodium	80		mg/Kg	EPA 6010			08/24 08/27	DFL
Thallium	0.28	U	mg/Kg	EPA 7841	UJ	B.1	08/24 08/26	KAW
Vanadium	7.8		mg/Kg	EPA 6010			08/24 08/25	DFL
Zinc	20		mg/Kg	EPA 6010	J	E.1	08/24 08/25	DFL
						compiled by: BFM 11.8.94		
TOC, Soil	2780		ppm	PSEP Ref Lab				

AB 1/5/94
JJ 1/4/94

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5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-9
Client Sample ID :BTR SD08 SD02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 15:29 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	83.6		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	4.00	U	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STREET
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-10
Client Sample ID :BTR SD08 SD03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 16:42 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	80.3		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	4.00	U	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-11
Client Sample ID :BTR SD08 SD04
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 16:52 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	90.7		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	7.14		mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-12
Client Sample ID :BTR SD08 SD05
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 17:46 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	87.3		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	4.27		mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	2.00		mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

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5633 B STREET
ANCHORAGE, AK 99518
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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-6
Client Sample ID :BTR SD08 SD05
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromoform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chloroform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM

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5633 B STREET
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REPORT of ANALYSIS

[redacted]lab Ref.# :93.4173-6
Client Sample ID :BTR SD08 SD05
Matrix :SOIL

Methylene Chloride	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Napthalene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Styrene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Toluene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Trichloroethene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,2,3-Trichloropropane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,2,4-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
1,3,5-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Vinyl Chloride	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
p+m-Xylene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
o-Xylene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWM
Semivolatile Organics							
Phenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
[redacted](2-Chloroethyl)ether	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
[redacted]hlorophenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Methylphenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
bis(2-Chloroisopropyl)e	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Methylphenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
n-Nitroso-di-n-Propylam	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachloroethane	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Nitrobenzene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Isophorone	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Nitrophenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4-Dimethylphenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Benzoic Acid	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
bis(2-Chloroethoxy)Meth	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4-Dichlorophenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Naphthalene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Chloroaniline	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Chloro-3-Methylphenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Methylnaphthalene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachlorocyclopentadie	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4,6-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4,5-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Chloronaphthalene	0.200	U	mg/Kg	EPA 8270	08/29	09/13	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-6
Client Sample ID :BTR SD08 SD05
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Dimethylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Acenaphthylene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
2,6-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
3-Nitroaniline	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Acenaphthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
2,4-Dinitrophenol	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Nitrophenol	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Dibenzofuran	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
2,4-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Diethylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Chlorophenyl-Phenylet	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Fluorene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Nitroaniline	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4,6-Dinitro-2-Methylphe	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
n-Nitrosodiphenylamine	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Bromophenyl-Phenyleth	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Hexachlorobenzene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Pentachlorophenol	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Phenanthrene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Anthracene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
di-n-Butylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Pyrene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Butylbenzylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
3,3-Dichlorobenzidine	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(a)Anthracene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Chrysene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
bis(2-Ethylhexyl)Phthal	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
di-n-Octylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(b)Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(k)Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(a)Pyrene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Indeno(1,2,3-cd)Pyrene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Dibenz(a,h)Anthracene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(g,h,i)Perylene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2400		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	57	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	5.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	32		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	3.2		mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.8	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	5000		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	5.3		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	57	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	5.8		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	12000		mg/Kg	EPA 6010		08/24 08/25	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-6
Client Sample ID :BTR SD08 SD05
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
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Lead	5.7	U	mg/Kg	EPA 6010	08/24	08/25	DFT
Magnesium	1400		mg/Kg	EPA 6010	08/24	08/25	DFT
Manganese	250		mg/Kg	EPA 6010	08/24	08/25	DFT
Molybdenum	2.9	U	mg/Kg	EPA 6010	08/24	08/25	DFT
Nickel	6.6		mg/Kg	EPA 6010	08/24	08/25	DFT
Potassium	336		mg/Kg	EPA 6010	08/24	08/25	DFT
Selenium	57		mg/Kg	EPA 6010	08/24	08/25	DFT
Silver	2.9	U	mg/Kg	EPA 6010	08/24	08/25	DFT
Sodium	72		mg/Kg	EPA 6010	08/24	08/25	DFT
Thallium	0.28	U	mg/Kg	EPA 7841	08/24	08/26	KAW
Vanadium	8.4		mg/Kg	EPA 6010	08/24	08/25	DFT
Zinc	27		mg/Kg	EPA 6010	08/24	08/25	DFT
TOC, Soil	1670		ppm	PSEP Ref Lab			

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COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-7
Client Sample ID :BTR SD08 SD05 DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hr
Received :08/19/93 @ 10:50 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	2100		mg/Kg	EPA 6010		08/24	08/25	DFI
Antimony	57	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Arsenic	5.7	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Barium	25		mg/Kg	EPA 6010		08/24	08/25	DFI
Beryllium	2.9	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Cadmium	29	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Calcium	9700		mg/Kg	EPA 6010		08/24	08/25	DFI
Chromium	4.7		mg/Kg	EPA 6010		08/24	08/25	DFI
Cobalt	57	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Copper	6.3		mg/Kg	EPA 6010		08/24	08/25	DFI
Iron	8000		mg/Kg	EPA 6010		08/24	08/25	DFI
Lead	5.7	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Magnesium	3000		mg/Kg	EPA 6010		08/24	08/25	DFI
Manganese	190		mg/Kg	EPA 6010		08/24	08/25	DFI
Molybdenum	2.9	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Nickel	5.3		mg/Kg	EPA 6010		08/24	08/25	DFI
Potassium	280	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Selenium	57	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Silver	2.9	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Sodium	59		mg/Kg	EPA 6010		08/24	08/25	DFI
Thallium	0.28	U	mg/Kg	EPA 7841		08/24	08/26	KAH
Vanadium	8.1		mg/Kg	EPA 6010		08/24	08/25	DFI
Zinc	26		mg/Kg	EPA 6010		08/24	08/25	DFI

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-8
Client Sample ID :BTR SD08 SD05 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE AND SPIKE DUPLICATE RECOVERIES AND RPD, SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.273		mg/Kg	EPA 8260		08/28	08/28	KWI
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Bromoform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Chlorobenzene	0.278		mg/Kg	EPA 8260		08/28	08/28	KWI
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Chloroform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,1-Dichloroethene	0.047		mg/Kg	EPA 8260		08/28	08/28	KWI
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
transl,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWI

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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-8
Client Sample ID :BTR SD08 SD05 SPIKE
Matrix :SOIL

p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Methylene Chloride	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Napthalene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Styrene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Toluene	0.271		mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Trichloroethene	0.257		mg/Kg	EPA 8260	08/28	08/28	KWI
Trichlorofluoromethane	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,3-Trichloropropane	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,4-Trimethylbenzene	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,3,5-Trimethylbenzene	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Vinyl Chloride	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
p+m-Xylene	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
o-Xylene	0.028	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Semivolatile Organics				EPA 8270			
Phenol	1.96		mg/Kg	EPA 8270	08/29	09/13	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Chlorophenol	1.83		mg/Kg	EPA 8270	08/29	09/13	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,4-Dichlorobenzene	1.76		mg/Kg	EPA 8270	08/29	09/13	MTT
Benzyl Alcohol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
n-Nitroso-di-n-Propylam	1.78		mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
1,2,4-Trichlorobenzene	1.85		mg/Kg	EPA 8270	08/29	09/13	MTT
Naphthalene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
4-Chloro-3-Methylphenol	1.90		mg/Kg	EPA 8270	08/29	09/13	MTT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	08/29	09/13	MTT

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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-8
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Matrix :SOIL

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2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
2-Nitroaniline	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Acenaphthene	1.92		mg/Kg	EPA 8270		08/29 09/13	MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
4-Nitrophenol	0.095		mg/Kg	EPA 8270		08/29 09/13	MT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
2,4-Dinitrotoluene	1.91		mg/Kg	EPA 8270		08/29 09/13	MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Fluorene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Pentachlorophenol	1.87		mg/Kg	EPA 8270		08/29 09/13	MT
Phenanthrene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Anthracene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
di-n-Butylphthalate	2.03		mg/Kg	EPA 8270		08/29 09/13	MT
Fluoranthene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Pyrene	1.87		mg/Kg	EPA 8270		08/29 09/13	MT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Chrysene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
bis(2-Ethylhexyl)Phthal	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270		08/29 09/13	MT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2600		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	90		mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	110		mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	150		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	44		mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	52		mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	7300		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	110		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	120		mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	120		mg/Kg	EPA 6010		08/24 08/25	DFL

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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-8
Client Sample ID :BTR SD08 SD05 SPIKE
Matrix :SOIL

Iron	7700	mg/Kg	EPA 6010	08/24 08/25	DE
Lead	100	mg/Kg	EPA 6010	08/24 08/25	DE
Magnesium	3000	mg/Kg	EPA 6010	08/24 08/25	DE
Manganese	320	mg/Kg	EPA 6010	08/24 08/25	DE
Molybdenum	100	mg/Kg	EPA 6010	08/24 08/25	DE
Nickel	110	mg/Kg	EPA 6010	08/24 08/25	DE
Potassium	1640	mg/Kg	EPA 6010	08/24 08/25	DE
Selenium	130	mg/Kg	EPA 6010	08/24 08/25	DE
Silver	19	mg/Kg	EPA 6010	08/24 08/25	DE
- Sodium	1400	mg/Kg	EPA 6010	08/24 08/25	DE
Thallium	2.30	mg/Kg	EPA 7841	08/24 08/26	KA
Vanadium	110	mg/Kg	EPA 6010	08/24 08/25	DE
Zinc	140	mg/Kg	EPA 6010	08/24 08/25	DE

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-11
Client Sample ID :BTR SD08 SD05 SPIKE DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE AND SPIKE DUPLICATE RECOVERIES AND RPD, SEE QC SUMMARY. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.234		mg/Kg	EPA 8260		08/28	08/28	KWM
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromoform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chlorobenzene	0.236		mg/Kg	EPA 8260		08/28	08/28	KWM
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chloroform	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichloroethane	0.042		mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
transi,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KWM

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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-11
Client Sample ID :BTR SD08 SD05 SPIKE DUPLICATE
Matrix :SOIL

Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Methylene Chloride	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Napthalene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Styrene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Toluene	0.238		mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Trichloroethene	0.211		mg/Kg	EPA 8260	08/28	08/28	KWI
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,3-Trichloropropane	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,2,4-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
1,3,5-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Vinyl Chloride	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
p+m-Xylene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
o-Xylene	0.025	U	mg/Kg	EPA 8260	08/28	08/28	KWI
Semivolatile Organics				EPA 8270			
Phenol	0.635		mg/Kg	EPA 8270	08/28	09/13	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
2-Chlorophenol	0.602		mg/Kg	EPA 8270	08/28	09/13	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
1,4-Dichlorobenzene	0.514		mg/Kg	EPA 8270	08/28	09/13	MTT
Benzyl Alcohol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
n-Nitroso-di-n-Propylam	0.680		mg/Kg	EPA 8270	08/28	09/13	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
1,2,4-Trichlorobenzene	0.632		mg/Kg	EPA 8270	08/28	09/13	MTT
Naphthalene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
4-Chloro-3-Methylphenol	0.695		mg/Kg	EPA 8270	08/28	09/13	MTT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	08/28	09/13	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-11
Client Sample ID :BTR SD08 SD05 SPIKE DUPLICATE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
2-Nitroaniline	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Acenaphthene	0.672		mg/Kg	EPA 8270	08/28 09/13	MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
4-Nitrophenol	0.0078	J	mg/Kg	EPA 8270	08/28 09/13	MT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
2,4-Dinitrotoluene	0.672		mg/Kg	EPA 8270	08/28 09/13	MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Fluorene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Pentachlorophenol	0.572		mg/Kg	EPA 8270	08/28 09/13	MT
Phenanthrene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Anthracene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
di-n-Butylphthalate	0.958		mg/Kg	EPA 8270	08/28 09/13	MT
Fluoranthene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Pyrene	0.806		mg/Kg	EPA 8270	08/28 09/13	MT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Chrysene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
bis(2-Ethylhexyl)Phthal	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	08/28 09/13	MT

See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STR
ANCHORAGE, AK 9951
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-13
Client Sample ID :BTR SD08 SD09
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 17:46 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	76.5		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	7.46		mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	4.05		mg/Kg	EPA 5030/8015m		08/20	08/21	WLS

Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyze
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-4
Client Sample ID :BTR SD08 SD09
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69710
Report Completed :09/30/93
Collected :08/16/93 @ 17:46 hr
Received :08/19/93 @ 10:50 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromoform	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Chloroform	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-4
Client Sample ID :BTR SD08 SD09
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Toluene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/20	08/28	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	[redacted]
bis(2-Chloroethyl)ether	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2-Chlorophenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
1,3-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
1,4-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Benzyl Alcohol	0.500	U	mg/Kg	EPA 8270	08/27	09/28	GV
1,2-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2-Methylphenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
bis(2-Chloroisopropyl)e	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
4-Methylphenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
n-Nitroso-di-n-Propylam	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Hexachloroethane	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Nitrobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Isophorone	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2-Nitrophenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2,4-Dimethylphenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Benzoic Acid	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
bis(2-Chloroethoxy)Meth	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2,4-Dichlorophenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
1,2,4-Trichlorobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Naphthalene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
4-Chloroaniline	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Hexachlorobutadiene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
4-Chloro-3-Methylphenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2-Methylnaphthalene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
Hexachlorocyclopentadie	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2,4,6-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2,4,5-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	08/27	09/28	GV
2-Chloronaphthalene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	[redacted]

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-4
Client Sample ID :BTR SD08 SD09
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

2-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Dimethylphthalate	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Acenaphthylene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
2,6-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
3-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Acenaphthene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
2,4-Dinitrophenol	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
4-Nitrophenol	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Dibenzofuran	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
2,4-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Diethylphthalate	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
4-Chlorophenyl-Phenylet	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Fluorene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
4-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
4,6-Dinitro-2-Methylphe	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
n-Nitrosodiphenylamine	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
4-Bromophenyl-Phenyleth	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Hexachlorobenzene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Pentachlorophenol	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Phenanthrene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Anthracene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
di-n-Butylphthalate	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Pyrene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Butylbenzylphthalate	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
3,3-Dichlorobenzidine	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Benzo(a)Anthracene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Chrysene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
bis(2-Ethylhexyl)Phthal	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
di-n-Octylphthalate	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Benzo(b)Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Benzo(k)Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Benzo(a)Pyrene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Indeno(1,2,3-cd)Pyrene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Dibenz(a,h)Anthracene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Benzo(g,h,i)Perylene	0.230	U	mg/Kg	EPA 8270		08/27 09/28	
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2500		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	57	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	5.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	44		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	2.8		mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.8		mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	6900		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	4.0		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	5.7		mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	4.1		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	8700		mg/Kg	EPA 6010		08/24 08/25	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-4
Client Sample ID :BTR SD08 SD09
Matrix :SOIL

5633 B ST
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Lead	5.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Magnesium	2300		mg/Kg	EPA 6010	08/24 08/25	DFL
Manganese	160		mg/Kg	EPA 6010	08/24 08/25	DFL
Molybdenum	5.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Nickel	6.1		mg/Kg	EPA 6010	08/24 08/25	DFL
Potassium	370		mg/Kg	EPA 6010	08/24 08/25	DFL
Selenium	5.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Silver	2.8	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Sodium	65		mg/Kg	EPA 6010	08/24 08/27	DFL
Thallium	0.28	U	mg/Kg	EPA 7841	08/24 08/26	KAW
Vanadium	7.7		mg/Kg	EPA 6010	08/24 08/25	DFL
Zinc	27		mg/Kg	EPA 6010	08/24 08/25	DFL
TOC, Soil	2900		ppm	PSEP Ref Lab		DFL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4197-1
Client Sample ID :BTR SD08 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
WSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 15:36 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM

Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

See Special Instructions Above
* See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-2
Client Sample ID :BTR SD08 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69710
Report Completed :09/30/93
Collected :08/16/93 @ 15:36 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0054		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-2
Client Sample ID :BTR SD08 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Isophorone	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Naphthalene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/22	08/23	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-2
Client Sample ID :BTR SD08 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Acenaphthene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Fluorene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Phenanthrene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Anthracene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Fluoranthene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Pyrene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Chrysene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/22 08/23	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1.9	U	mg/L	EPA 6010		08/23 08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Barium	0.11		mg/L	EPA 6010		08/23 08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Calcium	72		mg/L	EPA 6010		08/23 08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Iron	4.2		mg/L	EPA 6010		08/23 08/24	DFL
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-2
Client Sample ID :BTR SD08 SW01
Matrix :WATER

Magnesium	31		mg/L	EPA 6010		08/23	08/24	DI
Manganese	0.17		mg/L	EPA 6010		08/23	08/24	DI
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	DI
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Sodium	120		mg/L	EPA 6010		08/23	08/24	DI
Thallium	0.005	U	mg/L	EPA 7841		08/23	08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Antimony	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Arsenic	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Barium	0.082		mg/L	EPA 6010		08/23	08/24	DI
Beryllium	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Cadmium	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Calcium	71		mg/L	EPA 6010		08/23	08/24	DI
Chromium	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Cobalt	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Copper	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Iron	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Lead	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Magnesium	30		mg/L	EPA 6010		08/23	08/24	DI
Manganese	0.10		mg/L	EPA 6010		08/23	08/24	DI
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	DI
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	DI
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Sodium	96		mg/L	EPA 6010		08/23	08/24	DI
Thallium	0.005	U	mg/L	EPA 7841		08/23	08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	14.4-15.8		mg/L	EPA 9060			08/31	CM
...TOC Concentration	15.0		mg/L	EPA 9060			08/31	CM
Residue, Non-Filterable	57		mg/L	EPA 160.2		08/24	08/24	GP
Residue,Filterable(TDS)	662		mg/L	EPA 160.1	500	08/20	08/23	RJ

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

hemlab Ref.# :93.4197-2
lient Sample ID :BTR SD08 SW02
atrix :WATER

lient Name :ICF KAISER ENGINEERING
rdered By :RAY MORRIS
roject Name :DEW LINE
roject# :BARTER
WSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 16:29 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

* See Special Instructions Above
** See Sample Remarks Above
J = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

[redacted]ab Ref.# :93.4197-3
lient Sample ID :BTR SD08 SW03
atrix :WATER

lient Name :ICF KAISER ENGINEERING
rdered By :RAY MORRIS
roject Name :DEW LINE
roject# :BARTER
WSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 16:48 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM
Benzene	0.020	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.020	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.020	U	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.020	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.020	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

[redacted]

See Special Instructions Above
[redacted]e Sample Remarks Above
[redacted]detected, Reported value is the practical quantification limit.
= Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

hemlab Ref.# :93.4197-4
lient Sample ID :BTR SD08 SW04
atrix :WATER

lient Name :ICF KAISER ENGINEERING
rdered By :RAY MORRIS
roject Name :DEW LINE
roject# :BARTER
WSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 17:46 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM

Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

See Special Instructions Above
* See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Chemlab Ref.# :93.4175-1
Client Sample ID :BTR SD08 SW04
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69705
Report Completed :09/20/93
Collected :08/16/93 @ 17:46 h
Received :08/19/93 @ 10:50 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloroethane	0.0053		mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
cis-1,2-Dichloroethene	0.0014		mg/L	EPA 8260		08/20	08/20	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-1
Client Sample ID :BTR SD08 SW04
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Isophorone	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Naphthalene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/21	08/23	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-1
Client Sample ID :BTR SD08 SW04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Fluorene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Phenanthrene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Anthracene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Fluoranthene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Pyrene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Chrysene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Barium	0.083		mg/L	EPA 6010		08/23 08/24	DFT
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Calcium	63		mg/L	EPA 6010		08/23 08/24	DFT
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Iron	2.2		mg/L	EPA 6010		08/23 08/24	DFT
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-1
Client Sample ID :BTR SD08 SW04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Magnesium	27		mg/L	EPA 6010		08/23 08/24	DI
Manganese	0.15		mg/L	EPA 6010		08/23 08/24	DI
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24	DI
Selenium	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Silver	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Sodium	98		mg/L	EPA 6010		08/23 08/24	DI
Thallium	0.0050	U	mg/L	EPA 7841		08/23 08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Zinc	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Barium	0.079		mg/L	EPA 6010		08/23 08/24	DI
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Calcium	65		mg/L	EPA 6010		08/23 08/24	DI
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Iron	0.18		mg/L	EPA 6010		08/23 08/24	DI
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Magnesium	27		mg/L	EPA 6010		08/23 08/24	DI
Manganese	0.13		mg/L	EPA 6010		08/23 08/24	DI
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24	DI
Selenium	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Silver	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Sodium	91		mg/L	EPA 6010		08/23 08/24	DI
Thallium	0.0050	U	mg/L	EPA 7841		08/23 08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Zinc	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
TOC, Nonpurgable				EPA 9060	n/a		
...TOC Range	9.70-19.5		mg/L	EPA 9060		08/31	CM
...TOC Concentration	13.0		mg/L	EPA 9060		08/31	CM
Residue, Non-Filterable	6.0		mg/L	EPA 160.2		08/24 08/24	GP
Residue,Filterable(TDS)	610		mg/L	EPA 160.1	500	08/20 08/23	RJ

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Lab Ref.# :93.4197-5
Client Sample ID :BTR SD08 SW08
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
AWSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 17:46 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020 ---	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

See Special Instructions Above
* See Sample Remarks Above
Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
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REPORT of ANALYSIS

Chemlab Ref.# :93.4173-1
Client Sample ID :BTR SD08 SW08
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hr
Received :08/19/93 @ 10:50 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0044		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0015		mg/L	EPA 8260		08/20	08/20	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-1
Client Sample ID :BTR SD08 SW08
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
					08/20	08/20	KWI
Semivolatile Organics				EPA 8270			
Phenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroethyl)ether	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Chlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,3-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,4-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachloroethane	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Nitrobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Isophorone	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Nitrophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Benzoic Acid	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,2,4-Trichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Naphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Chloroaniline	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachlorobutadiene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Chloro-3-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Methylnaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachlorocyclopentadie	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4,6-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4,5-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Chloronaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-1
Client Sample ID :BTR SD08 SW08
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Dimethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Acenaphthylene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
2,6-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
3-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Acenaphthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
2,4-Dinitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
4-Nitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Dibenzofuran	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
2,4-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Diethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
4-Chlorophenyl-Phenylet	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Fluorene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
4-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
4,6-Dinitro-2-Methylphe	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
n-Nitrosodiphenylamine	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
4-Bromophenyl-Phenyleth	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Hexachlorobenzene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Pentachlorophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Phenanthrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
di-n-Butylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Chrysene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
bis(2-Ethylhexyl)Phthal	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Benzo(g,h,i)Perylene	0.01	U	mg/L	EPA 8270		08/21 08/23	MTT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Barium	0.086		mg/L	EPA 6010		08/23 08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Calcium	63		mg/L	EPA 6010		08/23 08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Iron	2.4		mg/L	EPA 6010		08/23 08/24	DFL
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-1
Client Sample ID :BTR SD08 SW08
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Magnesium	27		mg/L	EPA 6010		08/23	08/24	DFT
Manganese	0.15		mg/L	EPA 6010		08/23	08/24	DFT
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	DFT
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Sodium	90		mg/L	EPA 6010		08/23	08/24	DFT
Thallium	0.0050	U	mg/L	EPA 7841		08/23	08/26	KAW
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Antimony	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Arsenic	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Barium	0.078		mg/L	EPA 6010		08/23	08/24	DFT
Beryllium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Cadmium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Calcium	61		mg/L	EPA 6010		08/23	08/24	DFT
Chromium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Cobalt	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Copper	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Iron	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Lead	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Magnesium	27		mg/L	EPA 6010		08/23	08/24	DFT
Manganese	0.12		mg/L	EPA 6010		08/23	08/24	DFT
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	DFT
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Sodium	85		mg/L	EPA 6010		08/23	08/24	DFT
Thallium	0.0050	U	mg/L	EPA 7841		08/23	08/26	KAW
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	DFT
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	10.8-12.3		mg/L	EPA 9060			08/27	CMR
...TOC Concentration	11.3		mg/L	EPA 9060			08/27	CMR
Residue, Non-Filterable	8		mg/L	EPA 160.2		08/24	08/24	GPP
Residue,Filterable(TDS)	590		mg/L	EPA 160.1	500	08/20	08/23	RJK

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-4
Client Sample ID :BTR SD08 SW08 DUPLICATE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Barium	0.085		mg/L	EPA 6010		08/23	08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Calcium	62		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Iron	2.3		mg/L	EPA 6010		08/23	08/24	DFL
Lead	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Magnesium	27		mg/L	EPA 6010		08/23	08/24	DFL
Manganese	0.15		mg/L	EPA 6010		08/23	08/24	DFL
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	DFL
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Sodium	84		mg/L	EPA 6010		08/23	08/24	DFL
Thallium	0.005	U	mg/L	EPA 7841		08/23	08/26	KAW
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Barium	0.078		mg/L	EPA 6010		08/23	08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Calcium	62		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-4
Client Sample ID :BTR SD08 SW08 DUPLICATE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Iron	0.10	U	mg/L	EPA 6010	08/23 08/24	DFT
Lead	0.10	U	mg/L	EPA 6010	08/23 08/24	DFT
Magnesium	26		mg/L	EPA 6010	08/23 08/24	DFT
Manganese	0.12		mg/L	EPA 6010	08/23 08/24	DFT
Molybdenum	0.050	U	mg/L	EPA 6010	08/23 08/24	DFT
Nickel	0.050	U	mg/L	EPA 6010	08/23 08/24	DFT
Potassium	5.0	U	mg/L	EPA 6010	08/23 08/24	DFT
Selenium	0.10	U	mg/L	EPA 6010	08/23 08/24	DFT
Silver	0.050	U	mg/L	EPA 6010	08/23 08/24	DFT
Sodium	96		mg/L	EPA 6010	08/23 08/24	DFT
Thallium	0.005	U	mg/L	EPA 7841	08/23 08/26	KAI
Vanadium	0.050	U	mg/L	EPA 6010	08/23 08/24	DFT
Zinc	0.050	U	mg/L	EPA 6010	08/23 08/24	DFT

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-2
Client Sample ID :BTR SD08 SW08 SPIKE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE & SPIKE DUPLICATE RECOVERIES & RPD SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.011		mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.010		mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0041		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.011		mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0013		mg/L	EPA 8260		08/20	08/20	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-2
Client Sample ID :BTR SD08 SW08 SPIKE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.010		mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0099		mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI

See Special Instructions Above
See Sample Remarks Above
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UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-5
Client Sample ID :BTR SD08 SW08 SPIKE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.90		mg/L	EPA 6010		08/23	08/24	DFL
Antimony	0.84		mg/L	EPA 6010		08/23	08/24	DFL
Arsenic	0.95		mg/L	EPA 6010		08/23	08/24	DFL
Barium	1.06		mg/L	EPA 6010		08/23	08/24	DFL
Beryllium	0.36		mg/L	EPA 6010		08/23	08/24	DFL
Cadmium	0.47		mg/L	EPA 6010		08/23	08/24	DFL
Calcium	71		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.97		mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	0.95		mg/L	EPA 6010		08/23	08/24	DFL
Copper	0.90		mg/L	EPA 6010		08/23	08/24	DFL
Iron	3.27		mg/L	EPA 6010		08/23	08/24	DFL
Lead	0.89		mg/L	EPA 6010		08/23	08/24	DFL
Magnesium	35		mg/L	EPA 6010		08/23	08/24	DFL
Manganese	1.12		mg/L	EPA 6010		08/23	08/24	DFL
Molybdenum	0.95		mg/L	EPA 6010		08/23	08/24	DFL
Nickel	0.95		mg/L	EPA 6010		08/23	08/24	DFL
Potassium	9.48		mg/L	EPA 6010		08/23	08/24	DFL
Selenium	0.88		mg/L	EPA 6010		08/23	08/24	DFL
Silver	0.16		mg/L	EPA 6010		08/23	08/24	DFL
Sodium	109		mg/L	EPA 6010		08/23	08/24	DFL
Thallium	0.017		mg/L	EPA 7841		08/23	08/26	KAW
Vanadium	0.90		mg/L	EPA 6010		08/23	08/26	KAW
Zinc	0.91		mg/L	EPA 6010		08/23	08/26	KAW
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.96		mg/L	EPA 6010		08/23	08/24	DFL
Antimony	0.86		mg/L	EPA 6010		08/23	08/24	DFL
Arsenic	0.97		mg/L	EPA 6010		08/23	08/24	DFL
Barium	1.08		mg/L	EPA 6010		08/23	08/24	DFL
Beryllium	0.37		mg/L	EPA 6010		08/23	08/24	DFL
Cadmium	0.47		mg/L	EPA 6010		08/23	08/24	DFL
Calcium	72		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.98		mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	0.93		mg/L	EPA 6010		08/23	08/24	DFL
Copper	0.93		mg/L	EPA 6010		08/23	08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-5
Client Sample ID :BTR SD08 SW08 SPIKE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Iron	0.97	mg/L	EPA 6010	08/23 08/24	DFT
Lead	0.90	mg/L	EPA 6010	08/23 08/24	DFT
Magnesium	37	mg/L	EPA 6010	08/23 08/24	DFT
Manganese	1.10	mg/L	EPA 6010	08/23 08/24	DFT
Molybdenum	0.95	mg/L	EPA 6010	08/23 08/24	DFT
Nickel	0.96	mg/L	EPA 6010	08/23 08/24	DFT
Potassium	11	mg/L	EPA 6010	08/23 08/24	DFT
Selenium	0.90	mg/L	EPA 6010	08/23 08/24	DFT
Silver	0.17	mg/L	EPA 6010	08/23 08/24	DFT
- Sodium	100	mg/L	EPA 6010	08/23 08/24	DFT
Thallium	0.017	mg/L	EPA 7841	08/23 08/26	KAW
Vanadium	0.91	mg/L	EPA 6010	08/23 08/24	DFT
Zinc	0.93	mg/L	EPA 6010	08/23 08/24	DFT

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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LT = Less Than
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COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-3
Client Sample ID :BTR SD08 SW08 SPIKE DUPLICATE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 17:46 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE & SPIKE DUPLICATE RECOVERIES & RPD SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.011		mg/L	EPA 8260		08/20	08/20	KWI
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chlorobenzene	0.010		mg/L	EPA 8260		08/20	08/20	KWI
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichloroethane	0.0040		mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloroethene	0.010		mg/L	EPA 8260		08/20	08/20	KWI
cis-1,2-Dichloroethene	0.0012		mg/L	EPA 8260		08/20	08/20	KWI
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-3
Client Sample ID :BTR SD08 SW08 SPIKE DUPLICATE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.011		mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0099		mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI

See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-SD08-2S11	BTR-SD08-2S12	BTR-SD08-2S13-4	BTR-SD08-2S14-4	BTR-SD08-2S15-5
F&BI Number	1730	1732	1734	1736	1738
Sample Type	soil	soil	soil	soil	soil
Date Received	9/3/93	9/3/93	9/3/93	9/3/93	9/3/93
% Dry Weight	94	90	93	93	88
Sequence Date	#6-09/05/93	#6-09/05/93	#6-09/05/93	#6-09/05/93	#6-09/05/93
Leaded Gas					
JP-4	< 60	< 60	< 60	< 60	< 60
Lube Oil	< 120	< 120	< 120	< 120	< 120
Diesel	< 60	< 60	< 60	< 60	< 60
Spike Level					
Unknown Semi-volatile					
Pentacosane	81	96	88	85	87
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93
CCl4	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J
TCA	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J
Benzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
TCE	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J
Toluene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
PCE	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J
Ethylbenzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Xylenes	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Gasoline	< 1 J	< 1 ~~diesel~~ J	< 1 J	< 1 J	< 1 J
Spike level					
BFB	98	95	102	97	102

11.11.94 SMC

ICF ID	BTR-SD08-2S16-1
F&BI Number	1740
Sample Type	soil
Date Received	9/3/93
% Dry Weight	93
Sequence Date	#6-09/05/93
Leaded Gas	
JP-4	<60
Lube Oil	<120
Diesel	<60
Spike Level	
Unknown Semi-volatile	
Pentacosane	96
Sequence Date	
PCB 1221	
PCB 1232	
PCB 1016	
PCB 1242	
PCB 1248	
PCB 1254	
PCB 1260	
Spike Level	
Dibutyl Chlorendate	
Sequence Date	
alpha-BHC	
beta-BHC	
gamma-BHC	
delta-BHC	
Heptachlor	
Aldrin	
Heptachlor Epoxide	
Endosulfan I	
DDE	
Dieldrin	
Endrin	
Endosulfan II	
DDD	
Endrin Aldehyde	
DDT	
Endosulfan Sulfate	
Endrin Ketone	
Methoxy Chlor	
Chlordane	
Dibutyl Chlorendate	
Spike Level	
Vol Sequence	#1&2-09/06/93
CCl4	<0.1 J
TCA	<0.1 J
Benzene	<0.02
TCE	<0.1 J
Toluene	<0.02
PCE	<0.1 J
Ethylbenzene	<0.02
Xylenes	<0.04
Gasoline	<1 ~~diesel~~ J
Spike level	
BFB	96

11.11.94 Sent

ANALYTICAL DATA SHEETS FOR THE OLD RUNDWAY DUMP (LF12)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STRE
ANCHORAGE, AK 99
TEL (907) 562-2
FAX (907) 561-5

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-10
Client Sample ID :BTR-LF12-S01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/22/93 @ 15:30
Received :08/24/93 @ 12:00
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ir
Volatile Organics								
Benzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Bromoform	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Chloroform	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		09/09	09/09	K

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-10
Client Sample ID :BTR-LF12-S01
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX (907) 561-530

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Napthalene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Styrene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Toluene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
o-Xylene	0.020	U	mg/Kg	EPA 8260	09/09	09/09	K
Semivolatile Organics				EPA 8270			
Phenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
bis(2-Chloroethyl)ether	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2-Chlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/11	M
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
bis(2-Chloroisopropyl)e	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
4-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
n-Nitroso-di-n-Propylam	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Hexachloroethane	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Nitrobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Isophorone	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2-Nitrophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2,4-Dimethylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Benzoic Acid	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
bis(2-Chloroethoxy)Meth	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2,4-Dichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Naphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
4-Chloroaniline	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
4-Chloro-3-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2-Methylnaphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
Hexachlorocyclopentadie	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2,4,6-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2,4,5-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M
2-Chloronaphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/11	M

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-10
Client Sample ID :BTR-LF12-S01
Matrix :SOIL

5633 B STRE
ANCHORAGE, AK 995
TLL: (907) 562-23
FAX: (907) 561-53

2-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Dimethylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Acenaphthylene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
2,6-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
3-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Acenaphthene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
2,4-Dinitrophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
4-Nitrophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Dibenzofuran	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
2,4-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Diethylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
4-Chlorophenyl-Phenylet	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Fluorene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
4-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
4,6-Dinitro-2-Methylphe	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
n-Nitrosodiphenylamine	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
4-Bromophenyl-Phenyleth	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Hexachlorobenzene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Pentachlorophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Phenanthrene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Anthracene	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
di-n-Butylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/11	
Fluoranthene	0.400	U	mg/Kg	EPA 8270		09/04 09/11	
Pyrene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Butylbenzylphthalate	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
3,3-Dichlorobenzidine	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Benzo(a)Anthracene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Chrysene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
bis(2-Ethylhexyl)Phthal	0.400	U	mg/Kg	EPA 8270		09/04 09/11	
di-n-Octylphthalate	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Benzo(b)Fluoranthene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Benzo(k)Fluoranthene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Benzo(a)Pyrene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Indeno(1,2,3-cd)Pyrene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Dibenz(a,h)Anthracene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Benzo(g,h,i)Perylene	0.21	U	mg/Kg	EPA 8270		09/04 09/11	
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1700		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	52	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.2	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	16		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	2200		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4.5		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.2	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	7.3		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	7500		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-10
Client Sample ID :BTR-LF12-S01
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

Lead	5.2	U	mg/Kg	EPA 6010	08/27	08/29	I
Magnesium	1100		mg/Kg	EPA 6010	08/27	08/29	I
Manganese	67		mg/Kg	EPA 6010	08/27	08/29	I
Molybdenum	2.6	U	mg/Kg	EPA 6010	08/27	08/29	I
Nickel	5.3		mg/Kg	EPA 6010	08/27	08/29	I
Potassium	260	U	mg/Kg	EPA 6010	08/27	08/29	I
Selenium	52	U	mg/Kg	EPA 6010	08/27	08/29	I
Silver	2.6	U	mg/Kg	EPA 6010	08/27	08/29	I
Sodium	410		mg/Kg	EPA 6010	08/27	08/29	I
Thallium	0.25	U	mg/Kg	EPA 7841	08/26	08/28	K
Vanadium	5.1		mg/Kg	EPA 6010	08/27	08/29	D
Zinc	16		mg/Kg	EPA 6010	08/27	08/29	D
TOC, Soil	7680		mg/Kg	PSEP Ref Lab			

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-LF12-S01	BTR-LF12-S01	BTR-LF12-S02	BTR-LF12-S03	BTR-LF12-S03	BTR-LF12-S03
F&BI Number	416	416 dup	412	413 dup	414	414 dup
Sample Type	soil	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	93		93		91	91
Sequence Date	#6-08/23/93		#6-08/23/93	#6-08/23/93	#6-08/23/93	
Leaded Gas						
JP-4	<50		<50	<50	<50	<50
Lube Oil	<100		<100	<100	<100	<100
Diesel	<50 J		<50 J	<50	<50 J	<50
Spike Level						
Unknown Semi-volatile						
Pentacosane	87		97	97		95
Sequence Date	#6-08/23/93		#6-08/23/93		#6-08/23/93	#6-08/23/93
PCB 1221	<0.5		<0.5		<0.5	<0.5
PCB 1232	<0.5		<0.5		<0.5	<0.5
PCB 1016	<0.5		<0.5		<0.5	<0.5
PCB 1242	<0.5		<0.5		<0.5	<0.5
PCB 1248	<0.5		<0.5		<0.5	<0.5
PCB 1254	<0.5		<0.5		<0.5	<0.5
PCB 1260	<0.5		<0.5		<0.5	<0.5
Spike Level						
Dibutyl Chlorendate	88		100		88	106
Sequence Date	#6-08/23/93	#6-08/23/93				
alpha-BHC	<0.01 J	<0.01				
beta-BHC	<0.01	<0.01				
gamma-BHC	<0.01	<0.01				
delta-BHC	<0.01	<0.01				
Heptachlor	<0.01	<0.01				
Aldrin	<0.01	<0.01				
Heptachlor Epoxide	<0.01	<0.01				
Endosulfan I	<0.01	<0.01				
DDE	<0.01	<0.01				
Dieldrin	<0.01	<0.01				
Endrin	<0.01	<0.01				
Endosulfan II	<0.01	<0.01				
DDD	<0.01	<0.01				
Endrin Aldehyde	<0.01	<0.01				
DDT	<0.01	<0.01				
Endosulfan Sulfate	<0.01	<0.01				
Endrin Ketone	<0.01	<0.01				
Methoxy Chlor	~~<0.1~~ <0.5 J	<0.1				
Chlordane	<0.5 J	<0.5				
Dibutyl Chlorendate	88					
Spike Level						
Vol Sequence	#1&2-08/24/93		#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93
CCl4	<0.02		<0.02		<0.02	<0.02
TCA	<0.02		<0.02		<0.02	<0.02
Benzene	<0.02 J		<0.02 J		<0.02 J	<0.02
TCE	<0.02		<0.02		<0.02	<0.02
Toluene	<0.02		<0.02		<0.02	<0.02
PCE	<0.02 J		<0.02 J		<0.02 J	<0.02
Ethylbenzene	<0.02		<0.02		<0.02	<0.02
Xylenes	<0.04		<0.04		<0.04	<0.04
Gasoline	<2 J		<2 J		<2 J	<2
Spike level						
BFB	88		98		89	91

11.11.94 Sanf

ICF ID	BTR-LF12-S03	BTR-LF12-S03
F&BI Number	414 ms	414 msd
Sample Type	soil	soil
Date Received	8/23/93	8/23/93
% Dry Weight		
Sequence Date	#6-08/23/93	#6-08/23/93
Leaded Gas		
JP-4		
Lube Oil		
Diesel	95	110
Spike Level	500	500
Unknown Semi-volatile		
Pentacosane	95	87
Sequence Date	#6-08/23/93	#6-08/23/93
PCB 1221		
PCB 1232		
PCB 1016		
PCB 1242		
PCB 1248		
PCB 1254	92	104
PCB 1260		
Spike Level	5	5
Dibutyl Chlorendate	107	140
Sequence Date		
alpha-BHC		
beta-BHC		
gamma-BHC		
delta-BHC		
Heptachlor		
Aldrin		
Heptachlor Epoxide		
Endosulfan I		
DDE		
Dieldrin		
Endrin		
Endosulfan II		
DDD		
Endrin Aldehyde		
DDT		
Endosulfan Sulfate		
Endrin Ketone		
Methoxy Chlor		
Chlordane		
Dibutyl Chlorendate		
Spike Level		
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93
CCl4	53	66
TCA	62	57
Benzene	57	62
TCE	59	70
Toluene	63	72
PCE	70	93
Ethylbenzene	75	89
Xylenes	71	82
Gasoline		
Spike level	1	1
BFB	90	98

ANALYTICAL DATA SHEETS FOR THE HEATED STORAGE (SS13)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

REPORT of ANALYSIS

[redacted]emlab Ref.# :93.4216-3
Client Sample ID :BTR SS13 S01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 11:50 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	97.0		%	SM17 2540G			08/22	MJ
Hydrocarbons EPH	116		mg/Kg	3510/3550/8100M		08/22	08/24	JBH
VPH & BTEX								
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WLS
Benzene	---							
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
[redacted]m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
[redacted]-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
	0.021		mg/Kg	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
[redacted]loroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-3
Client Sample ID :BTR SS13 S01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JLI
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JLI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JLI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JLI
PCBs in Soil							
------Aroclor 1254	0.932		mg/Kg	EPA 8080	08/21	08/24	NRC

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* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-10
Client Sample ID :BTR SS13 S02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 14:00 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. 1090 MG/KG OF EPH PATTERN IS NOT CONSISENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Recalculations/Comments

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	94.3		%	SM17 2540G			08/22	MT
Hydrocarbons EPH	3580	D	mg/Kg	3510/3550/8100M J(K)		08/22	08/24	JBE
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	423	D	mg/Kg	EPA 5030/8015m		08/21	08/27	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLE
Toluene	0.632		mg/Kg	EPA 8020 (N)-K.1		08/21	08/23	JLE
Ethylbenzene	0.283		mg/Kg	EPA 8020		08/21	08/23	JLE
p&m Xylene	0.510		mg/Kg	EPA 8020		08/21	08/23	JLE
o-Xylene	2.02		mg/Kg	EPA 8020		08/21	08/23	JLE
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLE

3-4-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-10
Client Sample ID :BTR SS13 S02
Matrix :SOIL

Chloroethane	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/23	JL
PCBs in Soil							
------Aroclor 1254	2.72		mg/Kg	EPA 8080	08/21	08/24	NR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-5
Client Sample ID :BTR SS13 S02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69840
Report Completed :10/08/93
Collected :08/18/93 @ 14:06 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromobenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromochloromethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromodichloromethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromoform	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromomethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
n-Butylbenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
sec-Butylbenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
tert-Butylbenzne	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Carbon Tetrachloride	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chlorobenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroform	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloromethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2-Chlorotoluene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
4-Chlorotoluene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromochloromethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
12Dibromo3Chloropropane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dibromoethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromomethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichlorobenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichlorobenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,4-Dichlorobenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dichlorodifluoromethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloroethane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
cis-1,2-Dichloroethene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
trans1,2-Dichloroethene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloropropane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichloropropane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2,2-Dichloropropane	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloropropene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Ethylbenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Hexachlorobutadiene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Isopropylbenzene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM
p-Isopropyltoluene	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-5
Client Sample ID :BTR SS13 S02
Matrix :SOIL

5633 B STRE
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Napthalene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
n-Propylbenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Styrene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1112-Tetrachloroethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1122-Tetrachloroethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Tetrachloroethene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Toluene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichlorobenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trichlorobenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,1-Trichloroethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,2-Trichloroethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichloroethene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichlorofluoromethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichloropropane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trimethylbenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,3,5-Trimethylbenzene	7.68	D	mg/Kg	EPA 8260	08/24 09/01	KWM
Vinyl Chloride	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
p+m-Xylene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
o-Xylene	0.124	D	mg/Kg	EPA 8260	08/24 09/01	KWM
Semivolatile Organics				EPA 8270		
Phenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	[redacted]
bis(2-Chloroethyl)ether	2.10	U	mg/Kg	EPA 8270	08/31 10/06	[redacted]
2-Chlorophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,3-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,4-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Benzyl Alcohol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,2-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Methylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
bis(2-Chloroisopropyl)e	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
4-Methylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
n-Nitroso-di-n-Propylam	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachloroethane	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Nitrobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Isophorone	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Nitrophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4-Dimethylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Benzoic Acid	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
bis(2-Chloroethoxy)Meth	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4-Dichlorophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,2,4-Trichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Naphthalene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
4-Chloroaniline	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachlorobutadiene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
4-Chloro-3-Methylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Methylnaphthalene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachlorocyclopentadie	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4,6-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4,5-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	[redacted]
2-Chloronaphthalene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	[redacted]

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TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-5
Client Sample ID :BTR SS13 S02
Matrix :SOIL

2-Nitroaniline	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Dimethylphthalate	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Acenaphthylene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
2,6-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
3-Nitroaniline	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Acenaphthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
2,4-Dinitrophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4-Nitrophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Dibenzofuran	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
2,4-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Diethylphthalate	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4-Chlorophenyl-Phenylet	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Fluorene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4-Nitroaniline	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4,6-Dinitro-2-Methylphe	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
n-Nitrosodiphenylamine	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4-Bromophenyl-Phenyleth	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Hexachlorobenzene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Pentachlorophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Phenanthrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Anthracene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
di-n-Butylphthalate	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Fluoranthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Pyrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Butylbenzylphthalate	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
3,3-Dichlorobenzidine	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(a)Anthracene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Chrysene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
bis(2-Ethylhexyl)Phthal	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
di-n-Octylphthalate	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(b)Fluoranthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(k)Fluoranthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(a)Pyrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Indeno(1,2,3-cd)Pyrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Dibenz(a,h)Anthracene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(g,h,i)Perylene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	3000		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	54	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	5.4	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	43		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	14000		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	17		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	5.4	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	12		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	9600		mg/Kg	EPA 6010		08/24 08/25	DFL

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REPORT of ANALYSIS

5633 B ST
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4212-5
Client Sample ID :BTR SS13 S02
Matrix :SOIL

Lead	33		mg/Kg	EPA 6010	08/24 08/25	DFL
Magnesium	4900		mg/Kg	EPA 6010	08/24 08/25	DFL
Manganese	96		mg/Kg	EPA 6010	08/24 08/25	DFL
Molybdenum	2.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Nickel	7.9		mg/Kg	EPA 6010	08/24 08/25	DFL
Potassium	580		mg/Kg	EPA 6010	08/24 08/25	DFL
Selenium	54	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Silver	2.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Sodium	60		mg/Kg	EPA 6010	08/24 08/27	DFL
Thallium	0.27	U	mg/Kg	EPA 7841	08/24 08/26	KAW
Vanadium	9.1		mg/Kg	EPA 6010	08/24 08/25	DFL
Zinc	180		mg/Kg	EPA 6010	08/24 08/25	DFL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-2
Client Sample ID :BTR SS13 SD02 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 13:46 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. SEE QC SUMMARY FOR SPIKE RECOVERIES AND RPD VALVES.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	93.9		%	SM17 2540G			08/21	MT
Hydrocarbons EPH	91.1		mg/Kg	3510/3550/8100M		08/21	08/26	JBI
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	10.7		mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.443		mg/Kg	EPA 8020		08/21	08/24	JLI
Toluene	0.449		mg/Kg	EPA 8020		08/21	08/24	JLI
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLI
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLI
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLI
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1,1 Dichloroethylene	0.415		mg/Kg	EPA 8010		08/21	08/24	JLI
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Trichloroethylene	0.504		mg/Kg	EPA 8010		08/21	08/24	JLI
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Chlorobenzene	0.452		mg/Kg	EPA 8010		08/21	08/24	JLI
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI

COMMERCIAL TESTING & ENGINEERING CO.
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SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-2
Client Sample ID :BTR SS13 SD02 SPIKE
Matrix :SOIL

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ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JI
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JI
PCBs in Soil	0.422		mg/Kg	EPA 8080	08/21 08/23	NF
------Aroclor	1262					

* See Special Instructions Above
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GT = Greater Than

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5633 B STREET
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-3
Client Sample ID :BTR SS13 S02 SPIKE DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 13:46 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. SEE QC SUMMARY FOR SPIKE RECOVERIES AND RPD VALVES.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	93.9		%	SM17 2540G			08/21	MDC
Hydrocarbons EPH	112		mg/Kg	3510/3550/8100M		08/21	08/26	JBE
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	9.36		mg/Kg	EPA 5030/8015m		08/21	08/25	WLS
Benzene	0.431		mg/Kg	EPA 8020		08/21	08/24	JLB
Toluene	0.434		mg/Kg	EPA 8020		08/21	08/24	JLB
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.394		mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.490		mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.412		mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-3
Client Sample ID :BTR SS13 S02 SPIKE DUPLICATE
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
PCBs in Soil	0.419		mg/Kg	EPA 8080	08/21 08/23	NR
------Aroclor	1262					

* See Special Instructions Above
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GT = Greater Than

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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-5
Client Sample ID :BTR SS13 S03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 14:06 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	92.3		%	SM17 2540G			08/21	MD
Hydrocarbons EPH	1290	D	mg/Kg	3510/3550/8100M		08/21	08/25	JE
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
o Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

Chemlab Ref.# :93.4219-5
Client Sample ID :BTR SS13 S03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
PCBs in Soil	2.40		mg/Kg	EPA 8080	08/21 08/24	NF
------Aroclor 1254						

* See Special Instructions Above
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D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-6
Client Sample ID :BTR SS13 S04
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 14:10 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 310 MG/KG OF EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	92.8		%	SM17 2540G			08/21	MDU
Hydrocarbons EPH	797	D	mg/Kg	3510/3550/8100M		08/21	08/25	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	3.65		mg/Kg	EPA 5030/8015m		08/21	08/25	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JLB
Toluene	0.033		mg/Kg	EPA 8020		08/21	08/23	JLB
Ethylbenzene	0.035		mg/Kg	EPA 8020		08/21	08/23	JLB
p&m Xylene	0.113		mg/Kg	EPA 8020		08/21	08/23	JLB
o-Xylene	0.050		mg/Kg	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4219-6
Client Sample ID :BTR SS13 S04
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JL
PCBs in Soil	0.316	U	mg/Kg	EPA 8080	08/21 08/24	NR
------Aroclor 1254						

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-10
Client Sample ID :BTR-SS13-2S05
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 13:35 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromobenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromochloromethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromodichloromethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromoform	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromomethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
n-Butylbenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
sec-Butylbenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
tert-Butylbenzne	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Carbon Tetrachloride	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chlorobenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroform	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloromethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
2-Chlorotoluene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
4-Chlorotoluene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromochloromethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
12Dibromo3Chloropropane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dibromoethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromomethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichlorobenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichlorobenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,4-Dichlorobenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dichlorodifluoromethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloroethane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
cis-1,2-Dichloroethene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
transl,2-Dichloroethene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloropropane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichloropropane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
2,2-Dichloropropane	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloropropene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Ethylbenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Hexachlorobutadiene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Isopropylbenzene	0.070	U	mg/Kg	EPA 8260		09/07	09/29	KWM
p-Isopropyltoluene	0.111		mg/Kg	EPA 8260		09/07	09/29	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-10
Client Sample ID :BTR-SS13-2S05
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Napthalene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
n-Propylbenzene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Styrene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1112-Tetrachloroethane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1122-Tetrachloroethane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Tetrachloroethene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Toluene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichlorobenzene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trichlorobenzene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,1-Trichloroethane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,2-Trichloroethane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichloroethene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichlorofluoromethane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichloropropane	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trimethylbenzene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,3,5-Trimethylbenzene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Vinyl Chloride	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
p+m-Xylene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM
o-Xylene	0.070	U	mg/Kg	EPA 8260	09/07 09/29	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-12
Client Sample ID :BTR-SS13-2S06
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 14:00 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	89.9		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	4.00	U	mg/Kg	3510/3550/8100M		10/06	10/07	JBH
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015M		09/07	09/09	WLS
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4616-12
Client Sample ID :BTR-SS13-2S06
Matrix :SOIL

Ethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Toluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	M
o-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	M

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-11
Client Sample ID :BTR-SS13-2S07
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 14:15 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/29	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-11
Client Sample ID :BTR-SS13-2S07
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Toluene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/29	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5833 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-5
Client Sample ID :BTR SS13 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 12:00 hr:
Received :08/20/93 @ 11:30 hr:
Technical Director:STEPHEN C. EDE
Released By : C. Ede

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Analyst Comment

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	84.0		%	SM17 2540G			08/22	M
Hydrocarbons EPH	770	D	mg/Kg	3510/3550/8100M	J (K) BFM 11.8.94	08/22	08/24	JB
VPH & BTEX Hydrocarbons VPH	0.653		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WL
Benzene	0.025	U	mg/Kg	EPA 8020		08/21	08/23	JL
Toluene	0.025	U	mg/Kg	EPA 8020		08/21	08/23	JL
Ethylbenzene	0.028		mg/Kg	EPA 8020	(N)-K.1	08/21	08/23	JL
p&m Xylene	0.179		mg/Kg	EPA 8020		08/21	08/23	JL
o-Xylene	0.114		mg/Kg	EPA 8020		08/21	08/23	JL
PCBs in Soil	0.112		mg/Kg	EPA 8080		08/21	08/24	NF
------Aroclor 1254								

BFM 3-4-94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-2
Client Sample ID :BTR SS13 SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69840
Report Completed :10/08/93
Collected :08/18/93 @ 12:00 hrs.
Received :08/20/93 @ 11:30 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Sauterud

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	K
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/24	09/01	K
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	K
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	K

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-2
Client Sample ID :BTR SS13 SD01
Matrix :SOIL

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Toluene	0.029		mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/24 09/01	KWM
p+m-Xylene	0.029		mg/Kg	EPA 8260	08/24 09/01	KWM
o-Xylene	0.023		mg/Kg	EPA 8260	08/24 09/01	KWM
Semivolatile Organics				EPA 8270		
Phenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
bis(2-Chloroethyl)ether	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2-Chlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
1,3-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
1,4-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
1,2-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2-Methylphenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
bis(2-Chloroisopropyl)e	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
4-Methylphenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
n-Nitroso-di-n-Propylam	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Hexachloroethane	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Nitrobenzene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Isophorone	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2-Nitrophenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2,4-Dimethylphenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Benzoic Acid	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
bis(2-Chloroethoxy)Meth	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2,4-Dichlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
1,2,4-Trichlorobenzene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Naphthalene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
4-Chloroaniline	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Hexachlorobutadiene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
4-Chloro-3-Methylphenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2-Methylnaphthalene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
Hexachlorocyclopentadie	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2,4,6-Trichlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2,4,5-Trichlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV
2-Chloronaphthalene	1.00	U	mg/Kg	EPA 8270	08/31 09/07	GV

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4212-2
Client Sample ID :BTR SS13 SD01
Matrix :SOIL

2-Nitroaniline	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Dimethylphthalate	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Acenaphthylene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
2,6-Dinitrotoluene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
3-Nitroaniline	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Acenaphthene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
2,4-Dinitrophenol	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
4-Nitrophenol	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Dibenzofuran	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
2,4-Dinitrotoluene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Diethylphthalate	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
4-Chlorophenyl-Phenylet	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Fluorene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
4-Nitroaniline	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
4,6-Dinitro-2-Methylphe	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
n-Nitrosodiphenylamine	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
4-Bromophenyl-Phenyleth	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Hexachlorobenzene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Pentachlorophenol	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Phenanthrene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Anthracene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Fluoranthene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	
Pyrene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	
Butylbenzylphthalate	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
3,3-Dichlorobenzidine	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Benzo(a)Anthracene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Chrysene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
di-n-Octylphthalate	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Benzo(b)Fluoranthene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Benzo(k)Fluoranthene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Benzo(a)Pyrene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Indeno(1,2,3-cd)Pyrene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Dibenz(a,h)Anthracene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Benzo(g,h,i)Perylene	1.00	U	mg/Kg	EPA 8270		08/31 09/07	GV
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2900		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	53	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	5.3	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	23		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.7		mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	5100		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	11		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	5.3	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	7.5		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	8000		mg/Kg	EPA 6010		08/24 08/25	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-2
Client Sample ID :BTR SS13 SD01
Matrix :SOIL

Lead	33		mg/Kg	EPA 6010	08/24 08/25	DFL
Magnesium	2400		mg/Kg	EPA 6010	08/24 08/25	DFL
Manganese	56		mg/Kg	EPA 6010	08/24 08/25	DFL
Molybdenum	2.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Nickel	6.6		mg/Kg	EPA 6010	08/24 08/25	DFL
Potassium	360		mg/Kg	EPA 6010	08/24 08/25	DFL
Selenium	53	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Silver	2.7	U	mg/Kg	EPA 6010	08/24 08/25	DFL
Sodium	38		mg/Kg	EPA 6010	08/24 08/27	DFL
Thallium	0.27	U	mg/Kg	EPA 7841	08/24 08/26	KAW
Vanadium	14		mg/Kg	EPA 6010	08/24 08/25	DFL
Zinc	500		mg/Kg	EPA 6010	08/24 08/25	DFL

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-1
Client Sample ID :BTR SS13 SD02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 13:46 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	93.9		%	SM17 2540G			08/21	MD
Hydrocarbons EPH	36.5		mg/Kg	3510/3550/8100M		08/21	08/26	JB
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m		08/21	08/25	WL

Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-1
Client Sample ID :BTR SS13 SD02
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JL
PCBs in Soil	0.100	U	mg/Kg	EPA 8080	08/21 08/24	NR
------Aroclor	---					

See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-4
Client Sample ID :BTR SS13 SD03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 13:20 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 40.2 MG/KG OF EPH PATTERN NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	92.3		%	SM17 2540G			08/21	MD
Hydrocarbons EPH	51.4		mg/Kg	3510/3550/8100M		08/21	08/26	JB
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	1.17		mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
Toluene	0.023		mg/Kg	EPA 8020		08/21	08/23	JL
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
p&m Xylene	0.025		mg/Kg	EPA 8020		08/21	08/23	JL
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/21	08/23	JL
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/23	JL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-4
Client Sample ID :BTR SS13 SD03
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JI
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JI
PCBs in Soil	0.020	U	mg/Kg	EPA 8080	08/21 08/23	NI
------Aroclor	---					

See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

Changed site location 2 Feb 95 mf

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Chemlab Ref.# :93.4203-2
Client Sample ID :BTR ~~SD08~~ SD06
Matrix :SOIL SS13

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/25/93
Collected :08/17/93 @ 11:25 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	90.8		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	37.3		mg/Kg	3510/3550/8100M		08/21	08/22	JBH
VPH & BTEX								
Hydrocarbons VPH	4.45		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLB
p&m Xylene	0.022		mg/Kg	EPA 8020		08/21	08/24	JLB
o-Xylene	0.021		mg/Kg	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

change site location
2500B SMF

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-2
Client Sample ID :BTR ~~SD08~~ SD06
Matrix :SOIL SS13

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JLB
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JLB
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/24	JLB

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

changed site location
20-25 SM

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX (907) 561-5301

Chemlab Ref.# :93.4203-3
Client Sample ID :BTR ~~SD08~~ SD07
Matrix :SOIL SS13

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/25/93
Collected :08/17/93 @ 11:42 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	91.0		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	32.5		mg/Kg	3510/3550/8100M		08/21	08/22	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	2.70		mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.025	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Toluene	0.025	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Ethylbenzene	0.025	U	mg/Kg	EPA 8020		08/21	08/24	JLB
p&m Xylene	0.025	U	mg/Kg	EPA 8020		08/21	08/24	[redacted]
o-Xylene	0.025	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans12Dichloroethylene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans1,3Dichloropropene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Vinyl Chloride	0.025	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroethane	0.025	U	mg/Kg	EPA 8010		08/21	08/24	[redacted]
1,4 Dichlorobenzene	0.025	U	mg/Kg	EPA 8010		08/21	08/24	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

changed site location
2 Feb 95 SM

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Lab Ref.# :93.4203-3
Client Sample ID :BTR ~~SD08~~ SD07
Matrix :SOIL SSB

2-Chloroethylvinylether	0.025	U	mg/Kg	EPA 8010	08/21 08/24	JLB
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8010	08/21 08/24	JLB
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8010	08/21 08/24	JLB

See Special Instructions Above
Sample Remarks Above
: Undetected, Reported value is the practical quantification limit.
: Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

changed site location
20095 SM

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-1
Client Sample ID :BTR ~~SD08~~ SD08
Matrix :SOIL SSB

5633 B STREET
ANCHORAGE, AK 9951
TEL (907) 562-234
FAX (907) 561-530

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/30/93
Collected :08/17/93 @ 11:56 hr
Received :08/19/93 @ 18:45 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	89.2		%	SM17 2540G				
Hydrocarbons EPH	115		mg/Kg	3510/3550/8100M			08/21	M
VPH & BTEX						08/21	08/22	JB
Hydrocarbons VPH	8.94		mg/Kg	EPA 8015M/8020				
Benzene	---		mg/Kg	EPA 5030/8015m		08/21	08/24	WL
Toluene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLJ
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	
p&m Xylene	0.045		mg/Kg	EPA 8020		08/21	08/24	
o-Xylene	0.123		mg/Kg	EPA 8020		08/21	08/24	JLJ
	0.056		mg/Kg	EPA 8020		08/21	08/24	JLJ
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

changed sample location
2695 SMF

Chemlab Ref.# :93.4203-1
Client Sample ID :BTR ~~SD08~~ SD08
Matrix :SOIL SS13

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/21	08/24	JLI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/24	JLI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21	08/24	JLI
Organochlorine Pest				EPA 8080			
Aldrin	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Alpha-BHC	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Beta-BHC	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Delta-BHC	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Gamma-BHC	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Chlordane	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDD	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDE	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDT	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Dieldrin	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan I	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan II	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan Sulfate	0.003	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endrin	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endrin Aldehyde	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Heptachlor	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Heptachlor Epoxide	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
[illegible]oxychlor	0.002	U	mg/Kg	EPA 8080	08/21	08/24	NRC
[illegible]aphene	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1016	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1221	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1232	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1242	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1248	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC

Special Instructions Above
See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
= Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-4
Client Sample ID :BTR SS13 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69828
Report Completed :08/30/93
Collected :08/18/93 @ 12:00 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	5.76		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.0010	U	mg/L	EPA 8020		08/21	08/24	WLS
Toluene	0.0010	U	mg/L	EPA 8020		08/21	08/24	WLS
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/21	08/24	WLS
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/21	08/24	WLS
o-Xylene	0.0010	U	mg/L	EPA 8020		08/21	08/24	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-1
Client Sample ID :BTR SS13 SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69840
Report Completed :10/08/93
Collected :08/18/93 @ 12:00 hrs
Received :08/20/93 @ 11:30 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. FOR 8260 SPIKE AND SPIKE DUPLICATE, SEE WORK ORDER 93.4209-2,3.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,2-Dichloroethane	0.0061		mg/L	EPA 8260		08/27	08/27	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-1
Client Sample ID :BTR SS13 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Styrene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Toluene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Isophorone	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Naphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-1
Client Sample ID :BTR SS13 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

2-Chloronaphthalene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Acenaphthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Fluorene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Phenanthrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Chrysene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.16		mg/L	EPA 6010		08/25 08/26	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Barium	0.082		mg/L	EPA 6010		08/25 08/26	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Calcium	75		mg/L	EPA 6010		08/25 08/26	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Iron	1.6		mg/L	EPA 6010		08/25 08/26	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
STD 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-1
Client Sample ID :BTR SS13 SW01
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Magnesium	26		mg/L	EPA 6010		08/25 08/26	DLG
Manganese	0.31		mg/L	EPA 6010		08/25 08/26	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Potassium	5.1		mg/L	EPA 6010		08/25 08/26	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Silver	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Sodium	100		mg/L	EPA 6010		08/25 08/26	DLG
Thallium	0.005	U	mg/L	EPA 7841		08/24 08/26	DLG
Vanadium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Barium	0.068		mg/L	EPA 6010		08/25 08/26	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Calcium	71		mg/L	EPA 6010		08/25 08/26	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Iron	0.28		mg/L	EPA 6010		08/25 08/26	DLG
Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Magnesium	25		mg/L	EPA 6010		08/25 08/26	DLG
Manganese	0.24		mg/L	EPA 6010		08/25 08/26	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Potassium	5.0	U	mg/L	EPA 6010		08/25 08/26	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Silver	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Sodium	110		mg/L	EPA 6010		08/25 08/26	DLG
Thallium	0.005	U	mg/L	EPA 7841		08/24 08/26	DLG
Vanadium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-7
Client Sample ID :BTR SS13 SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69831
Report Completed :08/30/93
Collected :08/18/93 @ 13:25 hr:
Received :08/20/93 @ 11:30 hr:
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	1.30		mg/L	3510/3550/8100M		08/27	08/28	DR
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.069		mg/L	EPA 5030/8015m		08/26	08/26	WL
Benzene	0.0069		mg/L	EPA 8020		08/26	08/26	WL
Toluene	0.0010	U	mg/L	EPA 8020		08/26	08/26	WL
Ethylbenzene	0.0031		mg/L	EPA 8020		08/26	08/26	WL
p&m Xylene	0.0054		mg/L	EPA 8020		08/26	08/26	WL
o-Xylene	0.0074		mg/L	EPA 8020		08/26	08/26	WL

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-1
Client Sample ID :BTR SS13 SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69842
Report Completed :09/20/93
Collected :08/18/93 @ 13:25 h
Received :08/20/93 @ 11:30 h
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics								
Benzene	0.0064		mg/L	EPA 8260		08/31	08/31	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Chloromethane	0.0042		mg/L	EPA 8260		08/31	08/31	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloroethane	0.0091		mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Ethylbenzene	0.0025		mg/L	EPA 8260		08/31	08/31	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-1
Client Sample ID :BTR SS13 SW02
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Napthalene	0.0016		mg/L	EPA 8260	08/31	08/31	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Tetrachloroethene	0.012		mg/L	EPA 8260	08/31	08/31	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
1,2,4-Trimethylbenzene	0.0014		mg/L	EPA 8260	08/31	08/31	KW
1,3,5-Trimethylbenzene	0.0013		mg/L	EPA 8260	08/31	08/31	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KW
p+m-Xylene	0.0045		mg/L	EPA 8260	08/31	08/31	KW
o-Xylene	0.0059		mg/L	EPA 8260	08/31	08/31	KW
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Isophorone	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Naphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-1
Client Sample ID :BTR SS13 SW02
Matrix :WATER

2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Acenaphthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Fluorene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Phenanthrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Chrysene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/24 08/25	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.21		mg/L	EPA 6010		08/25 08/26	DL
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	DL
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	DL
Barium	0.082		mg/L	EPA 6010		08/25 08/26	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Calcium	130		mg/L	EPA 6010		08/25 08/26	DL
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	DL
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Iron	12		mg/L	EPA 6010		08/25 08/26	DL
Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	DL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-1
Client Sample ID :BTR SS13 SW02
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Magnesium	46		mg/L	EPA 6010		08/25 08/26	D
Manganese	0.54		mg/L	EPA 6010		08/25 08/26	D
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Nickel	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Potassium	17		mg/L	EPA 6010		08/25 08/26	D
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Silver	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Sodium	92		mg/L	EPA 6010		08/25 08/26	D
Thallium	0.0050	U	mg/L	EPA 7841		08/24 08/26	K
Vanadium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Zinc	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Barium	0.065		mg/L	EPA 6010		08/25 08/26	D
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Calcium	130		mg/L	EPA 6010		08/25 08/26	D
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Iron	4.0		mg/L	EPA 6010		08/25 08/26	D
Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Magnesium	46		mg/L	EPA 6010		08/25 08/26	D
Manganese	0.50		mg/L	EPA 6010		08/25 08/26	D
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Nickel	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Potassium	17		mg/L	EPA 6010		08/25 08/26	D
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Silver	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Sodium	98		mg/L	EPA 6010		08/25 08/26	D
Thallium	0.0050	U	mg/L	EPA 7841		08/24 08/26	K
Vanadium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Zinc	0.05	U	mg/L	EPA 6010		08/25 08/26	D

* See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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NA = Not Analyzed
LT = Less Than
GT = Greater Than

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

8W change site location 2Feb95

REPORT of ANALYSIS

Chemlab Ref.# :93.4206-2
Client Sample ID :BTR ~~SB08~~ SW05 SS13
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69806
Report Completed :08/24/93
Collected :08/17/93 @ 11:25 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. SAMPLE RECEIVED WITH 1 VOC BROKEN. SAMPLE CONTAINS CIS-1-2-DCE AT 0.0014 PPM.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.334		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/22	08/22	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Toluene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
o-Xylene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,2 Dichloroethane	0.0033		mg/L	EPA 8010		08/22	08/22	JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

changed Site location 2 Feb 95 SWL

REPORT of ANALYSIS

Chemlab Ref.# :93.4206-2
Client Sample ID :BTR ~~SD08~~ SW05
Matrix :WATER SS13

2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB

* See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

changed Solubration Soil Beds

REPORT of ANALYSIS

Chemlab Ref.# :93.4206-3
Client Sample ID :BTR ~~SD08~~ SW06
Matrix :WATER SS13

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69806
Report Completed :08/24/93
Collected :08/17/93 @ 11:42 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. SAMPLE CONTAINS CIS-1-2-DCE AT 0.012 PPM.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.196		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/22	08/22	KWM

Benzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Toluene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
p&m Xylene	0.0022		mg/L	EPA 8020		08/22	08/22	JLB
o-Xylene	0.0016		mg/L	EPA 8020		08/22	08/22	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,2 Dichloroethane	0.0038		mg/L	EPA 8010		08/22	08/22	JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

changed to location
2-6-95 SNF

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4206-3
Client Sample ID :BTR ~~SD08~~ SW06
Matrix :WATER SS13

2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB

* = See Special Instructions Above
** = See Sample Remarks Above
J = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

drawn Site location
2 Feb 95 mf

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4206-1
Client Sample ID :BTR ~~SD08~~ SW07
Matrix :WATER ~~SS13~~

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69806
Report Completed :08/24/93
Collected :08/17/93 @ 11:56 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director: STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. 2 XIL BROKEN. UNABLE TO DO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE DUE TO BROKEN CONTAINERS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.349		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020		mg/L	EPA 5030/8015m		08/22	08/22	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/21	08/21	JLB
Toluene	0.0010	U	mg/L	EPA 8020		08/21	08/21	JLB
Ethylbenzene	0.0032		mg/L	EPA 8020		08/21	08/21	JLB
p&m Xylene	0.0080		mg/L	EPA 8020		08/21	08/21	JLB
o-Xylene	0.0045		mg/L	EPA 8020		08/21	08/21	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,2 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/21	08/21	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

changed site location
26895 SMF

REPORT of ANALYSIS ECC

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4206-1
Client Sample ID :BTR SD08 SW07
Matrix :WATER 8613

2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010	08/21	08/21	JLB
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/21	08/21	JLB
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/21	08/21	JLB

* = See Special Instructions Above
* = See Sample Remarks Above
J = Undetected, Reported value is the practical quantification limit.
) = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-SS13-2S05	BTR-SS13-2S06	BTR-SS13-2S07
F&BI Number	1724	1726	1728
Sample Type	soil	soil	soil
Date Received	9/3/93	9/3/93	9/3/93
% Dry Weight	88	92	87
Sequence Date	#6-09/05/93	#6-09/05/93	#6-09/05/93
Leaded Gas			
JP-4	<60	<60	<60
Lube Oil	2400	<120	<120
Diesel	<60	<60	~~87~~ 110 J
Spike Level			
Unknown Semi-volatile			
Pentacosane	90	90	86
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93
CCl4	<0.1 J	<0.1 J	<0.1 J
TCA	<0.1 J	<0.1 J	<0.1 J
Benzene	<0.02	<0.02	<0.02
TCE	<0.1 J	<0.1 J	<0.1 J
Toluene	<0.02	<0.02	<0.02
PCE	<0.1 J	<0.1 J	0.3 J
Ethylbenzene	<0.02	<0.02	0.07
Xylenes	<0.04	<0.04	0.5 J
Gasoline	<1 J	<1 J	6 diesel J
Spike level			
BFB	98	97	90

11.11.94
SMF

ANALYTICAL DATA SHEETS FOR THE GARAGE (SS14)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-7
Client Sample ID :BTR-SS14-S04
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 11:40 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Jmstead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
[illegible]rt-Butylbenzne	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
[illegible]arbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
[illegible]Isopropyltoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-7
Client Sample ID :BTR-SS14-S04
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Napthalene	2.78	D	mg/Kg	EPA 8260	08/25 09/09	KWM
n-Propylbenzene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Styrene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Toluene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Trichloroethene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,3,5-Trimethylbenzene	6.32	D	mg/Kg	EPA 8260	08/25 09/09	KWM
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
p+m-Xylene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
o-Xylene	0.293	D	mg/Kg	EPA 8260	08/25 09/09	KWM
Semivolatile Organics				EPA 8270		
Phenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	M
bis(2-Chloroethyl)ether	2.10	U	mg/Kg	EPA 8270	09/04 09/29	M
2-Chlorophenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,3-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,4-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Benzyl Alcohol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,2-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
bis(2-Chloroisopropyl)e	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
n-Nitroso-di-n-Propylam	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachloroethane	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Nitrobenzene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Isophorone	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Nitrophenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4-Dimethylphenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Benzoic Acid	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
bis(2-Chloroethoxy)Meth	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4-Dichlorophenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
1,2,4-Trichlorobenzene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Naphthalene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Chloroaniline	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachlorobutadiene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
4-Chloro-3-Methylphenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Methylnaphthalene	5.84		mg/Kg	EPA 8270	09/04 09/29	MTT
Hexachlorocyclopentadie	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4,6-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2,4,5-Trichlorophenol	2.10	U	mg/Kg	EPA 8270	09/04 09/29	MTT
2-Chloronaphthalene	2.10	U	mg/Kg	EPA 8270	09/04 09/29	M

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-7
Client Sample ID :BTR-SS14-S04
Matrix :SOIL

2-Nitroaniline	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Dimethylphthalate	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Acenaphthylene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
2,6-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
3-Nitroaniline	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Acenaphthene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
2,4-Dinitrophenol	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
4-Nitrophenol	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Dibenzofuran	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
2,4-Dinitrotoluene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Diethylphthalate	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
4-Chlorophenyl-Phenylet	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Fluorene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
4-Nitroaniline	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
4,6-Dinitro-2-Methylphe	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
n-Nitrosodiphenylamine	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
4-Bromophenyl-Phenyleth	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Hexachlorobenzene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Pentachlorophenol	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Phenanthrene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Anthracene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
di-n-Butylphthalate	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Fluoranthene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Pyrene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Butylbenzylphthalate	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
3,3-Dichlorobenzidine	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Benzo(a)Anthracene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Chrysene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
bis(2-Ethylhexyl)Phthal	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
di-n-Octylphthalate	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Benzo(b)Fluoranthene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Benzo(k)Fluoranthene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Benzo(a)Pyrene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Indeno(1,2,3-cd)Pyrene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Dibenz(a,h)Anthracene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Benzo(g,h,i)Perylene	2.10	U	mg/Kg	EPA 8270			09/04	09/29 MT
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-	qual	Com		
ICP Screen, ICF				EPA		n/a		
Aluminum	2100		mg/Kg	EPA 6010			08/27	08/29 D
Antimony	52	U	mg/Kg	EPA 6010			08/27	08/29 D
Arsenic	5.2	U	mg/Kg	EPA 6010			08/27	08/29 D
Barium	20		mg/Kg	EPA 6010			08/27	08/29 D
Beryllium	2.6	U	mg/Kg	EPA 6010			08/27	08/29 D
Cadmium	2.6	U	mg/Kg	EPA 6010			08/27	08/29 D
Calcium	9300		mg/Kg	EPA 6010	J	G-1	08/27	08/29 D
Chromium	5.1		mg/Kg	EPA 6010			08/27	08/29 D
Cobalt	5.2	U	mg/Kg	EPA 6010			08/27	08/29 D
Copper	4.9		mg/Kg	EPA 6010			08/27	08/29 D
Iron	6500		mg/Kg	EPA 6010			08/27	08/29 D

JLL 11/5/94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

5633 B ST
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-7
Client Sample ID :BTR-SS14-S04
Matrix :SOIL

					qual	com		
Lead	16		mg/Kg	EPA 6010	J	I.1	08/27 08/29	DI
Magnesium	4500		mg/Kg	EPA 6010	J	G.1	08/27 08/29	DI
Manganese	63		mg/Kg	EPA 6010			08/27 08/29	DI
Molybdenum	2.6	U	mg/Kg	EPA 6010			08/27 08/29	DI
Nickel	5.1		mg/Kg	EPA 6010			08/27 08/29	DI
Potassium	300		mg/Kg	EPA 6010			08/27 08/29	DI
Selenium	52	U	mg/Kg	EPA 6010			08/27 08/29	DI
Silver	2.6	U	mg/Kg	EPA 6010	UJ	C.1	08/27 08/29	DI
Sodium	66		mg/Kg	EPA 6010			08/27 08/29	DI
Thallium	0.25	U	mg/Kg	EPA 7841			08/26 08/28	KJ
Vanadium	7.5		mg/Kg	EPA 6010			08/27 08/29	DI
Zinc	35		mg/Kg	EPA 6010			08/27 08/29	DI

J.L. 11/5/96

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyz
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-1
Client Sample ID :BTR-SS14-2S05
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 09:45 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.072		mg/Kg	EPA 8260		09/07	10/01	KWM
Bromobenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Bromochloromethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Bromodichloromethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Bromoform	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Bromomethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
n-Butylbenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
sec-Butylbenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
tert-Butylbenzne	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Carbon Tetrachloride	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Chlorobenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Chloroethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Chloroform	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Chloromethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
2-Chlorotoluene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
4-Chlorotoluene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Dibromochloromethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
12Dibromo3Chloropropane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,2-Dibromoethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Dibromomethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,2-Dichlorobenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,3-Dichlorobenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,4-Dichlorobenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Dichlorodifluoromethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,1-Dichloroethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,2-Dichloroethane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,1-Dichloroethene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
cis-1,2-Dichloroethene	0.069		mg/Kg	EPA 8260		09/07	10/01	KWM
trans1,2-Dichloroethene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,2-Dichloropropane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,3-Dichloropropane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
2,2-Dichloropropane	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
1,1-Dichloropropene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Ethylbenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Hexachlorobutadiene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
Isopropylbenzene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM
p-Isopropyltoluene	0.040	U	mg/Kg	EPA 8260		09/07	10/01	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-1
Client Sample ID :BTR-SS14-2S05
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Napthalene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
n-Propylbenzene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Styrene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1112-Tetrachloroethane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1122-Tetrachloroethane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Tetrachloroethene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Toluene	0.134		mg/Kg	EPA 8260	09/07 10/01	KWM
1,2,3-Trichlorobenzene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,2,4-Trichlorobenzene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,1,1-Trichloroethane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,1,2-Trichloroethane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Trichloroethene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Trichlorofluoromethane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,2,3-Trichloropropane	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,2,4-Trimethylbenzene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
1,3,5-Trimethylbenzene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
Vinyl Chloride	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
p+m-Xylene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM
o-Xylene	0.040	U	mg/Kg	EPA 8260	09/07 10/01	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-3
Client Sample ID :BTR-SS14-2S07
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 10:45 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	64.5		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	4820	D	mg/Kg	3510/3550/8100M		09/16	09/24	JBH
Hydrocarbons VPH	358	D	mg/Kg	EPA 5030/8015M		09/07	09/10	WLS
Volatile Organics				EPA 8260				
Benzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Bromobenzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Bromochloromethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Bromodichloromethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Bromoform	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Bromomethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
n-Butylbenzene	3.10	D	mg/Kg	EPA 8260		09/07	09/30	KWM
sec-Butylbenzene	1.28	D	mg/Kg	EPA 8260		09/07	09/30	KWM
tert-Butylbenzne	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Carbon Tetrachloride	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Chlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Chloroethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Chloroform	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Chloromethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
2-Chlorotoluene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
4-Chlorotoluene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Dibromochloromethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
12Dibromo3Chloropropane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,2-Dibromoethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Dibromomethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,2-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,3-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,4-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
Dichlorodifluoromethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,1-Dichloroethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,2-Dichloroethane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,1-Dichloroethene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
cis-1,2-Dichloroethene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
trans1,2-Dichloroethene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1,3-Dichloropropane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
2,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
1-Dichloropropene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4616-3
Client Sample ID :BTR-SS14-2S07
Matrix :SOIL

Ethylbenzene	0.550	D	mg/Kg	EPA 8260	09/07	09/30 KWM
Hexachlorobutadiene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Isopropylbenzene	0.637	D	mg/Kg	EPA 8260	09/07	09/30 KWM
p-Isopropyltoluene	2.03	D	mg/Kg	EPA 8260	09/07	09/30 KWM
Methylene Chloride	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Napthalene	46.0	D	mg/Kg	EPA 8260	09/07	09/30 KWM
n-Propylbenzene	1.17	D	mg/Kg	EPA 8260	09/07	09/30 KWM
Styrene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1112-Tetrachloroethane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1122-Tetrachloroethane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Tetrachloroethene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Toluene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,2,3-Trichlorobenzene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,2,4-Trichlorobenzene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,1,1-Trichloroethane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,1,2-Trichloroethane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Trichloroethene	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
Trichlorofluoromethane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,2,3-Trichloropropane	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
1,2,4-Trimethylbenzene	13.3	D	mg/Kg	EPA 8260	09/07	09/30 KWM
1,3,5-Trimethylbenzene	2.93	D	mg/Kg	EPA 8260	09/07	09/30 KWM
Vinyl Chloride	0.400	U	mg/Kg	EPA 8260	09/07	09/30 KWM
p+m-Xylene	2.87	D	mg/Kg	EPA 8260	09/07	09/30 KW
o-Xylene	2.11	D	mg/Kg	EPA 8260	09/07	09/30 KWM
	4.98					

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-4
Client Sample ID :BTR-SS14-2S07 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 10:45 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SAMPLES RUN WITH SPIKE AND SPIKE DUP FROM WORK ORDER 93.4626. FOR 8100 EPH SPIKE CONCENTRATIONS AND RECOVERIES, SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	64.5		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	7690	D	mg/Kg	3510/3550/8100M		09/16	10/04	JBH

* See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

5633 B STREET
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Chemlab Ref.# :93.4616-5
Client Sample ID :BTR-SS14-2S07 SPIKE DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 10:45 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SAMPLES RUN WITH SPIKE AND SPIKE DUP FROM WORK ORDER 93.4626. FOR 8100 EPH SPIKE CONCENTRATIONS AND RECOVERIES, SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	64.5		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	11000	D	mg/Kg	3510/3550/8100M		09/16	10/04	JBH

* See Special Instructions Above
** See Sample Remarks Above
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D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-2
Client Sample ID :BTR-SS14-2S0[illegible]-3
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 10:15 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

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REPORT of ANALYSIS

Chemlab Ref.# :93.4616-2
Client Sample ID :BTR-SS14-2S08-3
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.031		mg/Kg	EPA 8260	09/07 09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Tetrachloroethene	0.023		mg/Kg	EPA 8260	09/07 09/23	MCM
Toluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
o-Xylene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-4
Client Sample ID :BTR-SS14-SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:30 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	4.22	D	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	1.24	D	mg/Kg	EPA 8260		08/25	09/09	KWM
tert-Butylbenzne	0.256	D	mg/Kg	EPA 8260		08/25	09/09	KWM
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM

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5633 B STREET
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TEL (907) 562-2343
FAX (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-4
Client Sample ID :BTR-SS14-SD01
Matrix :SOIL

Ethylbenzene	0.728	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Isopropylbenzene	0.681	D	mg/Kg	EPA 8260	08/25	09/09	KWM
p-Isopropyltoluene	2.47	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Methylene Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Napthalene	14.9	D	mg/Kg	EPA 8260	08/25	09/09	KWM
n-Propylbenzene	0.918	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Styrene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Toluene	0.406	D	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trimethylbenzene	14.7	D	mg/Kg	EPA 8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	9.32	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
p+m-Xylene	5.84	D	mg/Kg	EPA 8260	08/25	09/09	KWM
o-Xylene	4.46	D	mg/Kg	EPA 8260	08/25	09/09	KWM
	10.30						
Semivolatile Organics				EPA 8270			
Phenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chlorophenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,3-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	1.49	J	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	7.73	D	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	2.20	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	14.5	D	mg/Kg	EPA 8270	09/04	09/28	MTT

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-4
Client Sample ID :BTR-SS14-SD01
Matrix :SOIL

Hexachlorocyclopentadie	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2,4,6-Trichlorophenol	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2,4,5-Trichlorophenol	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2-Chloronaphthalene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2-Nitroaniline	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Dimethylphthalate	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Acenaphthylene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2,6-Dinitrotoluene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
3-Nitroaniline	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Acenaphthene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2,4-Dinitrophenol	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
4-Nitrophenol	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Dibenzofuran	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
2,4-Dinitrotoluene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Diethylphthalate	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
4-Chlorophenyl-Phenylet	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Fluorene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
4-Nitroaniline	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
4,6-Dinitro-2-Methylphe	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
n-Nitrosodiphenylamine	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
4-Bromophenyl-Phenyleth	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Hexachlorobenzene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Pentachlorophenol	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Phenanthrene	4.79	D	mg/Kg	EPA 8270			09/04 09/28	MT
Anthracene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
di-n-Butylphthalate	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Fluoranthene	2.28	D	mg/Kg	EPA 8270			09/04 09/28	MT
Pyrene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Butylbenzylphthalate	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
3,3-Dichlorobenzidine	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Benzo(a)Anthracene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Chrysene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	4.60	B	mg/Kg	EPA 8270			09/04 09/28	MT
di-n-Octylphthalate	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Benzo(b)Fluoranthene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Benzo(k)Fluoranthene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Benzo(a)Pyrene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Dibenz(a,h)Anthracene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Benzo(g,h,i)Perylene	2.20	U	mg/Kg	EPA 8270			09/04 09/28	MT
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-	qual	com		
ICP Screen, ICF				EPA		n/a		
Aluminum	2000		mg/Kg	EPA 6010			08/27 08/29	DFT
Antimony	53	U	mg/Kg	EPA 6010			08/27 08/29	DFT
Arsenic	53	U	mg/Kg	EPA 6010			08/27 08/29	DFT
Barium	29		mg/Kg	EPA 6010			08/27 08/29	DFT
Beryllium	2.7	U	mg/Kg	EPA 6010			08/27 08/29	DFT
Cadmium	2.7	U	mg/Kg	EPA 6010			08/27 08/29	DFT
Calcium	4400		mg/Kg	EPA 6010	J	0.1	08/27 08/29	DFT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908
5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-4
Client Sample ID :BTR-SS14-SD01
Matrix :SOIL

					Qual	Com		
	53		mg/Kg	EPA 6010			08/27 08/29	DF
Chromium	5.3	U	mg/Kg	EPA 6010			08/27 08/29	DF
Cobalt	16		mg/Kg	EPA 6010			08/27 08/29	DF
Copper	6400		mg/Kg	EPA 6010	J	I.1	08/27 08/29	DF
Iron	231		mg/Kg	EPA 6010	J	G.1	08/27 08/29	DF
Lead	1900		mg/Kg	EPA 6010			08/27 08/29	DF
Magnesium	50		mg/Kg	EPA 6010			08/27 08/29	DF
Manganese	2.7	U	mg/Kg	EPA 6010			08/27 08/29	DF
Molybdenum	5.6		mg/Kg	EPA 6010			08/27 08/29	DF
Nickel	310		mg/Kg	EPA 6010			08/27 08/29	DF
Potassium	5.3	U	mg/Kg	EPA 6010	UJ	C.1	08/27 08/29	DF
Selenium	2.7	U	mg/Kg	EPA 6010			08/27 08/29	DF
Silver	110		mg/Kg	EPA 7841			08/26 08/28	KA
Sodium	1.4	U	mg/Kg	EPA 6010			08/27 08/27	DF
Thallium	6.6		mg/Kg	EPA 6010			08/27 08/27	DF
Vanadium	200		mg/Kg	EPA 6010				
Zinc								

JD 11/5/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Th

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-6
Client Sample ID :BTR-SS14-SD01 DUPLICATE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	2400		mg/Kg	EPA 6010		08/27	08/29	DFL
Antimony	53	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Arsenic	53	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Barium	27		mg/Kg	EPA 6010		08/27	08/29	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Calcium	13000		mg/Kg	EPA 6010		08/27	08/29	DFL
Chromium	36		mg/Kg	EPA 6010		08/27	08/29	DFL
Cobalt	5.3	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Copper	14		mg/Kg	EPA 6010		08/27	08/29	DFL
Iron	6800		mg/Kg	EPA 6010		08/27	08/29	DFL
Lead	170		mg/Kg	EPA 6010		08/27	08/29	DFL
Magnesium	6600		mg/Kg	EPA 6010		08/27	08/29	DFL
Manganese	77		mg/Kg	EPA 6010		08/27	08/29	DFL
Molybdenum	2.7	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Nickel	5.6		mg/Kg	EPA 6010		08/27	08/29	DFL
Potassium	280		mg/Kg	EPA 6010		08/27	08/29	DFL
Selenium	5.3	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Silver	2.7	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Sodium	120		mg/Kg	EPA 6010		08/27	08/29	DFL
Thallium	1.4	U	mg/Kg	EPA 7841		08/26	08/28	KAW
Vanadium	8.0		mg/Kg	EPA 6010		08/27	08/29	DFL
Zinc	170		mg/Kg	EPA 6010		08/27	08/29	DFL

* See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-5
Client Sample ID :BTR-SS14-SD01 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:30 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Semivolatile Organics				EPA 8270				
Phenol	2.40		mg/Kg	EPA 8270		09/04	09/28	MTT
bis(2-Chloroethyl)ether	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2-Chlorophenol	2.43		mg/Kg	EPA 8270		09/04	09/28	MTT
1,3-Dichlorobenzene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
1,4-Dichlorobenzene	2.42		mg/Kg	EPA 8270		09/04	09/28	MTT
Benzyl Alcohol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
1,2-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	
2-Methylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	
bis(2-Chloroisopropyl)e	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
4-Methylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
n-Nitroso-di-n-Propylam	2.91		mg/Kg	EPA 8270		09/04	09/28	MTT
Hexachloroethane	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Nitrobenzene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Isophorone	3.61		mg/Kg	EPA 8270		09/04	09/28	MTT
2-Nitrophenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2,4-Dimethylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Benzoic Acid	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2,4-Dichlorophenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
1,2,4-Trichlorobenzene	2.56		mg/Kg	EPA 8270		09/04	09/28	MTT
Naphthalene	11.6		mg/Kg	EPA 8270		09/04	09/28	MTT
4-Chloroaniline	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Hexachlorobutadiene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MTT
4-Chloro-3-Methylphenol	2.50		mg/Kg	EPA 8270		09/04	09/28	MTT
2-Methylnaphthalene	21.4		mg/Kg	EPA 8270		09/04	09/28	MTT
Hexachlorocyclopentadie	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2,4,6-Trichlorophenol	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2,4,5-Trichlorophenol	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2-Chloronaphthalene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2-Nitroaniline	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Dimethylphthalate	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Acenaphthylene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
2,6-Dinitrotoluene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
3-Nitroaniline	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MTT
Acenaphthene	4.81		mg/Kg	EPA 8270		09/04	09/28	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-5
Client Sample ID :BTR-SS14-SD01 SPIKE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,4-Dinitrophenol	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Nitrophenol	3.03		mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenzofuran	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
2,4-Dinitrotoluene	3.35		mg/Kg	EPA 8270		09/04 09/28	MTT
Diethylphthalate	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Chlorophenyl-Phenylet	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Fluorene	5.79		mg/Kg	EPA 8270		09/04 09/28	MTT
4-Nitroaniline	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4,6-Dinitro-2-Methylphe	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
n-Nitrosodiphenylamine	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Bromophenyl-Phenyleth	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Hexachlorobenzene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Pentachlorophenol	1.79		mg/Kg	EPA 8270		09/04 09/28	MTT
Phenanthrene	22.2		mg/Kg	EPA 8270		09/04 09/28	MTT
Anthracene	8.38		mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Butylphthalate	3.21		mg/Kg	EPA 8270		09/04 09/28	MTT
Fluoranthene	11.8		mg/Kg	EPA 8270		09/04 09/28	MTT
Pyrene	10.1		mg/Kg	EPA 8270		09/04 09/28	MTT
Butylbenzylphthalate	3.21		mg/Kg	EPA 8270		09/04 09/28	MTT
3,3-Dichlorobenzidine	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Anthracene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Chrysene	3.60		mg/Kg	EPA 8270		09/04 09/28	MTT
bis(2-Ethylhexyl)Phthal	6.96	B	mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Octylphthalate	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(b)Fluoranthene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(k)Fluoranthene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Pyrene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Indeno(1,2,3-cd)Pyrene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenz(a,h)Anthracene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(g,h,i)Perylene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2400		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	78		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	110		mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	39		mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	51		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	4200		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	97		mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	120		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	6800		mg/Kg	EPA 6010		08/27 08/29	DFL
Lead	300		mg/Kg	EPA 6010		08/27 08/29	DFL
Magnesium	2800		mg/Kg	EPA 6010		08/27 08/29	DFL
Manganese	1501		mg/Kg	EPA 6010		08/27 08/29	DFL
Molybdenum	99		mg/Kg	EPA 6010		08/27 08/29	DFL
Nickel	100		mg/Kg	EPA 6010		08/27 08/29	DFL
Potassium	1300		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

Chemlab Ref.# :93.4301-5
Client Sample ID :BTR-SS14-SD01 SPIKE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Selenium	99	mg/Kg	EPA 6010	08/27 08/29	DFL
Silver	17	mg/Kg	EPA 6010	08/27 08/29	DFL
Sodium	1200	mg/Kg	EPA 6010	08/27 08/29	DFL
Thallium	2.3	mg/Kg	EPA 7841	08/26 08/28	KAW
Vanadium	100	mg/Kg	EPA 6010	08/27 08/29	DFL
Zinc	280	mg/Kg	EPA 6010	08/27 08/29	DFL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-17
Client Sample ID :BTR-SS14-SD01 SPIKE DUPLICATE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	2.38		mg/Kg	EPA 8270		09/04	09/28	MT
bis(2-Chloroethyl)ether	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
2-Chlorophenol	2.43		mg/Kg	EPA 8270		09/04	09/28	MT
1,3-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
1,4-Dichlorobenzene	2.36		mg/Kg	EPA 8270		09/04	09/28	MT
Benzyl Alcohol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
1,2-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
2-Methylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
bis(2-Chloroisopropyl)e	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
4-Methylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
n-Nitroso-di-n-Propylam	2.70		mg/Kg	EPA 8270		09/04	09/28	MT
Hexachloroethane	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
Nitrobenzene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
Isophorone	1.18	J	mg/Kg	EPA 8270		09/04	09/28	MT
2-Nitrophenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
2,4-Dimethylphenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
Benzoic Acid	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
bis(2-Chloroethoxy)Meth	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
2,4-Dichlorophenol	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
1,2,4-Trichlorobenzene	2.59		mg/Kg	EPA 8270		09/04	09/28	MT
Naphthalene	7.63		mg/Kg	EPA 8270		09/04	09/28	MT
4-Chloroaniline	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
Hexachlorobutadiene	2.20	U	mg/Kg	EPA 8270		09/04	09/28	MT
4-Chloro-3-Methylphenol	2.05		mg/Kg	EPA 8270		09/04	09/28	MT
2-Methylnaphthalene	15.1		mg/Kg	EPA 8270		09/04	09/28	MT
Hexachlorocyclopentadie	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
2,4,6-Trichlorophenol	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
2,4,5-Trichlorophenol	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
2-Chloronaphthalene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
2-Nitroaniline	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
Dimethylphthalate	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
Acenaphthylene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT
2,6-Dinitrotoluene	2.2	U	mg/Kg	EPA 8270		09/04	09/28	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-17
Client Sample ID :BTR-SS14-SD01 SPIKE DUPLICATE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

3-Nitroaniline	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Acenaphthene	3.49		mg/Kg	EPA 8270	09/04 09/28	MT
2,4-Dinitrophenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Nitrophenol	2.79		mg/Kg	EPA 8270	09/04 09/28	MT
Dibenzofuran	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
2,4-Dinitrotoluene	2.97		mg/Kg	EPA 8270	09/04 09/28	MT
Diethylphthalate	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Chlorophenyl-Phenylet	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
Fluorene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Nitroaniline	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
4,6-Dinitro-2-Methylphe	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
n-Nitrosodiphenylamine	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Bromophenyl-Phenyleth	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
Hexachlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
Pentachlorophenol	1.39		mg/Kg	EPA 8270	09/04 09/28	MT
Phenanthrene	4.76		mg/Kg	EPA 8270	09/04 09/28	MT
Anthracene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MT
di-n-Butylphthalate	3.05		mg/Kg	EPA 8270	09/04 09/28	MT
Fluoranthene	2.24		mg/Kg	EPA 8270	09/04 09/28	MT
Pyrene	3.59		mg/Kg	EPA 8270	09/04 09/28	MT
Butylbenzylphthalate	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
3,3-Dichlorobenzidine	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzo(a)Anthracene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Chrysene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	4.27	B	mg/Kg	EPA 8270	09/04 09/28	MT
di-n-Octylphthalate	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzo(b)Fluoranthene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzo(k)Fluoranthene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzo(a)Pyrene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Dibenz(a,h)Anthracene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzo(g,h,i)Perylene	2.2	U	mg/Kg	EPA 8270	09/04 09/28	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-1
Client Sample ID :BTR-SS14-SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:55 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. THE 8260 HOLDING TIME WAS EXCEEDED ON THIS SAMPLE.

Analyst/Comment

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroethyl)ether	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Chlorophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
1,3-Dichlorobenzene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
1,4-Dichlorobenzene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Benzyl Alcohol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
1,2-Dichlorobenzene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Methylphenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroisopropyl)e	0.025	U	mg/L	EPA 8270 (J)-B.1		08/27	08/29	MT
4-Methylphenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
n-Nitroso-di-n-Propylam	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachloroethane	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Nitrobenzene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Isophorone	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Nitrophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dimethylphenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Benzoic Acid	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroethoxy)Meth	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dichlorophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
1,2,4-Trichlorobenzene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Naphthalene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
4-Chloroaniline	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachlorobutadiene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
4-Chloro-3-Methylphenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Methylnaphthalene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachlorocyclopentadie	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,4,6-Trichlorophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,4,5-Trichlorophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Chloronaphthalene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Dimethylphthalate	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthylene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,6-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
3-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthene	0.025	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dinitrophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	MT

1-19-94 dd

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

REPORT of ANALYSIS

5633 B STR
ANCHORAGE, AK 995
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-1
Client Sample ID :BTR-SS14-SW01
Matrix :WATER

4-Nitrophenol	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Dibenzofuran	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Diethylphthalate	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
4-Chlorophenyl-Phenylet	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Fluorene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
4-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
4,6-Dinitro-2-Methylphe	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
n-Nitrosodiphenylamine	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
4-Bromophenyl-Phenyleth	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Hexachlorobenzene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Pentachlorophenol	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Phenanthrene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Anthracene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Butylphthalate	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Fluoranthene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Pyrene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Butylbenzylphthalate	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
3,3-Dichlorobenzidine	0.025	U	mg/L	EPA 8270	(J)-A.1	08/27 08/29	MT
Benzo(a)Anthracene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Chrysene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
bis(2-Ethylhexyl)Phthal	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Octylphthalate	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(b)Fluoranthene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(k)Fluoranthene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Pyrene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Indeno(1,2,3-cd)Pyrene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Dibenz(a,h)Anthracene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(g,h,i)Perylene	0.025	U	mg/L	EPA 8270		08/27 08/29	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Barium	0.074		mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Calcium	105		mg/L	EPA 6010		08/28 08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Iron	6.0		mg/L	EPA 6010		08/28 08/30	DLG
Lead	0.1	U	mg/L	EPA 6010	(J) 1.1	08/28 08/30	DLG
Magnesium	34		mg/L	EPA 6010		08/28 08/30	DLG
Manganese	0.49		mg/L	EPA 6010		08/28 08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Potassium	9.1		mg/L	EPA 6010		08/28 08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG
Silver	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG

compiled by: BFM 11.8.94

1-18-94 CT

original by: S.L. 2/2/94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-1
Client Sample ID :BTR-SS14-SW01
Matrix :WATER

		Qualifier			Comment			
Sodium	130		mg/L	EPA 6010		08/28	08/30	DL
Thallium	0.005	U	mg/L	EPA 7841		08/28	08/30	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Barium	0.062		mg/L	EPA 6010		08/28	08/30	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Calcium	110		mg/L	EPA 6010		08/28	08/30	DL
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Iron	0.55		mg/L	EPA 6010		08/28	08/30	DL
Lead	0.1	U J	mg/L	EPA 6010	I.1	08/28	08/30	DL
Magnesium	32		mg/L	EPA 6010		08/28	08/30	DL
Manganese	0.46		mg/L	EPA 6010		08/28	08/30	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Potassium	8.2		mg/L	EPA 6010		08/28	08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Sodium	140		mg/L	EPA 7841		08/28	08/30	KA
Thallium	0.005	U	mg/L	EPA 6010		08/28	08/30	DL
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DL

All chgs ok 2/2/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 9.8

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-3
Client Sample ID :BTR-SS14-SW01 DUPLICATE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:55 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.075		mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	107		mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Iron	6.1		mg/L	EPA 6010		08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Magnesium	33		mg/L	EPA 6010		08/28	08/30	DLG
Manganese	0.50		mg/L	EPA 6010		08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Potassium	8.5		mg/L	EPA 6010		08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Sodium	130		mg/L	EPA 6010		08/28	08/30	DLG
Thallium	0.005	U	mg/L	EPA 7841		08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.063		mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	110		mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-3
Client Sample ID :BTR-SS14-SW01 DUPLICATE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Iron	0.56		mg/L	EPA 6010	08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010	08/28	08/30	DLG
Magnesium	33		mg/L	EPA 6010	08/28	08/30	DLG
Manganese	0.47		mg/L	EPA 6010	08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010	08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010	08/28	08/30	DLG
Potassium	8.1		mg/L	EPA 6010	08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010	08/28	08/30	DLG
Silver	0.05	U	mg/L	EPA 6010	08/28	08/30	DLG
Sodium	130		mg/L	EPA 6010	08/28	08/30	DLG
Thallium	0.005	U	mg/L	EPA 7841	08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010	08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010	08/28	08/30	DLG

* = See Special Instructions Above
* = See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-2
Client Sample ID :BTR-SS14-SW01 SPIKE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:55 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. 8270: SAMPLE WAS SPIKED FOR PERCENT RECOVERIES SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	0.205		mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroethyl)ether	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2-Chlorophenol	0.234		mg/L	EPA 8270		08/27	08/29	MT
1,3-Dichlorobenzene	0.0400	U	mg/L	EPA 8270		08/27	08/29	MT
1,4-Dichlorobenzene	0.225		mg/L	EPA 8270		08/27	08/29	MT
Benzyl Alcohol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
1,2-Dichlorobenzene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2-Methylphenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroisopropyl)e	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
4-Methylphenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
n-Nitroso-di-n-Propylam	0.256		mg/L	EPA 8270		08/27	08/29	MT
Hexachloroethane	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Nitrobenzene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Isophorone	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2-Nitrophenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dimethylphenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Benzoic Acid	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroethoxy)Meth	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dichlorophenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
1,2,4-Trichlorobenzene	0.237		mg/L	EPA 8270		08/27	08/29	MT
Naphthalene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
4-Chloroaniline	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachlorobutadiene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
4-Chloro-3-Methylphenol	0.261		mg/L	EPA 8270		08/27	08/29	MT
2-Methylnaphthalene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachlorocyclopentadie	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2,4,6-Trichlorophenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2,4,5-Trichlorophenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2-Chloronaphthalene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Dimethylphthalate	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthylene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
2,6-Dinitrotoluene	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
3-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthene	0.266		mg/L	EPA 8270		08/27	08/29	MT
2,4-Dinitrophenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-2
Client Sample ID :BTR-SS14-SW01 SPIKE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

4-Nitrophenol	0.169		mg/L	EPA 8270		08/27 08/29	MT
Dibenzofuran	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrotoluene	0.253		mg/L	EPA 8270		08/27 08/29	MT
Diethylphthalate	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
4-Chlorophenyl-Phenylet	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
Fluorene	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
4-Nitroaniline	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
4,6-Dinitro-2-Methylphe	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
n-Nitrosodiphenylamine	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
4-Bromophenyl-Phenyleth	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
Hexachlorobenzene	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
Pentachlorophenol	0.078		mg/L	EPA 8270		08/27 08/29	MT
Phenanthrene	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
Anthracene	0.0400	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Butylphthalate	0.303		mg/L	EPA 8270		08/27 08/29	MT
Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Pyrene	0.255		mg/L	EPA 8270		08/27 08/29	MT
Butylbenzylphthalate	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
3,3-Dichlorobenzidine	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Anthracene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Chrysene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
bis(2-Ethylhexyl)Phthal	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
di-n-Octylphthalate	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(b)Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(k)Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Pyrene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Indeno(1,2,3-cd)Pyrene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Dibenz(a,h)Anthracene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Benzo(g,h,i)Perylene	0.040	U	mg/L	EPA 8270		08/27 08/29	MT
Total Metals Analysis	---						
ICP Screen, ICF				EPA	n/a		
Aluminum	1.09		mg/L	EPA 6010		08/28 08/30	DLG
Antimony	0.90		mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	1.03		mg/L	EPA 6010		08/28 08/30	DLG
Barium	1.10		mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.39		mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.46		mg/L	EPA 6010		08/28 08/30	DLG
Calcium	112		mg/L	EPA 6010		08/28 08/30	DLG
Chromium	0.99		mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.95		mg/L	EPA 6010		08/28 08/30	DLG
Copper	1.02		mg/L	EPA 6010		08/28 08/30	DLG
Iron	6.77		mg/L	EPA 6010		08/28 08/30	DLG
Lead	0.93		mg/L	EPA 6010		08/28 08/30	DLG
Magnesium	41.6		mg/L	EPA 6010		08/28 08/30	DLG
Manganese	1.45		mg/L	EPA 6010		08/28 08/30	DLG
Molybdenum	9.42		mg/L	EPA 6010		08/28 08/30	DLG
Nickel	0.97		mg/L	EPA 6010		08/28 08/30	DLG
Potassium	19.9		mg/L	EPA 6010		08/28 08/30	DLG
Selenium	0.97		mg/L	EPA 6010		08/28 08/30	DLG
Silver	0.16		mg/L	EPA 6010		08/28 08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-2
Client Sample ID :BTR-SS14-SW01 SPIKE
Matrix :WATER

Sodium	230	mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.018	mg/L	EPA 7841		08/28 08/30	KJ
Vanadium	0.70	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.96	mg/L	EPA 6010		08/28 08/30	DL
Dissolved Metals Analys	---		-			
ICP Screen, ICF			EPA	n/a		
Aluminum	1.03	mg/L	EPA 6010		08/28 08/30	DL
Antimony	0.83	mg/L	EPA 6010		08/28 08/30	DL
Arsenic	0.95	mg/L	EPA 6010		08/28 08/30	DL
Barium	1.06	mg/L	EPA 6010		08/28 08/30	DL
Beryllium	0.37	mg/L	EPA 6010		08/28 08/30	DL
Cadmium	0.46	mg/L	EPA 6010		08/28 08/30	DL
Calcium	116	mg/L	EPA 6010		08/28 08/30	DL
Chromium	0.93	mg/L	EPA 6010		08/28 08/30	DL
Cobalt	0.91	mg/L	EPA 6010		08/28 08/30	DL
Copper	0.98	mg/L	EPA 6010		08/28 08/30	DL
Iron	1.47	mg/L	EPA 6010		08/28 08/30	DL
Lead	0.90	mg/L	EPA 6010		08/28 08/30	DL
Magnesium	43.0	mg/L	EPA 6010		08/28 08/30	DL
Manganese	1.40	mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.93	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.93	mg/L	EPA 6010		08/28 08/30	DL
Potassium	19.5	mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.90	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.16	mg/L	EPA 6010		08/28 08/30	DL
Sodium	220	mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.017	mg/L	EPA 7841		08/28 08/30	KA
Vanadium	0.90	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.92	mg/L	EPA 6010		08/28 08/30	DL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-16
Client Sample ID :BTR-SS14-SW01 SPIKE DUPLICATE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:55 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. SAMPLE IS A SPIKE DUPLICATE FOR 8270. SAMPLE WAS SPIKED FOR PERCENT RECOVERIES SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Semivolatile Organics				EPA 8270				
Phenol	0.196		mg/L	EPA 8270		08/27	08/29	MTT
bis(2-Chloroethyl)ether	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2-Chlorophenol	0.220		mg/L	EPA 8270		08/27	08/29	MTT
1,3-Dichlorobenzene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
1,4-Dichlorobenzene	0.246		mg/L	EPA 8270		08/27	08/29	MTT
Benzyl Alcohol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
1,2-Dichlorobenzene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2-Methylphenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
bis(2-Chloroisopropyl)e	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
4-Methylphenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
n-Nitroso-di-n-Propylam	0.282		mg/L	EPA 8270		08/27	08/29	MTT
Hexachloroethane	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Nitrobenzene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Isophorone	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2-Nitrophenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2,4-Dimethylphenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Benzoic Acid	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
bis(2-Chloroethoxy)Meth	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2,4-Dichlorophenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
1,2,4-Trichlorobenzene	0.260		mg/L	EPA 8270		08/27	08/29	MTT
Naphthalene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
4-Chloroaniline	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Hexachlorobutadiene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
4-Chloro-3-Methylphenol	0.267		mg/L	EPA 8270		08/27	08/29	MTT
2-Methylnaphthalene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Hexachlorocyclopentadie	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2,4,6-Trichlorophenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2,4,5-Trichlorophenol	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2-Chloronaphthalene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2-Nitroaniline	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Dimethylphthalate	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Acenaphthylene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
2,6-Dinitrotoluene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
3-Nitroaniline	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
Acenaphthene	0.298		mg/L	EPA 8270		08/27	08/29	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4301-16
Client Sample ID :BTR-SS14-SW01 SPIKE DUPLICATE
Matrix :WATER

2,4-Dinitrophenol	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Nitrophenol	0.153		mg/L	EPA 8270	08/27 08/29	MTT
Dibenzofuran	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
2,4-Dinitrotoluene	0.304		mg/L	EPA 8270	08/27 08/29	MTT
Diethylphthalate	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Chlorophenyl-Phenylet	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Fluorene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Nitroaniline	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
4,6-Dinitro-2-Methylphe	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
n-Nitrosodiphenylamine	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Bromophenyl-Phenyleth	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Hexachlorobenzene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Pentachlorophenol	0.098		mg/L	EPA 8270	08/27 08/29	MTT
Phenanthrene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Anthracene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
di-n-Butylphthalate	0.361		mg/L	EPA 8270	08/27 08/29	MTT
Fluoranthene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Pyrene	0.318		mg/L	EPA 8270	08/27 08/29	MTT
Butylbenzylphthalate	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
3,3-Dichlorobenzidine	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzo(a)Anthracene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Chrysene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
bis(2-Ethylhexyl)Phthal	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
di-n-Octylphthalate	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzo(b)Fluoranthene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzo(k)Fluoranthene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzo(a)Pyrene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Indeno(1,2,3-cd)Pyrene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Dibenz(a,h)Anthracene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzo(g,h,i)Perylene	0.036	U	mg/L	EPA 8270	08/27 08/29	MTT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-SS14-S01	BTR-SS14-S02	BTR-SS14-S03	BTR-SS14-S04	BTR-SS14-S06	BTR-SS14-2S05
F&BI Number	339	341	343	345	347	1706
Sample Type	soil	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93	9/2/93
% Dry Weight	99	90	95	97	96	69
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#5-09/05/93
Leaded Gas						
JP-4	<50	<500	<50	<50	<50	<200
Lube Oil	<100	27000	2300	410	<100	<400
Diesel	<50 J	~~12000~~ 12400J	~~5100~~ 5800 J	~~48000~~ 5500 J	~~5300~~ 3100J	<200 J
Spike Level						
Unknown Semi-volatile						
Pentacosane	110	120	103	108	116	63
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	
PCB 1221	<0.5	~~<0.5~~ <5	<0.6	<0.5	<0.5	
PCB 1232	<0.5	~~<0.5~~	<0.6	<0.5	<0.5	
PCB 1016	<0.5	~~<0.5~~	<0.6	<0.5	<0.5	
PCB 1242	<0.5	~~<0.5~~	<0.6	<0.5	<0.5	
PCB 1248	<0.5	~~<0.5~~	<0.6	<0.5	<0.5	
PCB 1254	<0.5	<5	<0.6	<0.5	<0.5	
PCB 1260	<0.5	~~<0.5~~ <5	<0.6	<0.5	<0.5	
Spike Level						
Dibutyl Chlorendate	104	108	96	102	96	
Sequence Date	#6-08/23/93					
alpha-BHC	<0.02 J					
beta-BHC	<0.02					
gamma-BHC	<0.02					
delta-BHC	<0.02					
Heptachlor	<0.02					
Aldrin	<0.02					
Heptachlor Epoxide	<0.02					
Endosulfan I	<0.02					
DDE	<0.02					
Dieldrin	<0.02					
Endrin	<0.02					
Endosulfan II	<0.02					
DDD	<0.02					
Endrin Aldehyde	<0.02					
DDT	<0.02					
Endosulfan Sulfate	<0.02					
Endrin Ketone	<0.02					
Methoxy Chlor	~~<0.1~~ <0.5J					
Chlordane	<0.5 J					
Dibutyl Chlorendate	104					
Spike Level						
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#3&4-09/06/93
CCl4	<0.02	<0.02 R	<0.02 R	<0.02 R	<0.02 R	<0.1
TCA	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1
Benzene	<0.02	0.4	<0.02	<0.02	<0.02	<0.03
TCE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1
Toluene	<0.02	0.6	<0.02	<0.02	0.06	<0.03
PCE	<0.02	0.06	0.06	<0.02	<0.02	<0.1
Ethylbenzene	<0.02	14	8.2	<0.02	0.09	<0.03
Xylenes	<0.04	10	40	<0.04	0.09	<0.06
Gasoline	<2 J	~~250~~ 208	190 J	~~170~~ 118J	~~130~~ 190 J	~~<2~~ <4J
Spike level						
BFB	93	103	96	97	94	78

11.11.94 SMP

ICF ID	BTR-SS14-~~2S06-3~~ 2S08-3	BTR-SS14-~~2S06-3~~ 2S08-3	BTR-SS14-~~2S06-3~~ 2S08-3	BTR-SS14-~~2S06-3~~ 2S08-3	BTR-SS14-2S07
F&BI Number	1708	1708 dup	1708 ms	1708 msd	1710
Sample Type	soil	soil	soil	soil	soil
Date Received	9/2/93	9/2/93	9/2/93	9/2/93	9/2/93
% Dry Weight	98				76
Sequence Date	#5-09/05/93	#5-09/05/93	#5-09/05/93	#5-09/05/93	#5-09/05/93
Leaded Gas					
JP-4	<50	<50			<60
Lube Oil	<100	<100			<120
Diesel	<50 J	<50	77	85	~~<60~~ 8460 J
Spike Level			500	500	
Unknown Semi-volatile					
Pentacosane	53	52	70	70	94
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCl4	<0.1	<0.1	57	62	<0.1
TCA	<0.1	<0.1	116	126	<0.1
Benzene	<0.02	<0.02	49	67	1.4 N
TCE	<0.1	<0.1	115	120	1.2
Toluene	<0.02	<0.02	102	106	2.3 J
PCE	<0.1	<0.1	140	140	3.9
Ethylbenzene	<0.02	<0.02	113	116	0.4 J
Xylenes	<0.04	<0.04	114	117	1.7 J
Gasoline	<12 J	<12 J			<700 J
Spike level			1	1	
BFB	86	82	106	101	122

11.11.94 SMP

ICF ID	BTR-SS14-2S07	BTR-SS14-SD01	BTR-SS14-SW01	BTR-SS14-SW01	BTR-SS14-SW01
F&BI Number	1710 dup	349	336	333	334
Sample Type	soil	soil	water	water	water
Date Received	9/2/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	69	76			
Sequence Date		#6-08/23/93		#6-08/23/93	
Leaded Gas					
JP-4		<700		<1000	
Lube Oil		13000		<2000	
Diesel		~~4300~~ 5100 J		~~1200~~ <1000 J	
Spike Level					
Unknown Semi-volatile					
Pentacosane		101		82	
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date				#6-08/23/93	
alpha-BHC				<2 J	
beta-BHC				<2	
gamma-BHC				<2	
delta-BHC				<2	
Heptachlor				<2	
Aldrin				<2	
Heptachlor Epoxide				<2	
Endosulfan I				<2	
DDE				<2	
Dieldrin				<2	
Endrin				<2	
Endosulfan II				<2	
DDD				<2	
Endrin Aldehyde				<2	
DDT				<2	
Endosulfan Sulfate				<2	
Endrin Ketone				<2	
Methoxy Chlor				~~<10~~ <50 J	
Chlordane				<50 J	
Dibutyl Chlorendate				82	
Spike Level					
Vol Sequence		#1&2-08/24/93	#3&4-08/24/93		
CCl4		<0.3	<1		
TCA		<0.3	<1		
Benzene		<0.3	<1		
TCE		<0.3	<1		
Toluene		1	<1		
PCE		<0.3	<1		
Ethylbenzene		~~8~~ 11	<1		
Xylenes		~~2.8~~ 47 J	8 J		
Gasoline		390 J	~~<50~~ <100 J		
Spike level					
BFB		103	109		

11.19.94 Smk

ANALYTICAL DATA SHEETS FOR THE WEATHER STATION BUILDING (SS15)
(Formerly identified as AOC1)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
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TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-1
Client Sample ID :BTR ~~A0C1~~ SOI
Matrix :SOIL 5815 SMF 11-3-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 16:20 hr:
Received :08/19/93 @ 18:45 hr:
Technical Director: STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	91.6		%	SM17 2540G			08/20	MDC
Hydrocarbons EPH	6100	D	mg/Kg	3510/3550/8100M		08/20	08/21	JBF
VPH & BTEX Hydrocarbons VPH	216	D	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/22	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/22	WLS
Ethylbenzene	0.196		mg/Kg	EPA 8020		08/20	08/22	WLS
p&m Xylene	0.129		mg/Kg	EPA 8020		08/20	08/22	WLS
o-Xylene	0.134		mg/Kg	EPA 8020		08/20	08/22	WLS

* See Special Instructions Above
See Sample Remarks Above
= Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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SINCE 1908

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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-2
Client Sample ID :BTR ~~AOC1~~ SO1 SPIKE
Matrix :SOIL SS15 8/25/93

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/24/93
Collected :08/16/93 @ 16:20 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. SPIKED SAMPLE: FOR SPIKING LEVELS AND PERCENT RECOVERIES, SEE QA/QC PACKAGE. CORRECTED CLIENT SAMPLE ID.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	91.6		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	6990	D	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	1190	D	mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	13.9	D	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	75.6	D	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	15.6	D	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	53.2	D	mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	23.0	D	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
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U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-3
Client Sample ID :BTR ~~A0C1~~ SO1 SPIKE DUPLICATE
Matrix :SOIL SS/S 8M f 12.5.95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/24/93
Collected :08/16/93 @ 16:20 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. SPIKED SAMPLE: FOR SPIKING LEVELS AND PERCENT RECOVERIES, SEE QA/QC PACKAGE. CORRECTED CLIENT SAMPLE ID.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	91.6		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	6590	D	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX Hydrocarbons VPH	1180	D	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene	13.7	D	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	75.8	D	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	16.0	D	mg/Kg	EPA 8020		08/20	08/21	WLS
m Xylene	53.1	D	mg/Kg	EPA 8020		08/20	08/21	WLS
-Xylene	23.0	D	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
See Sample Remarks Above
Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
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LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-4
Client Sample ID :BTR A0CIVS02
Matrix :SOIL SS15

Emf 11-3-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 16:35 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	93.4		%	SM17 2540G			08/20	MDU
Hydrocarbons EPH	8420	D	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX								
Hydrocarbons VPH	1020	D	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/22	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.137		mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	1.09		mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	1.29		mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	1.05		mg/Kg	EPA 8020		08/20	08/21	WLS

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GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-5
Client Sample ID :BTR ~~AOC1~~ SS03
Matrix :SOIL SS15
SMF 11-3-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 16:45 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	95.4		%	SM17 2540G			08/20	MDC
Hydrocarbons EPH	2090	D	mg/Kg	3510/3550/8100M		08/20	08/21	JBH
VPH & BTEX Hydrocarbons VPH	11.1		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.056		mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.051		mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.047		mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
See Sample Remarks Above
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D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4178-1
Client Sample ID :BTR ~~AOG1~~ S03
Matrix :SOIL SS15 8mf 11-3-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69710
Report Completed :09/30/93
Collected :08/16/93 @ 16:45 hrs.
Received :08/19/93 @ 10:50 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G. 8270 EXTRACT LOST DURING PREPARATION, UNABLE TO ANALYZE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM

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REPORT of ANALYSIS

Client Ref.# :93.4178-1
Client Sample ID :BTR ~~AOC1~~ S03
Matrix :SOIL SS16 Smp 397

p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Napthalene	0.0083		mg/Kg	EPA 8260	09/20	09/28	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Toluene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
1,3,5-Trimethylbenzene	0.084		mg/Kg	EPA 8260	09/20	09/28	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/20	09/28	KWM
p+m-Xylene	0.051		mg/Kg	EPA 8260	09/20	09/28	KWM
o-Xylene	0.028		mg/Kg	EPA 8260	09/20	09/28	KWM

* See Special Instructions Above
** See Sample Remarks Above
U Undetected, Reported value is the practical quantification limit.
D Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-6
Client Sample ID :BTR ~~AOC~~ SO4
Matrix :SOIL SS15 SMF 11-3-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 17:00 hr.
Received :08/19/93 @ 18:45 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	94.9		%	SM17 2540G			08/20	MDC
Hydrocarbons EPH	214		mg/Kg	3510/3550/8100M		08/20	08/21	JBF
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	1.46		mg/Kg	EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.023		mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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ANCHORAGE, AK 99518
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REPORT of ANALYSIS

Chemlab Ref.# :93.4198-7
Client Sample ID :BTR ~~A061~~ SS15 SS05
Matrix :SOIL
SMF 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69762
Report Completed :08/23/93
Collected :08/16/93 @ 17:05 hr:
Received :08/19/93 @ 18:45 hr:
Technical Director: STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: UA. 6.39 MG/KG OF EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	96.0		%	SM17 2540G				
Hydrocarbons EPH	107		mg/Kg	3510/3550/8100M		08/20	08/20 08/21	MDU JBH
VPH & BTEX								
Hydrocarbons VPH	5.30		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Toluene	0.020	U	mg/Kg	EPA 8020		08/20	08/21	WLS
Ethylbenzene	0.071		mg/Kg	EPA 8020		08/20	08/21	WLS
p&m Xylene	0.249		mg/Kg	EPA 8020		08/20	08/21	WLS
o-Xylene	0.227		mg/Kg	EPA 8020		08/20	08/21	WLS

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

	SS15	SS15-2S07	SS15-2S08
ICF ID	BTR-~~A0C1~~-2S06	BTR-~~A0C1-2S06~~	BTR-~~A0C1-2S06~~
F&BI Number	1682	1684	1686
Sample Type	soil	soil	soil
Date Received	9/2/93	9/2/93	9/2/93
% Dry Weight	91	93	85
Sequence Date	#5-09/05/93	#5-09/05/93	#5-09/05/93
Leaded Gas			
JP-4	<50	<50	<60
Lube Oil	<100	<100	<120
Diesel	<50 J	<50 J	<60 J
Spike Level			
Unknown Semi-volatile			
Pentacosane	80	80	87
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCl4	<0.1	<0.1	<0.1
TCA	<0.1	<0.1	<0.1
Benzene	<0.02	<0.02	<0.02
TCE	<0.1	<0.1	<0.1
Toluene	<0.02	<0.02	<0.02
PCE	<0.1	<0.1	<0.1
Ethylbenzene	<0.02	0.1 J	<0.02
Xylenes	<0.04	0.2 J	<0.04
Gasoline	<12 J	4 diesel J	<12 J
Spike level			
BFB	94	98	116

SMF 11.11.94

ANALYTICAL DATA SHEETS FOR THE WHITE ALICE FACILITY (SS16)
(Formerly identified as AOC7)

	SS16	SS16	SS16	SS16	SS16
ICF ID	BTR-~~A0C07~~-S01	BTR-~~A0C07~~-S02	BTR-~~A0C07~~-S03	BTR-~~A0C07~~-S04	BTR-~~A0C07~~-S05
F&BI Number	320	321	370	371	372
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	94	97	96	94	96
Sequence Date			#6-08/23/93	#6-08/23/93	#6-08/23/93
Leaded Gas					
JP-4			<50	<50	<50
Lube Oil			<100	<100	<100
Diesel			<50 J	<50 J	<50 J
Spike Level					
Unknown Semi-volatile					
Pentacosane			104	101	96
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
PCB 1221	<0.5	<0.5	<0.1	<0.1	<0.1
PCB 1232	<0.5	<0.5	<0.1	<0.1	<0.1
PCB 1016	<0.5	<0.5	<0.1	<0.1	<0.1
PCB 1242	<0.5	<0.5	<0.1	<0.1	<0.1
PCB 1248	<0.5	<0.5	<0.1	<0.1	<0.1
PCB 1254	~~<0.5~~ 52 J	<0.5	<0.1	<0.1	<0.1
PCB 1260	<0.5	<0.5	<0.1	<0.1	<0.1
Spike Level					
Dibutyl Chlorendate	120	96	114	104	104
Sequence Date	#6-08/23/93				
alpha-BHC					
beta-BHC	<0.02				
gamma-BHC	<0.02				
delta-BHC	<0.02				
Heptachlor	<0.02				
Aldrin	<0.02				
Heptachlor Epoxide	<0.02				
Endosulfan I	<0.02				
DDE	<0.02				
Dieldrin	<0.02				
Endrin	<0.02				
Endosulfan II	<0.02				
DDD	<0.02				
Endrin Aldehyde	<0.02				
DDT	<0.02				
Endosulfan Sulfate	<0.02				
Endrin Ketone	<0.02				
Methoxy Chlor	<0.2				
Chlordane	<1				
Dibutyl Chlorendate	120	96			
Spike Level					
Vol Sequence					
CCl4					
TCA					
Benzene					
TCE					
Toluene					
PCE					
Ethylbenzene					
Xylenes					
Gasoline					
Spike level					
BFB					

11-1-94 SMF

ICF ID	SS16 BTR-~~A0C07~~-S06	SS16 BTR-~~A0C07~~-S07	SS16 BTR-~~A0C7~~-2S08-1	SS16 BTR-~~A0C7~~-2S09	SS16 BTR-~~A0C7~~-2S10
F&BI Number	373	374	1671	1672	1673
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	9/2/93	9/2/93	9/2/93
% Dry Weight	95	92	91	97	97
Sequence Date	#6-08/23/93	#6-08/23/93			
Leaded Gas					
JP-4	<50	<50			
Lube Oil	<200 interferences	<200 interferences			
Diesel	<50 J	<50 J			
Spike Level					
Unknown Semi-volatile					
Pentacosane	93	93			
Sequence Date	#6-08/23/93	#6-08/23/93	#5-09/04/93	#5-09/04/93	#5-09/04/93
PCB 1221	<0.1	<0.1	<0.5	<0.5	<0.5
PCB 1232	<0.1	<0.1	<0.5	<0.5	<0.5
PCB 1016	<0.1	<0.1	<0.5	<0.5	<0.5
PCB 1242	<0.1	<0.1	<0.5	<0.5	<0.5
PCB 1248	<0.1	<0.1	<0.5	<0.5	<0.5
PCB 1254	~~21~~ 20J	~~20~~ 30J	<0.5	~~<0.5~~ 8.7J	<0.5
PCB 1260	<0.1	<0.1	<0.5	<0.5	<0.5
Spike Level					
Dibutyl Chlorendate	130	145	91	97	97
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence					
CCl4					
TCA					
Benzene					
TCE					
Toluene					
PCE					
Ethylbenzene					
Xylenes					
Gasoline					
Spike level					
BFB					

11-11-94 SMK

ICF ID 11-11-94 Sand	SS16 BTR-~~AOC7~~-2S11	SS16 BTR-~~AOC7~~-2S12	SS16 BTR-~~AOC7~~-2S13
F&BI Number	1674	1675	1676
Sample Type	soil	soil	soil
Date Received	9/2/93	9/2/93	9/2/93
% Dry Weight	97	95	95
Sequence Date			
Leaded Gas			
JP-4			
Lube Oil			
Diesel			
Spike Level			
Unknown Semi-volatile			
Pentacosane			
Sequence Date	#5-09/04/93	#5-09/04/93	#5-09/04/93
PCB 1221	<0.5	<0.5	<0.5
PCB 1232	<0.5	<0.5	<0.5
PCB 1016	<0.5	<0.5	<0.5
PCB 1242	<0.5	<0.5	<0.5
PCB 1248	<0.5	<0.5	<0.5
PCB 1254	<0.5	<0.5	<0.5
PCB 1260	<0.5	<0.5	<0.5
Spike Level			
Dibutyl Chlorendate	97	95	95
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence			
CCl4			
TCA			
Benzene			
TCE			
Toluene			
PCE			
Ethylbenzene			
Xylenes			
Gasoline			
Spike level			
BFB			

ANALYTICAL DATA SHEETS FOR THE POL TANKS (ST17)
(Formerly identified as AOC8)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4302-4
Client Sample ID :BTR-~~AOC08~~-S04
Matrix :SOIL ST17
8mf 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 11:00 hr.
Received :08/24/93 @ 12:00 hr.
Technical Director: STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromobenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromochloromethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromodichloromethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromoform	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromomethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
n-Butylbenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
sec-Butylbenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
tert-Butylbenzne	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Carbon Tetrachloride	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chlorobenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloroethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloroform	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloromethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
2-Chlorotoluene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
4-Chlorotoluene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dibromochloromethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
12Dibromo3Chloropropane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dibromoethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dibromomethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichlorobenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichlorobenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,4-Dichlorobenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dichlorodifluoromethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloroethane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
cis-1,2-Dichloroethene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
trans1,2-Dichloroethene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloropropane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichloropropane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
2,2-Dichloropropane	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloropropene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Ethylbenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Hexachlorobutadiene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Isopropylbenzene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM
p-Isopropyltoluene	0.250	U	mg/Kg	EPA 8260		08/25	09/06	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1960

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-4
Client Sample ID :BTR-~~AOC08~~-S04
Matrix :SOIL ST17
Smf 11.3.94

Methylene Chloride	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Napthalene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
n-Propylbenzene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Styrene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1112-Tetrachloroethane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1122-Tetrachloroethane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Tetrachloroethene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Toluene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichlorobenzene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trichlorobenzene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,1-Trichloroethane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,2-Trichloroethane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichloroethene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichlorofluoromethane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichloropropane	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trimethylbenzene	0.250	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,3,5-Trimethylbenzene	0.511	D	mg/Kg	EPA 8260	08/25	09/06	SGI
Vinyl Chloride	0.300	U	mg/Kg	EPA 8260	08/25	09/06	SGI
p+m-Xylene	0.300	U	mg/Kg	EPA 8260	08/25	09/06	SGI
o-Xylene	0.300	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Semivolatile Organics				EPA 8270			
Phenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethyl)ether	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chlorophenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,3-Dichlorobenzene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,4-Dichlorobenzene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzyl Alcohol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2-Dichlorobenzene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylphenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroisopropyl)e	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Methylphenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
n-Nitroso-di-n-Propylam	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachloroethane	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Nitrobenzene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Isophorone	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Nitrophenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dimethylphenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzoic Acid	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethoxy)Meth	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dichlorophenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2,4-Trichlorobenzene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Naphthalene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloroaniline	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorobutadiene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloro-3-Methylphenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylnaphthalene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorocyclopentadie	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,6-Trichlorophenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,5-Trichlorophenol	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chloronaphthalene	2.50	U	mg/Kg	EPA 8270	09/03	09/20	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-4
Client Sample ID :BTR-~~AOC08~~-S04
Matrix :SOIL ST17 BFM 11.9.94

2-Nitroaniline	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Dimethylphthalate	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Acenaphthylene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
2,6-Dinitrotoluene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
3-Nitroaniline	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Acenaphthene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
2,4-Dinitrophenol	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
4-Nitrophenol	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Dibenzofuran	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
2,4-Dinitrotoluene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Diethylphthalate	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
4-Chlorophenyl-Phenylet	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Fluorene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
4-Nitroaniline	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
4,6-Dinitro-2-Methylphe	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
n-Nitrosodiphenylamine	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
4-Bromophenyl-Phenyleth	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Hexachlorobenzene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Pentachlorophenol	2.50	U	mg/Kg	EPA 8270	(5)-D.1	09/03 09/20	MT
Phenanthrene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Anthracene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
di-n-Butylphthalate	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Fluoranthene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Pyrene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Butylbenzylphthalate	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
3,3-Dichlorobenzidine	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Benzo(a)Anthracene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Chrysene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
bis(2-Ethylhexyl)Phthal	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
di-n-Octylphthalate	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Benzo(b)Fluoranthene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Benzo(k)Fluoranthene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Benzo(a)Pyrene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Indeno(1,2,3-cd)Pyrene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Dibenz(a,h)Anthracene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT
Benzo(g,h,i)Perylene	2.50	U	mg/Kg	EPA 8270		09/03 09/20	MT

9.12.94

See Special Instructions Above
* See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-5
Client Sample ID :BTR-~~AOC08~~-S06
Matrix :SOIL ST17
smf 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 11:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Stephen Ede

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromobenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromochloromethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromodichloromethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromoform	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Bromomethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
n-Butylbenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
sec-Butylbenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
tert-Butylbenzne	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Carbon Tetrachloride	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chlorobenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloroethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloroform	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Chloromethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
2-Chlorotoluene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
4-Chlorotoluene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dibromochloromethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
12Dibromo3Chloropropane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dibromoethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dibromomethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,4-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dichlorodifluoromethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloroethane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
cis-1,2-Dichloroethene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
trans1,2-Dichloroethene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloropropane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichloropropane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
2,2-Dichloropropane	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloropropene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Ethylbenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Hexachlorobutadiene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Isopropylbenzene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM
p-Isopropyltoluene	0.240	U	mg/Kg	EPA 8260		08/25	09/06	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-5
Client Sample ID :BTR-~~AOC08~~-S06
Matrix :SOIL ST17 BMF 11-3-94

Methylene Chloride	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Napthalene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
n-Propylbenzene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Styrene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1112-Tetrachloroethane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1122-Tetrachloroethane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Tetrachloroethene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Toluene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,2,3-Trichlorobenzene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,2,4-Trichlorobenzene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,1,1-Trichloroethane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,1,2-Trichloroethane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Trichloroethene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
Trichlorofluoromethane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,2,3-Trichloropropane	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,2,4-Trimethylbenzene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
1,3,5-Trimethylbenzene	0.344	D	mg/Kg	EPA 8260	08/25	09/06	SGM
Vinyl Chloride	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
p+m-Xylene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM
o-Xylene	0.240	U	mg/Kg	EPA 8260	08/25	09/06	SGM

Semivolatile Organics							
Phenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethyl)ether	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chlorophenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,3-Dichlorobenzene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,4-Dichlorobenzene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzyl Alcohol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2-Dichlorobenzene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylphenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroisopropyl)e	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Methylphenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
n-Nitroso-di-n-Propylam	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachloroethane	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Nitrobenzene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Isophorone	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Nitrophenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dimethylphenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzoic Acid	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethoxy)Meth	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dichlorophenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2,4-Trichlorobenzene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Naphthalene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloroaniline	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorobutadiene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloro-3-Methylphenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylnaphthalene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorocyclopentadie	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,6-Trichlorophenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,5-Trichlorophenol	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chloronaphthalene	2.30	U	mg/Kg	EPA 8270	09/03	09/20	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-5
Client Sample ID :BTR-~~AOC08~~-S06
Matrix :SOIL ST17 SMF 11.3.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dimethylphthalate	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthylene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,6-Dinitrotoluene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
3-Nitroaniline	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrophenol	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitrophenol	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenzofuran	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrotoluene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Diethylphthalate	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Chlorophenyl-Phenylet	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluorene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitroaniline	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
4,6-Dinitro-2-Methylphe	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
n-Nitrosodiphenylamine	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Bromophenyl-Phenyleth	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Hexachlorobenzene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Pentachlorophenol	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Phenanthrene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Anthracene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Butylphthalate	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluoranthene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Pyrene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Butylbenzylphthalate	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
3,3-Dichlorobenzidine	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Anthracene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Chrysene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
bis(2-Ethylhexyl)Phthal	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Octylphthalate	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(b)Fluoranthene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(k)Fluoranthene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Pyrene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Indeno(1,2,3-cd)Pyrene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenz(a,h)Anthracene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(g,h,i)Perylene	2.30	U	mg/Kg	EPA 8270	09/03 09/20	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

	ST17	ST17	ST17	ST17	ST17
ICF ID	BTR-~~A0C08~~-S02	BTR-~~A0C08~~-S03	BTR-~~A0C08~~-S04	BTR-~~A0C08~~-S05	BTR-~~A0C09~~-S06
F&BI Number	1292	1294	1296	1298	1300
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
% Dry Weight	93	33	84	85	69
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
Leaded Gas					
JP-4	<50	<150	<50	<60	<70
Lube Oil	<100	<300	<100	<120	<140
Diesel	140R 6200	~~310~~540	~~650~~ 730	<80	~~1500~~1670
Spike Level					
Unknown Semi-volatile					
Pentacosane	81	82	127	101	115
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93
CCl4					
TCA					
Benzene	<0.02	<0.06	<0.03	<0.03	<0.02
TCE					
Toluene	<0.02	~~0.3~~1.0	<0.03	<0.06	<0.02
PCE					
Ethylbenzene	<0.02	<0.02	0.1	<0.06	0.4
Xylenes	<0.04	<0.04	0.3J	<0.2	0.6J
Gasoline	<2J	~~60~~295J	~~82~~62J	<4 interferences were present J	~~80~~65J
Spike level					
BFB	111	81	82	110	79

1-11-95 gpk

ANALYTICAL DATA SHEETS FOR THE FUEL TANKS (ST18)
(Formerly identified as AOC9)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-7
Client Sample ID :BTR-~~AOC09~~-S02
Matrix :SOIL ST18
Smf 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :10/04/93
Collected :08/20/93 @ 19:20 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Vonstessel

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics								
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25	09/06	SGI
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

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ANCHORAGE, AK 99518
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-7
Client Sample ID :BTR-~~A0C09~~-S02
Matrix :SOIL ST18
Smf 11.3.94

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trimethylbenzene	0.128		mg/Kg	EPA 8260	08/25	09/06	SGI
1,3,5-Trimethylbenzene	0.048		mg/Kg	EPA 8260	08/25	09/06	SGI
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
p+m-Xylene	0.138		mg/Kg	EPA 8260	08/25	09/06	SGI
o-Xylene	0.053		mg/Kg	EPA 8260	08/25	09/06	SGI
	.191						
Semivolatile Organics				EPA 8270			
Phenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	
bis(2-Chloroethyl)ether	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2-Chlorophenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
1,3-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
1,4-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/03	09/20	MTI
1,2-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
bis(2-Chloroisopropyl)e	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
4-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
n-Nitroso-di-n-Propylam	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Hexachloroethane	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Nitrobenzene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Isophorone	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2-Nitrophenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2,4-Dimethylphenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Benzoic Acid	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
bis(2-Chloroethoxy)Meth	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2,4-Dichlorophenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
1,2,4-Trichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Naphthalene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
4-Chloroaniline	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Hexachlorobutadiene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
4-Chloro-3-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2-Methylnaphthalene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
Hexachlorocyclopentadie	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2,4,6-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	MTI
2,4,5-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/03	09/20	
2-Chloronaphthalene	0.220	U	mg/Kg	EPA 8270	09/03	09/20	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-7
Client Sample ID :BTR-~~AOC09~~-S02
Matrix :SOIL ST18 11.4.94 [illegible]

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX (907) 561-5301

2-Nitroaniline	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dimethylphthalate	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthylene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,6-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
3-Nitroaniline	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrophenol	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitrophenol	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenzofuran	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Diethylphthalate	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Chlorophenyl-Phenylet	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluorene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitroaniline	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
4,6-Dinitro-2-Methylphe	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
n-Nitrosodiphenylamine	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Bromophenyl-Phenyleth	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Hexachlorobenzene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Pentachlorophenol	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Phenanthrene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Anthracene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluoranthene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Pyrene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Butylbenzylphthalate	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
3,3-Dichlorobenzidine	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Anthracene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Chrysene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Octylphthalate	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(b)Fluoranthene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(k)Fluoranthene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(a)Pyrene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Indeno(1,2,3-cd)Pyrene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenz(a,h)Anthracene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
Benzo(g,h,i)Perylene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MT
TOC, Soil	1330		mg/Kg	PSEP Ref Lab		

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-6
Client Sample ID :BTR-~~AOC9~~-2S~~11~~-1.5
Matrix :SOIL STIB 2S11 SML 11.3.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:30 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.
B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.091		mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Comlab Ref.# :93.4616-6 ST18-2S11-1.5
Client Sample ID :BTR-~~AOC9~~-2S11-1.5
Matrix :SOIL BFM 11.7.94

Qualifiers/Comments

Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Toluene	0.029		mg/Kg	EPA 8260	(u)- 6.1	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260		09/07 09/23	MCM
p+m-Xylene	0.040		mg/Kg	EPA 8260		09/07 09/23	MCM
-Xylene	0.023		mg/Kg	EPA 8260		09/07 09/23	MCM
Semivolatile Organics				EPA 8270			
Phenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
bis(2-Chloroethyl)ether	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Chlorophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
1,3-Dichlorobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
1,4-Dichlorobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Benzyl Alcohol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
1,2-Dichlorobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Methylphenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
bis(2-Chloroisopropyl)e	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Methylphenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
n-Nitroso-di-n-Propylam	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Hexachloroethane	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Nitrobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Isophorone	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Nitrophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2,4-Dimethylphenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Benzoic Acid	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
bis(2-Chloroethoxy)Meth	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2,4-Dichlorophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
1,2,4-Trichlorobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Naphthalene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Chloroaniline	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Hexachlorobutadiene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Chloro-3-Methylphenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Methylnaphthalene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Hexachlorocyclopentadie	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4,6-Trichlorophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4616-6
Client Sample ID :BTR-~~AOC8-2SH~~-1.5 BFM 11.7.94
Matrix :SOIL ST18-2SH-1.5

2,4,5-Trichlorophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Chloronaphthalene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2-Nitroaniline	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Dimethylphthalate	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Acenaphthylene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2,6-Dinitrotoluene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
3-Nitroaniline	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Acenaphthene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2,4-Dinitrophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Nitrophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Dibenzofuran	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
2,4-Dinitrotoluene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Diethylphthalate	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Chlorophenyl-Phenylet	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Fluorene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Nitroaniline	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4,6-Dinitro-2-Methylphe	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
n-Nitrosodiphenylamine	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
4-Bromophenyl-Phenyleth	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Hexachlorobenzene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Pentachlorophenol	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Phenanthrene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Anthracene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
di-n-Butylphthalate	1.67	B	mg/Kg	EPA 8270	(U) - 0.1	09/15 10/21	GV
Fluoranthene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Pyrene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Butylbenzylphthalate	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
3,3-Dichlorobenzidine	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Benzo(a)Anthracene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Chrysene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
bis(2-Ethylhexyl)Phthal	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
di-n-Octylphthalate	0.214	U	mg/Kg	EPA 8270	(J) - 0.1	09/15 10/21	GV
Benzo(b)Fluoranthene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Benzo(k)Fluoranthene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Benzo(a)Pyrene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Indeno(1,2,3-cd)Pyrene	0.214	U	mg/Kg	EPA 8270		09/15 10/21	GV
Dibenz(a,h)Anthracene	0.214	U	mg/Kg	EPA 8270	(J) - 0.1	09/15 10/21	GV
Benzo(g,h,i)Perylene	0.214	U	mg/Kg	EPA 8270	(J) - 0.1	09/15 10/21	GV

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5933 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-7
Client Sample ID :BTR-~~AOC9~~-2S11-1.5 SPIKE
Matrix :SOIL S118 smt 2595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:30 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN, C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SEE QC PACKAGE FOR SPIKE CONCENTRATION AND % RSD. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.483		mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.416		mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.336		mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-7
Client Sample ID :BTR-~~AOC9~~-2S11-1.5 SPIKE
Matrix :SOIL STB DMF 12.5 95

Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Toluene	0.444		mg/Kg	EPA 8260	09/07	09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Trichloroethene	0.411		mg/Kg	EPA 8260	09/07	09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07	09/23	MCM
p+m-Xylene	0.048		mg/Kg	EPA 8260	09/07	09/23	MCM
o-Xylene	0.023		mg/Kg	EPA 8260	09/07	09/23	
	.071						
Semivolatile Organics				EPA 8270			
Phenol	1.33		mg/Kg	EPA 8270	09/15	10/21	GV
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
2-Chlorophenol	1.28		mg/Kg	EPA 8270	09/15	10/21	GV
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
1,4-Dichlorobenzene	1.26		mg/Kg	EPA 8270	09/15	10/21	GV
Benzyl Alcohol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
n-Nitroso-di-n-Propylam	1.36		mg/Kg	EPA 8270	09/15	10/21	GV
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
Isophorone	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
1,2,4-Trichlorobenzene	1.59		mg/Kg	EPA 8270	09/15	10/21	GV
Naphthalene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
4-Chloro-3-Methylphenol	1.36		mg/Kg	EPA 8270	09/15	10/21	GV
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	09/15	10/21	GV
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/15	10/21	

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1928

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-7
Client Sample ID :BTR-~~AOC9~~-2S11-1.5 SPIKE
Matrix :SOIL STTB SMF 12.5.95

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
2-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Acenaphthene	1.52		mg/Kg	EPA 8270	09/15 10/21	GV
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
4-Nitrophenol	1.41		mg/Kg	EPA 8270	09/15 10/21	GV
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
2,4-Dinitrotoluene	1.64		mg/Kg	EPA 8270	09/15 10/21	GV
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Fluorene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Pentachlorophenol	1.55		mg/Kg	EPA 8270	09/15 10/21	GV
Phenanthrene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Anthracene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
di-n-Butylphthalate	4.02	B	mg/Kg	EPA 8270	09/15 10/21	GV
Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Pyrene	1.39		mg/Kg	EPA 8270	09/15 10/21	GV
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Chrysene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
bis(2-Ethylhexyl)Phthal	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	09/15 10/21	GV

* See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1939

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4616-8
Client Sample ID :BTR-~~AQC9~~-2S11-1.5 SPIKE DUPLICATE
Matrix :SOIL SMB Smt 12.5.95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:30 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN, C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.
SEE QC PACKAGE FOR SPIKE CONCENTRATION AND % RSD.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.495		mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chlorobenzene	0.420		mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloroethene	0.358		mg/Kg	EPA 8260		09/07	09/23	MCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1909

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-8
Client Sample ID :BTR-~~A0C9~~-2S11-1.5 SPIKE DUPLICATE
Matrix :SOIL 5718 SMF 125495

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Napthalene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Toluene	0.458		mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Trichloroethene	0.412		mg/Kg	EPA 8260	09/07 09/23	MCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23	MCM
p+m-Xylene	0.048		mg/Kg	EPA 8260	09/07 09/23	MCM
o-Xylene	0.025		mg/Kg	EPA 8260	09/07 09/23	MCM

* See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-6
Client Sample ID :BTR-~~A0C09~~-SD01
Matrix :SOIL ST18 SMP 11.4.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :10/04/93
Collected :08/20/93 @ 15:35 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGI
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/06	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-6
Client Sample ID :BTR-~~A0C09~~-SD01
Matrix :SOIL ST78
SMP 11.4.94

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/06	SGI
Semivolatile Organics				EPA 8270			
Phenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chlorophenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,4-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzyl Alcohol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Naphthalene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/03	09/20	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-6
Client Sample ID :BTR-~~A0C09~~-SD01
Matrix :SOIL ST18
8MP 11-4-94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Acenaphthene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
2,4-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluorene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	~~0~~9/03 09/20	MT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Phenanthrene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Anthracene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
di-n-Butylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Pyrene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Chrysene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	09/03 09/20	MTT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	09/03 09/20	MTT
TOC, Soil	3400		mg/Kg	PSEP Ref Lab		

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-8
Client Sample ID :BTR-AOC09-SW01
Matrix :WATER ST18 11.7.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 15:08 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0030		mg/L	EPA 8260	(U) - 0.1	09/02	09/02	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4302-8
Client Sample ID :BTR-~~AOC09~~-SW01
Matrix :WATER ST18 SMF 11.4.94

Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Napthalene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Toluene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Isophorone	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Naphthalene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/28	09/04	GV
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/28	09/04	GV

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-8
Client Sample ID :BTR-~~A0C09~~-SW01
Matrix :WATER ST18 BFM 11.8.94

		Qualifier						
2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/28	09/04	G
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/28	09/04	G
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Fluorene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/28	09/04	G
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/28	09/04	G
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/28	09/04	G
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Phenanthrene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Anthracene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Fluoranthene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Pyrene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/28	09/04	G
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Chrysene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/28	09/04	G
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/28	09/04	G
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	34.3-39.4		mg/L	EPA 9060			09/02	CM
...TOC Concentration	36.3		mg/L	EPA 9060			09/02	CM
Residue, Non-Filterable	8	J A	mg/L	EPA 160.2		08/30	08/31	GP
Residue,Filterable(TDS)	711	(J) A	mg/L	EPA 160.1	500	08/30	08/31	RJ

Compiled by EMF 12-7-94

Bill chgs s.c. 1/24/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	ST18 BTR-~~AGC09~~-S01	JT18 BTR-~~AGC09~~-S02	ST18 BTR-~~AGC09~~-S03	ST18 BTR-~~AGC09~~-S04	ST18 BTR-~~AGC09~~-S05
F&BI Number	1302	1304	1306	1310	1312
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
% Dry Weight	96	93	93	85	94
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
Leaded Gas					
JP-4	<50	<50	<50	<50	<50
Lube Oil	<100	<100	<100	<100	<100
Diesel	<80	<70	<90	<100	<80
Spike Level					
Unknown Semi-volatile					
Pentacosane	125	120	101	117	91
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93
CCl4					
TCA					
Benzene	~~0.03~~ <0.02	<0.02	<0.02	<0.02	<0.02
TCE					
Toluene	<0.02	<0.02	<0.02	<0.02	<0.02
PCE					
Ethylbenzene	~~0.03~~ <0.02	<0.02	<0.02	<0.02	<0.02
Xylenes	~~0.06~~ <0.04	~~0.05~~ <0.04	<0.04	<0.04	<0.04
Gasoline	<2 J	<2 J	<2 J	<2 J	<2 J
Spike level					
BFB	110	106	108	110	110

11.11.94 SMK

	ST18	ST18	ST18	ST18	ST18
ICF ID	BTR-~~AGC09~~-S06	BTR-~~AGC09~~-S07	BTR-~~AGC09~~-S08	BTR-~~AGC09~~-S08	BTR-~~AGC09~~-S09
F&BI Number	1314	1322	1316	1316 dup	1318
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
% Dry Weight	94	90	67	84	96
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93		#6-08/31/93
Leaded Gas					
JP-4	<50	<50	<80		<50
Lube Oil	190	<110	<150		<100
Diesel	<50	<70	<100		<60
Spike Level					
Unknown Semi-volatile					
Pentacosane	107	100	112		103
Sequence Date					#6-08/31/93
PCB 1221					<0.1
PCB 1232					<0.1
PCB 1016					<0.1
PCB 1242					<0.1
PCB 1248					<0.1
PCB 1254					<0.1
PCB 1260					<0.1
Spike Level					
Dibutyl Chlorendate					103
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93			#1&2-08/31/93
CCl4					
TCA					
Benzene	<0.02	<0.02			<0.02
TCE					
Toluene	<0.02	<0.02			<0.02
PCE					
Ethylbenzene	<0.02	<0.02			<0.02
Xylenes	<0.04	<0.04			<0.04
Gasoline	<2 J	<2 J			<2 J
Spike level					
BFB	110	112			123

	ST18	ST18	ST18	ST18	ST18
ICF ID	BTR-~~A0C09~~-S09	BTR-~~A0C09~~-S09	BTR-~~A0C09~~-S09	BTR-~~A0C09~~-S10	BTR-~~A0C9~~-2S11-1.5
F&BI Number	1318 dup	1318 ms	1318 msd	1308	1754
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	9/3/93
% Dry Weight				94	94
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	
Leaded Gas					
JP-4	<50			<50	
Lube Oil	<100			<100	
Diesel	<50	88	91	<80	
Spike Level		500	500		
Unknown Semi-volatile					
Pentacosane	114	87	84	80	
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93		
PCB 1221	<0.1				
PCB 1232	<0.1				
PCB 1016	<0.1				
PCB 1242	<0.1				
PCB 1248	<0.1				
PCB 1254	<0.1	97	103		
PCB 1260	<0.1				
Spike Level		5	5		
Dibutyl Chlorendate	91	118	123		
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-09/06/93
CCl4					<0.1
TCA					<0.1
Benzene	<0.02	107	94	<0.02	0.1 J
TCE					<0.1
Toluene	<0.02	94	96	<0.02	0.1
PCE					<0.1
Ethylbenzene	<0.02	100	94	<0.02	0.2
Xylenes	<0.04	100	96	<0.04	0.4 J
Gasoline	<2 J			<2 J	6 diesel J
Spike level		1	1		
BFB	87	110	96	114	91

11.11.94 Smf

ICF ID (11-11-94 Sub)	ST18 BTR-~~AOC9~~-2S11-1.5	ST18-2S12-2 BTR-~~AOC9-2S14.5~~	ST18-2S12-2 BTR-~~AOC9-2S14.5~~	ST18-2S12-2 BTR-~~AOC9-2S14.5~~
F&BI Number	1754 dup	1752	1752 dup	1752 ms
Sample Type	soil	soil	soil	soil
Date Received	9/3/93	9/3/93	9/3/93	9/3/93
% Dry Weight	95	95		
Sequence Date			#6-09/05/93	#6-09/05/93
Leaded Gas				
JP-4			<60	
Lube Oil			<120	
Diesel			<60	97
Spike Level				500
Unknown Semi-volatile				
Pentacosane			96	98
Sequence Date				
PCB 1221				
PCB 1232				
PCB 1016				
PCB 1242				
PCB 1248				
PCB 1254				
PCB 1260				
Spike Level				
Dibutyl Chlorendate				
Sequence Date				
alpha-BHC				
beta-BHC				
gamma-BHC				
delta-BHC				
Heptachlor				
Aldrin				
Heptachlor Epoxide				
Endosulfan I				
DDE				
Dieldrin				
Endrin				
Endosulfan II				
DDD				
Endrin Aldehyde				
DDT				
Endosulfan Sulfate				
Endrin Ketone				
Methoxy Chlor				
Chlordane				
Dibutyl Chlorendate				
Spike Level				
Vol Sequence		#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93
CCl4		<0.1	<0.1	32 outside recovery limits
TCA		<0.1	<0.1	89
Benzene		<0.02	<0.02	73
TCE		<0.1	<0.1	90
Toluene		<0.02	<0.02	78
PCE		<0.1	<0.1	106
Ethylbenzene		<0.02	<0.02	87
Xylenes		<0.04	<0.04	84
Gasoline		<1 J	<1	
Spike level				
BFB		103	93	105

ICF ID (11.11.94 SM)	ST18-2512-2 BTR-~~A0C9-2614.5~~	ST19 BTR-~~A0C09~~-SD01	ST18 BTR-~~A0C09~~-SW01
F&BI Number	1752 msd	1320	317
Sample Type	soil	soil	water
Date Received	9/3/93	8/31/93	8/23/93
% Dry Weight		91	
Sequence Date	#6-09/05/93	#6-08/31/93	
Leaded Gas			
JP-4		<50	
Lube Oil		<110	
Diesel	92	<70	
Spike Level	500		
Unknown Semi-volatile			
Pentacosane	130	93	
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-09/06/93	#1&2-08/31/93	#3&4-08/24/93
CCl4	28 outside recovery limits		<1
TCA	96		<1
Benzene	80	<0.02	<1
TCE	98		<1
Toluene	85	<0.02	<1
PCE	124		<1
Ethylbenzene	95	<0.02	<1
Xylenes	86	<0.04	<2
Gasoline		<2 J	~~<50~~ <100 J
Spike level			
BFB	83	104	87

(ANALYTICAL DATA SHEETS FOR THE OLD DUMP SITE (LF19)
(Formerly identified as AOC10)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-9
Client Sample ID :BTR-~~AOC10~~-S01
Matrix :SOIL LF19 smf 11.4.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 14:50 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal. Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-9
Client Sample ID :BTR-~~AOC10~~-S01
Matrix :SOIL LF19
Smf 11.494

5633 B STREET
ANCHORAGE, AK 99518
TEL. (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorocyclopentadie	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,6-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,5-Trichlorophenol	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chloronaphthalene	0.200	U	mg/Kg	EPA 8270	09/04	09/28	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-9
Client Sample ID :BTR-~~AOC10~~-S01
Matrix :SOIL LF19 8mb 11.4.94

2-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dimethylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Acenaphthylene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
2,6-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
3-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Acenaphthene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
2,4-Dinitrophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Nitrophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenzofuran	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
2,4-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Diethylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Chlorophenyl-Phenylet	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Fluorene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4,6-Dinitro-2-Methylphe	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
n-Nitrosodiphenylamine	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Bromophenyl-Phenyleth	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Hexachlorobenzene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Pentachlorophenol	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Phenanthrene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Anthracene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Fluoranthene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Pyrene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Butylbenzylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
3,3-Dichlorobenzidine	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Anthracene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Chrysene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Octylphthalate	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(b)Fluoranthene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(k)Fluoranthene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Pyrene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Indeno(1,2,3-cd)Pyrene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenz(a,h)Anthracene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(g,h,i)Perylene	0.200	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2500		mg/Kg	EPA 6010		08/27 08/29	DEL
Antimony	51	U	mg/Kg	EPA 6010		08/27 08/29	DEL
Arsenic	5.1	U	mg/Kg	EPA 6010		08/27 08/29	DEL
Barium	16		mg/Kg	EPA 6010		08/27 08/29	DEL
Beryllium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DEL
Cadmium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DEL
Calcium	8400		mg/Kg	EPA 6010		08/27 08/29	DEL
Chromium	5.0		mg/Kg	EPA 6010		08/27 08/29	DEL
Cobalt	5.1	U	mg/Kg	EPA 6010		08/27 08/29	DEL
Copper	7.9		mg/Kg	EPA 6010		08/27 08/29	DEL
Iron	7500		mg/Kg	EPA 6010		08/27 08/29	DEL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-9
Client Sample ID :BTR-~~A0C10~~-S01
Matrix :SOIL LF19 SMA 11.4.94

Lead	51	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Magnesium	1500		mg/Kg	EPA 6010	08/27	08/29	DFL
Manganese	160		mg/Kg	EPA 6010	08/27	08/29	DFL
Molybdenum	2.6	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Nickel	6.9		mg/Kg	EPA 6010	08/27	08/29	DFL
Potassium	340		mg/Kg	EPA 6010	08/27	08/29	DFL
Selenium	51	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Silver	2.6	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Sodium	53		mg/Kg	EPA 6010	08/27	08/29	DFL
Thallium	0.25	U	mg/Kg	EPA 7841	08/26	08/28	KAM
Vanadium	5.8		mg/Kg	EPA 6010	08/27	08/29	DFL
Zinc	20		mg/Kg	EPA 6010	08/27	08/29	DFL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-8
Client Sample ID :BTR-~~AOC10~~-S04
Matrix :SOIL LF19 SMF 11.4.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Stephen Ede

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics								
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
[illegible]bon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
[illegible]orobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Chemlab Ref.# :93.4301-8
Client Sample ID :BTR-~~AOC19~~-S04
Matrix :SOIL LF19 BFM 11.7.94

Comments

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	K
Semivolatile Organics				EPA 8270			
Phenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2-Chlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
1,4-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Benzyl Alcohol	0.710 ~~1.000~~	U	mg/Kg	EPA 8270 E,3	09/04	09/28	MT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Isophorone	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Naphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MT

WP 9-18-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-8
Client Sample ID :BTR-~~AOC1Q~~-S04
Matrix :SOIL LF19 BFM 11.7.94

2-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitrophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluorene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Butylphthalate	0.210 ~~1.00~~	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Chrysene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	0.210 ~~1.00~~	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2900		mg/Kg	EPA 6010		08/27 08/29	DFI
Antimony	52	U	mg/Kg	EPA 6010		08/27 08/29	DFI
Arsenic	5.2	U	mg/Kg	EPA 6010	Qual. Comm.	08/27 08/29	DFI
Barium	23		mg/Kg	EPA 6010		08/27 08/29	DFI
Beryllium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFI
Cadmium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFI
Calcium	9800		mg/Kg	EPA 6010	J G.1 BFM 11.8.94	08/27 08/29	DFI
Chromium	5.4		mg/Kg	EPA 6010		08/27 08/29	DFI
Cobalt	5.2	U	mg/Kg	EPA 6010		08/27 08/29	DFI
Copper	5.4		mg/Kg	EPA 6010		08/27 08/29	DFI
Iron	8000		mg/Kg	EPA 6010		08/27 08/29	DFI

1-18-94

Compiled by
Original by
D.G. 1/5/94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-8
Client Sample ID :BTR-~~AOC10~~-S04
Matrix :SOIL LF 19 BFM 11.8.94

qual Com

Lead	5.2	U	mg/Kg	EPA 6010	J	I.1	08/27 08/29	DF
Magnesium	1700		mg/Kg	EPA 6010	J	G.1	08/27 08/29	DF
Manganese	120		mg/Kg	EPA 6010			08/27 08/29	DF
Molybdenum	2.6	U	mg/Kg	EPA 6010			08/27 08/29	DF
Nickel	6.8		mg/Kg	EPA 6010			08/27 08/29	DF
Potassium	390		mg/Kg	EPA 6010			08/27 08/29	DF
Selenium	52	U	mg/Kg	EPA 6010			08/27 08/29	DF
Silver	2.6	U	mg/Kg	EPA 6010	UJ	C.1	08/27 08/29	DF
Sodium	60		mg/Kg	EPA 6010			08/27 08/29	DF
Thallium	0.27	U	mg/Kg	EPA 7841			08/26 08/28	KA
Vanadium	6.6		mg/Kg	EPA 6010			08/27 08/29	DF
Zinc	20		mg/Kg	EPA 6010			08/27 08/29	DF
TOC, Soil	4950		mg/Kg	PSEP Ref Lab				

J.E. 1/5/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-14
Client Sample ID :BTR-~~A0C10~~-S04 SPIKE
Matrix :SOIL LF19 Soil 12-S 95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. FOR 8260
SPIKE AND SPIKE DUPLICATE RECOVERY AND RPD, SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.190		mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
t-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.193		mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.031		mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-14
Client Sample ID :BTR-~~A0C10~~-S04 SPIKE
Matrix :SOIL LF 19 Bluf 125.95

p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Toluene	0.190		mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichloroethene	0.165		mg/Kg	EPA 8260	08/25	09/09	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-15
Client Sample ID :BTR-~~AOC10~~-S04 SPIKE DUPLICATE
Matrix :SOIL LF19 Silt 12.595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. FOR 8260
- SPIKE AND SPIKE DUPLICATE RECOVERY AND RPD, SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.192		mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
ert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.194		mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.030		mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-15
Client Sample ID :BTR-~~AOC10~~-S04 SPIKE DUPLICATE
Matrix :SOIL LF19 Smt 12.5.95

p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Toluene	0.191		mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Trichloroethene	0.156		mg/Kg	EPA 8260	08/25 09/09	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/09	KWM

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* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
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LT = Less Than
GT = Greater Than

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ANCHORAGE, AK 99518
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REPORT of ANALYSIS

Chemlab Ref.# :93.4301-10
Client Sample ID :BTR-~~A0C10~~-S06
Matrix :SOIL LF19 SMP 11-4-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 13:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
rbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
lorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-10
Client Sample ID :BTR-~~AOC10~~-S06
Matrix :SOIL LF19 SMF 11.4.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-10
Client Sample ID :BTR-~~AOC10~~-S06
Matrix :SOIL LF19 SMF 11.4.94

2-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Acenaphthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Fluorene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Phenanthrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
di-n-Butylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Chrysene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Ethylhexyl)Phthal	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	3500		mg/Kg	EPA 6010	08/27	08/29	DFL
Antimony	49	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Arsenic	4.9	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Barium	31		mg/Kg	EPA 6010	08/27	08/29	DFL
Beryllium	2.5	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Cadmium	2.5	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Calcium	12000		mg/Kg	EPA 6010	08/27	08/29	DFL
Chromium	7.4		mg/Kg	EPA 6010	08/27	08/29	DFL
Cobalt	4.9	U	mg/Kg	EPA 6010	08/27	08/29	DFL
Copper	4.8		mg/Kg	EPA 6010	08/27	08/29	DFL
Iron	8800		mg/Kg	EPA 6010	08/27	08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-10
Client Sample ID :BTR-~~AOC10~~-S06
Matrix :SOIL LF19 SMA 11.4.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Lead	4.9	U	mg/Kg	EPA 6010	08/27 08/29	DFL
Magnesium	1900		mg/Kg	EPA 6010	08/27 08/29	DFL
Manganese	130		mg/Kg	EPA 6010	08/27 08/29	DFL
Molybdenum	2.5	U	mg/Kg	EPA 6010	08/27 08/29	DFL
Nickel	7.8		mg/Kg	EPA 6010	08/27 08/29	DFL
Potassium	410		mg/Kg	EPA 6010	08/27 08/29	DFL
Selenium	49	U	mg/Kg	EPA 6010	08/27 08/29	DFL
Silver	2.5	U	mg/Kg	EPA 6010	08/27 08/29	DFL
Sodium	70		mg/Kg	EPA 6010	08/27 08/29	DFL
Thallium	0.26	U	mg/Kg	EPA 7841	08/26 08/28	KAW
Vanadium	9.3		mg/Kg	EPA 6010	08/27 08/29	DFL
Zinc	21		mg/Kg	EPA 6010	08/27 08/29	DFL

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-6
Client Sample ID :BTR-~~A0C10~~-SW01
Matrix :WATER LF19 BFM 11.7.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 13:05 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Qualifier/Comment

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloromethane 0.0021 ~~0.0050~~	~~0.0021~~	~~U~~ (J)	mg/L	EPA 8260	(u)-F.1	09/02	09/02	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichloroethane 0.0075 ~~0.0050~~	~~0.0075~~	~~U~~ (J)	mg/L	EPA 8260	(u)-F.1	09/02	09/02	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW

VALIDATION QUALIFIER (COMMENT)

1-19-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-6
Client Sample ID :BTR-~~AOC10~~-SW01
Matrix :WATER LF19

BFM 11.7.94 VALIDATION QUALIFIERS (COMMENT)

Methylene Chloride	~~0.0020~~ 0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Napthalene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Toluene	~~0.0020~~ 0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02 KWI
Semivolatile Organics				EPA 8270		
Phenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
bis(2-Chloroethyl)ether	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2-Chlorophenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
1,3-Dichlorobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
1,4-Dichlorobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Benzyl Alcohol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
1,2-Dichlorobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2-Methylphenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
bis(2-Chloroisopropyl)e	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
4-Methylphenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
n-Nitroso-di-n-Propylam	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Hexachloroethane	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Nitrobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Isophorone	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2-Nitrophenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2,4-Dimethylphenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Benzoic Acid	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
bis(2-Chloroethoxy)Meth	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2,4-Dichlorophenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
1,2,4-Trichlorobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Naphthalene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
4-Chloroaniline	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Hexachlorobutadiene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
4-Chloro-3-Methylphenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2-Methylnaphthalene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
Hexachlorocyclopentadie	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2,4,6-Trichlorophenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2,4,5-Trichlorophenol	0.033	U	mg/L	EPA 8270	08/27	08/29 MT
2-Chloronaphthalene	0.033	U	mg/L	EPA 8270	08/27	08/29 MT

1-19-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-6
Client Sample ID :BTR-~~AOC10~~-SW01
Matrix :WATER LF19 BFM 11-2-94

VALIDATION QUALIFIER (COMMENT)

2-Nitroaniline	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Dimethylphthalate	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Acenaphthylene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
2,6-Dinitrotoluene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
3-Nitroaniline	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Acenaphthene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
2,4-Dinitrophenol	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
4-Nitrophenol	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Dibenzofuran	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
2,4-Dinitrotoluene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Diethylphthalate	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
4-Chlorophenyl-Phenylet	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Fluorene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
4-Nitroaniline	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
4,6-Dinitro-2-Methylphe	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
n-Nitrosodiphenylamine	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
4-Bromophenyl-Phenyleth	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Hexachlorobenzene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Pentachlorophenol	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Phenanthrene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Anthracene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
di-n-Butylphthalate	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Fluoranthene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Pyrene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Butylbenzylphthalate	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
3,3-Dichlorobenzidine	0.033	U J(b)	mg/L	EPA 8270		08/27	08/29 MT
Benzo(a)Anthracene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Chrysene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
bis(2-Ethylhexyl)Phthal	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
di-n-Octylphthalate	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Benzo(b)Fluoranthene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Benzo(k)Fluoranthene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Benzo(a)Pyrene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Indeno(1,2,3-cd)Pyrene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Dibenz(a,h)Anthracene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Benzo(g,h,i)Perylene	0.033	U	mg/L	EPA 8270		08/27	08/29 MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.16		mg/L	EPA 6010		08/28	08/30 D
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30 D
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30 D
Barium	0.19		mg/L	EPA 6010		08/28	08/30 D
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Calcium	170		mg/L	EPA 6010		08/28	08/30 D
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30 D
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30 D
Iron	18		mg/L	EPA 6010		08/28	08/30 D
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30 D

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REPORT of ANALYSIS

LF19 BFM 11.7.94

Chemlab Ref.# :93.4303-6
Client Sample ID :BTR-~~AOC10~~-SW01
Matrix :WATER

		Validation Qualifier	Comment					
Magnesium	72			mg/L	EPA 6010		08/28	08/30 DLC
Manganese	0.070			mg/L	EPA 6010		08/28	08/30 DLC
Molybdenum	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Nickel	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Potassium	7.6			mg/L	EPA 6010		08/28	08/30 DLC
Selenium	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Silver	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Sodium	250			mg/L	EPA 6010		08/28	08/30 DLC
Thallium	0.005	U		mg/L	EPA 7841		08/28	08/30 KAI
Vanadium	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Zinc	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Dissolved Metals Analys	---				-			
ICP Screen, ICF					EPA	n/a		
Aluminum	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Antimony	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Arsenic	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Barium	0.14			mg/L	EPA 6010		08/28	08/30 DLC
Beryllium	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Cadmium	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Calcium	160			mg/L	EPA 6010		08/28	08/30 DLC
Chromium	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Cobalt	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Copper	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Iron	1.8			mg/L	EPA 6010		08/28	08/30 DLC
Lead	0.1	U		mg/L	EPA 6010		08/28	08/30 DLC
Magnesium	75			mg/L	EPA 6010		08/28	08/30 DLC
Manganese	0.056			mg/L	EPA 6010		08/28	08/30 DLC
Molybdenum	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Nickel	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Potassium	8.7			mg/L	EPA 6010		08/28	08/30 DLC
Selenium	0.1			mg/L	EPA 6010		08/28	08/30 DLC
Silver	0.05			mg/L	EPA 6010		08/28	08/30 DLC
Sodium	320			mg/L	EPA 6010		08/28	08/30 KAI
Thallium	0.0050	U		mg/L	EPA 7841		08/28	08/30 DLC
Vanadium	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
Zinc	0.05	U		mg/L	EPA 6010		08/28	08/30 DLC
TOC, Nonpurgable			BFM 11.8.94		EPA 9060	n/a		
...TOC Range	32.6-37.0			mg/L	EPA 9060			09/02 CMI
...TOC Concentration	34.6	J (C.1)		mg/L	EPA 9060			09/02 CMI
Residue, Non-Filterable	51	J A	BFM 11.7.94	mg/L	EPA 160.2		08/30	08/31 GPI
Residue,Filterable(TDS)	1800	J(A)		mg/L	EPA 160.1	500	08/30	08/31 RJT

Compiled all charges by S.L 1/11/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyz
LT = Less Than
GT = Greater Than

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ANCHORAGE, AK 99518
TEL: (907) 562-2343
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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-8
Client Sample ID :BTR-~~AOC10~~-SW01 DUPLICATE
Matrix :WATER SLF19 SMF 12595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 13:05 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Total Metals Analysis ICP Screen, ICF	---			- EPA	n/a			
Aluminum	0.14		mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.19		mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	170		mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Iron	18		mg/L	EPA 6010		08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Magnesium	71		mg/L	EPA 6010		08/28	08/30	DLG
Manganese	0.069		mg/L	EPA 6010		08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Potassium	7.2		mg/L	EPA 6010		08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Sodium	250		mg/L	EPA 6010		08/28	08/30	DLG
Thallium	0.0050	U	mg/L	EPA 7841		08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Dissolved Metals Analys ICP Screen, ICF	---			- EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.14		mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	160		mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG

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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-8
Client Sample ID :BTR-~~AOC10~~-SW01 DUPLICATE
Matrix :WATER LF19 Salt 12.5.95

Iron	1.8		mg/L	EPA 6010		08/28	08/30	DL
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Magnesium	74		mg/L	EPA 6010		08/28	08/30	DL
Manganese	0.056		mg/L	EPA 6010		08/28	08/30	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Potassium	8.2		mg/L	EPA 6010		08/28	08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Sodium	290		mg/L	EPA 6010		08/28	08/30	DL
Thallium	0.0050	U	mg/L	EPA 7841		08/28	08/30	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	31.3-34.3		mg/L	EPA 9060			09/02	CM
...TOC Concentration	33.2		mg/L	EPA 9060			09/02	CM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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NA = Not Analyzed
LT = Less Than
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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-7
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE
Matrix :WATER LF19 SWLF 12.5.95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 13:05 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. 4-NITROPHENOL AND PENTACHLOROPHENOL ARE OUTSIDE QC LIMITS DUE TO MATRIX INTERFERENCE. FOR SPIKE & SPIKE DUPLICATE RECOVERIES & RPD SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0099		mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.010		mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0069		mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethene	0.0080		mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-7
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE
Matrix :WATER LF19 SW12.5.95

Isopropylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Toluene	0.010		mg/L	EPA 8260	09/02 09/02	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Trichloroethene	0.0087		mg/L	EPA 8260	09/02 09/02	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Semivolatile Organics				EPA 8270		
Phenol	0.138		mg/L	EPA 8270	08/27 08/29	MTT
bis(2-Chloroethyl)ether	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2-Chlorophenol	0.142		mg/L	EPA 8270	08/27 08/29	MTT
1,3-Dichlorobenzene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
1,4-Dichlorobenzene	0.192		mg/L	EPA 8270	08/27 08/29	MTT
Benzyl Alcohol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
1,2-Dichlorobenzene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2-Methylphenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
bis(2-Chloroisopropyl)e	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Methylphenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
n-Nitroso-di-n-Propylam	0.243		mg/L	EPA 8270	08/27 08/29	MTT
Hexachloroethane	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
Nitrobenzene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
Isophorone	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2-Nitrophenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2,4-Dimethylphenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
Benzoic Acid	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
bis(2-Chloroethoxy)Meth	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2,4-Dichlorophenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
1,2,4-Trichlorobenzene	0.213		mg/L	EPA 8270	08/27 08/29	MTT
Naphthalene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Chloroaniline	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
Hexachlorobutadiene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
4-Chloro-3-Methylphenol	0.215		mg/L	EPA 8270	08/27 08/29	MTT
2-Methylnaphthalene	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
Hexachlorocyclopentadie	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT
2,4,6-Trichlorophenol	0.033	U	mg/L	EPA 8270	08/27 08/29	MTT

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-7
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE
Matrix :WATER LF19 SWF 12.595

2,4,5-Trichlorophenol	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Chloronaphthalene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Nitroaniline	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Dimethylphthalate	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Acenaphthylene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
2,6-Dinitrotoluene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
3-Nitroaniline	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Acenaphthene	0.244		mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dinitrophenol	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Nitrophenol	0.0028	J	mg/L	EPA 8270	08/27	08/29	MTT
Dibenzofuran	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dinitrotoluene	0.244		mg/L	EPA 8270	08/27	08/29	MTT
Diethylphthalate	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chlorophenyl-Phenylet	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Fluorene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Nitroaniline	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
4,6-Dinitro-2-Methylphe	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
n-Nitrosodiphenylamine	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Bromophenyl-Phenyleth	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachlorobenzene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Pentachlorophenol	0.0041	J	mg/L	EPA 8270	08/27	08/29	MTT
Phenanthrene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Anthracene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
di-n-Butylphthalate	0.295		mg/L	EPA 8270	08/27	08/29	MTT
Fluoranthene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Pyrene	0.254		mg/L	EPA 8270	08/27	08/29	MTT
Butylbenzylphthalate	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
3,3-Dichlorobenzidine	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(a)Anthracene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Chrysene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Ethylhexyl)Phthal	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
di-n-Octylphthalate	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(b)Fluoranthene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(k)Fluoranthene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(a)Pyrene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Indeno(1,2,3-cd)Pyrene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Dibenz(a,h)Anthracene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(g,h,i)Perylene	0.033	U	mg/L	EPA 8270	08/27	08/29	MTT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1.06		mg/L	EPA 6010	08/28	08/30	DLG
Antimony	0.82		mg/L	EPA 6010	08/28	08/30	DLG
Arsenic	0.97		mg/L	EPA 6010	08/28	08/30	DLG
Barium	1.16		mg/L	EPA 6010	08/28	08/30	DLG
Beryllium	0.38		mg/L	EPA 6010	08/28	08/30	DLG
Cadmium	0.47		mg/L	EPA 6010	08/28	08/30	DLG
Calcium	275		mg/L	EPA 6010	08/28	08/30	DLG
Chromium	0.95		mg/L	EPA 6010	08/28	08/30	DLG
Cobalt	0.91		mg/L	EPA 6010	08/28	08/30	DLG
Copper	0.92		mg/L	EPA 6010	08/28	08/30	DLG

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REPORT of ANALYSIS

Chemlab Ref.= :93.4303-7
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE
Matrix :WATER LF19 SMF 12.5.95

Iron	301	mg/L	EPA 6010		08/28 08/30	DL
Lead	0.93	mg/L	EPA 6010		08/28 08/30	DL
Magnesium	181	mg/L	EPA 6010		08/28 08/30	DL
Manganese	1.01	mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.94	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.94	mg/L	EPA 6010		08/28 08/30	DL
Potassium	15.5	mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.91	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.15	mg/L	EPA 6010		08/28 08/30	DL
Sodium	369	mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.016	mg/L	EPA 7841		08/28 08/30	KAW
Vanadium	0.90	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.94	mg/L	EPA 6010		08/28 08/30	DL
Dissolved Metals Analys	---		-			
ICP Screen. ICF			EPA	n/a		
Aluminum	1.04	mg/L	EPA 6010		08/28 08/30	DL
Antimony	0.81	mg/L	EPA 6010		08/28 08/30	DL
Arsenic	0.93	mg/L	EPA 6010		08/28 08/30	DL
Barium	1.13	mg/L	EPA 6010		08/28 08/30	DL
Beryllium	0.37	mg/L	EPA 6010		08/28 08/30	DL
Cadmium	0.44	mg/L	EPA 6010		08/28 08/30	DL
Calcium	255	mg/L	EPA 6010		08/28 08/30	DL
Chromium	0.91	mg/L	EPA 6010		08/28 08/30	DL
Cobalt	0.89	mg/L	EPA 6010		08/28 08/30	DL
Copper	0.97	mg/L	EPA 6010		08/28 08/30	DL
Iron	2.70	mg/L	EPA 6010		08/28 08/30	DL
Lead	0.89	mg/L	EPA 6010		08/28 08/30	DL
Magnesium	178	mg/L	EPA 6010		08/28 08/30	DL
Manganese	0.98	mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.91	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.90	mg/L	EPA 6010		08/28 08/30	DL
Potassium	182	mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.91	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.15	mg/L	EPA 6010		08/28 08/30	DL
Sodium	409	mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.015	mg/L	EPA 7841		08/28 08/30	KAW
Vanadium	0.88	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.95	mg/L	EPA 6010		08/28 08/30	DL
TOC, Nonpurgable			EPA 9060	n/a		
...TOC Range	50.3-51.5	mg/L	EPA 9060		09/02	CM
...TOC Concentration	50.7	mg/L	EPA 9060		09/02	CM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected. Reported value is the practical quantification limit.
D = Secondary dilution.
UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-10
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE DUPLICATE
Matrix :WATER LF19 8WL 12.595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 13:05 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. 8270: SAMPLE HAS BEEN SPIKED. PENTACHLOROPHENOL IS OUTSIDE Q/C LIMITS DUE TO MATRIX INTERFERENCE. 8260: FOR MS/MSD RECOVERIES & RPD SEE Q/C SUMMARY. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.010		mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.011		mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0066		mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethene	0.0079		mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-10
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE DUPLICATE
Matrix :WATER LF19 SMF 12.5.95

5633 B STREET
ANCHORAGE, AK 99518
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Ethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Toluene	0.011		mg/L	EPA 8260	09/02	09/02	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Trichloroethene	0.0090		mg/L	EPA 8260	09/02	09/02	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Semivolatile Organics				EPA 8270			
Phenol	0.240		mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroethyl)ether	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Chlorophenol	0.263		mg/L	EPA 8270	08/27	08/29	MTT
1,3-Dichlorobenzene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
1,4-Dichlorobenzene	0.194		mg/L	EPA 8270	08/27	08/29	MTT
Benzyl Alcohol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
1,2-Dichlorobenzene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Methylphenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroisopropyl)e	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Methylphenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
n-Nitroso-di-n-Propylam	0.287		mg/L	EPA 8270	08/27	08/29	MTT
Hexachloroethane	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Nitrobenzene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Isophorone	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Nitrophenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dimethylphenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzoic Acid	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroethoxy)Meth	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dichlorophenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
1,2,4-Trichlorobenzene	0.221		mg/L	EPA 8270	08/27	08/29	MTT
Naphthalene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chloroaniline	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachlorobutadiene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chloro-3-Methylphenol	0.324		mg/L	EPA 8270	08/27	08/29	MTT
2-Methylnaphthalene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT

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REPORT of ANALYSIS

Chemlab Ref.# :93.4303-10
Client Sample ID :BTR-~~AOC10~~-SW01 SPIKE DUPLICATE
Matrix :WATER LF19 SW8 12.5.95

Hexachlorocyclopentadie	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4,6-Trichlorophenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4,5-Trichlorophenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Chloronaphthalene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Nitroaniline	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Dimethylphthalate	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Acenaphthylene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,6-Dinitrotoluene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
3-Nitroaniline	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Acenaphthene	0.278		mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dinitrophenol	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Nitrophenol	0.133		mg/L	EPA 8270	08/27	08/29	MTT
Dibenzofuran	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dinitrotoluene	0.300		mg/L	EPA 8270	08/27	08/29	MTT
Diethylphthalate	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chlorophenyl-Phenylet	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Fluorene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Nitroaniline	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4,6-Dinitro-2-Methylphe	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
n-Nitrosodiphenylamine	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Bromophenyl-Phenyleth	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachlorobenzene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Pentachlorophenol	0.0267	J	mg/L	EPA 8270	08/27	08/29	MTT
Phenanthrene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Anthracene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
di-n-Butylphthalate	0.184		mg/L	EPA 8270	08/27	08/29	MTT
Fluoranthene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Pyrene	0.310		mg/L	EPA 8270	08/27	08/29	MTT
Butylbenzylphthalate	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
3,3-Dichlorobenzidine	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(a)Anthracene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Chrysene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Ethylhexyl)Phthal	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
di-n-Octylphthalate	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(b)Fluoranthene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(k)Fluoranthene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(a)Pyrene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Indeno(1,2,3-cd)Pyrene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Dibenz(a,h)Anthracene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzo(g,h,i)Perylene	0.042	U	mg/L	EPA 8270	08/27	08/29	MTT

* See Special Instructions Above
See Sample Remarks Above
= Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	LF19 BTR-~~A0C10~~-S01	LF19 BTR-~~A0C10~~-S02	LF19 BTR-~~A0C10~~-S03	LF19 BTR-~~A0C10~~-S04	LF19 BTR-~~A0C10~~-S05
F&BI Number	353	355	357	359	361
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	97	93	98	94	41
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
Leaded Gas					
JP-4	<50	<50	<50	<50	<120
Lube Oil	<100	<100	<100	<100	1600
Diesel	<50J	<50J	<50J	<50 J	<120 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	92	103	110	95	102
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
PCB 1221	<0.5	<0.5	<0.5	<0.5	~~<0.5~~ <1.20
PCB 1232	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
PCB 1016	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
PCB 1242	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
PCB 1248	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
PCB 1254	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
PCB 1260	<0.5	<0.5	<0.5	<0.5	~~<0.5~~
Spike Level					
Dibutyl Chlorendate	106	96	91	88	120
Sequence Date	#6-08/23/93			#6-08/23/93	
alpha-BHC	<0.02 J			<0.02 J	
beta-BHC	<0.02			<0.02	
gamma-BHC	<0.02			<0.02	
delta-BHC	<0.02			<0.02	
Heptachlor	<0.02			<0.02	
Aldrin	<0.02			<0.02	
Heptachlor Epoxide	<0.02			<0.02	
Endosulfan I	<0.02			<0.02	
DDE	<0.02			<0.02	
Dieldrin	<0.02			<0.02	
Endrin	<0.02			<0.02	
Endosulfan II	<0.02			<0.02	
DDD	<0.02			<0.02	
Endrin Aldehyde	<0.02			<0.02	
DDT	<0.02			<0.02	
Endosulfan Sulfate	<0.02			<0.02	
Endrin Ketone	<0.02			<0.02	
Methoxy Chlor	~~<0.1~~ <0.5J			~~<0.1~~ <0.5 J	
Chlordane	<0.5 J			<0.5J	
Dibutyl Chlorendate	96			88	
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93
CCl4	<0.02 R	<0.02	<0.02	<0.02	<0.05
TCA	<0.02	<0.02	<0.02	<0.02	<0.05
Benzene	<0.02	<0.02	<0.02	<0.02	<0.05
TCE	<0.02	<0.02	<0.02	<0.02	<0.05
Toluene	<0.02	<0.02	<0.02	<0.02	<0.05
PCE	<0.02	<0.02	<0.02	<0.02	<0.05
Ethylbenzene	0.06	~~<0.02~~ <0.8	~~<0.02~~ <0.2	~~<0.02~~ <0.5	~~<0.05~~ <0.2
Xylenes	<0.04	~~<0.04~~ <1.3	~~<0.04~~ <1.3	~~<0.04~~ <0.7	~~<0.1~~ <0.5
Gasoline	~~3.2~~ <46J	~~<2~~ <8J	~~<2~~ <5J	~~<2~~ <3J	~~<5~~ <5J
Spike level					
BFB	100	100	101	102	103

11.11.94 BMF

ICF ID	LF19 BTR-~~A0C10~~-S06	LF19 BTR-~~A0C10~~-2S06-1.5	LF19 BTR-~~A0C10~~-2S07	LF19 BTR-~~A0C10~~-2S08	LF19 BTR-~~A0C10~~-2S09
F&BI Number	363	1698	1700	1702	1704
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	9/2/93	9/2/93	9/2/93	9/2/93
% Dry Weight	93	47	86	94	92
Sequence Date	#6-08/23/93	#5-09/05/93	#5-09/05/93	#5-09/05/93	#5-09/05/93
Leaded Gas					
JP-4	<50	<100	<60	<50	<50
Lube Oil	<100	<200	<120	<100	<100
Diesel	<50 J	<100 J	<60 J	<50 J	<50 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	103	75	64	90	50
Sequence Date	#6-08/23/93				
PCB 1221	<0.5				
PCB 1232	<0.5				
PCB 1016	<0.5				
PCB 1242	<0.5				
PCB 1248	<0.5				
PCB 1254	<0.5				
PCB 1260	<0.5				
Spike Level					
Dibutyl Chlorendate	90				
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCl4	<0.02	<0.2	<0.1	<0.1	<0.1
TCA	<0.02	<0.2	<0.1	<0.1	<0.1
Benzene	<0.02	<0.04	<0.02	<0.02	<0.02
TCE	<0.02	<0.2	<0.1	<0.1	<0.1
Toluene	<0.02	<0.04	<0.02	<0.02	<0.02
PCE	<0.02	<0.2	<0.1	<0.1	<0.1
Ethylbenzene	~~<0.02~~ <0.07	<0.04	<0.02	<0.02	<0.02
Xylenes	~~<0.04~~ <0.5	<0.08	<0.04	<0.04	<0.04
Gasoline	<2 J	22 J	~~<1~~ <2 J	~~<1~~ <2 J	~~<1~~ <2 J
Spike level					
BFB	105	96	102	112	91

11.11.94 SVK

ICF ID	LF19 BTR-~~AOC10~~-SD01	LF19 BTR-~~AOC10~~-2SD02	LF19 BTR-~~AOC10~~-SW01
F&BI Number	351	1696	307
Sample Type	soil	soil	water
Date Received	8/23/93	9/2/93	8/23/93
% Dry Weight	77	85	
Sequence Date	#6-08/23/93	#5-09/05/93	
Leaded Gas			
JP-4	<70	<60	
Lube Oil	5800	<120	
Diesel	~~460~~ 580J	<60J	
Spike Level			
Unknown Semi-volatile			
Pentacosane	87	51	
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-08/24/93	#3&4-09/06/93	#3&4-08/24/93
CCl4	<0.02 R	<0.1	<1
TCA	<0.02	<0.1	<1
Benzene	<0.02	<0.02	<1
TCE	<0.02	<0.1	<1
Toluene	<0.02	<0.02	<1
PCE	<0.02	<0.1	<1
Ethylbenzene	0.03	<0.02	<1
Xylenes	<0.04	<0.04	<2
Gasoline	~~<2~~ 27J	2 diesel J	~~<50~~ 100J
Spike level			
BFB	100	86	120

11.11.94 gmf

ANALYTICAL DATA SHEETS FOR THE BLADDER DIESEL SPILL (SS20)
(Formerly identified as AOC14)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-6
Client Sample ID :BTR-~~A0C14~~-S02
Matrix :SOIL SS20
Smt 11.4.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 18:55 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-6
Client Sample ID :BTR-AOC14-S02
Matrix :SOIL SS20 BFM 11.7.94

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Toluene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Semivoletile Organics				EPA 8270			
Phenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	0.210	U	mg/Kg	EPA 8270 (T) A 1	09/04	09/28	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT

1-15-95

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-6
Client Sample ID :BTR-~~A0C14~~-S02
Matrix :SOIL SS20 8mf 11.4.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitrophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluorene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Chrysene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1600		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	52	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.2	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	13		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.6	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	13000		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	3.0		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.2	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	4.8		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	6000		mg/Kg	EPA 6010		08/27 08/29	DFL

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ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

5633 B S[redacted]
ANCHORAGE, A[redacted]
TEL: (907) 562-[redacted]
FAX: (907) 561-530[redacted]

Chemlab Ref.# :93.4305-6
Client Sample ID :BTR-~~AOC14~~-S02
Matrix :SOIL SS20 BFM 11.8.94

					Qualifier	Comment		
Lead	5.2	U	mg/Kg	EPA 6010			08/27 08/29	D
Magnesium	5600		mg/Kg	EPA 6010	J	I	08/27 08/29	D
Manganese	69		mg/Kg	EPA 6010			08/27 08/29	D
Molybdenum	2.6	U	mg/Kg	EPA 6010			08/27 08/29	D
Nickel	5.6		mg/Kg	EPA 6010			08/27 08/29	D
Potassium	260	U	mg/Kg	EPA 6010			08/27 08/29	D
Selenium	5.2	U	mg/Kg	EPA 6010			08/27 08/29	D
Silver	2.6	U	mg/Kg	EPA 6010			08/27 08/29	D
Sodium	52		mg/Kg	EPA 6010			08/27 08/29	D
Thallium	0.25	U	mg/Kg	EPA 7841			08/26 08/28	K
Vanadium	4.9		mg/Kg	EPA 6010			08/27 08/29	D
Zinc	13		mg/Kg	EPA 6010			08/27 08/29	D
TOC, Soil	1150		mg/Kg	PSEP Ref Lab				

BM chgs
S.L. 2/3/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyz[redacted]
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-23
FAX: (907) 561-53

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-5
Client Sample ID :BTR-~~AOC14~~-S03
Matrix :SOIL S520 Surf 11494

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 19:35 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-5
Client Sample ID :BTR-~~AOC14~~-S03
Matrix :SOIL 5520 SMF 11.4.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Styrene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Toluene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	S
Semivolatile Organics				EPA 8270		
Phenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
bis(2-Chloroethyl)ether	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2-Chlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
1,3-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
1,4-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04 09/28	M
1,2-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
bis(2-Chloroisopropyl)e	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
4-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
n-Nitroso-di-n-Propylam	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Hexachloroethane	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Nitrobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Isophorone	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2-Nitrophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2,4-Dimethylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Benzoic Acid	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
bis(2-Chloroethoxy)Meth	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2,4-Dichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
1,2,4-Trichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Naphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
4-Chloroaniline	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Hexachlorobutadiene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
4-Chloro-3-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2-Methylnaphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
Hexachlorocyclopentadie	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2,4,6-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2,4,5-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M
2-Chloronaphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	M

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-5
Client Sample ID :BTR-~~AOC14~~-S03
Matrix :SOIL

5520 SMA 11.4.94

2-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthylene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,6-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
3-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitrophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenzofuran	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Diethylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Chlorophenyl-Phenylet	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluorene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
4,6-Dinitro-2-Methylphe	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
n-Nitrosodiphenylamine	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Bromophenyl-Phenyleth	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Hexachlorobenzene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pentachlorophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Butylbenzylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
3,3-Dichlorobenzidine	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Chrysene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Octylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(b)Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(k)Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenz(a,h)Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,i)Perylene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2100		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	53	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	18		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	3700		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4.7		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	4.7		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	5800		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-5
Client Sample ID :BTR-~~AOC14~~-S03 SS20 SMF 11494
Matrix :SOIL

Lead	11		mg/Kg	EPA 6010	08/27 08/29	DE
Magnesium	1800		mg/Kg	EPA 6010	08/27 08/29	DE
Manganese	69		mg/Kg	EPA 6010	08/27 08/29	DE
Molybdenum	2.7	U	mg/Kg	EPA 6010	08/27 08/29	DE
Nickel	5.3		mg/Kg	EPA 6010	08/27 08/29	DE
Potassium	270	U	mg/Kg	EPA 6010	08/27 08/29	DE
Selenium	5.3	U	mg/Kg	EPA 6010	08/27 08/29	DE
Silver	2.7	U	mg/Kg	EPA 6010	08/27 08/29	DE
Sodium	61		mg/Kg	EPA 6010	08/27 08/29	DE
Thallium	0.27	U	mg/Kg	EPA 7841	08/26 08/28	KA
Vanadium	6.0		mg/Kg	EPA 6010	08/27 08/29	DE
Zinc	2.7		mg/Kg	EPA 6010	08/27 08/29	DE
TOC, Soil	3750		mg/Kg	PSEP Ref Lab		

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-4
Client Sample ID :BTR-~~AOC14~~-S04
Matrix :SOIL SS20 SMP 11-4-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 19:35 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-4
Client Sample ID :BTR-~~A0C14~~-S04 SS20 surf 11-4-04
Matrix :SOIL

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Styrene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Toluene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/05	SC
Semivolatile Organics				EPA 8270		
Phenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
bis(2-Chloroethyl)ether	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2-Chlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
1,3-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
1,4-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04 09/28	MT
1,2-Dichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
bis(2-Chloroisopropyl)e	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
n-Nitroso-di-n-Propylam	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Hexachloroethane	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Nitrobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Isophorone	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2-Nitrophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2,4-Dimethylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Benzoic Acid	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
bis(2-Chloroethoxy)Meth	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2,4-Dichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
1,2,4-Trichlorobenzene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Naphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Chloroaniline	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Hexachlorobutadiene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
4-Chloro-3-Methylphenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2-Methylnaphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
Hexachlorocyclopentadie	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2,4,6-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2,4,5-Trichlorophenol	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT
2-Chloronaphthalene	0.220	U	mg/Kg	EPA 8270	09/04 09/28	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-4
Client Sample ID :BTR-~~AOC14~~-S04 SS20 8mf 11.4.94
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Dimethylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Acenaphthylene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
2,6-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
3-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Acenaphthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
2,4-Dinitrophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
4-Nitrophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Dibenzofuran	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
2,4-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Diethylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
4-Chlorophenyl-Phenylet	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Fluorene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
4-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
4,6-Dinitro-2-Methylphe	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
n-Nitrosodiphenylamine	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
4-Bromophenyl-Phenyleth	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Hexachlorobenzene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Pentachlorophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Phenanthrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		09/04 09/28	M
Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Butylbenzylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
3,3-Dichlorobenzidine	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Benzo(a)Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Chrysene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04 09/28	M
di-n-Octylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Benzo(b)Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Benzo(k)Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Benzo(a)Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Indeno(1,2,3-cd)Pyrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Dibenz(a,h)Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Benzo(g,h,i)Perylene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	M
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2000		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	53	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	18		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	33000		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4.0		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	4.9		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	6200		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-4
Client Sample ID :BTR-~~AOC14~~-S04 SS20 SMF 11.4.94
Matrix :SOIL

Lead	8.5		mg/Kg	EPA 6010	08/27 08/29	DI
Magnesium	17000		mg/Kg	EPA 6010	08/27 08/29	DI
Manganese	77		mg/Kg	EPA 6010	08/27 08/29	DI
Molybdenum	2.7	U	mg/Kg	EPA 6010	08/27 08/29	DI
Nickel	4.6		mg/Kg	EPA 6010	08/27 08/29	DI
Potassium	270	U	mg/Kg	EPA 6010	08/27 08/29	DI
Selenium	5.3	U	mg/Kg	EPA 6010	08/27 08/29	DI
Silver	2.7	U	mg/Kg	EPA 6010	08/27 08/29	DI
Sodium	58		mg/Kg	EPA 6010	08/27 08/29	DI
Thallium	0.28	U	mg/Kg	EPA 7841	08/26 08/28	KA
Vanadium	6.3		mg/Kg	EPA 6010	08/27 08/29	DI
Zinc	21		mg/Kg	EPA 6010	08/27 08/29	DI
TOC, Soil	2970		mg/Kg	PSEP Ref Lab		

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-1
Client Sample ID :BTR-~~AOC14~~-SD01
Matrix :SOIL SS20 11.4 qd

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 20:10 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
transi,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
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FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-1
Client Sample ID :BTR-~~AOC14~~-SD01
Matrix :SOIL SS20 BFM 11-7-94

Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Napthalene	0.280		mg/Kg	EPA 8260	08/25	09/05	SGM
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Toluene	0.097		mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	SGM

EPA 8270 (J) - F. 3

Semivolatile Organics				EPA 8270	09/04	09/28	
Phenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chlorophenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,3-Dichlorobenzene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorocyclopentadie	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,6-Trichlorophenol	2.40	U	mg/Kg	EPA 8270	09/04	09/28	MTT

J, D.1, F.3

1-18-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-1
Client Sample ID :BTR-~~AOC14~~-SD01
Matrix :SOIL 8320 BFM 11794

2,4,5-Trichlorophenol	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
2-Chloronaphthalene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
2-Nitroaniline	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Dimethylphthalate	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Acenaphthylene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
2,6-Dinitrotoluene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
3-Nitroaniline	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Acenaphthene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
2,4-Dinitrophenol	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
4-Nitrophenol	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Dibenzofuran	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
2,4-Dinitrotoluene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Diethylphthalate	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
4-Chlorophenyl-Phenylet	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Fluorene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
4-Nitroaniline	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
4,6-Dinitro-2-Methylphe	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
n-Nitrosodiphenylamine	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
4-Bromophenyl-Phenyleth	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Hexachlorobenzene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Pentachlorophenol	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Phenanthrene	1.96	J	mg/Kg	EPA 8270		09/04	09/28 MTT
Anthracene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
di-n-Butylphthalate	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Fluoranthene	1.70	J	mg/Kg	EPA 8270		09/04	09/28 MTT
Pyrene	1.26	J	mg/Kg	EPA 8270		09/04	09/28 MTT
Butylbenzylphthalate	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
3,3-Dichlorobenzidine	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Benzo(a)Anthracene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Chrysene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
bis(2-Ethylhexyl)Phthal	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
di-n-Octylphthalate	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Benzo(b)Fluoranthene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Benzo(k)Fluoranthene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Benzo(a)Pyrene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Indeno(1,2,3-cd)Pyrene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Dibenz(a,h)Anthracene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Benzo(g,h,i)Perylene	2.40	U	mg/Kg	EPA 8270		09/04	09/28 MTT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2000		mg/Kg	EPA 6010		08/27	08/29 DFL
Antimony	58	U	mg/Kg	EPA 6010		08/27	08/29 DFL
Arsenic	5.8	U	mg/Kg	EPA 6010		08/27	08/29 DFL
Barium	20		mg/Kg	EPA 6010		08/27	08/29 DFL
Beryllium	2.9	U	mg/Kg	EPA 6010		08/27	08/29 DFL
Cadmium	2.9	U	mg/Kg	EPA 6010		08/27	08/29 DFL
Calcium	5600		mg/Kg	EPA 6010		08/27	08/29 DFL
Chromium	9.3		mg/Kg	EPA 6010		08/27	08/29 DFL
Cobalt	5.8	U	mg/Kg	EPA 6010		08/27	08/29 DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

5633 B STR
ANCHORAGE, AK 99
TEL: (907) 562-2343
FAX: (907) 561-8301

Chemlab Ref.# :93.4305-1
Client Sample ID :BTR-~~AOC14~~-SD01
Matrix :SOIL SS20 BFM 11.8.94

					Qualifer	Comment		
Copper	6.6		mg/Kg	EPA 6010			08/27 08/29	D
Iron	5700		mg/Kg	EPA 6010			08/27 08/29	D
Lead	9.2		mg/Kg	EPA 6010			08/27 08/29	DF
Magnesium	2900		mg/Kg	EPA 6010	J	I	08/27 08/29	DF
Manganese	69		mg/Kg	EPA 6010			08/27 08/29	DF
Molybdenum	2.9	U	mg/Kg	EPA 6010			08/27 08/29	DF
Nickel	7.7		mg/Kg	EPA 6010			08/27 08/29	DF
Potassium	290	U	mg/Kg	EPA 6010			08/27 08/29	DF
Selenium	5.8	U	mg/Kg	EPA 6010			08/27 08/29	DF
Silver	2.9	U	mg/Kg	EPA 6010			08/27 08/29	DF
Sodium	80		mg/Kg	EPA 6010			08/27 08/29	DF
Thallium	0.30	U	mg/Kg	EPA 7841			08/26 08/28	KA
Vanadium	6.7		mg/Kg	EPA 6010			08/27 08/29	DF
Zinc	30		mg/Kg	EPA 6010			08/27 08/29	DF
TOC, Soil	3360		mg/Kg	PSEP Ref Lab				

BM changes
S.L 2/2/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyze
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-3
Client Sample ID :BTR-~~AOC14~~-SD01 DUPLICATE
Matrix :SOIL SS20 SW 12.5.95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 20:10 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Armentead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Sample Preparation	---			EPA 3050 Digest				
Total Metals Analysis	---							
ICP Screen, ICF				EPA	n/a			
Aluminum	2400		mg/Kg	EPA 6010		08/27	08/29	DF
Antimony	58	U	mg/Kg	EPA 6010		08/27	08/29	DF
Arsenic	5.8	U	mg/Kg	EPA 6010		08/27	08/29	DF
Barium	23		mg/Kg	EPA 6010		08/27	08/29	DF
Beryllium	2.9	U	mg/Kg	EPA 6010		08/27	08/29	DF
Cadmium	2.9	U	mg/Kg	EPA 6010		08/27	08/29	DF
Calcium	7200		mg/Kg	EPA 6010		08/27	08/29	DF
Chromium	6.2		mg/Kg	EPA 6010		08/27	08/29	DF
Cobalt	5.8	U	mg/Kg	EPA 6010		08/27	08/29	DF
Copper	9.9		mg/Kg	EPA 6010		08/27	08/29	DF
Iron	7000		mg/Kg	EPA 6010		08/27	08/29	DF
Lead	6.4		mg/Kg	EPA 6010		08/27	08/29	DF
Magnesium	3400		mg/Kg	EPA 6010		08/27	08/29	DF
Manganese	87		mg/Kg	EPA 6010		08/27	08/29	DF
Molybdenum	2.9	U	mg/Kg	EPA 6010		08/27	08/29	DF
Nickel	5.7		mg/Kg	EPA 6010		08/27	08/29	DF
Potassium	290	U	mg/Kg	EPA 6010		08/27	08/29	DF
Selenium	5.8	U	mg/Kg	EPA 6010		08/27	08/29	DF
Silver	2.9	U	mg/Kg	EPA 6010		08/27	08/29	DF
Sodium	90		mg/Kg	EPA 6010		08/27	08/29	DF
Thallium	0.30	U	mg/Kg	EPA 7841		08/26	08/28	KA
Vanadium	7.2		mg/Kg	EPA 6010		08/27	08/29	DF
Zinc	33		mg/Kg	EPA 6010		08/27	08/29	DF

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-2
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE
Matrix :SOIL SS29 Silt 12.5%

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 20:10 h
Received :08/24/93 @ 12:00 h.
Technical Director:STEPHEN C. EDE
Released By : C. Hamstead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. SEE QC PACKAGE FOR SPIKE CONCENTRATIONS. FOR 8270 ANALYSIS BOTH SURROGATE AND SPIKE RECOVERIES FOR THIS SAMPLE WERE VERY LOW. SPIKE DUP WERE ACCEPTABLE.
J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.453		mg/Kg	EPA 8260		08/25	09/05	SG
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chlorobenzene	0.440		mg/Kg	EPA 8260		08/25	09/05	SG
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethene	0.286		mg/Kg	EPA 8260		08/25	09/05	SG
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
transl,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-2
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE
Matrix :SOIL SS20 8MF 12.5.95

Ethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Napthalene	0.283		mg/Kg	EPA 8260	08/25	09/05	S
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Toluene	0.541		mg/Kg	EPA 8260	08/25	09/05	S
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Trichloroethene	0.387		mg/Kg	EPA 8260	08/25	09/05	S
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Semivolatile Organics				EPA 8270			
Phenol	0.046	J	mg/Kg	EPA 8270	09/04	09/28	M
bis(2-Chloroethyl)ether	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
2-Chlorophenol	0.048	J	mg/Kg	EPA 8270	09/04	09/28	M
1,3-Dichlorobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
1,4-Dichlorobenzene	0.069	J	mg/Kg	EPA 8270	09/04	09/28	M
Benzyl Alcohol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
1,2-Dichlorobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
2-Methylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
bis(2-Chloroisopropyl)e	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
4-Methylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
n-Nitroso-di-n-Propylam	0.047	J	mg/Kg	EPA 8270	09/04	09/28	M
Hexachloroethane	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
Nitrobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
Isophorone	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
2-Nitrophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
2,4-Dimethylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
Benzoic Acid	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
bis(2-Chloroethoxy)Meth	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
2,4-Dichlorophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
1,2,4-Trichlorobenzene	0.052	J	mg/Kg	EPA 8270	09/04	09/28	M
Naphthalene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
4-Chloroaniline	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
Hexachlorobutadiene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M
4-Chloro-3-Methylphenol	0.041		mg/Kg	EPA 8270	09/04	09/28	M
2-Methylnaphthalene	0.240	U	mg/Kg	EPA 8270	09/04	09/28	M

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-2
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE
Matrix :SOIL 8270 BNA 12895

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Hexachlorocyclopentadie	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4,6-Trichlorophenol	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4,5-Trichlorophenol	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2-Chloronaphthalene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2-Nitroaniline	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthylene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,6-Dinitrotoluene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
3-Nitroaniline	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthene	0.074	J	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrophenol	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitrophenol	0.022	J	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenzofuran	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrotoluene	0.040	J	mg/Kg	EPA 8270		09/04 09/28	MT
Diethylphthalate	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Chlorophenyl-Phenylet	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Fluorene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Nitroaniline	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
4,6-Dinitro-2-Methylphe	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
n-Nitrosodiphenylamine	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Bromophenyl-Phenyleth	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Hexachlorobenzene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pentachlorophenol	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.206	J	mg/Kg	EPA 8270		09/04 09/28	MT
Anthracene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Butylphthalate	0.062	J	mg/Kg	EPA 8270		09/04 09/28	MT
Fluoranthene	0.230	J	mg/Kg	EPA 8270		09/04 09/28	MT
Pyrene	0.208	J	mg/Kg	EPA 8270		09/04 09/28	MT
Butylbenzylphthalate	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
3,3-Dichlorobenzidine	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Anthracene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Chrysene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
di-n-Octylphthalate	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(b)Fluoranthene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(k)Fluoranthene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Pyrene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Indeno(1,2,3-cd)Pyrene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dibenz(a,h)Anthracene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,i)Perylene	0.240	U	mg/Kg	EPA 8270		09/04 09/28	MT
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2500		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	86		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	110		mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	140		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	43		mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	54		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	9800		mg/Kg	EPA 6010		08/27 08/29	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

Chemlab Ref.# :93.4305-2
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE
Matrix :SOIL SS2D Swell 12.595

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chromium	110	mg/Kg	EPA 6010	08/27 08/29	D
Cobalt	105	mg/Kg	EPA 6010	08/27 08/29	D
Copper	120	mg/Kg	EPA 6010	08/27 08/29	D
Iron	6800	mg/Kg	EPA 6010	08/27 08/29	D
Lead	120	mg/Kg	EPA 6010	08/27 08/29	D
Magnesium	5300	mg/Kg	EPA 6010	08/27 08/29	D
Manganese	180	mg/Kg	EPA 6010	08/27 08/29	D
Molybdenum	110	mg/Kg	EPA 6010	08/27 08/29	D
Nickel	110	mg/Kg	EPA 6010	08/27 08/29	D
Potassium	1300	mg/Kg	EPA 6010	08/27 08/29	D
Selenium	110	mg/Kg	EPA 6010	08/27 08/29	D
Silver	18	mg/Kg	EPA 6010	08/27 08/29	D
Sodium	1300	mg/Kg	EPA 6010	08/27 08/29	D
Thallium	3.0	mg/Kg	EPA 7841	08/26 08/28	K
Vanadium	110	mg/Kg	EPA 6010	08/27 08/29	D
Zinc	140	mg/Kg	EPA 6010	08/27 08/29	D

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-11
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE DUPLICATE
Matrix :SOIL 8520 8WF 12595

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 20:10 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.453		mg/Kg	EPA 8260		08/25	09/05	SG
Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromoform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chlorobenzene	0.445		mg/Kg	EPA 8260		08/25	09/05	SG
Chloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloroform	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloroethene	0.294		mg/Kg	EPA 8260		08/25	09/05	SG
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-11
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE DUPLICATE
Matrix :SOIL SS20 SNF 12-5-95

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Napthalene	0.271		mg/Kg	EPA 8260	08/25	09/05	S
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Styrene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Toluene	0.550		mg/Kg	EPA 8260	08/25	09/05	S
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Trichloroethene	0.402		mg/Kg	EPA 8260	08/25	09/05	S
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25	09/05	S
Semivolatile Organics				EPA 8270			
Phenol	1.60		mg/Kg	EPA 8270	09/04	09/29	MT
bis(2-Chloroethyl)ether	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2-Chlorophenol	1.54		mg/Kg	EPA 8270	09/04	09/29	MT
1,3-Dichlorobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
1,4-Dichlorobenzene	1.47		mg/Kg	EPA 8270	09/04	09/29	MT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/29	MT
1,2-Dichlorobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2-Methylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
bis(2-Chloroisopropyl)e	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
4-Methylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
n-Nitroso-di-n-Propylam	1.77		mg/Kg	EPA 8270	09/04	09/29	MT
Hexachloroethane	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
Nitrobenzene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
Isophorone	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2-Nitrophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2,4-Dimethylphenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
Benzoic Acid	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
bis(2-Chloroethoxy)Meth	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2,4-Dichlorophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
1,2,4-Trichlorobenzene	1.71		mg/Kg	EPA 8270	09/04	09/29	MT
Naphthalene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
4-Chloroaniline	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
Hexachlorobutadiene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
4-Chloro-3-Methylphenol	1.73		mg/Kg	EPA 8270	09/04	09/29	MT
2-Methylnaphthalene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
Hexachlorocyclopentadie	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2,4,6-Trichlorophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2,4,5-Trichlorophenol	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT
2-Chloronaphthalene	0.240	U	mg/Kg	EPA 8270	09/04	09/29	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-11
Client Sample ID :BTR-~~AOC14~~-SD01 SPIKE DUPLICATE
Matrix :SOIL SS20 Soil 12.5.95

2-Nitroaniline	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Dimethylphthalate	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Acenaphthylene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
2,6-Dinitrotoluene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
3-Nitroaniline	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Acenaphthene	1.99		mg/Kg	EPA 8270	09/04 09/29	MT
2,4-Dinitrophenol	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Nitrophenol	2.04		mg/Kg	EPA 8270	09/04 09/29	MT
Dibenzofuran	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
2,4-Dinitrotoluene	1.76		mg/Kg	EPA 8270	09/04 09/29	MT
Diethylphthalate	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Chlorophenyl-Phenylet	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Fluorene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Nitroaniline	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
4,6-Dinitro-2-Methylphe	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
n-Nitrosodiphenylamine	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
4-Bromophenyl-Phenyleth	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Hexachlorobenzene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Pentachlorophenol	2.35		mg/Kg	EPA 8270	09/04 09/29	MT
Phenanthrene	0.926		mg/Kg	EPA 8270	09/04 09/29	MT
Anthracene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
di-n-Butylphthalate	2.08		mg/Kg	EPA 8270	09/04 09/29	MT
Fluoranthene	0.655		mg/Kg	EPA 8270	09/04 09/29	MT
Pyrene	2.15		mg/Kg	EPA 8270	09/04 09/29	MT
Butylbenzylphthalate	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
3,3-Dichlorobenzidine	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(a)Anthracene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Chrysene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
bis(2-Ethylhexyl)Phthal	1.83		mg/Kg	EPA 8270	09/04 09/29	MT
di-n-Octylphthalate	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(b)Fluoranthene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(k)Fluoranthene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(a)Pyrene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Indeno(1,2,3-cd)Pyrene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Dibenz(a,h)Anthracene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT
Benzo(g,h,i)Perylene	0.240	U	mg/Kg	EPA 8270	09/04 09/29	MT

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-7
Client Sample ID :BTR-~~AOC14~~-SW01
Matrix :WATER SS20 SWF 11.4.93

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 19:05 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichloroethane	0.0028		mg/L	EPA 8260		09/02	09/02	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

Chemlab Ref.# :93.4305-7
Client Sample ID :BTR-~~A0C14~~-SW01
Matrix :WATER SS20 SMF 11.4.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
Napthalene	0.0027		mg/L	EPA 8260	09/02 09/02	KI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
Styrene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
Toluene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Semivolatile Organics				EPA 8270		
Phenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Isophorone	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Naphthalene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04	GV
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270	08/28 09/04	GV

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-7
Client Sample ID :BTR-~~AOC14~~-BW01
Matrix :WATER SS20 BFM 11.8.94

		Qualifier	Comment					
2-Nitroaniline	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Dimethylphthalate	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Acenaphthylene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
2,6-Dinitrotoluene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
3-Nitroaniline	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Acenaphthene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
2,4-Dinitrophenol	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
4-Nitrophenol	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Dibenzofuran	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
2,4-Dinitrotoluene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Diethylphthalate	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
4-Chlorophenyl-Phenylet	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Fluorene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
4-Nitroaniline	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
4,6-Dinitro-2-Methylphe	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
n-Nitrosodiphenylamine	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
4-Bromophenyl-Phenyleth	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Hexachlorobenzene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Pentachlorophenol	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Phenanthrene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Anthracene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
di-n-Butylphthalate	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Fluoranthene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Pyrene	0.010	U	BFM 11.8.94	mg/L	EPA 8270		08/28 09/04	GV
Butylbenzylphthalate	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
3,3-Dichlorobenzidine	0.010	U	J(b.l)	mg/L	EPA 8270		08/28 09/04	GV
Benzo(a)Anthracene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Chrysene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
bis(2-Ethylhexyl)Phthal	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
di-n-Octylphthalate	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Benzo(b)Fluoranthene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Benzo(k)Fluoranthene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Benzo(a)Pyrene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Indeno(1,2,3-cd)Pyrene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Dibenz(a,h)Anthracene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
Benzo(g,h,i)Perylene	0.010	U		mg/L	EPA 8270		08/28 09/04	GV
TOC, Nonpurgable					EPA 9060	n/a		
...TOC Range	28.3-36.2			mg/L	EPA 9060			
...TOC Concentration	31.4			mg/L	EPA 9060			
Residue, Non-Filterable	84	J	A	mg/L	EPA 160.2		09/02 09/02	GPI
Residue,Filterable(TDS)	903	J	A	mg/L	EPA 160.1	500	08/30 08/31	RJI

BFM 11.8.94

Validator comments Compiled by BFM 11.8.94 All changes s.c 1/24/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

Chemlab Ref.# :93.4305-8
Client Sample ID :BTR-~~AOC14~~-SW01 SPIKE
Matrix :WATER ES20 8wf 12.5.95

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 19:05 h
Received :08/24/93 @ 12:00 h
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. 8270: FOR SPIKE RECOVERIES AND RSD, PLEASE REFER TO QC SUMMARY SHEETS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	0.092		mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroethyl)ether	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2-Chlorophenol	0.128		mg/L	EPA 8270		08/28	09/04	G
1,3-Dichlorobenzene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
1,4-Dichlorobenzene	0.123		mg/L	EPA 8270		08/28	09/04	G
Benzyl Alcohol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
1,2-Dichlorobenzene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2-Methylphenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroisopropyl)e	0.020	U	mg/L	EPA 8270		08/28	09/04	G
4-Methylphenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
n-Nitroso-di-n-Propylam	0.167		mg/L	EPA 8270		08/28	09/04	G
Hexachloroethane	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Nitrobenzene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Isophorone	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2-Nitrophenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dimethylphenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Benzoic Acid	0.020	U	mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroethoxy)Meth	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dichlorophenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
1,2,4-Trichlorobenzene	0.142		mg/L	EPA 8270		08/28	09/04	G
Naphthalene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
4-Chloroaniline	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Hexachlorobutadiene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
4-Chloro-3-Methylphenol	0.161		mg/L	EPA 8270		08/28	09/04	G
2-Methylnaphthalene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Hexachlorocyclopentadie	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2,4,6-Trichlorophenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2,4,5-Trichlorophenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2-Chloronaphthalene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2-Nitroaniline	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Dimethylphthalate	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthylene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
2,6-Dinitrotoluene	0.020	U	mg/L	EPA 8270		08/28	09/04	G
3-Nitroaniline	0.020	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthene	0.163		mg/L	EPA 8270		08/28	09/04	G
2,4-Dinitrophenol	0.020	U	mg/L	EPA 8270		08/28	09/04	G

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-8
Client Sample ID :BTR-~~AOC14~~-SW01 SPIKE
Matrix :WATER SS2Q DUP 12595

4-Nitrophenol	0.057		mg/L	EPA 8270	08/28 09/04	C
Dibenzofuran	0.020	U	mg/L	EPA 8270	08/28 09/04	C
2,4-Dinitrotoluene	0.172		mg/L	EPA 8270	08/28 09/04	C
Diethylphthalate	0.020	U	mg/L	EPA 8270	08/28 09/04	C
4-Chlorophenyl-Phenylet	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Fluorene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
4-Nitroaniline	0.020	U	mg/L	EPA 8270	08/28 09/04	C
4,6-Dinitro-2-Methylphe	0.020	U	mg/L	EPA 8270	08/28 09/04	C
n-Nitrosodiphenylamine	0.020	U	mg/L	EPA 8270	08/28 09/04	C
4-Bromophenyl-Phenyleth	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Hexachlorobenzene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Pentachlorophenol	0.042		mg/L	EPA 8270	08/28 09/04	C
Phenanthrene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Anthracene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
di-n-Butylphthalate	0.030		mg/L	EPA 8270	08/28 09/04	C
Fluoranthene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Pyrene	0.174		mg/L	EPA 8270	08/28 09/04	C
Butylbenzylphthalate	0.020	U	mg/L	EPA 8270	08/28 09/04	C
3,3-Dichlorobenzidine	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Benzo(a)Anthracene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Chrysene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
bis(2-Ethylhexyl)Phthal	0.020	U	mg/L	EPA 8270	08/28 09/04	C
di-n-Octylphthalate	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Benzo(b)Fluoranthene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Benzo(k)Fluoranthene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Benzo(a)Pyrene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Indeno(1,2,3-cd)Pyrene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Dibenz(a,h)Anthracene	0.020	U	mg/L	EPA 8270	08/28 09/04	C
Benzo(g,h,i)Perylene	0.020	U	mg/L	EPA 8270	08/28 09/04	C

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-9
Client Sample ID :BTR-~~AOC14~~-SW01 SPIKE DUPLICATE
Matrix :WATER SS20 SW1 12.5.95

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70009
Report Completed :10/04/93
Collected :08/21/93 @ 19:05 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By : C. Stephen

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics				EPA 8270				
Phenol	0.095		mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroethyl)ether	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2-Chlorophenol	157		mg/L	EPA 8270		08/28	09/04	G
1,3-Dichlorobenzene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
1,4-Dichlorobenzene	0.134		mg/L	EPA 8270		08/28	09/04	G
Benzyl Alcohol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
1,2-Dichlorobenzene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2-Methylphenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroisopropyl)e	0.022	U	mg/L	EPA 8270		08/28	09/04	G
4-Methylphenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
n-Nitroso-di-n-Propylam	0.179		mg/L	EPA 8270		08/28	09/04	G
Hexachloroethane	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Nitrobenzene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Isophorone	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2-Nitrophenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dimethylphenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Benzoic Acid	0.022	U	mg/L	EPA 8270		08/28	09/04	G
bis(2-Chloroethoxy)Meth	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2,4-Dichlorophenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
1,2,4-Trichlorobenzene	0.158		mg/L	EPA 8270		08/28	09/04	G
Naphthalene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
4-Chloroaniline	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Hexachlorobutadiene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
4-Chloro-3-Methylphenol	0.183		mg/L	EPA 8270		08/28	09/04	G
2-Methylnaphthalene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Hexachlorocyclopentadie	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2,4,6-Trichlorophenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2,4,5-Trichlorophenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2-Chloronaphthalene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2-Nitroaniline	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Dimethylphthalate	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthylene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
2,6-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/28	09/04	G
3-Nitroaniline	0.022	U	mg/L	EPA 8270		08/28	09/04	G
Acenaphthene	0.175		mg/L	EPA 8270		08/28	09/04	G
2,4-Dinitrophenol	0.022	U	mg/L	EPA 8270		08/28	09/04	G
4-Nitrophenol	0.065		mg/L	EPA 8270		08/28	09/04	G

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ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-9
Client Sample ID :BTR-~~AQC14~~-SW01 SPIKE DUPLICATE
Matrix :WATER SS20 DUP 12595

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Dibenzofuran	0.022	U	mg/L	EPA 8270	08/28 09/04	(
2,4-Dinitrotoluene	0.184		mg/L	EPA 8270	08/28 09/04	(
Diethylphthalate	0.022	U	mg/L	EPA 8270	08/28 09/04	(
4-Chlorophenyl-Phenylet	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Fluorene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
4-Nitroaniline	0.022	U	mg/L	EPA 8270	08/28 09/04	(
4,6-Dinitro-2-Methylphe	0.022	U	mg/L	EPA 8270	08/28 09/04	(
n-Nitrosodiphenylamine	0.022	U	mg/L	EPA 8270	08/28 09/04	(
4-Bromophenyl-Phenyleth	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Hexachlorobenzene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Pentachlorophenol	0.043		mg/L	EPA 8270	08/28 09/04	(
Phenanthrene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Anthracene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
di-n-Butylphthalate	0.069		mg/L	EPA 8270	08/28 09/04	(
Fluoranthene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Pyrene	0.191		mg/L	EPA 8270	08/28 09/04	(
Butylbenzylphthalate	0.022	U	mg/L	EPA 8270	08/28 09/04	(
3,3-Dichlorobenzidine	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Benzo(a)Anthracene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Chrysene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
bis(2-Ethylhexyl)Phthal	0.022	U	mg/L	EPA 8270	08/28 09/04	(
di-n-Octylphthalate	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Benzo(b)Fluoranthene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Benzo(k)Fluoranthene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Benzo(a)Pyrene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Indeno(1,2,3-cd)Pyrene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Dibenz(a,h)Anthracene	0.022	U	mg/L	EPA 8270	08/28 09/04	(
Benzo(g,h,i)Perylene	0.022	U	mg/L	EPA 8270	08/28 09/04	(

* See Special Instructions Above
* See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	SS20 BTR-~~A0C14~~-S01	SS20 BTR-~~A0C14~~-S02	SS20 BTR-~~A0C14~~-S03	SS20 BTR-~~A0C14~~-S03	SS20 BTR-~~A0C14~~-S04
F&BI Number	402	400	385	386	380
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	96	95	91		98
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93		#6-08/23/93
Leaded Gas					
JP-4	<50	<50	<50		<50
Lube Oil	<100	<100	<100		<100
Diesel	<50 J	<50 J	<50 J		<50 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	83	87	104		107
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93
CCl4	<0.02	<0.02			
TCA	<0.02	<0.02			
Benzene	<0.02	<0.02		<0.02 R	<0.02 R
TCE	<0.02	<0.02			
Toluene	<0.02	<0.02		<0.02 R	<0.02 R
PCE	<0.02	<0.02			
Ethylbenzene	<0.02	<0.02		<0.02 R	<0.02 R
Xylenes	<0.04	<0.04		<0.04 R	<0.04 R
Gasoline	<2	<2		~~<2~~ <50J	~~<2~~ <200J
Spike level					
BFB	85	102		97	86

11.9.94 SM4

ICF ID	SS20 BTR-~~A0C14~~-SD01	SS20 BTR-~~A0C14~~-SD02	SS20 BTR-~~A0C14~~-SD02	SS20 BTR-~~A0C14~~-SD02	SS20 BTR-~~A0C14~~-SD02
F&BI Number	378	381	382	384 dup	384 dup
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	86		84	84	73
Sequence Date	#6-08/23/93	#6-08/23/93		#6-08/23/93	
Leaded Gas					
JP-4	<50	<50		<50	
Lube Oil	<100	<100		<100	
Diesel	<50 J	<50 J		<50	
Spike Level					
Unknown Semi-volatile	140 biogenic material				
Pentacosane	105	103		105	
Sequence Date				#6-08/23/93	
PCB 1221				<0.1	
PCB 1232				<0.1	
PCB 1016				<0.1	
PCB 1242				<0.1	
PCB 1248				<0.1	
PCB 1254				<0.1	
PCB 1260				<0.1	
Spike Level					
Dibutyl Chlorendate				84	
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93	
CCl4					
TCA					
Benzene	<0.02		<0.02 R	<0.02	
TCE					
Toluene	<0.02		<0.02 R	<0.02	
PCE					
Ethylbenzene	<0.03		<0.02 R	<0.02	
Xylenes	<0.06		<0.04 R	<0.04	
Gasoline	~~<2~~ 190 J		<2 R	<2	
Spike level					
BFB	102		97	102	

11-11-94 SAK

ICF ID (11-11 gal soil)	SS20 BTR-~~A0C14~~-SD02	SS20 BTR-~~A0C14~~-SD02	SS20 BTR-~~A0C14~~-SW01	SS20 BTR-~~A0C14~~-SW01	SS20 BTR-~~A0C14~~-SW01
F&BI Number	384 ms	384 msd	397 dup	396 ms	395 msd
Sample Type	soil	soil	water	water	water
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight					
Sequence Date	#6-08/23/93	#6-08/23/93			
Leaded Gas					
JP-4					
Lube Oil					
Diesel	100	120			
Spike Level	500	500			
Unknown Semi-volatile					
Pentacosane	101	101			
Sequence Date	#6-08/23/93	#6-08/23/93			
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254	102	113			
PCB 1260					
Spike Level	5	5			
Dibutyl Chlorendate	110	106			
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93
CCl4	96	96	<1	75	101
TCA	101	106	<1	80	89
Benzene	95	88	<1	70	119
TCE	86	93	<1	74	110
Toluene	95	103	<1	83	112
PCE	86	105	<1	87	100
Ethylbenzene	113	117	<1	83	98
Xylenes	92	120	<2	87	98
Gasoline			<50		
Spike level	1	1		1	1
BFB	84	95	105	133	102

ICF ID	SS20 BTR-~~A0C14~~-SW01	SS20 BTR-~~A0C14~~-SW01	SS20 BTR-~~A0C14~~-SW02	SS20 BTR-~~A0C14~~-SW02	SS20 BTR-~~A0C14~~-SW03
F&BI Number	388	398	403	406	407
Sample Type	water	water	water	water	water
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight					
Sequence Date	#6-08/23/93		#6-08/23/93		#6-08/23/93
Leaded Gas					
JP-4	<1000		<1000		<1000
Lube Oil	<2000		<2000		<2000
Diesel	<1000 J		<1000 J		<1000 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	57		62		58
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#1&2-08/24/93		#1&2-08/24/93	
CCl4					
TCA					
Benzene		<1		<1	
TCE					
Toluene		<1		<1	
PCE					
Ethylbenzene		<1		<1	
Xylenes		<2		<2	
Gasoline		~~<50~~ <100 J		~~<50~~ <100 J	
Spike level					
BFB		98		101	

ICF ID	SS20 BTR-~~A0C14~~-SW03
F&BI Number	410
Sample Type	water
Date Received	8/23/93
% Dry Weight	
Sequence Date	
Leaded Gas	
JP-4	
Lube Oil	
Diesel	
Spike Level	
Unknown Semi-volatile	
Pentacosane	
Sequence Date	
PCB 1221	
PCB 1232	
PCB 1016	
PCB 1242	
PCB 1248	
PCB 1254	
PCB 1260	
Spike Level	
Dibutyl Chlorendate	
Sequence Date	
alpha-BHC	
beta-BHC	
gamma-BHC	
delta-BHC	
Heptachlor	
Aldrin	
Heptachlor Epoxide	
Endosulfan I	
DDE	
Dieldrin	
Endrin	
Endosulfan II	
DDD	
Endrin Aldehyde	
DDT	
Endosulfan Sulfate	
Endrin Ketone	
Methoxy Chlor	
Chlordane	
Dibutyl Chlorendate	
Spike Level	
Vol Sequence	#1&2-08/24/93
CCl4	<1
TCA	<1
Benzene	<1
TCE	<1
Toluene	<1
PCE	<1
Ethylbenzene	<1
Xylenes	<2
Gasoline	~~<50~~ <100J
Spike level	
BFB	86

ANALYTICAL DATA SHEETS FOR THE JP-4 SPILL (SS21)
(Formerly identified as AOC15)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4301-11
Client Sample ID :BTR-~~AOC15~~-S02
Matrix :SOIL SS21 Smit 12.2.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70003
Report Completed :10/04/93
Collected :08/21/93 @ 18:45 hrs.
Received :08/24/93 @ 12:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromoform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	4.20	D	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	1.94	D	mg/Kg	EPA 8260		08/25	09/09	KWM
tert-Butylbenzne	0.345	D	mg/Kg	EPA 8260		08/25	09/09	KWM
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
2,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,1-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	11.8	D	mg/Kg	EPA 8260		08/25	09/09	KWM
Hexachlorobutadiene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Isopropylbenzene	2.25	D	mg/Kg	EPA 8260		08/25	09/09	KWM
p-Isopropyltoluene	2.56	D	mg/Kg	EPA 8260		08/25	09/09	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

Chemlab Ref.# :93.4301-11
Client Sample ID :BTR-~~AOC15~~-S02
Matrix :SOIL SS21 Sent 12-2-94

Methylene Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Napthalene	5.54	D	mg/Kg	EPA 8260	08/25	09/09	KWM
n-Propylbenzene	3.26	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Styrene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1112-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Toluene	24.0	D	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trichlorobenzene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichloroethene	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
1,2,4-Trimethylbenzene	18.1	D	mg/Kg	EPA 8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	9.16	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Vinyl Chloride	0.200	U	mg/Kg	EPA 8260	08/25	09/09	KWM
p+m-Xylene	47.9	D	mg/Kg	EPA 8260	08/25	09/09	KWM
o-Xylene	21.1	D	mg/Kg	EPA 8260	08/25	09/09	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethyl)ether	0.210	U	mg/Kg	EPA 8270	09/04	09/28	
2-Chlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	
1,3-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,4-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzyl Alcohol	1.00	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachloroethane	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Nitrobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Isophorone	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Benzoic Acid	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Naphthalene	0.274		mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorobutadiene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Methylnaphthalene	1.42		mg/Kg	EPA 8270	09/04	09/28	MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2,4,5-Trichlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT
2-Chloronaphthalene	0.210	U	mg/Kg	EPA 8270	09/04	09/28	MTT

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REPORT of ANALYSIS

Chemlab Ref.# :93.4301-11
Client Sample ID :BTR-~~AOC15~~-S02
Matrix :SOIL S521 Sent 12.29.94

2-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Dimethylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Acenaphthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
4-Nitrophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
2,4-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
4-Chlorophenyl-Phenylet	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Fluorene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Phenanthrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Butylbenzylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
3,3-Dichlorobenzidine	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Chrysene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	09/04	09/28 MTT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Indeno(1,2,3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	09/04	09/28 MTT
TOC, Soil	2200		mg/Kg	PSEP Ref Lab		

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

	SS21	SS21	SS21	SS21	SS21
ICF ID	BTR-~~A0C15~~-S01	BTR-~~A0C15~~-S02	BTR-~~A0C15~~-S03	BTR-~~A0C15~~-2S04	BTR-~~A0C15~~-2S05
F&BI Number	364	366	369	1692	1694
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	9/2/93	9/2/93
% Dry Weight	89	88	52	54	68
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#5-09/05/93	#5-09/05/93
Leaded Gas					
JP-4	<50	7300 includes diesel material	<50	<100	<100
Lube Oil	<110	<100	<100	<200	<200
Diesel	<50 J	1000 J	1300 J	<100 J	<100 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	100	100	96	53	61
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date	#6-08/23/93				
alpha-BHC	<0.01 J				
beta-BHC	<0.01				
gamma-BHC	<0.01				
delta-BHC	<0.01				
Heptachlor	<0.01				
Aldrin	<0.01				
Heptachlor Epoxide	<0.01				
Endosulfan I	<0.01				
DDE	<0.01				
Dieldrin	<0.01				
Endrin	<0.01				
Endosulfan II	<0.01				
DDD	<0.01				
Endrin Aldehyde	<0.01				
DDT	<0.01				
Endosulfan Sulfate	<0.01				
Endrin Ketone	<0.01				
Methoxy Chlor	~~<0.1~~ <0.5 J				
Chlordane	<0.5 J				
Dibutyl Chlorendate	83				
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#3&4-09/06/93	#3&4-09/06/93
CCl4	<0.02 R	<0.02	<0.04	<0.2	<0.1
TCA	<0.02	<0.02	<0.04	<0.2	<0.1
Benzene	<0.02	3.9 J N	<0.04	<0.04	<0.03
TCE	<0.02	<0.02	<0.04	<0.2	<0.1
Toluene	<0.02	~~<0.02~~ 7.3 J N	4	<0.04	<0.03
PCE	<0.02	~~7.3~~ <0.02	<0.04	<0.2	<0.1
Ethylbenzene	<0.02	10 J N	10 J	<0.04	<0.03
Xylenes	<0.04	27 J N	24 J	<0.08	<0.06
Gasoline	<2 R	300 J	~~100~~ 280 J	~~<2~~ 24 J	~~<1~~ <2 J
Spike level					
BFB	90	103	103	85	101

11-11-94 SMF

ANALYTICAL DATA SHEETS FOR BACKGROUND (BKGD)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-5
Client Sample ID :BTR BKGD S01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/30/93
Collected :08/17/93 @ 12:00 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE TO BIOGENIC HYDROCARBONS. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	44.9		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	588	D	mg/Kg	3510/3550/8100M		08/21	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	1.40	U	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.065	U	mg/Kg	EPA 8020		08/21	08/22	JLB
Toluene	0.065	U	mg/Kg	EPA 8020		08/21	08/22	JLB
Ethylbenzene	0.065	U	mg/Kg	EPA 8020		08/21	08/22	JLB
p&m Xylene	0.065	U	mg/Kg	EPA 8020		08/21	08/22	JLB
o-Xylene	0.065	U	mg/Kg	EPA 8020		08/21	08/22	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1,1 Dichloroethylene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1,1 Dichloroethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Chloroform	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Carbontetrachloride	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1, 2 Dichloropropane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Trichloroethylene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1,1,2 Trichloroethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Dibromochloromethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Tetrachloroethylene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Chlorobenzene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Trichlorofluoromethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Trans12Dichloroethylene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1,2 Dichloroethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1,1,1 Trichoroethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Bromodichloromethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Trans1,3Dichloropropene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
cis-1,3-Dichloropropene	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Bromoform	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
1122-Tetrachloroethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Chloromethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Bromoethane	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB
Vinyl Chloride	0.065	U	mg/Kg	EPA 8010		08/21	08/22	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-5
Client Sample ID :BTR BKGD S01
Matrix :SOIL

Chloroethane	0.065	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,4 Dichlorobenzene	0.065	U	mg/Kg	EPA 8010	08/21	08/22	JL
2-Chloroethylvinylether	0.065	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,3-Dichlorobenzene	0.065	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,2-Dichlorobenzene	0.065	U	mg/Kg	EPA 8010	08/21	08/22	JL
Organochlorine Pest				EPA 8080			
Aldrin	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Alpha-BHC	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Beta-BHC	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Delta-BHC	0.025	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Gamma-BHC	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Chlordane	0.06	U	mg/Kg	EPA 8080	08/21	08/25	NRC
4,4'-DDD	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
4,4'-DDE	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
4,4'-DDT	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Dieldrin	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Endosulfan I	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Endosulfan II	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Endosulfan Sulfate	0.020	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Endrin	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Endrin Aldehyde	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Heptachlor	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Heptachlor Epoxide	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Methoxychlor	0.006	U	mg/Kg	EPA 8080	08/21	08/25	NRC
Toxaphene	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1016	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1221	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1232	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1242	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1248	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1254	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC
PCB-1260	0.060	U	mg/Kg	EPA 8080	08/21	08/25	NRC

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-6
Client Sample ID :BTR BKGD S02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/30/93
Collected :08/17/93 @ 11:35 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE TO BIOGENIC HYDROCARBONS. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	57.1		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	384	DJ(K)	mg/Kg	3510/3550/8100M		08/21	08/23	JB
VALIDATION QUALIFIERS (COMMENTS)								
VPH & BTEX Hydrocarbons VPH	0.800	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WL
Benzene	0.050	U	mg/Kg	EPA 8020		08/21	08/22	JL
Toluene	0.050	U	mg/Kg	EPA 8020		08/21	08/22	JL
Ethylbenzene	0.050	U	mg/Kg	EPA 8020		08/21	08/22	JL
p&m Xylene	0.050	U	mg/Kg	EPA 8020		08/21	08/22	JL
o-Xylene	0.050	U	mg/Kg	EPA 8020		08/21	08/22	JL
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1,1 Dichloroethylene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1,1 Dichloroethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Chloroform	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Carbontetrachloride	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1, 2 Dichloropropane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Trichloroethylene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1,1,2 Trichloroethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Dibromochloromethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Tetrachloroethylene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Chlorobenzene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Trichlorofluoromethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Trans12Dichloroethylene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1,2 Dichloroethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1,1,1 Trichoroethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Bromodichloromethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Trans1,3Dichloropropene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
cis-1,3-Dichloropropene	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Bromoform	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
1122-Tetrachloroethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Chloromethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Bromoethane	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL
Vinyl Chloride	0.050	U	mg/Kg	EPA 8010		08/21	08/22	JL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-6
Client Sample ID :BTR BKGD S02
Matrix :SOIL

Chloroethane	0.050	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,4 Dichlorobenzene	0.050	U	mg/Kg	EPA 8010	08/21	08/22	JL
2-Chloroethylvinylether	0.050	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,3-Dichlorobenzene	0.050	U	mg/Kg	EPA 8010	08/21	08/22	JL
1,2-Dichlorobenzene	0.050	U	mg/Kg	EPA 8010	08/21	08/22	JL
			validation qualifiers				
Organochlorine Pest			Comments	EPA 8080			
Aldrin	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Alpha-BHC	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Beta-BHC	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Delta-BHC	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Gamma-BHC	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Chlordane	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDD	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDE	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDT	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Dieldrin	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan I	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan II	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan Sulfate	0.020	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin Aldehyde	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor Epoxide	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Methoxychlor	0.005	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
Toxaphene	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1016	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1221	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1232	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1242	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1248	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1254	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1260	0.050	UJ	mg/Kg	EPA 8080	08/21	08/24	NR

1/11/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected; Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
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COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2
Client Sample ID :BTR BKGD S02
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69705
Report Completed :09/20/93
Collected :08/17/93 @ 11:25 h
Received :08/19/93 @ 10:50 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Bromobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Bromochloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Bromodichloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Bromoform	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Bromomethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
n-Butylbenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
sec-Butylbenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
tert-Butylbenzne	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Carbon Tetrachloride	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Chlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Chloroethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Chloroform	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Chloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
2-Chlorotoluene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
4-Chlorotoluene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Dibromochloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
12Dibromo3Chloropropane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,2-Dibromoethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Dibromomethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,2-Dichlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,3-Dichlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,4-Dichlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Dichlorodifluoromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,1-Dichloroethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,2-Dichloroethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,1-Dichloroethene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
cis-1,2-Dichloroethene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
transi,2-Dichloroethene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,2-Dichloropropane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,3-Dichloropropane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
2,2-Dichloropropane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
1,1-Dichloropropene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Ethylbenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Hexachlorobutadiene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
Isopropylbenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
p-Isopropyltoluene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2
Client Sample ID :BTR BKGD S02
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

Methylene Chloride	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Napthalene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
n-Propylbenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Styrene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1112-Tetrachloroethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1122-Tetrachloroethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Tetrachloroethene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Toluene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,2,3-Trichlorobenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,2,4-Trichlorobenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,1,1-Trichloroethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,1,2-Trichloroethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Trichloroethene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Trichlorofluoromethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,2,3-Trichloropropane	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,2,4-Trimethylbenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
1,3,5-Trimethylbenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Vinyl Chloride	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
p+m-Xylene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
o-Xylene	0.050	U	mg/Kg	EPA 8260	08/20 08/28	K
Semivolatile Organics				EPA 8270		
Phenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
bis(2-Chloroethyl)ether	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2-Chlorophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
1,3-Dichlorobenzene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
1,4-Dichlorobenzene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Benzyl Alcohol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
1,2-Dichlorobenzene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2-Methylphenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
bis(2-Chloroisopropyl)e	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
4-Methylphenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
n-Nitroso-di-n-Propylam	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Hexachloroethane	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Nitrobenzene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Isophorone	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2-Nitrophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2,4-Dimethylphenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Benzoic Acid	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
bis(2-Chloroethoxy)Meth	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2,4-Dichlorophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
1,2,4-Trichlorobenzene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Naphthalene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
4-Chloroaniline	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Hexachlorobutadiene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
4-Chloro-3-Methylphenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2-Methylnaphthalene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
Hexachlorocyclopentadie	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2,4,6-Trichlorophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2,4,5-Trichlorophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G
2-Chloronaphthalene	3.50	U	mg/Kg	EPA 8270	08/30 09/17	G

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2
Client Sample ID :BTR BKGD S02
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Dimethylphthalate	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Acenaphthylene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
2,6-Dinitrotoluene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
3-Nitroaniline	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Acenaphthene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
2,4-Dinitrophenol	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
4-Nitrophenol	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Dibenzofuran	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
2,4-Dinitrotoluene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Diethylphthalate	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
4-Chlorophenyl-Phenylet	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Fluorene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
4-Nitroaniline	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
4,6-Dinitro-2-Methylphe	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
n-Nitrosodiphenylamine	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
4-Bromophenyl-Phenyleth	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Hexachlorobenzene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Pentachlorophenol	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Phenanthrene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Anthracene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
di-n-Butylphthalate	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Fluoranthene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Pyrene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Butylbenzylphthalate	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
3,3-Dichlorobenzidine	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Benzo(a)Anthracene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Chrysene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
bis(2-Ethylhexyl)Phthal	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
di-n-Octylphthalate	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Benzo(b)Fluoranthene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Benzo(k)Fluoranthene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Benzo(a)Pyrene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Indeno(1,2,3-cd)Pyrene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Dibenz(a,h)Anthracene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Benzo(g,h,i)Perylene	3.50	U	mg/Kg	EPA 8270		08/30 09/17	G
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			Qualifiers			
ICP Screen, ICF			validation comments	EPA	n/a		
Aluminum	8700		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	91	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	9.1	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	120		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	4.6	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	4.6	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	5100		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	14		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	9.1	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	14		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	11000		mg/Kg	EPA 6010		08/24 08/25	DFL

All chgs. D.L 1/19/94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREE
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2
Client Sample ID :BTR BKGD S02
Matrix :SOIL

Validation qualifiers / comments

Lead	9.1	U	mg/Kg	EPA 6010	08/24 08/25	D
Magnesium	2500	J K	mg/Kg	EPA 6010	08/24 08/25	D
Manganese	76	J K	mg/Kg	EPA 6010	08/24 08/25	D
Molybdenum	4.6	U	mg/Kg	EPA 6010	08/24 08/25	D
Nickel	14	J K	mg/Kg	EPA 6010	08/24 08/25	D
Potassium	970		mg/Kg	EPA 6010	08/24 08/25	D
Selenium	9.1	U	mg/Kg	EPA 6010	08/24 08/25	D
Silver	4.6	U	mg/Kg	EPA 6010	08/24 08/25	D
Sodium	230	J K	mg/Kg	EPA 6010	08/24 08/25	D
Thallium	0.45	U	mg/Kg	EPA 7841	08/24 08/26	K
Vanadium	22		mg/Kg	EPA 6010	08/24 08/25	D
Zinc	24		mg/Kg	EPA 6010	08/24 08/25	D

TOC, Soil	199000		ppm	PSEP Ref Lab

PM charges. S.L 9/19/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailab
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREE
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-4
Client Sample ID :BTR BKGD S03
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 15:10 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	25.5		%	SM17 2540G				
Hydrocarbons EPH	116		mg/Kg	3510/3550/8100M		08/20	08/21	DR
VPH & BTEX								
Hydrocarbons VPH	6.00	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KW
Benzene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
Toluene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
m&p Xylene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
o-Xylene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1,1 Dichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1,1 Dichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Chloroform	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Carbontetrachloride	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1, 2 Dichloropropane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Trichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1,1,2 Trichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Dibromochloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Tetrachloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Chlorobenzene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Trichlorofluoromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Trans12Dichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1,2 Dichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1,1,1 Trichoroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Bromodichloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Transi,3Dichloropropene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
cis-1,3-Dichloropropene	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Bromoform	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
1122-Tetrachloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Chloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Bromoethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Vinyl Chloride	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW
Chloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-4
Client Sample ID :BTR BKGD S03
Matrix :SOIL

3633 B STREET
ANCHORAGE, AK 99517
TEL (907) 562-2343
FAX (907) 561-5301

1,4 Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/21	KV
2-Chloroethylvinylether	0.300	U	mg/Kg	EPA 8010	08/20	08/21	KV
1,3-Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/21	KV
1,2-Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/21	KV
Organochlorine Pest				EPA 8080			
Aldrin	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Alpha-BHC	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Beta-BHC	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Delta-BHC	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Gamma-BHC	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Chlordane	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDD	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDE	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDT	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Dieldrin	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan I	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan II	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan Sulfate	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin Aldehyde	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor Epoxide	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Methoxychlor	0.005	U	mg/Kg	EPA 8080	08/21	08/24	NR
Toxaphene	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1016	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1221	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1232	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1242	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1248	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1254	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1260	0.100	U	mg/Kg	EPA 8080	08/21	08/24	NR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

SGS Member of the SGS Group (Surveillance)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-4
Client Sample ID :BTR BKGD S04
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/30/93
Collected :08/17/93 @ 12:00 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE TO BIOGENIC HYDROCARBONS. 8080 RESULTS ARE PRELIMINARY DUE TO LOW SURROGATE RECOVERY, SAMPLES BEING RE-EXTRACTED.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	41.0		%	SM17 2540G			08/21	MY
Hydrocarbons EPH	466	D	mg/Kg	3510/3550/8100M		08/21	08/22	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	1.20	U	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
Benzene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Toluene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Ethylbenzene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
p&m Xylene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
o-Xylene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloroform	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Carbontetrachloride	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1, 2 Dichloropropane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichloroethylene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Dibromochloromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Tetrachloroethylene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chlorobenzene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trichlorofluoromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans12Dichloroethylene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,2 Dichloroethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,1 Trichoroethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromodichloromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Trans1,3Dichloropropene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
cis-1,3-Dichloropropene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1122-Tetrachloroethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Chloromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-4
Client Sample ID :BTR BKGD S04
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Vinyl Chloride	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
Chloroethane	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,4 Dichlorobenzene	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
2-Chloroethylvinylether	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,3-Dichlorobenzene	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
1,2-Dichlorobenzene	0.150	U	mg/Kg	EPA 8010	08/21 08/24	JL
Organochlorine Pest				EPA 8080		
Aldrin	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Alpha-BHC	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Beta-BHC	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Delta-BHC	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Gamma-BHC	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Chlordane	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
4,4'-DDD	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
4,4'-DDE	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
4,4'-DDT	0.004	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Dieldrin	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Endosulfan I	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Endosulfan II	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Endosulfan Sulfate	0.010	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Endrin	0.004	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Endrin Aldehyde	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Heptachlor	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Heptachlor Epoxide	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Methoxychlor	0.006	U	mg/Kg	EPA 8080	08/21 08/24	NRC
Toxaphene	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1016	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1221	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1232	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1242	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1248	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1254	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC
PCB-1260	0.060	U	mg/Kg	EPA 8080	08/21 08/24	NRC

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-1
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 14:30 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	77.8		%	SM17 2540G			08/20 08/21	D
Hydrocarbons EPH	9.55	J(K)	mg/Kg	3510/3550/8100M				
VPH & BTEX				EPA 8015M/8020			08/20 08/22	H
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015m				
Benzene	0.020	U	mg/Kg	EPA 8020			08/20 08/22	H
Toluene	0.020	U	mg/Kg	EPA 8020			08/20 08/22	H
Ethylbenzene	0.020	U	mg/Kg	EPA 8020			08/20 08/22	H
p&m Xylene	0.020	U	mg/Kg	EPA 8020			08/20 08/22	H
o-Xylene	0.020	U	mg/Kg	EPA 8020			08/20 08/22	H
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Chloroform	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Trichloroethylene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Chlorobenzene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Bromoform	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Chloromethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Bromoethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I
Chloroethane	0.020	U	mg/Kg	EPA 8010			08/20 08/22	I

VALIDATION QUALIFIERS (COMMENTS)

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-1
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22	KWI
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20	08/22	KWI
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22	KWI
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/22	KWI
Organochlorine Pest				EPA 8080			
Aldrin	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Alpha-BHC	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Beta-BHC	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Delta-BHC	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Gamma-BHC	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Chlordane	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDD	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDE	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
4,4'-DDT	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Dieldrin	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan I	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan II	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endosulfan Sulfate	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endrin	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Endrin Aldehyde	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Heptachlor	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Heptachlor Epoxide	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Methoxychlor	0.001	U	mg/Kg	EPA 8080	08/21	08/24	NRC
Toxaphene	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1016	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1221	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1232	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1242	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1248	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NRC

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
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COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-4
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69712
Report Completed :09/20/93
Collected :08/17/93 @ 14:30 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromobenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromoform	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromomethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloroethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloroform	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Chloromethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
transi,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM
p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260		08/20	08/28	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
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TEL: (907) 562-2343
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REPORT of ANALYSIS KE

Chemlab Ref.# :93.4179-4
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

Qualifiers | Comments

Methylene Chloride	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Napthalene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
n-Propylbenzene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Styrene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1112-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1122-Tetrachloroethane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Tetrachloroethene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Toluene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,2,3-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,2,4-Trichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,1,1-Trichloroethane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,1,2-Trichloroethane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Trichloroethene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Trichlorofluoromethane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,2,3-Trichloropropane	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,2,4-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
1,3,5-Trimethylbenzene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Vinyl Chloride	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
p+m-Xylene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
o-Xylene	0.025	U	mg/Kg	EPA 8260		08/20 08/28	KW
Semivolatile Organics				EPA 8270			
Phenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
bis(2-Chloroethyl)ether	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2-Chlorophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
1,3-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
1,4-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Benzyl Alcohol	~~1.00~~ 0.230	U	mg/Kg	EPA 8270	E, 3	08/30 09/16	G
1,2-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2-Methylphenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
bis(2-Chloroisopropyl)e	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
4-Methylphenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
n-Nitroso-di-n-Propylam	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Hexachloroethane	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Nitrobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Isophorone	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2-Nitrophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2,4-Dimethylphenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Benzoic Acid	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
bis(2-Chloroethoxy)Meth	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2,4-Dichlorophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
1,2,4-Trichlorobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Naphthalene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
4-Chloroaniline	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Hexachlorobutadiene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
4-Chloro-3-Methylphenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2-Methylnaphthalene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
Hexachlorocyclopentadie	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2,4,6-Trichlorophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2,4,5-Trichlorophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G
2-Chloronaphthalene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	G

1-18-93

Commercial Testing & Engineering Co.
Environmental Laboratory Services
5633 B Street
Anchorage, AK 99518-1600
Tel: (907) 562-2343
Fax: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-4
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

2-Chloronaphthalene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
2-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Dimethylphthalate	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Acenaphthylene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
2,6-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
3-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Acenaphthene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
2,4-Dinitrophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
4-Nitrophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Dibenzofuran	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
2,4-Dinitrotoluene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Diethylphthalate	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
4-Chlorophenyl-Phenylet	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Fluorene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
4-Nitroaniline	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
4,6-Dinitro-2-Methylphe	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
n-Nitrosodiphenylamine	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
4-Bromophenyl-Phenyleth	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Hexachlorobenzene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Pentachlorophenol	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Phenanthrene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Anthracene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
di-n-Butylphthalate	0.260		mg/Kg	EPA 8270	(w)-E.2	08/30 09/16	GV
Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Pyrene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Butylbenzylphthalate	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
3,3-Dichlorobenzidine	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Benzo(a)Anthracene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Chrysene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
bis(2-Ethylhexyl)Phthal	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
di-n-Octylphthalate	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Benzo(b)Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Benzo(k)Fluoranthene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Benzo(a)Pyrene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Indeno(1,2,3-cd)Pyrene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Dibenz(a,h)Anthracene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Benzo(g,h,i)Perylene	0.230	U	mg/Kg	EPA 8270		08/30 09/16	GV
Sample Preparation	---			EPA 3050 Digest			
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	1700		mg/Kg	EPA 6010		08/24 08/25	DFL
Antimony	59	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	7.0		mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	27		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	3.0	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	3.0	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	12000		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	3.0		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	59	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	3.0	U	mg/Kg	EPA 6010		08/24 08/25	DFL

1-10-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS KCC

Chemlab Ref.# :93.4179-4
Client Sample ID :BTR BKGD SD01
Matrix :SOIL

					qual	com		
Lead	5.9	U	mg/Kg	EPA 6010			08/24 08/25	DF
Magnesium	4800		mg/Kg	EPA 6010			08/24 08/25	DF
Manganese	76		mg/Kg	EPA 6010			08/24 08/25	DF
Molybdenum	3.0	U	mg/Kg	EPA 6010			08/24 08/25	DF
Nickel	4.2		mg/Kg	EPA 6010			08/24 08/25	DF
Potassium	300	U	mg/Kg	EPA 6010			08/24 08/25	DF
Selenium	59	U	mg/Kg	EPA 6010			08/24 08/25	DF
Silver	3.0	U	mg/Kg	EPA 6010			08/24 08/25	DF
Sodium	71		mg/Kg	EPA 6010			08/24 08/29	DF
Thallium	0.3	U	mg/Kg	EPA 7841	UJ	B.1	08/24 08/26	KA
Vanadium	7.7		mg/Kg	EPA 6010			08/24 08/29	DF
Zinc	11		mg/Kg	EPA 6010			08/24 08/29	DF
TOC, Soil	32000		mg/Kg	PSEP Ref Lab			09/08	

J. Bluyfa
1/4/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 9951
TEL (907) 562-23
FAX (907) 561-53

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-2
Client Sample ID :BTR BKGD SD01 SPIKE
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 14:30 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FOR SPIKE & SPIKE DUP RECOVERIES AND RPDS SEE QC SUMMARY. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	77.8		%	SM17 2540G				
Hydrocarbons EPH	66.9		mg/Kg	3510/3550/8100M		08/20	08/21	DR
VPH & BTEX								
Hydrocarbons VPH	10.3		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KWI
Benzene	---							
Toluene	0.162		mg/Kg	EPA 8020		08/20	08/21	KWI
Ethylbenzene	0.932		mg/Kg	EPA 8020		08/20	08/21	KWI
p&m Xylene	0.179		mg/Kg	EPA 8020		08/20	08/21	KWI
o-Xylene	0.651		mg/Kg	EPA 8020		08/20	08/21	KWI
	0.266		mg/Kg	EPA 8020		08/20	08/21	KWI
Halogenated Volatile Or								
Methylene Chloride				EPA 8010				
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethane	0.205		mg/Kg	EPA 8010		08/20	08/20	SGM
Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1,1,2 Trichloroethane	0.667		mg/Kg	EPA 8010		08/20	08/20	SGM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Trichlorofluoromethane	0.718		mg/Kg	EPA 8010		08/20	08/20	SGM
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Bromoform	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-2
Client Sample ID :BTR BKGD SD01 SPIKE
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20 08/20	S
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20 08/20	S
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20 08/20	S
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20 08/20	S
Organochlorine Pest				EPA 8080		
Aldrin	0.208		mg/Kg	EPA 8080	08/21 08/24	N
Alpha-BHC	0.223		mg/Kg	EPA 8080	08/21 08/24	N
Beta-BHC	0.198		mg/Kg	EPA 8080	08/21 08/24	N
Delta-BHC	0.227		mg/Kg	EPA 8080	08/21 08/24	N
Gamma-BHC	0.199		mg/Kg	EPA 8080	08/21 08/24	N
Chlordane	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
4,4'-DDD	0.249		mg/Kg	EPA 8080	08/21 08/24	N
4,4'-DDE	0.206		mg/Kg	EPA 8080	08/21 08/24	N
4,4'-DDT	0.108		mg/Kg	EPA 8080	08/21 08/24	N
Dieldrin	0.216		mg/Kg	EPA 8080	08/21 08/24	N
Endosulfan I	0.196		mg/Kg	EPA 8080	08/21 08/24	N
Endosulfan II	0.228		mg/Kg	EPA 8080	08/21 08/24	N
Endosulfan Sulfate	0.248		mg/Kg	EPA 8080	08/21 08/24	N
Endrin	0.225		mg/Kg	EPA 8080	08/21 08/24	N
Endrin Aldehyde	0.210		mg/Kg	EPA 8080	08/21 08/24	N
Heptachlor	0.195		mg/Kg	EPA 8080	08/21 08/24	N
Heptachlor Epoxide	0.211		mg/Kg	EPA 8080	08/21 08/24	N
Methoxychlor	0.108		mg/Kg	EPA 8080	08/21 08/24	N
Toxaphene	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1016	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1221	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1232	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1242	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1248	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21 08/24	N

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-3
Client Sample ID :BTR BKGD SD01 SPIKE DUP
Matrix :SOIL

5633 B STREE
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 14:30 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FOR SPIKE & SPIKE DUP RECOVERIES & RPDS SEE QC SUMMARY. FINALRESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	77.8		%	SM17 2540G				
Hydrocarbons EPH	68.3		mg/Kg	3510/3550/8100M		08/20	08/21	DR
VPH & BTEX								
Hydrocarbons VPH	9.63		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KW
Benzene	---							
Toluene	0.174		mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	0.992		mg/Kg	EPA 8020		08/20	08/21	KW
p&m Xylene	0.182		mg/Kg	EPA 8020		08/20	08/21	KW
o-Xylene	0.694		mg/Kg	EPA 8020		08/20	08/21	KW
	0.289		mg/Kg	EPA 8020		08/20	08/21	KW
Halogenated Volatile Or								
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
1,1 Dichloroethylene	0.218		mg/Kg	EPA 8010		08/20	08/20	SG
1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Trichloroethylene	0.562		mg/Kg	EPA 8010		08/20	08/20	SG
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Chlorobenzene	0.589		mg/Kg	EPA 8010		08/20	08/20	SG
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Transi2Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Transl,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Bromoform	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/20	08/20	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREE
ANCHORAGE, AK 9951
TEL (907) 562-234
FAX (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-3
Client Sample ID :BTR BKGD SD01 SPIKE DUP
Matrix :SOIL

1,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/20	S
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	08/20	08/20	S
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/20	S
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/20	08/20	S
Organochlorine Pest				EPA 8080			
Aldrin	0.217		mg/Kg	EPA 8080	08/21	08/24	NF
Alpha-BHC	0.231		mg/Kg	EPA 8080	08/21	08/24	NF
Beta-BHC	0.204		mg/Kg	EPA 8080	08/21	08/24	NF
Delta-BHC	0.238		mg/Kg	EPA 8080	08/21	08/24	NF
Gamma-BHC	0.200		mg/Kg	EPA 8080	08/21	08/24	NF
Chlordane	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
4,4'-DDD	0.266		mg/Kg	EPA 8080	08/21	08/24	NF
4,4'-DDE	0.218		mg/Kg	EPA 8080	08/21	08/24	NF
4,4'-DDT	0.082		mg/Kg	EPA 8080	08/21	08/24	NF
Dieldrin	0.228		mg/Kg	EPA 8080	08/21	08/24	NF
Endosulfan I	0.209		mg/Kg	EPA 8080	08/21	08/24	NF
Endosulfan II	0.244		mg/Kg	EPA 8080	08/21	08/24	NF
Endosulfan Sulfate	0.257		mg/Kg	EPA 8080	08/21	08/24	NF
Endrin	0.229		mg/Kg	EPA 8080	08/21	08/24	NF
Endrin Aldehyde	0.225		mg/Kg	EPA 8080	08/21	08/24	NF
Heptachlor	0.182		mg/Kg	EPA 8080	08/21	08/24	NF
Heptachlor Epoxide	0.220		mg/Kg	EPA 8080	08/21	08/24	NF
Methoxychlor	0.092		mg/Kg	EPA 8080	08/21	08/24	NF
Toxaphene	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1016	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1221	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1232	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1242	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1248	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NF

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STRE
ANCHORAGE, AK 99
TEL (907) 562-2
FAX (907) 561-5

Chemlab Ref.# :93.4199-7
Client Sample ID :BTR BKGD SD02
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 16:25 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids	12.3		%	SM17 2540G				
Hydrocarbons EPH	195		mg/Kg	3510/3550/8100M		08/20	08/21	DF
VPH & BTEX								
Hydrocarbons VPH	5.00	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KW
Benzene	0.250	U	mg/Kg	EPA 8020		08/20	08/21	KW
Toluene	0.250	U	mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	0.250	U	mg/Kg	EPA 8020		08/20	08/21	KW
p&m Xylene	0.250	U	mg/Kg	EPA 8020		08/20	08/21	KW
o-Xylene	0.250	U	mg/Kg	EPA 8020		08/20	08/21	KW
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1,1 Dichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1,1 Dichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Chloroform	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Carbontetrachloride	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1, 2 Dichloropropane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Trichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1,1,2 Trichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Dibromochloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Tetrachloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Chlorobenzene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Trichlorofluoromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Trans12Dichloroethylene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1,2 Dichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1,1,1 Trichoroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Bromodichloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Trans1,3Dichloropropene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
cis-1,3-Dichloropropene	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Bromoform	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
1122-Tetrachloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Chloromethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Bromoethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Vinyl Chloride	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI
Chloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/20	SGI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-7
Client Sample ID :BTR BKGD SD02
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 995
(907) 562 2
(907) 561 5

1,4 Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/20	S
2-Chloroethylvinylether	0.300	U	mg/Kg	EPA 8010	08/20	08/20	S
1,3-Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/20	S
1,2-Dichlorobenzene	0.300	U	mg/Kg	EPA 8010	08/20	08/20	S
Organochlorine Pest				EPA 8080			
Aldrin	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Alpha-BHC	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Beta-BHC	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Delta-BHC	0.080	U	mg/Kg	EPA 8080	08/21	08/24	NR
Gamma-BHC	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Chlordane	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDD	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDE	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
4,4'-DDT	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Dieldrin	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan I	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan II	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endosulfan Sulfate	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Endrin Aldehyde	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Heptachlor Epoxide	0.008	U	mg/Kg	EPA 8080	08/21	08/24	NR
Methoxychlor	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
Toxaphene	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1016	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1221	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1232	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1242	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1248	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21	08/24	NR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
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GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-17
Client Sample ID :BTR-BKGD-2SD023
Matrix :SOIL

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 13:30 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.
FOR EPH 8100M RESULT INDICATES POSSIBLE BIOGENIC HYDROCARBON
CONTAMINATION SAMPLE IS A VERY WET MOSS WITH A % SOLID OF 16% ONLY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	16.2		%	SM17 2540G			09/07	EAL
Hydrocarbons EPH	1150	D	mg/Kg	3510/3550/8100M		09/16	09/21	JBH
Hydrocarbons VPH	9.00	U	mg/Kg	EPA 5030/8015M		09/07	09/10	WLS
Volatile Organics				EPA 8260				
Benzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromobenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromochloromethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromodichloromethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromoform	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Bromomethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
n-Butylbenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
sec-Butylbenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
tert-Butylbenzne	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Carbon Tetrachloride	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chlorobenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloroform	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Chloromethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
2-Chlorotoluene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
4-Chlorotoluene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromochloromethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
12Dibromo3Chloropropane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dibromoethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dibromomethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichlorobenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichlorobenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,4-Dichlorobenzene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
Dichlorodifluoromethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloroethane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,1-Dichloroethene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
cis-1,2-Dichloroethene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
trans1,2-Dichloroethene	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,2-Dichloropropane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
1,3-Dichloropropane	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1909

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-17
Client Sample ID :BTR-BKGD-2SD02
Matrix :SOIL

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2,2-Dichloropropane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1-Dichloropropene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Ethylbenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Hexachlorobutadiene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Isopropylbenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
p-Isopropyltoluene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Methylene Chloride	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Napthalene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
n-Propylbenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Styrene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1112-Tetrachloroethane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1122-Tetrachloroethane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Tetrachloroethene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Toluene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichlorobenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trichlorobenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,1-Trichloroethane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,1,2-Trichloroethane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichloroethene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Trichlorofluoromethane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,3-Trichloropropane	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,2,4-Trimethylbenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
1,3,5-Trimethylbenzene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
Vinyl Chloride	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
p+m-Xylene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM
o-Xylene	0.500	U	mg/Kg	EPA 8260	09/07 09/29	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-6
Client Sample ID :BTR BKGD SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 14:00 hr
Received :08/19/93 @ 18:45 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FINAL RESULTS.

Qualifier/Comments

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	J
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/20	08/20	K
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	K
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	K
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	K
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	K
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	K
Halogenated Volatile Or				EPA 8010		08/20	08/20	K
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Chloroform	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1,2 Dichloroethane	0.0013		mg/L	EPA 8010 (N)-J.1		08/20	08/20	K
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Bromoform	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Bromoethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	K
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20	08/20	K

CAP 3-4-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-6
Client Sample ID :BTR BKGD SW01
Matrix :WATER

5633 [redacted]
ANCHORAGE, AK 99
TEL (907) 562-2
FAX (907) 561-5

1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20	08/20
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20	08/20
Organochlorine Pest				EPA 8080		
Aldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23
Alpha-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23
Beta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23
Delta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23
Chlordane	0.001	U	mg/L	EPA 8080	08/21	08/23
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21	08/23
4,4'-DDE	0.0001	U	mg/L	EPA 8080	08/21	08/23
4,4'-DDT	0.0001	U	mg/L	EPA 8080	08/21	08/23
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21	08/23
Endosulfan II	0.0001	U	mg/L	EPA 8080	08/21	08/23
Endosulfan Sulfate	0.0002	U	mg/L	EPA 8080	08/21	08/23
Endrin	0.0001	U	mg/L	EPA 8080	08/21	08/23
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080	08/21	08/23
Heptachlor	0.0001	U	mg/L	EPA 8080	08/21	08/23
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21	08/23
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21	08/23
Toxaphene	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1016	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1221	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1232	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1242	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1248	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1254	0.001	U	mg/L	EPA 8080	08/21	08/23
PCB-1260	0.001	U	mg/L	EPA 8080	08/21	08/23

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Lab Ref.# :93.4179-2
Client Sample ID :BTR BKGD SW01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69712
Report Completed :09/20/93
Collected :08/17/93 @ 14:00 hr
Received :08/19/93 @ 10:50 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichloroethane	0.0030	U G	mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-2
Client Sample ID :BTR BKGD SW01
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Semivolatile Organics				EPA 8270			
Phenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
bis(2-Chloroethyl)ether	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2-Chlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
1,3-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
1,4-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
4-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Hexachloroethane	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Nitrobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Isophorone	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2-Nitrophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Benzoic Acid	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
1,2,4-Trichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Naphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
4-Chloroaniline	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Hexachlorobutadiene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
4-Chloro-3-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2-Methylnaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
Hexachlorocyclopentadie	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2,4,6-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTI
2,4,5-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	
2-Chloronaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	

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REPORT of ANALYSIS

Chemlab Ref.# :93.4179-2
Client Sample ID :BTR BKGD SW01
Matrix :WATER

2-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Dimethylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Acenaphthylene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
2,6-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
3-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Acenaphthene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
2,4-Dinitrophenol	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
4-Nitrophenol	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Dibenzofuran	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
2,4-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Diethylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
4-Chlorophenyl-Phenylet	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Fluorene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
4-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
4,6-Dinitro-2-Methylphe	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
n-Nitrosodiphenylamine	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
4-Bromophenyl-Phenyleth	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Hexachlorobenzene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Pentachlorophenol	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Phenanthrene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Anthracene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
di-n-Butylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Fluoranthene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Pyrene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Chrysene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
bis(2-Ethylhexyl)Phthal	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Benzo(g,h,i)Perylene	0.01	U	mg/L	EPA 8270		08/21	08/23	MT
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Barium	0.069		mg/L	EPA 6010		08/23	08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Calcium	38		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Iron	0.28		mg/L	EPA 6010		08/23	08/24	DFL
Lead	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS SCC

Chemlab Ref.# :93.4179-2
Client Sample ID :BTR BKGD SW01
Matrix :WATER

					qual	com		
Magnesium	14		mg/L	EPA 6010			08/23 08/24	DF
Manganese	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Molybdenum	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Nickel	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Potassium	5.0	U	mg/L	EPA 6010			08/23 08/24	DF
Selenium	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Silver	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Sodium	49		mg/L	EPA 6010			08/23 08/24	DF
Thallium	0.005	U	mg/L	EPA 7841	UJ	B.1	08/23 08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Zinc	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA		n/a		
Aluminum	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Antimony	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Arsenic	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Barium	0.068		mg/L	EPA 6010			08/23 08/24	DF
Beryllium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Cadmium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Calcium	38		mg/L	EPA 6010			08/23 08/24	DF
Chromium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Cobalt	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Copper	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Iron	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Lead	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Magnesium	14		mg/L	EPA 6010			08/23 08/24	DF
Manganese	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Molybdenum	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Nickel	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Potassium	5.0	U	mg/L	EPA 6010			08/23 08/24	DF
Selenium	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Silver	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Sodium	50		mg/L	EPA 6010			08/23 08/24	DF
Thallium	0.005	U	mg/L	EPA 7841	UJ	B.1	08/23 08/26	KA
Vanadium	0.050		mg/L	EPA 6010			08/23 08/24	DF
Zinc	0.050		mg/L	EPA 6010			08/23 08/24	DF
TOC, Nonpurgable				EPA 9060		n/a		
...TOC Range	5.0-6.0		mg/L	EPA 9060		composed by	08/27	CM
...TOC Concentration	5.0	U	mg/L	EPA 9060			08/27	CM
Residue, Non-Filterable	8		mg/L	EPA 160.2 J		D BFM 11.8.94	08/24 08/24	GP
Residue,Filterable(TDS)	328		mg/L	EPA 160.1		500	08/20 08/23	RJ

J.M. 1/4/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STRE
ANCHORAGE, AK 995
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REPORT of ANALYSIS

Chemlab Ref.# :93.4199-5
Client Sample ID :BTR BKGD SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/30/93
Collected :08/17/93 @ 16:09 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JE
VPH & BTEX								
Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/20	08/20	KW
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KW
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KW
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KW
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KW
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Chloroform	0.0011		mg/L	EPA 8010		08/20	08/20	KW
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1,2 Dichloroethane	0.0028		mg/L	EPA 8010		08/20	08/20	KW
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Bromoform	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Bromoethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW
-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20	08/20	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-5
Client Sample ID :BTR BKGD SW02
Matrix :WATER

5633 B STRE
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20 08/20	I
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20 08/20	I
Organochlorine Pest				EPA 8080		
Aldrin	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Alpha-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Beta-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Delta-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Chlordane	0.001	U	mg/L	EPA 8080	08/21 08/23	N
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
4,4'-DDE	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
4,4'-DDT	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Endosulfan II	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Endosulfan Sulfate	0.0002	U	mg/L	EPA 8080	08/21 08/23	N
Endrin	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Heptachlor	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21 08/23	N
Toxaphene	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1016	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1221	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1232	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1242	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1248	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1254	0.001	U	mg/L	EPA 8080	08/21 08/23	N
PCB-1260	0.001	U	mg/L	EPA 8080	08/21 08/23	N

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-3
Client Sample ID :BTR BKDG SW02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69712
Report Completed :09/20/93
Collected :08/17/93 @ 16:09 hr
Received :08/19/93 @ 10:50 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0032		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM

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ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

Chemlab Ref.# :93.4179-3
Client Sample ID :BTR BKDG SW02
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Semivolatile Organics				EPA 8270			
Phenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroethyl)ether	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Chlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,3-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,4-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachloroethane	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Nitrobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Isophorone	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Nitrophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Benzoic Acid	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
1,2,4-Trichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Naphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Chloroaniline	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachlorobutadiene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
4-Chloro-3-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Methylnaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
Hexachlorocyclopentadie	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4,6-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2,4,5-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT
2-Chloronaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-3
Client Sample ID :BTR BKDG SW02
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
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2-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dimethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthylene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,6-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
3-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenzofuran	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Diethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Chlorophenyl-Phenylet	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Fluorene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4,6-Dinitro-2-Methylphe	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
n-Nitrosodiphenylamine	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Bromophenyl-Phenyleth	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Hexachlorobenzene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Pentachlorophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Phenanthrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Butylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Chrysene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
bis(2-Ethylhexyl)Phthal	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(g,h,i)Perylene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Barium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Calcium	21		mg/L	EPA 6010		08/23 08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Iron	0.70		mg/L	EPA 6010		08/23 08/24	DFL
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4179-3
Client Sample ID :BTR BKDG SW02
Matrix :WATER

Magnesium	12		mg/L	EPA 6010		08/23 08/24	DFT
Manganese	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24	DFT
Selenium	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Silver	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Sodium	47		mg/L	EPA 6010		08/23 08/24	DFT
Thallium	0.005	U	mg/L	EPA 7841		08/23 08/26	KAW
Vanadium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Zinc	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Dissolved Metals Analys	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Barium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Calcium	21		mg/L	EPA 6010		08/23 08/24	DFT
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Iron	0.36		mg/L	EPA 6010		08/23 08/24	DFT
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Magnesium	13		mg/L	EPA 6010		08/23 08/24	DFT
Manganese	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24	DFT
Selenium	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
Silver	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Sodium	57		mg/L	EPA 6010		08/23 08/24	DFT
Thallium	0.005	U	mg/L	EPA 7841		08/23 08/26	KAW
Vanadium	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Zinc	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
TOC, Nonpurgable				EPA 9060	n/a		
...TOC Range	11.0-15.5		mg/L	EPA 9060		08/27	CMR
...TOC Concentration	12.7		mg/L	EPA 9060		08/27	CMR
Residue, Non-Filterable	30	U	mg/L	EPA 160.2		08/24 08/24	GPP
Residue,Filterable(TDS)	352	U	mg/L	EPA 160.1	500	08/20 08/23	RJK

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-BKGD-2SD03
F&BI Number	1746
Sample Type	soil
Date Received	9/3/93
% Dry Weight	21
Sequence Date	#6-09/05/93
Leaded Gas	
JP-4	<240
Lube Oil	<480
Diesel	<240
Spike Level	
Unknown Semi-volatile	
Pentacosane	105
Sequence Date	
PCB 1221	
PCB 1232	
PCB 1016	
PCB 1242	
PCB 1248	
PCB 1254	
PCB 1260	
Spike Level	
Dibutyl Chlorendate	
Sequence Date	
alpha-BHC	
beta-BHC	
gamma-BHC	
delta-BHC	
Heptachlor	
Aldrin	
Heptachlor Epoxide	
Endosulfan I	
DDE	
Dieldrin	
Endrin	
Endosulfan II	
DDD	
Endrin Aldehyde	
DDT	
Endosulfan Sulfate	
Endrin Ketone	
Methoxy Chlor	
Chlordane	
Dibutyl Chlorendate	
Spike Level	
Vol Sequence	#1&2-09/06/93
CCl4	<0.5 J
TCA	<0.5 J
Benzene	<0.1
TCE	<0.5 J
Toluene	<0.1
PCE	<0.5 J
Ethylbenzene	<0.1
Xylenes	<0.2
Gasoline	<5 J
Spike level	
BFB	82

11-1-94 Sat

ANALYTICAL DATA SHEETS FOR QA/QC

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
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REPORT of ANALYSIS

Chemlab Ref.# :93.4197-6
Client Sample ID :BTR ~~SD08~~ AB01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 15:00 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0098		mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloroform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,2 Dichloroethane	0.0012		mg/L	EPA 8010		08/20	08/20	SGM
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromoform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromoethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Aromatic Volatiles				EPA 8020				
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
Toluene	0.0012		mg/L	EPA 8020		08/20	08/20	SGM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
Chlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
p & m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
1,3 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS SCE

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4197-6
Client Sample ID :BTR SD08 AB01 Smk 12.7.94
Matrix :WATER

1,2 Dichlorobenzene	0.0010	U	mg/L	EPA 8020	08/20 08/20	SGM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-9
Client Sample ID :BTR ~~SB08~~ AB01 Sent 12.7.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 15:00 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. ONE VIAL BROKEN ON ARRIVAL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0016		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-9
Client Sample ID :BTR ~~SB08~~ AB01 12.7.94
Matrix :WATER

Methylene Chloride	0.011		mg/L	EPA 8260	08/20 08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Toluene	0.0019		mg/L	EPA 8260	08/20 08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20 08/20	KWI

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-1
Client Sample ID :BTR-AB-02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 15:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Chloromethane	0.0051		mg/L	EPA 8260		09/02	09/02	KWI
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,2-Dichloroethane	0.0063		mg/L	EPA 8260		09/02	09/02	KWI
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4303-1
Client Sample ID :BTR-AB-02
Matrix :WATER

Methylene Chloride	0.0058		mg/L	EPA 8260	09/02 09/02	KW
Napthalene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Styrene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Toluene	0.0022		mg/L	EPA 8260	09/02 09/02	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KW

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

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LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-8
Client Sample ID :BTR ~~SD08 SEB~~ EBØ1 BFM 11.8.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69800
Report Completed :08/30/93
Collected :08/17/93 @ 15:30 hrs
Received :08/19/93 @ 18:45 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. FINAL RESULTS.

Qualifier Comments

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/22	JB
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/23	08/23	KW
						08/24	08/24	JI
Benzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	JI
Toluene	0.0010	U	mg/L	EPA 8020		08/24	08/24	JI
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	JI
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/24	08/24	JI
o-Xylene	0.0010	U	mg/L	EPA 8020		08/24	08/24	JI
				EPA 8010				
Halogenated Volatile Or				EPA 8010		08/24	08/24	JI
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Chloroform	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Transi2Dichloroethylene	0.0025		mg/L	EPA 8010 (N)-J.1		08/24	08/24	JI
1,2 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Transi,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Bromoform	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Chloromethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Bromoethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
Chloroethane	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/24	08/24	JI
2-Chloroethylvinylether								

3-4-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-8
Client Sample ID :BTR ~~SD08 SEB~~ EB01 BFM 11.8.94
Matrix :WATER

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1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/24	08/24	JL
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/24	08/24	JL
Organochlorine Pest				EPA 8080			
Aldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Alpha-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Beta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Delta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Chlordane	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
4,4'-DDE	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
4,4'-DDT	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Endosulfan II	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Endrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Heptachlor	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21	08/23	NR
Toxaphene	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1016	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1221	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1232	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1242	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1248	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1254	0.001	U	mg/L	EPA 8080	08/21	08/23	NR
PCB-1260	0.001	U	mg/L	EPA 8080	08/21	08/23	NR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-3
Client Sample ID :BTR ~~SB08-SEB~~ EB01 BFM 11.7.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69705
Report Completed :09/20/93
Collected :08/17/93 @ 15:30 hr
Received :08/19/93 @ 10:50 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	J (K1) EPA 8260		08/20	08/20	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloroethane	0.0044		mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW

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SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-3
Client Sample ID :BTR ~~SD08 SEB~~ EB01 BFM 11.7.94
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Semivolatile Organics				EPA 8270			
Phenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethyl)ether	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
1,3-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
1,4-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
4-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachloroethane	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Nitrobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Isophorone	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2-Nitrophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Benzoic Acid	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
1,2,4-Trichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Naphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloroaniline	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorobutadiene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloro-3-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylnaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorocyclopentadie	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,6-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,5-Trichlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chloronaphthalene	0.01	U	mg/L	EPA 8270	08/21	08/23	MT

slightly comment K1

11/9/94

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ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-3 EB01
Client Sample ID :BTR ~~SD08-SEB~~ BRM 11.7.94
Matrix :WATER

VALIDATION QUALIFIER (Comment)

2-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dimethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthylene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,6-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
3-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Acenaphthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitrophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenzofuran	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
2,4-Dinitrotoluene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Diethylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Chlorophenyl-Phenylet	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Fluorene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4,6-Dinitro-2-Methylphe	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
n-Nitrosodiphenylamine	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
4-Bromophenyl-Phenyleth	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Hexachlorobenzene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Pentachlorophenol	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Phenanthrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Butylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
3,3-Dichlorobenzidine	0.01	U J(D)	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Chrysene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
bis(2-Ethylhexyl)Phthal	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(g,h,i)Perylene	0.01	U J(D)	mg/L	EPA 8270		08/21 08/23	MT
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DT
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DT
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DT
Barium	0.050	U	mg/L	EPA 6010		08/23 08/24	DT
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DT
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DT
Calcium	0.20	U	mg/L	EPA 6010		08/23 08/24	DT
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DT
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DT
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DT
Iron	0.10	U	mg/L	EPA 6010		08/23 08/24	DT
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-3
Client Sample ID :BTR ~~SB08 SEB~~ EB01 12.7.94
Matrix :WATER

Magnesium	0.20	U	mg/L	EPA 6010		08/23	08/24	D
Manganese	0.050	U	mg/L	EPA 6010		08/23	08/24	D
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	D
Nickel	0.050	U	mg/L	EPA 6010		08/23	08/24	D
Potassium	5.0	U	mg/L	EPA 6010		08/23	08/24	D
Selenium	0.10	U	mg/L	EPA 6010		08/23	08/24	D
Silver	0.050	U	mg/L	EPA 6010		08/23	08/24	D
Sodium	0.25	U	mg/L	EPA 6010		08/23	08/24	D
Thallium	0.0050	U	mg/L	EPA 7841		08/23	08/26	K
Vanadium	0.050	U	mg/L	EPA 6010		08/23	08/24	D
Zinc	0.050	U	mg/L	EPA 6010		08/23	08/24	D
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	6.2-10.2		mg/L	EPA 9060			08/31	C
...TOC Concentration	7.8		mg/L	EPA 9060			08/31	C

* See Special Instructions Above
** See Sample Remarks Above,
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.
UA = Unavailab
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Ch[illegible]ab Ref.# :93.4206-4
Client Sample ID :BTR ~~SD08 WEB~~ EB02 SMF 12.7.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69806
Report Completed :08/26/93
Collected :08/17/93 @ 16:00 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.100	U	mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/22	08/22	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Toluene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
o-Xylene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
[illegible]genated Volatile Or				EPA 8010				
[illegible]Chloride	0.0011		mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1[illegible]oethane	0.0029		mg/L	EPA 8010		08/22	08/22	JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE '9CB

REPORT of ANALYSIS XC4

Chemlab Ref.# :93.4206-4
Client Sample ID :BTR ~~SD08 WEB~~ EB02 SMK 12.7.94
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22	08/22	JLB
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22	08/22	JLB
Organochlorine Pest				EPA 8080			
Aldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Alpha-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Beta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Delta-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Chlordane	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
4,4'-DDE	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
4,4'-DDT	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Endosulfan II	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Endrin	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Heptachlor	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21	08/23	NRC
Toxaphene	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1016	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1221	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1232	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1242	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1248	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1254	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC
PCB-1260	0.001	U	mg/L	EPA 8080	08/21	08/23	NRC

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-1
Client Sample ID :BTR ~~SD08 WEB~~ EB02
Matrix :WATER BFM 11.9.94

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69712
Report Completed :09/20/93
Collected :08/17/93 @ 16:00 hr
Received :08/19/93 @ 10:50 hr
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloroethane	0.0030		mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-1
Client Sample ID :BTR ~~SD08-WEB~~ EB02
Matrix :WATER

BFM 11.7.94

Methylene Chloride	0.0013		mg/L	EPA 8260	08/20	08/20	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Semivolatile Organics				EPA 8270			
Phenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethyl)ether	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chlorophenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
1,3-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
1,4-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Benzyl Alcohol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
1,2-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylphenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroisopropyl)e	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
4-Methylphenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
n-Nitroso-di-n-Propylam	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachloroethane	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Nitrobenzene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Isophorone	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2-Nitrophenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dimethylphenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Benzoic Acid	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
bis(2-Chloroethoxy)Meth	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2,4-Dichlorophenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
1,2,4-Trichlorobenzene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Naphthalene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloroaniline	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorobutadiene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
4-Chloro-3-Methylphenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2-Methylnaphthalene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
Hexachlorocyclopentadie	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,6-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2,4,5-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/21	08/23	MT
2-Chloronaphthalene	0.011	U	mg/L	EPA 8270	08/21	08/23	MT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
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REPORT of ANALYSIS

Chemlab Ref.# :93.4179-1
Client Sample ID :BTR ~~SB08-WEB~~ EB02 BFM 7.7.94
Matrix :WATER

2-Nitroaniline	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Dimethylphthalate	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Acenaphthylene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
2,6-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
3-Nitroaniline	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Acenaphthene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
2,4-Dinitrophenol	0.011	U	mg/L	EPA 8270		08/21 08/23	M
4-Nitrophenol	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Dibenzofuran	0.011	U	mg/L	EPA 8270		08/21 08/23	M
2,4-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Diethylphthalate	0.011	U	mg/L	EPA 8270		08/21 08/23	M
4-Chlorophenyl-Phenylet	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Fluorene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
4-Nitroaniline	0.011	U	mg/L	EPA 8270		08/21 08/23	M
4,6-Dinitro-2-Methylphe	0.011	U	mg/L	EPA 8270		08/21 08/23	M
n-Nitrosodiphenylamine	0.011	U	mg/L	EPA 8270		08/21 08/23	M
4-Bromophenyl-Phenyleth	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Hexachlorobenzene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Pentachlorophenol	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Phenanthrene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Anthracene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
di-n-Butylphthalate	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Fluoranthene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Pyrene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Butylbenzylphthalate	0.011	U	mg/L	EPA 8270		08/21 08/23	M
3,3-Dichlorobenzidine	0.011	U	mg/L	EPA 8270	(J)-D.1	08/21 08/23	M
Benzo(a)Anthracene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Chrysene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
bis(2-Ethylhexyl)Phthal	0.011	U	mg/L	EPA 8270		08/21-08/23	M
di-n-Octylphthalate	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Benzo(b)Fluoranthene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Benzo(k)Fluoranthene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Benzo(a)Pyrene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Indeno(1,2,3-cd)Pyrene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Dibenz(a,h)Anthracene	0.011	U	mg/L	EPA 8270		08/21 08/23	M
Benzo(g,h,i)Perylene	0.011	U	mg/L	EPA 8270	(J)-D.1	08/21 08/23	M
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Barium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Calcium	0.20	U	mg/L	EPA 6010		08/23 08/24	DI
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DI
Iron	0.10	U	mg/L	EPA 6010		08/23 08/24	DI
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DI

1-18-94

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
ANCHORAGE, AK 99518
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REPORT of ANALYSIS ~~ORIG~~ 2nd

Chemlab Ref.# :93.4179-1
Client Sample ID :BTR ~~SD08-WEB~~ EB02 BFM 11.2.94
Matrix :WATER

					qual	com		
Magnesium	0.20	U	mg/L	EPA 6010			08/23 08/24	DF
Manganese	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Molybdenum	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Nickel	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Potassium	5.0	U	mg/L	EPA 6010			08/23 08/24	DF
Selenium	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Silver	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Sodium	0.25	U	mg/L	EPA 6010			08/23 08/24	DF
Thallium	0.005	U	mg/L	EPA 7841	UJ	B.1	08/23 08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Zinc	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Dissolved Metals Analys	---			-				
ICP Screen, ICF				EPA		n/a		
Aluminum	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Antimony	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Arsenic	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Barium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Beryllium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Cadmium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Calcium	0.20	U	mg/L	EPA 6010			08/23 08/24	DF
Chromium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Cobalt	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Copper	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Iron	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Lead	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Magnesium	0.20	U	mg/L	EPA 6010			08/23 08/24	DF
Manganese	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Molybdenum	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Nickel	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Potassium	5.0	U	mg/L	EPA 6010			08/23 08/24	DF
Selenium	0.10	U	mg/L	EPA 6010			08/23 08/24	DF
Silver	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Sodium	0.25	U	mg/L	EPA 6010			08/23 08/24	DF
Thallium	0.005	U	mg/L	EPA 7841	UJ	B.1	08/23 08/26	KA
Vanadium	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
Zinc	0.050	U	mg/L	EPA 6010			08/23 08/24	DF
TOC, Nonpurgable				EPA 9060		n/a		
...TOC Range	5.0-5.0	U	mg/L	EPA 9060			08/27	CM
...TOC Concentration	5.0	U	mg/L	EPA 9060			08/27	CM
Residue, Non-Filterable	4		mg/L	EPA 160.2			08/24 08/24	GP
Residue,Filterable(TDS)	30		mg/L	EPA 160.1		500	08/20 08/23	RJ

J.M.
1/4/94

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailabl
NA = Not Analyz
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4215-6 EBØ3
Client Sample ID :BTR ~~SSB SEB2~~ C
Matrix :WATER BFM 11-9-94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:00 hr
Received :08/20/93 @ 11:30 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Qualifiers/Comments

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Hydrocarbons EPH	0.100	U	mg/L	3510/3550/8100M		08/22	08/23	J
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/24	08/24	W
Benzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	W
Toluene	0.0032		mg/L	EPA 8020 (N)-K-1		08/24	08/24	W
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	W
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/24	08/24	W
o-Xylene								
Organochlorine Pest				EPA 8080		08/21	08/24	I
Aldrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	I
Alpha-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	I
Beta-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	I
Delta-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	I
Gamma-BHC	0.001	U	mg/L	EPA 8080		08/21	08/24	I
Chlordane	0.0001	U	mg/L	EPA 8080		08/21	08/24	
4,4'-DDD	0.0001	U	mg/L	EPA 8080		08/21	08/24	
4,4'-DDE	0.0001	U	mg/L	EPA 8080		08/21	08/24	
4,4'-DDT	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Dieldrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Endosulfan I	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Endosulfan II	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Endrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Heptachlor	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080		08/21	08/24	
Methoxychlor	0.001	U	mg/L	EPA 8080		08/21	08/24	
Toxaphene	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1016	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1221	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1232	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1242	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1248	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1254	0.001	U	mg/L	EPA 8080		08/21	08/24	
PCB-1260								

cal 3-4-94

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREE
ANCHORAGE. AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-4
Client Sample ID :BTR ~~SS13 SEB2~~ EB03 BFM 11.7.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69842
Report Completed :09/20/93
Collected :08/18/93 @ 16:00 h
Received :08/20/93 @ 11:30 h
Technical Director: ~~STEPHEN~~ C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 6 CONTAINERS WERE RECEIVED FOR THIS SAMPLE, CHAIN OF CUSTODY MARKED FOR 7 CONTAINERS.

Parameter	Results	QC Qual	Units	Qualifier / comment	Method	Allowable Limits	Ext. Date	Anal Date	In
Volatile Organics					EPA 8260				
Benzene	0.0010	U	mg/L	J K1	EPA 8260		08/31	08/31	K
Bromobenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Bromochloromethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Bromodichloromethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Bromoform	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Bromomethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
n-Butylbenzene	0.0010	U	mg/L		EPA 8260		08/31	08/3	K
sec-Butylbenzene	0.0010	U	mg/L		EPA 8260		08/31	08/3	K
tert-Butylbenzne	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Carbon Tetrachloride	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Chlorobenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Chloroethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Chloroform	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Chloromethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
2-Chlorotoluene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
4-Chlorotoluene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Dibromochloromethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
12Dibromo3Chloropropane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,2-Dibromoethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Dibromomethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,2-Dichlorobenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,3-Dichlorobenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,4-Dichlorobenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Dichlorodifluoromethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,1-Dichloroethane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,2-Dichloroethane	0.0022		mg/L		EPA 8260		08/31	08/31	K
1,1-Dichloroethene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
cis-1,2-Dichloroethene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
trans1,2-Dichloroethene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,2-Dichloropropane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,3-Dichloropropane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
2,2-Dichloropropane	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
1,1-Dichloropropene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Ethylbenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K
Hexachlorobutadiene	0.0010	U	mg/L		EPA 8260		08/31	08/	K
Isopropylbenzene	0.0010	U	mg/L		EPA 8260		08/31	08/31	K

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REPORT of ANALYSIS

Chemlab Ref.# :93.4213-4
Client Sample ID :BTR ~~SS13-SEB2~~ EBØ3 BFM 11.7.94
Matrix :WATER

p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Methylene Chloride	0.0024		mg/L	EPA 8260	08/31	08/31	KI
Napthalene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Toluene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KI
Semivolatile Organics				EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Isophorone	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Naphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-4 EB03 11.7.94
Client Sample ID :BTR ~~SS13 SEB2~~
Matrix :WATER

VALIDATION QUALIFIER (COMMENT)

2-Chloronaphthalene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Acenaphthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	M
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/24 08/25	M
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	M
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Fluorene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	M
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/24 08/25	M
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/24 08/25	M
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Phenanthrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	
Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Butylbenzylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	M
3,3-Dichlorobenzidine	0.010	UJ(D)	mg/L	EPA 8270		08/24 08/25	M
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Chrysene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/24 08/25	M
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Barium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Calcium	0.2	U	mg/L	EPA 6010		08/25 08/26	D
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	D
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	D
Iron	0.1	U	mg/L	EPA 6010		08/25 08/2	D

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4213-4 EB03 BFM 11.7.94
Client Sample ID :BTR ~~SS13 SEB2~~
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

Lead	0.1	U	mg/L	EPA 6010		08/25	08/26	DI
Magnesium	0.2	U	mg/L	EPA 6010		08/25	08/26	DI
Manganese	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
Molybdenum	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
Nickel	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
Potassium	5	U	mg/L	EPA 6010		08/25	08/26	DI
Selenium	0.1	U	mg/L	EPA 6010		08/25	08/26	DI
Silver	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
Sodium	0.25	U	mg/L	EPA 6010		08/25	08/26	DI
Thallium	0.0050	U	mg/L	EPA 7841		08/24	08/26	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
Zinc	0.05	U	mg/L	EPA 6010		08/25	08/26	DI
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	5.0-5.0	U	mg/L	EPA 9060			08/30	CH
...TOC Concentration	5.0	U	mg/L	EPA 9060			08/30	CH

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

5633 B[redacted]EE
ANCHORAGE, AK 9951
TEL (907) 562-234
FAX (907) 561-530

Chemlab Ref.# :93.4215-7
Client Sample ID :BTR ~~S613 WEB2~~ EB032 SMK 12.7.94
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69826
Report Completed :08/27/93
Collected :08/18/93 @ 16:00 h
Received :08/20/93 @ 11:30 h
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Hydrocarbons EPH	0.100	U	mg/L	3510/3550/8100M		08/22	08/23	JI
VPH & BTEX								
Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/24	08/24	WI
Benzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	WI
Toluene	0.0010	U	mg/L	EPA 8020		08/24	08/24	WI
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/24	08/24	WI
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/24	08/24	WI
o-Xylene	0.0010	U	mg/L	EPA 8020		08/24	08/24	WI
Organochlorine Pest								
Aldrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Alpha-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Beta-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Delta-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Gamma-BHC	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Chlordane	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
4,4'-DDD	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
4,4'-DDE	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
4,4'-DDT	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Dieldrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Endosulfan I	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Endosulfan II	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Endrin	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Heptachlor	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Methoxychlor	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
Toxaphene	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB-1016	0.0001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB-1221	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB-1232	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB-1242	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB 1248	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB-1254	0.001	U	mg/L	EPA 8080		08/21	08/24	NI
PCB 1260	0.001	U	mg/L	EPA 8080		08/21	08/24	[redacted]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4211-1
Client Sample ID :BTR ~~SS13 WEB~~ EB03a
Matrix :WATER

SMG 12.7.94

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69838
Report Completed :09/09/93
Collected :08/18/93 @ 16:00 hr
Received :08/20/93 @ 11:30 hr
Technical Director: STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Bromoform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Bromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Chloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Chloroform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Chloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B [redacted] T
ANCHORAGE, A[redacted]8
TEL: (907) 562-2343
FAX: (907) 561-5301

EB03a REPORT of ANALYSIS

Chemlab Ref.# :93.4211-1 EB02 11.7.94
Client Sample ID :BTR ~~SS13 WEB 0~~
Matrix :WATER

Methylene Chloride	0.0036		mg/L	EPA 8260	08/27	08/27	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
Toluene	0.0033		mg/L	EPA 8260	08/27	08/27	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
o-Xylene							

VALIDATION QUALIFIER (COMMENT)

Semivolatile Organics				EPA 8270			
Phenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethyl)ether	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chlorophenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
1,3-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
1,4-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Benzyl Alcohol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
1,2-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylphenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroisopropyl)e	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
4-Methylphenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
n-Nitroso-di-n-Propylam	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachloroethane	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Nitrobenzene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Isophorone	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2-Nitrophenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dimethylphenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Benzoic Acid	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
bis(2-Chloroethoxy)Meth	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2,4-Dichlorophenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
1,2,4-Trichlorobenzene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Naphthalene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloroaniline	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorobutadiene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
4-Chloro-3-Methylphenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylnaphthalene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorocyclopentadie	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,6-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,5-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/24	08/25	MT
2-Chloronaphthalene	0.011	U	mg/L	EPA 8270	08/24	08/25	MT

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EB#3a

REPORT of ANALYSIS

Chemlab Ref.# :93.4211-1 EB#3a
Client Sample ID :BTR ~~SS13 WEB~~ @ 11.7.94
Matrix :WATER

VALIDATION QUALIFIER (COMMENT)

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-53(

2-Nitroaniline	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Dimethylphthalate	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Acenaphthylene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
2,6-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
3-Nitroaniline	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Acenaphthene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
2,4-Dinitrophenol	0.011	U	mg/L	EPA 8270		08/24 08/25	M
4-Nitrophenol	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Dibenzofuran	0.011	U	mg/L	EPA 8270		08/24 08/25	M
2,4-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Diethylphthalate	0.011	U	mg/L	EPA 8270		08/24 08/25	M
4-Chlorophenyl-Phenylet	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Fluorene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
4-Nitroaniline	0.011	U	mg/L	EPA 8270		08/24 08/25	M
4,6-Dinitro-2-Methylphe	0.011	U	mg/L	EPA 8270		08/24 08/25	M
n-Nitrosodiphenylamine	0.011	U	mg/L	EPA 8270		08/24 08/25	M
4-Bromophenyl-Phenyleth	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Hexachlorobenzene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Pentachlorophenol	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Phenanthrene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Anthracene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
di-n-Butylphthalate	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Fluoranthene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Pyrene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Butylbenzylphthalate	0.011	U	mg/L	EPA 8270		08/24 08/25	M
3,3-Dichlorobenzidine	0.011	UJ(D)	mg/L	EPA 8270		08/24 08/25	M
Benzo(a)Anthracene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Chrysene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
bis(2-Ethylhexyl)Phthal	0.011	U	mg/L	EPA 8270		08/24 08/25	M
di-n-Octylphthalate	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(b)Fluoranthene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(k)Fluoranthene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(a)Pyrene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Indeno(1,2,3-cd)Pyrene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Dibenz(a,h)Anthracene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Benzo(g,h,i)Perylene	0.011	U	mg/L	EPA 8270		08/24 08/25	M
Total Metals Analysis	---			-			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Barium	0.05	U	mg/L	EPA 6010		08/25 08/26	DI
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DI
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DI
Calcium	0.2	U	mg/L	EPA 6010		08/25 08/26	DI
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	DI
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DI
Iron	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	DI

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

5633 B [redacted] T
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4211-1 EDD3a BFM 11.7.94
Client Sample ID :BTR ~~SS13 WEB~~ ~~EB02~~ SMF 12.7.94
Matrix :WATER

Magnesium	0.2	U	mg/L	EPA 6010		08/25	08/26 DL
Manganese	0.05	U	mg/L	EPA 6010		08/25	08/26 DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/25	08/26 DL
Nickel	0.05	U	mg/L	EPA 6010		08/25	08/26 DL
Potassium	5.0	U	mg/L	EPA 6010		08/25	08/26 DL
Selenium	0.1	U	mg/L	EPA 6010		08/25	08/26 DL
Silver	0.05	U	mg/L	EPA 6010		08/25	08/26 DL
Sodium	0.25	U	mg/L	EPA 6010		08/25	08/26 DL
Thallium	0.0050	U	mg/L	EPA 7841		08/24	08/26 KJ
Vanadium	0.05	U	mg/L	EPA 6010		08/25	08/26 DL
Zinc	0.05	U	mg/L	EPA 6010		08/25	08/26 DL

Validation qualifiers
Comments

Dissolved Metals Analys	---			EPA	n/a		
ICP Screen, ICF							
Aluminum	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Antimony	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Arsenic	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Barium	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Beryllium	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Cadmium	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Calcium	0.2	U	mg/L	EPA 6010		08/25	08/26 D
Chromium	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Cobalt	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Copper	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Iron	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Lead	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Magnesium	0.2	U	mg/L	EPA 6010		08/25	08/26 D
Manganese	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Molybdenum	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Nickel	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Potassium	5.0	U	mg/L	EPA 6010		08/25	08/26 D
Selenium	0.1	U	mg/L	EPA 6010		08/25	08/26 D
Silver	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Sodium	0.25	U	mg/L	EPA 6010		08/25	08/26 D
Thallium	0.0050	U	mg/L	EPA 7841		08/24	08/26 D
Vanadium	0.05	U	mg/L	EPA 6010		08/25	08/26 D
Zinc	0.05	U	mg/L	EPA 6010		08/25	08/26 D

TOC, Nonpurgable				EPA 9060	n/a	08/31
...TOC Range	5.0-5.0		mg/L	EPA 9060		08/31
...TOC Concentration	5.0	U	mg/L	EPA 9060		
Residue, Non-Filterable	7		mg/L	EPA 160.2		08/24 08/24
Residue,Filterable(TDS)	70		mg/L	EPA 160.1	500	08/25

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* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavail[redacted]
NA = Not Ana[redacted]d
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
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REPORT of ANALYSIS

Chemlab Ref.# :93.4302-10
Client Sample ID :BTR-EB-04
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 18:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Ironstead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics								
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0015		mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL (907) 562-2343
FAX (907) 561-5301

Chemlab Ref.# :93.4302-10
Client Sample ID :BTR-EB-04
Matrix :WATER

Methylene Chloride	0.0060		mg/L	EPA 8260 (J)-E.1	09/02	09/02	KW
Napthalene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Toluene	0.0023		mg/L	EPA 8260	09/02	09/02	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
Semivolatile Organics				EPA 8270			
Phenol	0.027		mg/L	EPA 8270	08/27	09/03	GV
bis(2-Chloroethyl)ether	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2-Chlorophenol	0.069		mg/L	EPA 8270	08/27	09/03	GV
1,3-Dichlorobenzene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
1,4-Dichlorobenzene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Benzyl Alcohol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
1,2-Dichlorobenzene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2-Methylphenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
bis(2-Chloroisopropyl)e	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
4-Methylphenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
n-Nitroso-di-n-Propylam	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Hexachloroethane	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Nitrobenzene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Isophorone	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2-Nitrophenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2,4-Dimethylphenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Benzoic Acid	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
bis(2-Chloroethoxy)Meth	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2,4-Dichlorophenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
1,2,4-Trichlorobenzene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Naphthalene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
4-Chloroaniline	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Hexachlorobutadiene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
4-Chloro-3-Methylphenol	0.075		mg/L	EPA 8270	08/27	09/03	GV
2-Methylnaphthalene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
Hexachlorocyclopentadie	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2,4,6-Trichlorophenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2,4,5-Trichlorophenol	0.025	U	mg/L	EPA 8270	08/27	09/03	GV
2-Chloronaphthalene	0.025	U	mg/L	EPA 8270	08/27	09/03	GV

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-10
Client Sample ID :BTR-EB-04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

2-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Dimethylphthalate	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Acenaphthylene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
2,6-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
3-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Acenaphthene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
2,4-Dinitrophenol	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
4-Nitrophenol	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Dibenzofuran	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
2,4-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Diethylphthalate	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
4-Chlorophenyl-Phenylet	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Fluorene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
4-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
4,6-Dinitro-2-Methylphe	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
n-Nitrosodiphenylamine	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
4-Bromophenyl-Phenyleth	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Hexachlorobenzene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Pentachlorophenol	0.046		mg/L	EPA 8270		08/27	09/03	GV
Phenanthrene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Anthracene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
di-n-Butylphthalate	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Fluoranthene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Pyrene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Butylbenzylphthalate	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
3,3-Dichlorobenzidine	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Benzo(a)Anthracene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Chrysene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
bis(2-Ethylhexyl)Phthal	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
di-n-Octylphthalate	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Benzo(b)Fluoranthene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Benzo(k)Fluoranthene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Benzo(a)Pyrene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Indeno(1,2,3-cd)Pyrene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Dibenz(a,h)Anthracene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Benzo(g,h,i)Perylene	0.025	U	mg/L	EPA 8270		08/27	09/03	GV
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	0.2	U	mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Iron	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-10
Client Sample ID :BTR-EB-04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Magnesium	0.2	U	mg/L	EPA 6010		08/28 08/30	DL
Manganese	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Nickel	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Potassium	5.0	U	mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Sodium	0.25	U	mg/L	EPA 6010		08/28 08/30	DL
Thallium	0.0050	U	mg/L	EPA 7841		08/28 08/30	KA
Vanadium	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
TOC, Nonpurgable				EPA 9060	n/a		
...TOC Range	5.0-5.0		mg/L	EPA 9060		08/31	CM
...TOC Concentration	5.0	U	mg/L	EPA 9060		08/31	CM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-12
Client Sample ID :BTR-EB-04 DUPLICATE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 18:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FOR RSD CALCULATIONS, PLEASE SEE QC SUMMARY SHEETS. FOR SPIKE DUPLICATE 8260, SEE WO# 93.4303-8.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Total Metals Analysis	---			-		-		
ICP Screen, ICF				EPA	n/a	-		
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Barium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Calcium	0.2	U	mg/L	EPA 6010		08/28	08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Iron	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Magnesium	0.2	U	mg/L	EPA 6010		08/28	08/30	DLG
Manganese	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Nickel	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Potassium	5	U	mg/L	EPA 6010		08/28	08/30	DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28	08/30	DLG
Silver	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Sodium	0.25	U	mg/L	EPA 6010		08/28	08/30	DLG
Thallium	0.0050	U	mg/L	EPA 7841		08/28	08/30	KAW
Vanadium	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
TOC, Nonpurgable				EPA 9060	n/a			
...TOC Range	5.0-5.0	U	mg/L	EPA 9060			08/31	CMR
...TOC Concentration	5.0	U	mg/L	EPA 9060			08/31	CMR

See Special Instructions Above
See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1959

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-11
Client Sample ID :BTR-EB-04 SPIKE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 18:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. 8270: FOR SPIKE RECOVERIES AND RSD, PLEASE REFER TO QC SUMMARY SHEETS. FOR 8260 SPIKE SEE WO# 93.4303-7.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Semivolatile Organics				EPA 8270				
Phenol	0.124		mg/L	EPA 8270		08/27	09/03	GV
bis(2-Chloroethyl)ether	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2-Chlorophenol	0.161		mg/L	EPA 8270		08/27	09/03	GV
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270		08/27	09/03	GV
1,4-Dichlorobenzene	0.151		mg/L	EPA 8270		08/27	09/03	GV
Benzyl Alcohol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
1,2-Dichlorobenzene	0.040	U	mg/L	EPA 8270		08/27	09/03	[illegible]
2-Methylphenol	0.040	U	mg/L	EPA 8270		08/27	09/03	[illegible]
bis(2-Chloroisopropyl)e	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
4-Methylphenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
n-Nitroso-di-n-Propylam	0.194		mg/L	EPA 8270		08/27	09/03	GV
Hexachloroethane	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Nitrobenzene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Isophorone	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2-Nitrophenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,4-Dimethylphenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Benzoic Acid	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
bis(2-Chloroethoxy)Meth	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,4-Dichlorophenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
1,2,4-Trichlorobenzene	0.182		mg/L	EPA 8270		08/27	09/03	GV
Naphthalene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
4-Chloroaniline	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Hexachlorobutadiene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
4-Chloro-3-Methylphenol	0.188		mg/L	EPA 8270		08/27	09/03	GV
2-Methylnaphthalene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Hexachlorocyclopentadie	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,4,6-Trichlorophenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,4,5-Trichlorophenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2-Chloronaphthalene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Dimethylphthalate	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Acenaphthylene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,6-Dinitrotoluene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
3-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Acenaphthene	0.189		mg/L	EPA 8270		08/27	09/03	[illegible]

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-11
Client Sample ID :BTR-EB-04 SPIKE
Matrix :WATER

2,4-Dinitrophenol	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
4-Nitrophenol	0.117		mg/L	EPA 8270		08/27 09/03	GV
Dibenzofuran	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
2,4-Dinitrotoluene	0.189		mg/L	EPA 8270		08/27 09/03	GV
Diethylphthalate	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
4-Chlorophenyl-Phenylet	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Fluorene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
4-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
4,6-Dinitro-2-Methylphe	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
n-Nitrosodiphenylamine	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
4-Bromophenyl-Phenyleth	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Hexachlorobenzene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Pentachlorophenol	0.171		mg/L	EPA 8270		08/27 09/03	GV
Phenanthrene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Anthracene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
di-n-Butylphthalate	0.181		mg/L	EPA 8270		08/27 09/03	GV
Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Pyrene	0.191		mg/L	EPA 8270		08/27 09/03	GV
Butylbenzylphthalate	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
3,3-Dichlorobenzidine	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(a)Anthracene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Chrysene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
bis(2-Ethylhexyl)Phthal	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
di-n-Octylphthalate	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(b)Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(k)Fluoranthene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(a)Pyrene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Indeno(1,2,3-cd)Pyrene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Dibenz(a,h)Anthracene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(g,h,i)Perylene	0.040	U	mg/L	EPA 8270		08/27 09/03	GV
Total Metals Analysis	---						
ICP Screen, ICF				EPA	n/a		
Aluminum	1.02		mg/L	EPA 6010		08/28 08/30	DLG
Antimony	0.86		mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.98		mg/L	EPA 6010		08/28 08/30	DLG
Barium	1.02		mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.38		mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.49		mg/L	EPA 6010		08/28 08/30	DLG
Calcium	9.7		mg/L	EPA 6010		08/28 08/30	DLG
Chromium	1.00		mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.98		mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.98		mg/L	EPA 6010		08/28 08/30	DLG
Iron	0.99		mg/L	EPA 6010		08/28 08/30	DLG
Lead	0.96		mg/L	EPA 6010		08/28 08/30	DLG
Magnesium	9.8		mg/L	EPA 6010		08/28 08/30	DLG
Manganese	1.0		mg/L	EPA 6010		08/28 08/30	DLG
Molybdenum	0.99		mg/L	EPA 6010		08/28 08/30	DLG
Nickel	0.99		mg/L	EPA 6010		08/28 08/30	DLG
Potassium	10.8		mg/L	EPA 6010		08/28 08/30	DLG
Selenium	0.94		mg/L	EPA 6010		08/28 08/30	DLG

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

Chemlab Ref.# :93.4302-11
Client Sample ID :BTR-EB-04 SPIKE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Silver	0.16	mg/L	EPA 6010		08/28 08/30	DLG
Sodium	10.6	mg/L	EPA 6010		08/28 08/30	DLG
Thallium	0.018	mg/L	EPA 7841		08/28 08/30	KAW
Vanadium	0.94	mg/L	EPA 6010		08/28 08/30	DLG
Zinc	0.94	mg/L	EPA 6010		08/28 08/30	DLG
TOC, Nonpurgable			EPA 9060	n/a		
...TOC Range	14.7-15.5	mg/L	EPA 9060		08/31	CMR
...TOC Concentration	15.1	mg/L	EPA 9060		08/31	CMR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

5633 B STREE
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-14
Client Sample ID :BTR-EB-04 SPIKE DUPLICATE
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 18:00 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FOR QC CALCULATIONS, SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics								
Phenol	0.091		mg/L	EPA 8270		08/27	09/04	G
bis(2-Chloroethyl)ether	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2-Chlorophenol	0.037		mg/L	EPA 8270		08/27	09/04	G
1,3-Dichlorobenzene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
1,4-Dichlorobenzene	0.206		mg/L	EPA 8270		08/27	09/04	G
Benzyl Alcohol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
1,2-Dichlorobenzene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2-Methylphenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
bis(2-Chloroisopropyl)e	0.037	U	mg/L	EPA 8270		08/27	09/04	G
4-Methylphenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
n-Nitroso-di-n-Propylam	0.252		mg/L	EPA 8270		08/27	09/04	G
Hexachloroethane	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Nitrobenzene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Isophorone	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2-Nitrophenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2,4-Dimethylphenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Benzoic Acid	0.037	U	mg/L	EPA 8270		08/27	09/04	G
bis(2-Chloroethoxy)Meth	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2,4-Dichlorophenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
1,2,4-Trichlorobenzene	0.249		mg/L	EPA 8270		08/27	09/04	G
Naphthalene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
4-Chloroaniline	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Hexachlorobutadiene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
4-Chloro-3-Methylphenol	0.033	J	mg/L	EPA 8270		08/27	09/04	G
2-Methylnaphthalene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Hexachlorocyclopentadie	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2,4,6-Trichlorophenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2,4,5-Trichlorophenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2-Chloronaphthalene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2-Nitroaniline	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Dimethylphthalate	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Acenaphthylene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
2,6-Dinitrotoluene	0.037	U	mg/L	EPA 8270		08/27	09/04	G
3-Nitroaniline	0.037	U	mg/L	EPA 8270		08/27	09/04	G
Acenaphthene	0.255		mg/L	EPA 8270		08/27	09/04	G
2,4-Dinitrophenol	0.037	U	mg/L	EPA 8270		08/27	09/04	G

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

Chemlab Ref.# :93.4302-14
Client Sample ID :BTR-EB-04 SPIKE DUPLICATE
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

4-Nitrophenol	0.060		mg/L	EPA 8270	08/27 09/04	(
Dibenzofuran	0.037	U	mg/L	EPA 8270	08/27 09/04	(
2,4-Dinitrotoluene	0.257		mg/L	EPA 8270	08/27 09/04	(
Diethylphthalate	0.037	U	mg/L	EPA 8270	08/27 09/04	(
4-Chlorophenyl-Phenylet	0.037	U	mg/L	EPA 8270	08/27 09/04	(
Fluorene	0.037	U	mg/L	EPA 8270	08/27 09/04	(
4-Nitroaniline	0.037	U	mg/L	EPA 8270	08/27 09/04	(
4,6-Dinitro-2-Methylphe	0.037	U	mg/L	EPA 8270	08/27 09/04	(
n-Nitrosodiphenylamine	0.037	U	mg/L	EPA 8270	08/27 09/04	G
4-Bromophenyl-Phenyleth	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Hexachlorobenzene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Pentachlorophenol	0.002	J	mg/L	EPA 8270	08/27 09/04	G
Phenanthrene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Anthracene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
di-n-Butylphthalate	0.243		mg/L	EPA 8270	08/27 09/04	G
Fluoranthene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Pyrene	0.255		mg/L	EPA 8270	08/27 09/04	G
Butylbenzylphthalate	0.037	U	mg/L	EPA 8270	08/27 09/04	G
3,3-Dichlorobenzidine	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Benzo(a)Anthracene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Chrysene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
bis(2-Ethylhexyl)Phthal	0.037	U	mg/L	EPA 8270	08/27 09/04	G
di-n-Octylphthalate	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Benzo(b)Fluoranthene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Benzo(k)Fluoranthene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Benzo(a)Pyrene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Indeno(1,2,3-cd)Pyrene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Dibenz(a,h)Anthracene	0.037	U	mg/L	EPA 8270	08/27 09/04	G
Benzo(g,h,i)Perylene	0.037	U	mg/L	EPA 8270	08/27 09/04	G

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-5
Client Sample ID :BTR-EB-05
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70013
Report Completed :09/30/93
Collected :08/21/93 @ 14:30 hr
Received :08/24/93 @ 12:00 hr
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0032		mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

COMMERCIAL TESTING & ENGINEERING CO.
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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 995[illegible]
TEL: (907) 562-2[illegible]
FAX: (907) 561-53[illegible]

Chemlab Ref.# :93.4303-5
Client Sample ID :BTR-EB-05
Matrix :WATER

Methylene Chloride	0.0029		mg/L	EPA 8260	09/02	09/02	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Toluene	0.0023		mg/L	EPA 8260	09/02	09/02	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWM
Semivolatile Organics				EPA 8270			
Phenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroethyl)ether	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Chlorophenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
1,3-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
1,4-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzyl Alcohol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
1,2-Dichlorobenzene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Methylphenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroisopropyl)e	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Methylphenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
n-Nitroso-di-n-Propylam	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachloroethane	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Nitrobenzene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Isophorone	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Nitrophenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dimethylphenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Benzoic Acid	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
bis(2-Chloroethoxy)Meth	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4-Dichlorophenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
1,2,4-Trichlorobenzene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Naphthalene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chloroaniline	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachlorobutadiene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
4-Chloro-3-Methylphenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Methylnaphthalene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
Hexachlorocyclopentadie	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4,6-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2,4,5-Trichlorophenol	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT
2-Chloronaphthalene	0.011	U	mg/L	EPA 8270	08/27	08/29	MTT

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-5
Client Sample ID :BTR-EB-05
Matrix :WATER

VALIDATION QUALIFIER (COMMENT)

2-Nitroaniline	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Dimethylphthalate	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthylene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
2,6-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
3-Nitroaniline	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Acenaphthene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dinitrophenol	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
4-Nitrophenol	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Dibenzofuran	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
2,4-Dinitrotoluene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Diethylphthalate	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
4-Chlorophenyl-Phenylet	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Fluorene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
4-Nitroaniline	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
4,6-Dinitro-2-Methylphe	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
n-Nitrosodiphenylamine	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
4-Bromophenyl-Phenyleth	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Hexachlorobenzene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Pentachlorophenol	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Phenanthrene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Anthracene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
di-n-Butylphthalate	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Fluoranthene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Pyrene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Butylbenzylphthalate	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
3,3-Dichlorobenzidine	0.011	U J(D)	mg/L	EPA 8270		08/27	08/29	MT
Benzo(a)Anthracene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Chrysene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
bis(2-Ethylhexyl)Phthal	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
di-n-Octylphthalate	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Benzo(b)Fluoranthene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Benzo(k)Fluoranthene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Benzo(a)Pyrene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Indeno(1,2,3-cd)Pyrene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Dibenz(a,h)Anthracene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Benzo(g,h,i)Perylene	0.011	U	mg/L	EPA 8270		08/27	08/29	MT
Total Metals Analysis	---			-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Antimony	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Arsenic	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Barium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Cadmium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Calcium	0.2	U	mg/L	EPA 6010		08/28	08/30	DL
Chromium	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Cobalt	0.1	U	mg/L	EPA 6010		08/28	08/30	DL
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DL
Iron	0.20		mg/L	EPA 6010		08/28	08/30	DL
Lead	0.1	U	mg/L	EPA 6010		08/28	08/30	DL

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1938

REPORT of ANALYSIS

5633 B STR
ANCHORAGE, AK 9
TEL: (907) 562-2
FAX: (907) 561-5301

Chemlab Ref.# :93.4303-5
Client Sample ID :BTR-EB-05
Matrix :WATER

	VALIDATION	QUALIFIER	(COMMENT)						
Magnesium	0.2	U		mg/L	EPA 6010		08/28	08/30	DLC
Manganese	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
Molybdenum	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
Nickel	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
Potassium	5.0	U		mg/L	EPA 6010		08/28	08/30	DLC
Selenium	0.1	U		mg/L	EPA 6010		08/28	08/30	DLC
Silver	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
Sodium	0.25	U		mg/L	EPA 6010		08/28	08/30	DLC
Thallium	0.005	U		mg/L	EPA 7841		08/28	08/30	DLC
Vanadium	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
Zinc	0.05	U		mg/L	EPA 6010		08/28	08/30	DLC
TOC, Nonpurgable					EPA 9060	n/a			
...TOC Range	5.0-5.0	U		mg/L	EPA 9060			09/02	CMR
...TOC Concentration	5.0	U	(C)	mg/L	EPA 9060			09/02	CMR

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyze
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1968

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-9
Client Sample ID :BTR-EB-07
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/02/93 @ 14:00 hrs
Received :09/04/93 @ 11:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-9
Client Sample ID :BTR-EB-07
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0083		mg/L	EPA 8260	09/15 09/15	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Toluene	0.0017		mg/L	EPA 8260	09/15 09/15	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M	09/08 09/09	DRS
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015M	09/10 09/10	

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1952

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-13
Client Sample ID :BTR-EB-08
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70612
Report Completed :10/28/93
Collected :09/03/93 @ 14:00 hrs.
Received :09/04/93 @ 11:00 hrs.
Technical Director:STEPHEN C. EDE
Released By : C. Homestead

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		09/08	09/09	DRS
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015M		09/10	09/10	WLS
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1958

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-13
Client Sample ID :BTR-EB-08
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Methylene Chloride	0.0066		mg/L	EPA 8260	09/15	09/15	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Toluene	0.0013		mg/L	EPA 8260	09/15	09/15	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/15	09/15	KWM

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* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4197-7
Client Sample ID :BTR ~~SB08~~ TB01 (Sent 11-30-94)
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69752
Report Completed :08/23/93
Collected :08/16/93 @ 15:00 hrs.
Received :08/19/93 @ 18:45 hrs.
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloroform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,2 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromoform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Bromoethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Aromatic Volatiles				EPA 8020				
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
Chlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
p & m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM
1,3 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM

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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Chemlab Ref.# :93.4197-7
Client Sample ID :BTR SD08 TB01
Matrix :WATER

1,2 Dichlorobenzene	0.0010	U	mg/L	EPA 8020	08/20 08/20	SGM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-10
Client Sample ID :BTR ~~SD08~~ TB01
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69700
Report Completed :09/17/93
Collected :08/16/93 @ 15:00 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWM

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-10
Client Sample ID :BTR ~~SD08~~ TB01
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/21	08/21	KW

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

5633 B STRE
ANCHORAGE, AK 995
TEL (907) 562-23
FAX (907) 561-53

Chemlab Ref.# :93.4199-13
Client Sample ID :BTR SD08 TB02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

RUSH Order :69775
Report Completed :08/24/93
Collected :08/17/93 @ 10:00 h
Received :08/19/93 @ 18:45 h
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Aromatic Volatiles				EPA 8020				
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
Ethylbenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
Chlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
p & m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
1,3 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
1,2 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SC
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Chloroform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Dibromochloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Chlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,2 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Bromoform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Bromoethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20	08/20	SG

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
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REPORT of ANALYSIS

5633 B STREET
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

Chemlab Ref.# :93.4199-13
Client Sample ID :BTR ~~SD08~~ TB Ø2
Matrix :WATER

1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20 08/20	S
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20 08/20	S

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Salt 12.1.94

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-5
Client Sample ID :BTR SD08 TB02
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69712
Report Completed :09/20/93
Collected :08/17/93 @ 10:00 hrs
Received :08/19/93 @ 10:50 hrs
Technical Director:STEPHEN C. EDE
Released By : Stephen C. Ede

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM

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5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

SMF 12.1.94

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-5
Client Sample ID :BTR ~~SD08~~ TB02
Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Toluene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

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5633 B STRE
ANCHORAGE, AK 995
TEL: (907) 562-23
FAX: (907) 561-53

sent 12-1-94

Chemlab Ref.# :93.4211-2 REPORT of ANALYSIS
Client Sample ID :BTR ~~LF03~~ TB03
Matrix :WATER

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :69838
Report Completed :09/09/93
Collected :08/10/93 @ 10:00 h
Received :08/20/93 @ 11:30 h
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M. CONTAINER MARKED SAMPLED COLLECTION DATE AS 8-18-93.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Volatile Organics								
Benzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Chloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Chloroform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Chloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4211-2 12/94
Client Sample ID :BTR ~~LE03~~ TB 03
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 9951
TEL: (907) 562-234
FAX: (907) 561-530

p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Napthalene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Styrene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Toluene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW
o-Xylene	0.0010	U	mg/L	EPA 8260	08/27	08/27	KW

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

12/94

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-9
Client Sample ID :BTR-TB-04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING
Ordered By :RAY MORRIS
Project Name :DEW LINE
Project# :BARTER
PWSID :UA

WORK Order :70001
Report Completed :09/28/93
Collected :08/20/93 @ 10:00 hrs
Received :08/24/93 @ 12:00 hrs
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM

COMMERCIAL TESTING & ENGINEERING CO.
ENVIRONMENTAL LABORATORY SERVICES
SINCE 1908

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-9
Client Sample ID :BTR-TB-04
Matrix :WATER

5633 B STREET
ANCHORAGE, AK 99518
TEL: (907) 562-2343
FAX: (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Napthalene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Styrene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Toluene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02	KWM

* See Special Instructions Above
** See Sample Remarks Above
U = Undetected, Reported value is the practical quantification limit.
D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed
LT = Less Than
GT = Greater Than

ICF ID	BTR-AB-02	BTR-AB-03	BTR-EB-04	BTR-EB-05	BTR-EB-06	BTR-EB-06
F&BI Number	315	1712	311	332	1690	1688
Sample Type	water	water	water	water	water	water
Date Received	8/23/93	9/2/93	8/23/93	8/23/93	9/2/93	9/2/93
% Dry Weight						
Sequence Date						#5-09/06/93
Leaded Gas						
JP-4						<1000
Lube Oil						<2000
Diesel						<1000 J
Spike Level						
Unknown Semi-volatile						
Pentacosane						120
Sequence Date						#5-09/06/93
PCB 1221						<2
PCB 1232						<2
PCB 1016						<2
PCB 1242						<2
PCB 1248						<2
PCB 1254						<2
PCB 1260						<2
Spike Level						
Dibutyl Chlorendate						130
Sequence Date						
alpha-BHC						
beta-BHC						
gamma-BHC						
delta-BHC						
Heptachlor						
Aldrin						
Heptachlor Epoxide						
Endosulfan I						
DDE						
Dieldrin						
Endrin						
Endosulfan II						
DDD						
Endrin Aldehyde						
DDT						
Endosulfan Sulfate						
Endrin Ketone						
Methoxy Chlor						
Chlordane						
Dibutyl Chlorendate						
Spike Level						
Vol Sequence	#3&4-08/24/93	#1&2-09/04/93	#3&4-08/24/93	#3&4-08/24/93	#1&2-09/04/93	
CCl4	<1	<9 J	<1	<1	<1	
TCA	<1	<1	<1	<1	<1	
Benzene	<1	<1	<1	<1	<1	
TCE	<1	<1	<1	<1	<1	
Toluene	<1	<3 possible carry over J	~~8~~ <1	<1	<4 possible carry over J	
PCE	<1	<1	<1	<1	<1	
Ethylbenzene	<1	<2 possible carry over J	~~15~~ <1	<1	<2 possible carry over J	
Xylenes	<2	<5 possible carry over J	~~12~~ <2	<2	<5 possible carry over J	
Gasoline	~~<50~~ <100 J	<50 J	~~<50~~ <100 J	~~<50~~ <100 J	<50 J	
Spike level						
BFB	98	92	105	81	103	

11.11.94 SMA

ICF ID	BTR-EB-07	BTR-EB-07	BTR-EB-08	BTR-EB-08	BTR-TB-04	BTR-TB-05
F&BI Number	1715	1716	1719	1720	1346	375
Sample Type	water	water	water	water	water	water
Date Received	9/3/93	9/3/93	9/3/93	9/3/93	8/30/93	8/23/93
% Dry Weight						
Sequence Date	#5-09/06/93		#5-09/06/93			
Leaded Gas						
JP-4	< 1000		< 1000			
Lube Oil	< 2000		< 2000			
Diesel	< 1000		< 1000			
Spike Level						
Unknown Semi-volatile						
Pentacosane	130		130			
Sequence Date						
PCB 1221						
PCB 1232						
PCB 1016						
PCB 1242						
PCB 1248						
PCB 1254						
PCB 1260						
Spike Level						
Dibutyl Chlorendate						
Sequence Date						
alpha-BHC						
beta-BHC						
gamma-BHC						
delta-BHC						
Heptachlor						
Aldrin						
Heptachlor Epoxide						
Endosulfan I						
DDE						
Dieldrin						
Endrin						
Endosulfan II						
DDD						
Endrin Aldehyde						
DDT						
Endosulfan Sulfate						
Endrin Ketone						
Methoxy Chlor						
Chlordane						
Dibutyl Chlorendate						
Spike Level						
Vol Sequence		#1&2-09/06/93		#1&2-09/06/93	#3&4-08/31/93	#1&2-08/24/93
CCl4		< 5 J		< 5 J	< 1 J	< 1
TCA		< 5 J		< 5 J	< 1 J	< 1
Benzene		< 1		< 1	< 1	< 1
TCE		< 1 J		< 1 J	< 1 J	< 1
Toluene		< 2 ~~possible carry over~~ J		< 1 ~~possible carry over~~ J	< 1	< 1
PCE		< 5 J		< 5 J	< 1 J	< 1
Ethylbenzene		< 1		< 1	< 1	< 1
Xylenes		< 2		< 2	< 2	< 2
Gasoline		< 50 J		< 50 J	< 100 J	< 50 J
Spike level						
BFB		88		94	84	zzz

11-11-94
SAF

APPENDIX G

DATA VALIDATION SUMMARIES

ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC.
2700 CHANDLER AVENUE, BUILDING C
LAS VEGAS, NV 89120
702/795-0515

DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water
DATE: April 15, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 water samples from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 396). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF01-SW04	1348	Water
BTR-LF01-SW03	1362	Water
BTR-LF01-SW02	1368	Water
BTR-LF01-SW01	1372	Water

The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were found on the summary result page.

It should be noted that all quantitation limits reported by the laboratory (200 ppb) for the water samples were lower than those specified in the Project Sampling and Analysis Plan (500 ppb). The correct practical quantitation limit (PQL) when employing the lowest usable calibration point (50 ppm) should be 2500 ppb.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional

Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in all project samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set. .

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number TW (tap water) was used for the water matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 The PQL of the water samples was raised to 2500 ppm by the reviewer since the low point of the initial calibration was 50 ppm.

K.2 The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were reported on the summary result page. Since no raw data was submitted for sample result verification, the results are qualified "R" as rejected and unusable.

K.3 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Due to previously mentioned problems in Section K.2, the results for sample BTR-LF01-SW01 are qualified "R" as rejected and unusable.

L.2 Diesel was not detected in the method blank or in all other samples at a concentration above the PQL (2500 ppm) and the results are considered valid and usable for all purposes.

ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC.
2700 CHANDLER AVENUE, BUILDING C
LAS VEGAS, NV 89120
702/795-0515

DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water
DATE: April 25, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 6 water and 6 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 474). Six water samples were requested for diesel analyses by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 8 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF01-2SW01	1663	Water
BTR-LF01-2SW02	1664	Water
BTR-LF01-2SW03	1665	Water
BTR-LF01-2SW04	1666	Water
BTR-LF04-2SW01	1669	Water
BTR-LF04-2SW02	1670	Water

It should be noted that all quantitation limits reported by the laboratory for diesel for project water samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional

Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate analyses associated with this project sample set.

H. Surrogate Recoveries:

H.1 Surrogate recoveries in samples BTR-LF01-2SW01 and BTR-LF01-2SW04 could not be verified by the reviewer due to incorrect area integration. The laboratory did not submit the corrected areas. It is the opinion of the reviewer that the quality of the data was not affected.

H.2 All other surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for this water sample set.

J. System Performance:

J.1 All six samples were initially analyzed on September 7, 1993, but due to GC column and ECD detector contamination they were reanalyzed on September 8 and 9, 1993 after the GC system was operating correctly.

J.2 No other problems with system performance were observed for all project water samples.

K. Quantitation and Identification:

K.1 The samples were reanalyzed due to GC column and detector contamination.

K.2 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was not detected in any of the samples at a concentration above the PQL.

L.2 The laboratory did not analyze the samples for gasoline.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Soil and Water
DATE: April 12, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 6 soil and 2 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	1324	Water
BTR-LF04-SW02	1328	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that the quantitation limits reported by the laboratory for most of the project soil samples were higher than those specified in the Project Sampling and Analysis Plan due to a raised baseline present within the retention time window of diesel. It is the opinion of the reviewer that the quality of the data was not affected.

The analyt ical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in all project samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable. However, the soil method blank (M/BLK 1318) was contaminated with lube oil from a previous analysis.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analyses for this project sample set.

H. Surrogate Recoveries:

H.1 Surrogate recoveries were calculated by the reviewer using peak height due to incorrect area integration of the surrogate in many of the samples. All surrogate recoveries were calculated referencing the average surrogate peak height from the initial calibration. All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 The soil method blank and most of the soil samples exhibited a raised baseline in the diesel retention time window caused by probable hydrocarbon contamination. The PQLs have been increased to reflect this contamination. It is the opinion of the reviewer that this will have no effect on the quality of the data.

K.2 The laboratory reported detected results of 60 ppm for diesel in sample BTR-LF04-SD02. It is the opinion of the reviewer that even though the PQL for this sample is <60 ppm, diesel is actually present in the sample, and is not due to carryover from a previous sample.

K.3 Samples BTR-LF04-S02 and BTR-LF04-SD01 displayed above average PQLs due to the high percent moisture content in the samples.

K.4 Sample BTR-LF04-S02 contained biogenic hydrocarbon and lube oil contamination. No diesel was detected in the sample.

K.5 The PQL of the water samples were raised to 2500 ppm by the reviewer since the low point of the initial calibration was 50 ppm

K.6 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was not detected in the method blanks at a concentration above the PQL. The soil method blank was contaminated with lube oil from a previous sample.

L.2 Diesel was detected in sample BTR-LF04-SD02 at a concentration of 60 ppm.

L.3 The PQL of the individual samples were increased by the laboratory to account for the raised baseline present within the retention time window of diesel.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Soil
DATE: April 22, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for diesel for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 Two of the three continuing calibration standards exceeded the QC percent recovery criteria of 75-125%. Therefore, the PQL from the associated water samples is qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate analyses associated with this project sample set.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample BTR-SS14-2S06-3 was used as the QC sample for the matrix spike/matrix spike duplicate analyses. This sample was not submitted on chain of custody record No. 475.

I.2 All matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 Two of the continuing calibration standards exceeded the percent recovery QC criteria. Therefore the PQL of the blank and all associated samples with these calibration standards are qualified "J" as estimated and usable for limited purposes.

K.2 No other problems were observed with compound quantitation and identification.

L. Conclusion:

K.1 Diesel was not detected in any of the samples at a concentration above the PQL.

K.2 Due to previously mentioned problems with the continuing calibrations, the PQL for the associated method blank and samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water and Soil
DATE: April 21, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1728	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1738	Soil
BTR-SD08-2S16-1	1740	Soil
BTR-LF04-2SW03	1748	Water
BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for the project water samples (<1000 ppb) were higher than those specified in the Project Sampling and Analysis Plan (<500 ppb). However, since the low point of the initial calibration is 50 ppm, the PQL was raised to <2500 ppm by the reviewer. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

B.2 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent

relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%. However, since this is only a three point initial calibration curve, all detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 The two continuing calibration standards analyzed on GC instrument ICF5 exceeded (71.5 & 70.2%) the QC percent recovery criteria of 75-125%. Therefore, the PQL for the three water samples are qualified "J" as estimated and usable for limited purposes.

C.2 The continuing calibration standards analyzed on GC instrument ICF6 met all the QC criteria and are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Samples BTR-EB-07 and BTR-EB-08 were designated as field equipment blanks for this project sample set.

F.2 Diesel was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC9-2S14.5 was used for the soil matrix spike/matrix

spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.

I.2 The matrix spike duplicate percent recovery was outside the QC criteria due to incorrect area integration by the laboratory. No action is taken solely on the MS/MSD analysis.

J. System Performance:

J.1 Some of the soil samples exhibited a raised baseline within the retention time window of diesel, and all PQLs have been adjusted accordingly by the laboratory.

J.2 No other problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-SS13-2S07. The laboratory reported a result of 87 ppm for diesel, whereas the reviewer calculated diesel at a concentration of 110 ppm. The result for this sample has been corrected on the data summary forms by the reviewer. The detected result is qualified "J" as estimated and usable for limited purposes.

K.2 The laboratory reported a detected result of 520 ppm for diesel in sample BTR-LF04-2SD03. The chromatogram and quantitation report does not support the presence of diesel in the sample. Therefore, the detected result for diesel has been changed on the data summary form by the reviewer to reflect that this analyte was not detected at a concentration above the PQL.

K.3 The PQL for some of the soil samples was raised by the laboratory due to interference present within the retention time window of diesel. It is the opinion of the reviewer that this will have no affect on the quality of the data.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

K.1 Diesel was detected in sample BTR-SS13-2S07 at a concentration of 110 ppm.

K.2 The laboratory incorrectly reported diesel at a concentration of 520 ppm for sample BTR-LF04-2SD03. No diesel was detected by the reviewer and the sample result has been corrected on the data summary form.

K.3 Diesel was not detected at a concentration above the PQL in any of the other project samples.

K.4 The PQL for the three water samples was raised to <2500 ppm because the low point of the initial calibration is 50 ppm.

K.5 Due to recovery problems with the continuing calibrations on GC instrument ICF5, the PQL for the three water samples is qualified "J" as estimated and usable for limited purposes.

K.6 Due to problems with the initial calibration on GC instrument ICF6, the detected results for the soil samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water and Soil
DATE: April 26, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). One water sample and 10 soil samples were requested for diesel analyses by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-06	1688	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1702	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1706	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1710	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, and sample number BTR-EB-06 was designated as an equipment blank.

It should be noted that all quantitation limits reported by the laboratory for diesel for water and soil project samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 Two of the three continuing calibration standards exceeded the percent recovery QC criteria of 75-125% due to incorrect area integration performed by the laboratory. Therefore, the PQL from the associated samples is qualified "J" as estimated and usable for limited purposes.

C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-EB-06 was designated as an equipment blank.

F.2 Diesel was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 A discrepancy exists between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer, as listed below:

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC15-2S04	53%	93%
BTR-AOC15-2S05	61	89
BTR-AOC10-2SD02	51	85
BTR-AOC10-2S06-1.5	75	114
BTR-AOC10-2S07	64	112
BTR-AOC10-S208	90	81
BTR-AOC10-2S09	50	94
BTR-SS14-2S05	63	118
BTR-SS14-2S06-3	53	113
BTR-SS14-2S07	94	102

The laboratory reported the surrogate recoveries for DBC from the ECD detector instead of pentacosane used as the diesel surrogate from the FID detector. Since the recalculated surrogate recoveries met applicable QC criteria, the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-SS14-2S06-3 was used for the soil matrix spike/matrix spike duplicate analyses, and tap water was used for the water matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 Two of the continuing calibration standards and sample BTR-SS14-2S07 were incorrectly integrated by the laboratory.

J.2 No other problems with system performance were observed for all project samples.

K. Quantitation and Identification:

K.1 Two of the continuing calibrations standards exceeded the QC criteria due to incorrect integration of the diesel area by the laboratory.

K.2 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-SS14-2S07. The laboratory reported a PQL of <60 ppm for diesel, whereas the reviewer calculated diesel at a concentration of 8460 ppm. The result for this sample has been corrected on the summary results page by the reviewer. The detected results are qualified "J" as estimated and usable for limited purposes.

K.3 Sample BTR-SS14-2S05 exhibited biogenic interference within the retention time of diesel and the PQL was raised accordingly by the laboratory.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was detected in sample BTR-SS14-2S07 at a concentration of 8460 ppm, calculated by the reviewer, whereas the laboratory reported a PQL of 60 ppm.

L.2 Sample BTR-EB-06 exhibited a baseline below zero millivolts as displayed on the chromatogram. Therefore, the PQL is qualified "J" as estimated and usable for limited purposes.

L.3 Due to previously mentioned problems with the initial calibration and continuing calibrations, the detected results and PQL for the associated method blanks and samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water and Soil
DATE: April 13, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.		Lab Sample No.	Matrix
BTR-SS14-SW01		333	Water
BTR-SS14-S01		339	Soil
BTR-SS14-S02	(1:10 DIL)	341	Soil
BTR-SS14-S03		343	Soil
BTR-SS14-S04		345	Soil
BTR-SS14-S06		347	Soil
BTR-SS14-SD01	(1:10 DIL)	349	Soil
BTR-AOC10-SD01		351	Soil
BTR-AOC10-S01		353	Soil
BTR-AOC10-S02		355	Soil
BTR-AOC10-S03		357	Soil
BTR-AOC10-S04		359	Soil
BTR-AOC10-S05		361	Soil
BTR-AOC10-S06		363	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-SS14-S03 and BTR-SS14-S06 along with sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the soil samples are qualified "J" as estimated and usable for limited purposes.

B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

C. Continuing Calibration:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the four continuing calibrations (169-193%) exceeded the QC criteria (75-125%). When referenced against the 3 point initial calibration analyzed after the samples were analyzed on 8/29/93, the percent recovery range of the continuing calibrations is 119-136%. It is the opinion of the reviewer that if the continuing calibration standards were integrated correctly, the percent recoveries would be somewhat lower than what was reported by the laboratory. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-SS14-S03 and BTR-SS14-S06 were utilized for field replicate analyses. Diesel was detected in sample BTR-SS14-S03 at a concentration of 5800 ppm, and in sample BTR-SS14-S06 at a concentration of 3100 ppm. The %RPD of this replicate analyses is 61%, exceeding the QC criteria of ≤50%. It is not known what effect this will have on the quality of the data.

G.3 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for all samples. This is not expected to have an affect on the quality of the data since both sets of surrogate recoveries met all of the applicable QC criteria.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF01-S01 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water sample.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 The laboratory reported diesel results of 1200 ppb for water sample BTR-SS14-SW01, well below the PQL of 2500 ppb. It is the opinion of the reviewer that the submitted chromatogram does not support the presence of diesel in the sample. Therefore, the detected result for diesel in the sample has been changed on the data summary form by the reviewer to reflect that diesel was not detected at a concentration above the PQL.

K.2 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist. Results are reported in parts per million (ppm) except where noted.

ICF Site No.	Laboratory Results	Validation Results
BTR-SS14-SW01	1200 ppb	<2500 ppb
BTR-SS14-S02	12000	12400
BTR-SS14-S03	5100	5800
BTR-SS14-S04	48000	5500
BTR-SS14-S06	5300	3100
BTR-SS14-SD01	4300	5100
BTR-AOC10-SD01	460	580

The discrepancies are probably due to inconsistent quantitation procedures performed by the laboratory, incorrect area integrations as detected on the chromatograms, or incorrect adjustment for moisture content. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

K.3 Samples BTR-SS14-S02 and BTR-SS14-SD01 were diluted by a factor of 10 due to high levels of diesel present in the samples.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was detected in six of the samples at concentrations ranging between 580-12,000 ppm as described in Section K.2.

L.2 Due to the previously mentioned problems with the initial calibrations and the continuing calibrations, all data has been qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water and Soil
DATE: April 8, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). Requested analysis was for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets

submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3 was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%.

Since the initial calibration was only a 4 point calibration curve, and the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.

B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

C. Continuing Calibration:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the four continuing calibrations (164-178%) exceeded the QC criteria (75-125%). When referenced against the 3 point initial calibration analyzed after the samples were analyzed on 8/29/93, the percent recovery range of the continuing calibrations are 115-125%. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Duplicate Analyses:

G.1 A QC limit for precision of ≤20 percent as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.

G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.

J.2 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 The three water samples exhibited a raised baseline in the diesel retention time window. It is the opinion of the reviewer that this will have no effect on the quality of the data.

K.2 The laboratory inadvertently left out the results for Aroclor 1221 on the summary page for sample BTR-LF12-S03. The results were included by the reviewer.

K.3 No other problems were observed for compound quantitation and identification.

L. Conclusion:

L.1 Diesel was not detected in the method blanks or any of the samples.

L.2 Due to the previously mentioned problems with the continuing calibrations, all PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Soil
DATE: April 18, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	366	Soil
BTR-AOC15-S03	369	Soil
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC08-S07	374	Soil
BTR-AOC14-SD01	378	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	381	Soil
BTR-AOC14-S03	385	Soil

The analytical results for the samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC07-S06 and BTR-AOC07-S07, along with sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.

B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

C. Continuing Calibration:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the two continuing calibrations (161 & 169% respectively) exceeded the QC criteria (75-125%). When referenced to the 3 point initial calibration (8/29/93) analyzed after the samples, the percent recovery range of the continuing calibrations is 113-119%. All samples were quantitated using the closest continuing calibration standard (File 098F0201). Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the

PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC07-S06 and BTR-AOC07-S07 were utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

G.3 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC14-SD02 was used for the matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.

J.2 No problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 All samples were quantitated using the closest continuing calibration standard (File 098F0201).

K.2 No problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Diesel was detected in samples BTR-AOC15-S02 at a concentration of 1000 ppm, and BTR-AOC15-S03 at a concentration of 1300 ppm.

L.2 Due to previously mentioned problems with the initial calibration and continuing calibrations, the detected results and PQLs for all the samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Soil
DATE: April 11, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 1 soil sample from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 393). Requested analysis was for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SD01	1320	Soil

The analytical result for the soil sample was reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Duplicate Analyses:

G.1 There were no field duplicates submitted for analysis with the project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 The method blank and the sample exhibited a raised baseline in the diesel retention time window. It is the opinion of the reviewer that this will have no effect on the quality of the data.

K.2 Due to this raised baseline the laboratory increased the PQL of sample BTR-AOC09-S03 to <70 ppm. The laboratory should have also raised the PQL to <70 ppm for the method blank due to the same baseline problem. The PQL for the method blank has been increased to <70 ppm by the reviewer on the summary report form.

K.3 No other problems were observed for compound quantitation and identification.

L. Conclusion:

L.1 Diesel was not detected in the method blank or sample.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method D8015M
MATRIX: Soil
DATE: April 11, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC08-S01	1290	Soil
BTR-AOC08-S02	1292	Soil
BTR-AOC08-S03	1294	Soil
BTR-AOC08-S04	1296	Soil
BTR-AOC08-S05	1298	Soil
BTR-AOC08-S06	1300	Soil
BTR-AOC09-S01	1302	Soil
BTR-AOC09-S02	1304	Soil
BTR-AOC09-S03	1306	Soil
BTR-AOC09-S10	1308	Soil
BTR-AOC09-S04	1310	Soil
BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil
BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 along with sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were designated as field replicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan due to a raised baseline present within the retention time window of diesel. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank (M/BLK 1318) at a concentration above the PQL and the results are considered acceptable. However, the method blank was contaminated with lube oil from a previous analysis.

E. Instrument Blanks:

E.1 Numerous instrument blanks were analyzed due to the high levels of diesel in some of the samples. Diesel was not detected in the instruments blanks at a

concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC08-SO4 and BTR-AOC08-S06 were utilized for field replicate analyses. Diesel was detected in sample BTR-AOC08-SO4 at a concentration of 732 ppm, and in sample BTR-AOC08-S06 at a concentration of 1670 ppm. The %RPD of this replicate analyses is 78%, exceeding the QC criteria of ≤50%. It is not known what effect this will have on the quality of the data.

G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Surrogate recoveries were calculated by the reviewer using peak height due to incorrect area integration of the surrogate in many of the samples. All surrogate recoveries were calculated referencing the average surrogate peak height from the initial calibration. All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 Due to the high concentration of diesel detected in some of the samples, a longer GC bakeout time should have been employed to assist in eliminating carryover of diesel in one of the samples.

J.2 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 The method blank and samples exhibited a raised baseline in the diesel retention time window caused by probable hydrocarbon contamination. The PQLs have been increased by the laboratory to reflect this contamination. It is the opinion of the reviewer that this will have no effect on the quality of the data.

K.2 The laboratory reported detected results of 140 ppm of diesel in sample BTR-AOC08-S02. The laboratory indicated that the detected results may be due to

carryover from the previous high level sample. It is also the opinion of the reviewer that the detected peaks in the sample are due to carryover. Therefore, the detected result for diesel is qualified "R" as rejected, and unusable, and the detected result has been changed to reflect the sample PQL by the reviewer on the summary result page.

K.3 The laboratory reported detected results of 50 ppm for diesel in sample BTR-AOC09-S06. It is the opinion of the reviewer that it was the laboratory's intention to report the result as "<50 ppm", but inadvertently left off the "<" symbol when transcribing the result onto the summary result page. It has been corrected on the summary result page by the reviewer.

K.4 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for the project samples. Listed below are the sample results where discrepancies exist.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC08-S01	12,000 ppm	6,200 ppm
BTR-AOC08-S02	140 ppm	<80 ppm
BTR-AOC08-S03	310 ppm	540 ppm
BTR-AOC08-S04	650 ppm	730 ppm
BTR-AOC08-S06	1500 ppm	1,670 ppm
BTR-AOC09-S06	50 ppm	<50 ppm

It is the opinion of the reviewer that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

K.5 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was not detected in the method blank at the PQL, but the blank was contaminated with lube oil from a previous sample.

L.2 Diesel was detected in four samples: BTR-AOC08-S01 at 6200 ppm, BTR-AOC08-S03 at 540 ppm, BTR-AOC08-S04 at 730 ppm and BTR-AOC08-S06 at 1670 ppm as calculated by the reviewer.

L.3 The PQL of the individual samples was increased by the laboratory to account for the raised baseline present within the retention time window of diesel.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Soil
DATE: May 2, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC9-2S12-1.5	1752	Soil
BTR-AOC9-2S11-1.5	1754	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The laboratory did not include sample BTR-AOC9-2S11-1.5 on the results summary page. All results reported by the reviewer were obtained from the sample worksheets.

It should be noted that all quantitation limits reported by the laboratory for the project soil samples (<50 ppb) were higher than those specified in the Project Sampling and Analysis Plan (<10 ppb). Since the low point of the initial calibration was 50 ppm, the laboratory adjusted the practical quantitation limit (PQL) to 50. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%. However, since the initial calibration is only a 3 point calibration curve, all detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 The continuing calibration standards met all the QC criteria and are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC9-2S12-1.5 was used for the matrix spike/matrix spike duplicate analyses.

I.2 The laboratory did not submit the MS/MSD results on the summary results page. All results reported by the reviewer were obtained from the sample worksheets.

I.3 The reviewer could not verify the reintegrated area of the matrix spike duplicate sample because it was not submitted by the laboratory. It is the opinion of the reviewer that this will not affect the quality of the data.

J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 The laboratory reported a detected result of 520 ppm for diesel in sample BTR-AOC9-2S11-1.5. This sample was not reported on the data summary form, and the information was obtained from the sample worksheet by the reviewer.

K.2 Since the laboratory analyzed only a 3 point initial calibration, all detected results are qualified "J" as estimated and usable for limited purposes.

K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Diesel was detected at a concentration of 520 ppm in sample BTR-AOC9-2S11-1.5.

L.2 Due to problems with the initial calibration, all detected results are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Diesel by EPA Method 8015M
MATRIX: Water and Soil
DATE: April 20, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Six of the samples were requested for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SW01	316	Water
BTR-EB-04	308	Water
BTR-AOC10-SW01	304	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	328	Water

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks.

It should be noted that the laboratory reported results for samples BTR-LF01-S01 and BTR-LF04-S01 only, stating that samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB04 and BTR-EB-05 were not reported due to extraction and/or instrument problems. By reviewing

the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted by the laboratory). However, the reviewer could not locate the raw data for sample BTR-LF01-S01 reported by the laboratory, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.

B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 29, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

C. Continuing Calibration:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the three continuing calibrations (169-178%) exceeded the QC criteria (75-125%). When referenced to the 3 point initial calibration (8/29/93) analyzed after the samples, the percent recovery range of the continuing calibrations is 119-125%. All samples were quantitated using the closest continuing calibration standards. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Samples BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks for this project sample set.

F.2 Diesel was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF01-S01 was used for the matrix spike/matrix spike duplicate analyses. No water matrix spike/matrix spike duplicate analyses were submitted.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.

J.2 The laboratory reported extraction and/or instrument problems for samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB-04 and BTR-EB05 resulting in non-submittal of sample results by the laboratory.

J.3 No other problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

K.1 All samples were quantitated using the closest continuing calibration standard.

K.2 The laboratory did not report results for samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB-04 and BTR-EB-05 stating that due to extraction and/or instrument problems no quantitative results were available. However, by going

through the data the reviewer found that the laboratory did reanalyze the four samples noted above (evident by the submitted raw data). Listed below are the samples that were not reported by the laboratory, but were reported by the reviewer.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC09-SW01	--	<2500 ppm
BTR-AOC10-SW01	--	<2500 ppm
BTR-EB-04	--	<2500 ppm
BTR-EB-05	--	<2500 ppm

K.3 The reviewer was unable to locate the raw data for sample BTR-LF01-S01, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample. Therefore, the PQL for this sample is qualified "R" as rejected and unusable.

K.4 The PQL for some of the samples was raised due to interference present within the retention time window of diesel. It is the opinion of the reviewer that this will have no affect on the quality of the data.

K.5 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Results for sample BTR-LF01-S01 are qualified "R" as rejected and unusable since the reviewer was unable to locate the raw data for verification of sample results.

L.2 Results for the three water samples were not reported by the laboratory, but were calculated by the reviewer and are reported in Section K.1.

L.3 Due to previously mentioned problems with the initial calibration and continuing calibrations, the PQL for all samples are qualified "J" as estimated and usable for limited purposes.

L.4 Diesel was not detected in any of the samples at a concentration above the PQL.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 26, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 6 and September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-06	1690	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1702	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1706	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1710	Soil
BTR-AB-03	1712	Water

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, sample number BTR-EB-06 was designated as an equipment blank, and sample number BTR-AB-03 was designated as an ambient blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze

for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-EB-06 was designated as an equipment blank and sample number BTR-AB-03 was designated as an ambient blank.

F.2 Gasoline was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

F.3 Gasoline was not detected in the ambient blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks analyzed on system 3-4 has been raised from 1 ppm to 2 ppm.

K.2 The laboratory reported a detected result for gasoline in samples BTR-AOC10-2SD02 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected results for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.

K.3 The laboratory reported a detected result of 22 ppm for gasoline in sample BTR-AOC10-2S06-1.5. It is the opinion of the reviewer that the detected peaks in this sample are probably of biogenic origin. Therefore, the detected result for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.

K.4 The laboratory did not report a detected result above 1 ppm for gasoline in sample BTR-SS14-2S07. The laboratory reported detected results for the BTEX compounds in this sample and the sample chromatogram exhibits a typical hydrocarbon elution pattern. It is the opinion of the reviewer that this sample contains a combination of gasoline and higher molecular weight hydrocarbons calculated at a concentration of 700 ppm. The detected result for gasoline in this sample which was calculated by the reviewer is qualified "J" as estimated and usable for limited purposes.

K.5 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to the large percent RSDs in the initial calibrations and the lack of continuing calibrations, the detected results and the PQL for all project samples and blanks are qualified "J" as estimated and usable for limited purposes.

L.2 The low point in the initial calibration performed on system 3-4 was 100 ppb. Therefore, the PQL for gasoline in all of the project samples and blanks analyzed on system 3-4 has been raised to 2 ppm.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Soil
DATE: April 18, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Both of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC9-2S14.5*	1752	Soil
BTR-AOC9-2S11-1.5	1754	Soil

* The ICF Site No. on the chain of custody record appears to be BTR-AOC9-2S12-1.5 which is not the same number assigned by the laboratory.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the

Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met for all project samples.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory reported a detected result for gasoline in sample BTR-AOC9-2S11-1.5 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected result for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.

K.2 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to a large %RSD in the initial calibration and the lack of continuing calibrations for gasoline, all detected results and the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water & Soil
DATE: May 3, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387) for gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 24 through August 28, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	366	Soil
BTR-AOC15-S03	369	Soil
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC07-S07	374	Soil
BTR-TB-05	375	Water
BTR-A0C14-SD01	378	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	382	Soil
BTR-AOC14-S03	386	Soil

The laboratory did not submit any raw data or data summary sheets for the gasoline fraction for sample numbers BTR-AOC07-S03 (370), BTR-AOC07-S04 (371), BTR-AOC07-S05 (372), BTR-AOC07-S06 (373), and BTR-AOC07-S07 (374).

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates and sample number BTR-TB-05 was designated as a travel blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-TB-05 was designated as a travel blank.

F.2 Gasoline was not detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were utilized for field replicate analysis. Due to carryover in these two samples, the PQL was raised by the reviewer and the results of the field replicate analyses could not be evaluated.

H. Surrogate Recoveries:

H.1 Because of poor copy quality on the raw data quantitation reports and chromatograms, the surrogate recovery in samples BTR-AOC15-S01 and BTR-AOC14-SD02 could not be verified by the reviewer.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover and created interference causing an elevated baseline in some of the samples which probably did not contain gasoline. Therefore, the PQL in sample numbers BTR-AOC14-S04 and BTR-AOC14-S03 have been adjusted to compensate for the carryover.

J.2 No other problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 Because of poor copy quality of the raw data for sample numbers BTR-AOC15-S01 and BTR-AOC14-SD02, the quantitation of these samples could not be verified by the reviewer. The laboratory did not respond to several requests to resubmit the raw data. Therefore, the PQL for these two samples is qualified "R" as rejected and is unusable.

K.2 A discrepancy exists between the detected result reported by the laboratory (160 ppm) and the result regenerated by the reviewer (280 ppm) for sample number BTR-AOC15-S03. The laboratory indicated that the discrepancy is probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used.

K.3 Sample number BTR-AOC14-SD01 exhibited chromatographic peaks which, in the opinion of the laboratory and the reviewer, are of biogenic origin. Gasoline was not reported in this sample at a concentration above the PQL. Therefore, the PQL for gasoline in this sample has been raised to 90 ppm by the reviewer.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to unreadable raw data for sample numbers BTR-AOC15-S02 and BTR-AOC14-SD02, the PQL for these two samples is qualified "R" as rejected and is unusable.

L.2 Due to carryover from a previous analysis, the PQL for sample numbers BTR-AOC14-S04 and BTR-AOC14-S02 has been raised by the reviewer.

L.3 Due to possible interference from biogenic material, the PQL for sample number BTR-AOC14-SD01 has been raised by the reviewer.

L.4 Due to the large percent RSD in the initial calibration and the lack of continuing calibrations for the gasoline fraction, the detected results and the PQL for gasoline in all other project samples and blanks are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 7, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 389). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Duplicate Analysis:

G.1 A QC limit for precision of ≤ 20%, as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.

G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQLs for gasoline in all of the water samples analyzed on system 3-4 have been raised from 50 ppb to 100 ppb.

K.2 No problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Gasoline was not detected above the PQL in any of the project samples.

L.2 Due to previously mentioned problems with the initial calibration and the lack of continuing calibrations, the PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Soil
DATE: April 21, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475) for gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Replicate Analysis:

F.1 There were no field replicate samples associated with this project sample set.

G. Surrogate Recoveries:

G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

H. Matrix Spike/Matrix Spike Duplicate Analyses:

H.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

I. System Performance:

I.1 No problems with system performance were observed for the project sample analyses.

J. Quantitation and Identification:

J.1 The low point in the gasoline initial calibration performed on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks has been raised from 1 ppm to 2 ppm.

J.2 The laboratory reported a detected result for gasoline in samples BTR-AOC1-2S07 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected result for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.

J.3 No other problems were observed with compound quantitation and identification.

K. Conclusion:

K.1 Due to the large percent RSD in the initial calibration and the lack of continuing calibrations for the gasoline fraction, the detected results and the PQL for gasoline in all project samples and blanks are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 19, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). All of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7 and Septembr 8, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1728	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1738	Soil
BTR-SD08-2S16-1	1740	Soil

BTR-LF04-2SW03	1748	Water
BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and samples BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

F.2 Gasoline was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met for all project samples and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 The laboratory reported a detected result for gasoline of 1 ppm in samples BTR-SD08-2S12 and BTR-SD08-2S16-1. It is the opinion of the reviewer that the detected peaks in these two samples are due to carryover of hydrocarbons from a

sample analyzed prior to these analyses. Therefore, the detected results in these two samples have been changed to reflect that gasoline was not detected at a concentration above the PQL.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory reported detected results for gasoline in samples BTR-SS13-2S07 and BTR-LF04-2SD04 and indicated that the detected results may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in these samples are probably due to higher molecular weight hydrocarbons. Therefore, the detected results for gasoline in these samples are qualified "J" as estimated and usable for limited purposes.

K.2 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to carryover from a previous sample, the detected results in samples BTR-SD08-2S12 and BTR-SD08-2S16-1 have been changed to reflect that gasoline was not detected in these samples at a concentration above the PQL.

L.2 Due to a large %RSD in the initial calibration and the lack of continuing calibrations for gasoline, all detected results and the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 14, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 13 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 23 and August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-SW01	336	Water
BTR-SS14-S01	339	Soil
BTR-SS14-S02	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-SS14-SD01	349	Soil
BTR-AOC10-SD01	351	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	357	Soil

BTR-AOC10-S04	359	Soil
BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	363	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates, and sample numbers BTR-SS14-S03 and BTR-SS14-S06 were also designated as field replicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-SS14-S03 and BTR-SS14-S06 were also utilized for field replicate analysis. The results of the field replicate analyses (71% RPD) exceed the QC criteria. The large variability in the results is probably due to carryover contamination between samples. It is not known what affect this will have on the quality of the data.

H. Surrogate Recoveries:

H.1 Several of the surrogate recoveries could not be calculated using the FID detector because of hydrocarbon interference. The laboratory used the ECD detector to calculate the surrogate recoveries of samples exhibiting interference on the FID detector. However, the ECD response for the Surrogate (BFB) was saturated for all of the samples. Listed below are the samples that exhibited hydrocarbon

interference.

ICF Sample No.	Laboratory Recovery
BTR-SS14-S02	103
BTR-SS14-S03	96
BTR-SS14-S04	97
BTR-SS14-S06	94
BTR-SS14-SD01	103
BTR-AOC10-SD01	100
BTR-AOC10-S01	100

It is the opinion of the reviewer that this will not affect the quality of the data because there is no affect on the gasoline quantitation.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover in some of the samples, and created interference and an elevated baseline in some of the samples which probably did not contain gasoline. Therefore, all of the detected results are qualified "J" as estimated and usable for limited purposes, and some of the PQLs have been adjusted to compensate for the carryover.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQLs for gasoline in all of the samples and blanks analyzed on system 3-4 have been raised from 50 ppb to 100 ppb.

K.2 Gasoline was detected in samples BTR-SS14-S02, BTR-SS14-S03, and BTR-SS14-S04 at a concentration above the initial calibration range of the instrument. The laboratory did not analyze a secondary dilution for these samples. Therefore, the detected results for these samples are qualified "J" as estimated and usable for limited purposes.

K.3 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed

below are the sample results where discrepancies exist. Results are reported in parts per million (ppm).

ICF Site No.	Laboratory Results	Validation Results
BTR-SS14-S02	250	208
BTR-SS14-S04	170	118
BTR-SS14-S06	130	190
BTR-AOC10-SD01	< 2	27
BTR-AOC10-S01	3.2	46

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used. The detected amounts in samples BTR-AOC10-SD01 and BTR-AOC10-S01 are probably due to carryover from previous samples, therefore, the PQLs have been increased accordingly by the reviewer.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to carryover from previous samples, the PQL in some of the project samples have been increased by the reviewer.

L.2 Due to previously mentioned problems with the initial calibration, the lack of continuing calibrations, and carryover in some of the samples, the detected results and PQL for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 13, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 3 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1 and September 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	1326	Water
BTR-LF04-SW02	1330	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil
BTR-TB-04	1346	Water

The following QC sample designations were included in project documentation: sample

number BTR-TB-04 was designated as a travel blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should

have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Gasoline was not detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 A discrepancy exists between the surrogate recovery reported by the laboratory (84%) and the surrogate recovery calculated by the reviewer (104%) for sample number BTR-TB-04. This is not expected to have an affect on the data since the surrogate recovery met all of the applicable QC criteria.

H.2 All of the surrogate QC recovery criteria were met for all other project samples and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Gasoline was not detected above the PQL in any of the project samples.

L.2 Due to the lack of continuing calibrations, the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Soil
DATE: April 12, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). All of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1 and September 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC08-S01	1290	Soil
BTR-AOC08-S02	1292	Soil
BTR-AOC08-S03	1294	Soil
BTR-AOC08-S04	1296	Soil
BTR-AOC08-S05	1298	Soil
BTR-AOC08-S06	1300	Soil
BTR-AOC09-S01	1302	Soil
BTR-AOC09-S02	1304	Soil
BTR-AOC09-S03	1306	Soil
BTR-AOC09-S10	1308	Soil
BTR-AOC09-S04	1310	Soil

BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil
BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 were designated as field replicates, and sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were also designated as field replicates.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for

the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC08-S04 and BTR-AOC08-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for some of the project samples. The recoveries reported by the laboratory and the recoveries calculated by the reviewer are listed below.

ICF Sample No.	Laboratory Recovery	Validation Recovery
BTR-AOC09-S09	123	81
BTR-AOC08-S01	98	100
BTR-AOC08-S04	82	103
BTR-AOC08-S06	79	100

This is not expected to have an affect on the data since the surrogate recoveries met all of the applicable QC criteria.

H.2 All of the surrogate QC recovery criteria were met for all other project samples.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 The laboratory indicated that the data acquisition for sample BTR-AOC09-S08 (1316) was interrupted during analysis. No data is available because the laboratory did not reanalyze this sample.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist. Results are reported in parts per million (ppm).

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC08-S01	9	19
BTR-AOC08-S03	60	295
BTR-AOC08-S04	62	52
BTR-AOC08-S06	90	65

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used.

K.2 The laboratory raised the PQL for gasoline in sample BTR-AOC08-S05 to 4 ppm because of interference. It is the opinion of the reviewer that the interference is due to biogenic material in the sample.

K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 The laboratory did not provide data for sample BTR-AOC08-S08 (1316) because data acquisition was interrupted during analysis of this sample. The laboratory did not reanalyze the sample.

L.2 Due to previously mentioned problems with the initial calibration, continuing calibration, and sample quantitation, all detected results and PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Soil
DATE: April 11, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 soil sample from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 393). The sample required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SD01	1320	Soil

The analytical result for the soil sample was reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil

samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for this project sample set.

K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Gasoline was not detected above the PQL in the project sample.

L.2 Due to the lack of continuing calibrations, the PQL for the project sample is qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: Gasoline by USEPA Method 8015M
MATRIX: Water and Soil
DATE: April 20, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Four of the water samples and two of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 23 and August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SW01	317	Water
BTR-EB-04	311	Water
BTR-AOC10-SW01	307	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	332	Water

Results are not available for sample BTR-LF01-S01 because the laboratory did not analyze this sample.

The following QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks.

F.2 Gasoline was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 There were no field replicate analyses associated with this project sample set.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks analyzed on system 3-4 has been raised from 50 ppb to 100 ppb.

K.2 Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.

K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Gasoline was not detected at a concentration above the PQL in any of the project samples.

L.2 Due to the lack of continuing calibrations, the PQL for all project samples and blanks are qualified "J" as estimated and usable for limited purposes.

L.3 The low point in the initial calibration performed on system 3-4 was 100 ppb. Therefore, the PQL for gasoline in all of the project samples and blanks analyzed on system 3-4 has been raised to 100 ppb.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: BTEX compounds by USEPA Method 8020
MATRIX: Soil
DATE: April 12, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). All of the soil samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 1 and September 2, 1993 for the BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC08-S01	1290	Soil
BTR-AOC08-S02	1292	Soil
BTR-AOC08-S03	1294	Soil
BTR-AOC08-S04	1296	Soil
BTR-AOC08-S05	1298	Soil
BTR-AOC08-S06	1300	Soil
BTR-AOC09-S01	1302	Soil
BTR-AOC09-S02	1304	Soil
BTR-AOC09-S03	1306	Soil
BTR-AOC09-S10	1308	Soil
BTR-AOC09-S04	1310	Soil
BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil

BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 were designated as field replicates, and sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were also designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for soils were reported with an adjustment for moisture content.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC08-S04 and BTR-AOC08-S06 were utilized for field replicate analysis. The RPD for ethylbenzene (120%) and the RPD for xylene (66%) detected in the two samples exceeds the QC limit for precision. It is not known what affect this has on the quality of the data.

G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for some of the project samples. The recoveries reported by the laboratory and the recoveries calculated by the reviewer are listed below.

ICF Sample No.	Laboratory Recovery	Validation Recovery
BTR-AOC09-S09	123	81
BTR-AOC08-S01	98	100
BTR-AOC08-S04	82	103
BTR-AOC08-S06	79	100

This is not expected to have an affect on the data since the surrogate recoveries met all of the applicable QC criteria.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC09-S09 was used for the matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory indicated that data acquisition for sample BTR-AOC09-S08 (1316) was interrupted during analysis. No data is available because the laboratory did not reanalyze this sample.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory raised the PQLs for the BTEX compounds in sample BTR-AOC08-S05 because of interference. It is the opinion of the reviewer that the interference is due to biogenic material in the sample.

K.2 The laboratory reported detected results for ethylbenzene in sample BTR-AOC09-S01, and for total xylenes in samples BTR-AOC09-S01 and BTR-AOC09-S02. It is the opinion of the reviewer that this is due to carryover from a previous sample. In addition, the detected results for these analytes in these samples were not confirmed by the PID detector. Therefore, the detected results reported in these samples have been changed on the data summary forms by the reviewer to reflect that the target analytes were not detected at concentrations above the PQLs.

K.3 A discrepancy exists between the detected result for toluene reported by the laboratory (0.3 ppm) and the result regenerated by the reviewer (1.0 ppm) for sample number BTR-AOC08-S03. It appears that the laboratory may not have corrected the analytical result for the moisture content in the sample.

K.4 Compound identification was confirmed using a second column and an alternate detector.

K.5 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 The laboratory did not provide data for sample BTR-AOC08-S08 (1316) because data acquisition was interrupted during analysis of this sample. The laboratory did not reanalyze the sample.

L.2 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.

L.3 Due to the lack of confirmation on the alternate detector and possible carryover from a previous sample, the detected results for certain compounds in some samples have been changed to reflect that they are not present at concentrations above the PQLs.

L.4 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: BTEX compounds by USEPA Method 8020
MATRIX: Soil
DATE: April 11, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 soil sample from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 393). The sample required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for the BTEX compounds by USEPA Method 8020 on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SD01	1320	Soil

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical result for the soil sample was reported with an adjustment for moisture content.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQLs and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All of the surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC09-SD01 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the

results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project sample.

K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 There were no target analytes detected above the PQLs in the project sample.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: BTEX compounds by USEPA Method 8020
MATRIX: Soil
DATE: April 18, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Both of the soil samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 7, 1993 for the BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC9-2S14.5*	1752	Soil
BTR-AOC9-2S11-1.5	1754	Soil

* The ICF Site No. on the chain of custody record appears to be BTR-AOC9-2S12-1.5 which is not the same number assigned by the laboratory.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results were reported with an adjustment for moisture content.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC9-2S14.5 was used for the matrix spike/matrix spike

duplicate analyses.

I.2 All of the BTEX matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 Compound identification was confirmed using a second column and an alternate detector.

K.2 No problems were observed for compound quantitation and identification.

L. Conclusion:

L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 20, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Four of the water samples and two of the soil samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. One of the water samples required analysis for the BTEX compounds only. The samples were analyzed on August 23 and August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC09-SW01	317	Water
BTR-EB-04	311	Water
BTR-AB-02	315	Water
BTR-AOC10-SW01	307	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	332	Water

Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.

The following QC sample designations were included in project documentation: sample

numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks and sample number BTR-AB-02 was designated as an ambient blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector on system 1-2 because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. Continuing Calibrations:

C.1 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the system 1-2 ECD response for all of the halogenated compounds, including the surrogate BFB, is saturated. The ECD detector on system 1-2 should only be used to confirm the presence of the halogenated compounds. Therefore, the PQL for the HVOC compounds in all samples and blanks analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

C.2 The baseline on the PID detector on system 1-2 was not properly set during the analysis of this project sample set. It is the opinion of the reviewer that the PID detector on system 1-2 should not have been used for quantitation, but used only to confirm the presence of the BTEX compounds.

C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks and sample number BTR-AB-02 was designated as an ambient blank.

F.2 No target analytes were detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F.3 No target analytes were detected in the ambient blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 There were no field replicate analyses associated with this project sample set.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 392.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The ECD and PID detectors on system 1-2 were not operating properly and should only be used to confirm the presence of the HVOCs and BTEX compounds.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory reported detected results for toluene (8 ppb), ethylbenzene (15 ppb), and total xylene (12 ppb) in sample number BTR-EB-04. The confirmation detector provides no evidence that these compounds are present above the PQLs. Since the PID detector did not show any response for these compounds it is the opinion of the reviewer that these compounds are not present in the samples above the PQLs. Therefore, the detected results for these compounds in sample BTR-EB-04 has been changed on the data summary form to reflect that they were not detected at concentrations above the PQLs.

K.2 Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.

K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 No target analytes were detected at a concentration above the PQL in any of the project samples.

L.2 Due to performance problems with the ECD and PID on system 1-2, the PQL for the HVOC compounds in all samples and blanks analyzed on system 1-2 are qualified "J" as estimated and usable for limited purposes.

L.3 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 15, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 13 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). All of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 23 and August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-SW01	336	Water
BTR-SS14-S01	339	Soil
BTR-SS14-S02	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-SS14-SD01	349	Soil
BTR-AOC10-SD01	351	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	357	Soil
BTR-AOC10-S04	359	Soil

BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	363	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates, and sample numbers BTR-SS14-S03 and BTR-SS14-S06 were also designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the

initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. Continuing Calibrations:

C.1 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the system 1-2 ECD response for all of the halogenated compounds, including the surrogate BFB, is saturated. Therefore, the ECD detector on system 1-2 should only be used to confirm the presence of the halogenated compounds.

C.2 The baseline on the PID detector on system 1-2 was not properly set during the analysis of this project sample set. It is the opinion of the reviewer that the PID detector on system 1-2 should not have been used for quantitation, but used only to confirm the presence of the BTEX compounds.

C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-SS14-S03 and BTR-SS14-S06 were also utilized for field replicate analysis. The detected results of the field replicate analyses reported by the laboratory for toluene, tetrachloroethene, ethylbenzene, and total xylene exceeded the QC criteria. It is the opinion of the reviewer that the large variability in the detected results is due to hydrocarbon interference in the samples which prevented accurate quantitation of the target analytes.

H. Surrogate Recoveries:

H.1 Several of the surrogate recoveries could not be calculated using the FID detector because of hydrocarbon interference. The laboratory used the ECD detector to calculate the surrogate recoveries of samples exhibiting interference on the FID detector. However, the ECD response for the Surrogate (BFB) was saturated for all of the samples. Listed below are the samples that exhibited hydrocarbon interference.

ICF Sample No.	Laboratory Recovery
BTR-SS14-S02	103
BTR-SS14-S03	96
BTR-SS14-S04	97
BTR-SS14-S06	94
BTR-SS14-SD01	103
BTR-AOC10-SD01	100
BTR-AOC10-S01	100

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 390.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover in some of the samples, and created interference and an elevated baseline in some of the samples.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 Because of the high level of gasoline in sample BTR-SS14-SD01, the laboratory analyzed this sample at a 1:10 dilution. The detected results and PQLs have been adjusted accordingly to compensate for the dilution.

K.2 The high level of hydrocarbons in some of the samples and the resulting carryover to subsequent samples resulted in quantitation interference of the target analytes using the FID detector. In addition, the saturation problems with the ECD and baseline problems with the PID rendered these two detectors useless for quantitation. Therefore, it is the opinion of the reviewer that although certain analytes are probably present in the samples, the detected results and the PQLs of the HVOC and BTEX target analytes in samples BTR-SS14-S02, BTR-SS14-S03, BTR-SS14-S04, BTR-SS14-S06, BTR-AOC10-SD01, and BTR-AOC10-S01 are qualified "R" as rejected and are unusable.

K.3 Hydrocarbon carryover in some of the samples created interference with the detection of certain analytes at low levels. Therefore, the PQL of select BTEX analytes in samples BTR-AOC10-S02, BTR-AOC10-S03, BTR-AOC10-S04, BTR-AOC10-S05, and BTR-AOC10-S06 have been increased to compensate for the level of interference.

K.4 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for sample BTR-SS14-SD01. Listed below are the target analyte results where discrepancies exist. Results are reported in parts per million (ppm).

Target Analyte	Laboratory Result	Validation Result
ethylbenzene	6.0	11
total xylene	2.6	47

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results which indicates that inconsistent quantitation procedures may have been used.

K.5 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to large percent RSDs in the initial calibration, select data in some samples are qualified "J" as estimated and usable for limited purposes.

L.2 Due to performance problems with the ECD and PID on system 1-2, in addition to hydrocarbon interference, select data in some samples are qualified "R" as rejected and are unusable.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 7, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 389). Three of the samples required analysis for halogenated volatile organic compounds (HVOCs) and all of the samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. Continuing Calibrations:

C.1 The percent recovery for tetrachloroethene (66%) and benzene (67%) in the continuing calibration performed on system 1-2 on August 24, 1993 exceeded the QC criteria of 75-125%. The detected results and the practical quantitation limits (PQLs) for tetrachloroethene and benzene in all of the samples and blanks analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

C.2 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.

C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Duplicate Analysis:

G.1 A QC limit for precision of ≤ 20%, as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.

G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 There were no target analytes detected above the PQLs in any of the project samples.

L.2 Due to the high percent recovery for tetrachloroethene and benzene in the continuing calibration performed on system 1-2 on August 24, 1993, the PQLs for these compounds in all of the samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM:	BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY:	Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER:	Keith Strout
ANALYSIS:	HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX:	Water and Soil
DATE:	May 3, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Four of the samples required analysis for the BTEX compounds, and four of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 24 through August 28, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	366	Soil
BTR-AOC15-S03	369	Soil
BTR-TB-05	375	Water
BTR-A0C14-SD01	378	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	382	Soil
BTR-AOC14-S03	386	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates, and sample number BTR-TB-05 was designated as a travel blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-TB-05 was designated as a travel blank.

F.2 No target analytes were detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were utilized for field replicate analysis. The results of the field replicate analyses, as reported by the laboratory, met all applicable QC criteria and the results are considered acceptable. However, because of poor copy quality on the raw data quantitation reports and chromatograms for these two samples, the reported results could not be verified by the reviewer.

H. Surrogate Recoveries:

H.1 Because of poor copy quality on the raw data quantitation reports and chromatograms, the surrogate recovery in samples BTR-AOC15-S01 and BTR-AOC14-SD02 could not be verified by the reviewer.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. The laboratory did not submit any soil matrix spike/matrix spike duplicate analyses. Sample number BTR-AOC14-SW01 was not included on chain of custody record No. 387.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover and created interference causing an elevated baseline in some of the samples.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 Because of poor copy quality of the raw data for sample numbers BTR-AOC14-S01, BTR-AOC14-S03, BTR-AOC15-S01, and BTR-AOC14-SD02, the quantitation of these samples could not be verified by the reviewer. The laboratory

did not respond to several requests to resubmit the raw data. Therefore, the PQLs for these samples are qualified "R" as rejected and are unusable.

K.2 The laboratory reported a detected result for tetrachloroethylene in sample number BTR-AOC15-S02 at a concentration of 7.3 ppm. The data from the ECD detector does not support a detected result for this compound, however, the data does support a detected result of 7.3 ppm for toluene. The laboratory reported that toluene was not detected at a concentration above the PQL. It appears that the laboratory transcribed the data incorrectly and meant to report a detected result for toluene at a concentration of 7.3 ppm. The data summary form has been corrected by the reviewer.

K.3 The laboratory did not submit the data from the PID detector for sample number BTR-AOC15-S02. The laboratory did not respond to several requests to resubmit the data. The reviewer was unable to confirm the presence and quantitation of the reported detected results for certain analytes, therefore, the detected results in this sample are qualified "N" and are usable for limited purposes.

K.4 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to unreadable raw data for sample numbers BTR-AOC14-S02, BTR-AOC14-S03, BTR-AOC15-S01, and BTR-AOC14-SD02, the PQLs for these samples are qualified "R" as rejected and are unusable.

L.2 Due to missing data from the PID detector for sample number BTR-AOC15-S02, the detected results for select analytes are qualified "N" and are usable for limited purposes.

L.3 Due to large percent RSDs in the initial calibration, select data in some samples are qualified "J" as estimated and usable for limited purposes.

L.4 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Soil
DATE: April 21, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475) to analyze for halogenated volatile organic compounds (HVOCs) and BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 7, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional

Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory inadvertently did not include the target analytes in the continuing calibrations associated with this project sample set. However, the laboratory did perform spiked blank analyses during the analytical sequence which can be used as continuing calibration checks. The spiked blank analyses were performed at a concentration of 100 ppb.

C.2 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limits (PQLs) and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample BTR-SS14-2S06-3 was used as the QC sample for the matrix spike/matrix spike duplicate analyses. This sample was not submitted on chain of custody record No. 475.

I.2 Carbon tetrachloride exhibited a low recovery in the matrix spike analysis (57%) and in the matrix spike duplicate analysis (62%), and benzene exhibited a low recovery in the matrix spike analysis. The analytical results are not qualified solely on the results of the matrix spike analyses.

I.3 All other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The continuing calibrations were unusable because the laboratory inadvertently did not spike the target analytes into the continuing calibration solution vials. The reviewer was able to check the system response and linearity using the spiked blank analyses.

J.2 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

K.2 Compound identification was confirmed using a second column and an alternate detector.

L. Conclusion:

L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 19, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). All of the samples required analysis for the BTEX compounds, and six of the samples required analysis for halogenated volatile organic compounds (HVOCs) by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The laboratory analyzed all of the samples for HVOCs by USEPA Method 8010 and the BTEX compounds by USEPA Method 8020 on September 7 and September 8, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1728	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1738	Soil
BTR-SD08-2S16-1	1740	Soil
BTR-LF04-2SW03	1748	Water

BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for soils were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low

concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. Continuing Calibrations:

C.1 The continuing calibrations were performed at a concentration of 500 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.

C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

F.2 Toluene was detected in equipment blanks BTR-EB-07 and BTR-EB-08 at concentrations of 2 ppb and 1 ppb, respectively. It is the opinion of the laboratory and the reviewer that the detected results for toluene in these two samples are the result of carryover from a sample analyzed immediately prior to these equipment blanks. Therefore, the detected results for toluene in these two samples have been changed to reflect that toluene was not detected at a concentration above the PQL.

G. Field Replicate Analysis:

G.1 A QC limit for precision of $\leq$ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC9-2S12-1.5 was used for the matrix spike/matrix spike duplicate analyses.

I.2 A discrepancy exists between the amount of carbon tetrachloride reported by the laboratory and the amount calculated by the reviewer in the spike analyses. The reviewer calculated recoveries of 187% and 149% in the matrix spike and matrix spike duplicate analyses, respectively. It appears that the laboratory used an incorrect linear regression equation for compound quantitation. The high recoveries are not expected to have an affect on the data since this target compound was not detected in any of the samples.

I.3 All of the other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The detection of toluene in the equipment blanks is probably the result of carryover from a sample analyzed immediately prior to the equipment blanks. The laboratory should have analyzed an instrument blank after the high level sample to prevent carryover to subsequent samples.

J.2 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation. Therefore, the detected results and PQLs of the HVOCs in all project samples are qualified "J" as estimated and are usable for limited purposes.

J.3 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 Compound identification was confirmed using a second column and an alternate detector.

K.2 No problems were observed for compound quantitation and identification.

L. Conclusion:

L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 26, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). All of the samples required analysis for the halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 6 and September 7, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-06	1690	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1702	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1706	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1710	Soil
BTR-AB-03	1712	Water

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, sample number BTR-EB-06 was designated as an equipment blank, and sample number BTR-AB-03 was designated as an ambient blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID

detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory inadvertently did not include the target analytes in the continuing calibrations associated with this project sample set. However, the laboratory did perform spiked blank analyses during the analytical sequence which can be used as continuing calibration checks. The spiked blank analyses were performed at a concentration of 100 ppb.

C.2 All QC criteria for the spike blanks used as continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-EB-06 was designated as an equipment blank and sample number BTR-AB-03 was designated as an ambient blank.

F.2 Toluene, ethylbenzene, and xylene were detected in the equipment blank at low concentrations. It is the opinion of the laboratory and the reviewer that the detected results for these analytes in the equipment blank are the result of carryover. Therefore, the PQLS for these analytes have been raised by the reviewer and are qualified "J" as estimated and usable for limited purposes.

F.3 Toluene, ethylbenzene, xylene, and carbon tetrachloride were detected in the ambient blank at low concentrations. It is the opinion of the laboratory and the reviewer that the detected results for these analytes in the ambient blank are the result of carryover. Therefore, the PQLS for these analytes have been raised by the reviewer and are qualified "J" as estimated and usable for limited purposes.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-SS14-2S06-3 was used for the soil matrix spike/matrix spike duplicate analyses, and tap water was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 476.

I.2 For the soil matrix, carbon tetrachloride exhibited a low recovery in the matrix spike analysis (57%) and in the matrix spike duplicate analysis (62%), and benzene exhibited a low recovery in the matrix spike analysis. The analytical results are not qualified solely on the results of the matrix spike analyses.

I.3 All other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The continuing calibrations were unusable because the laboratory inadvertently did not spike the target analytes into the continuing calibration solution vials. The reviewer was able to check the system response and linearity using the spiked blank analyses.

J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory reported a detected result for benzene at a concentration of 1.4 ppm in sample number BTR-SS14-2S07. The confirmation detector provides no evidence that this compound is present at this concentration. Since the PID detector does not provide evidence that benzene is present at this concentration, the detected result for this compound in sample BTR-SS14-2S07 is qualified "N" and is usable for limited purposes.

K.2 Compound identification was confirmed using a second column and an alternate detector.

K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Keith Strout
ANALYSIS: HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method 8020
MATRIX: Water and Soil
DATE: April 13, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 3 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). All of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 1 and September 2, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	1326	Water
BTR-LF04-SW02	1330	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil
BTR-TB-04	1346	Water

The following QC sample designations were included in project documentation: sample

number BTR-TB-04 was designated as a travel blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to large percent RSDs, the detected results for these compounds in all samples analyzed on system 3-4 are qualified "J" as estimated and usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. Continuing Calibrations:

C.1 The continuing calibrations were performed at a concentration of 500 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.

C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 No target analytes were detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 A discrepancy exists between the surrogate recovery reported by the laboratory (84%) and the surrogate recovery calculated by the reviewer (104%) for sample number BTR-TB-04. This is not expected to have an affect on the data since the surrogate recovery met all of the applicable QC criteria.

H.2 All of the surrogate recoveries met applicable QC criteria for all other project samples and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 Sample number BTR-AOC09-S09 (1318) was used for the soil matrix spike/matrix spike duplicate analyses. The laboratory did not submit any matrix spike/matrix spike duplicate analyses for the water fraction.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory did not adjust the HVOC PQLs for moisture content in soil samples BTR-LF04-S02, BTR-LF04-SD01, and BTR-LF04-SD02. The HVOC PQLs for these samples have been adjusted on the data summary forms by the reviewer.

J.2 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation. Therefore, the detected results and PQLs of the HVOCs in all project samples are qualified "J" as estimated and are usable for limited purposes.

J.3 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

K.1 The laboratory reported a detected result for total xylene in sample BTR-LF01-SD01. The confirmation data does not support the presence of this analyte in the sample. Therefore, the detected result for total xylene in sample BTR-LF01-SD01 has been changed on the data summary form by the reviewer to reflect that this analyte was not detected at a concentration above the PQL.

K.2 No other problems were observed with compound quantitation and identification.

L. Conclusion:

L.1 Due to the previously mentioned problems with the initial calibrations and the continuing calibrations, select data has been qualified "J" as estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Pesticides by USEPA Method 8080
MATRIX: Water and Soil
DATE: April 14, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). 1 water and 3 soil samples were requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for pesticides by USEPA Method 8080 on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-SW01	333	Water
BTR-SS14-S01	339	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S04	359	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Endosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) was raised accordingly for both the water and soil samples.

C. Continuing Calibration:

C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.

C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and samples are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Target analytes were not detected in the method blanks at a concentration above the PQLs and the results are considered acceptable.

E. Instrument Blanks:

E.1 Target analytes were not detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set for the pesticide fraction.

H. Surrogate Recoveries:

H.1 The surrogate recoveries calculated from the Aroclor 1254 continuing calibration met all QC criteria.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 No matrix spike and matrix spike duplicate analyses were performed for this project sample set.

J. System Performance:

J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.

J.2 The Endrin and 4,4'-DDT breakdown ranged between 12-30%, and the results are considered acceptable.

J.3 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 0.5 ppm for this analyte in the soil samples and 50 ppb for the water sample.

K.2 No other problems with compound quantitation and identification were observed.

L. Conclusion:

L.1 No target analytes were detected in the method blanks or the samples at a concentration above the PQLs.

L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blanks and samples are qualified "J" as estimated and usable for limited

purposes.

L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and samples was raised to <0.5 ppm for the soil samples and <50 ppb for the water sample.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Pesticides by USEPA Method 8080
MATRIX: Water and Soil
DATE: April 21, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Two water samples were requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for pesticides by USEPA Method 8080 on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC10-SW01	304	Water
BTR-EB-05	328	Water

It should be noted that the laboratory did not report the results for both of the water samples on the summary result page. The laboratory stated they were not reported due to extraction and/or instrument problems. By reviewing the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted). The laboratory reported results for soil samples BTR-AOC07-S01, BTR-LF01-S01 and BTR-LF04-S01 which were not requested for on the chain-of-custody record. These three soil samples were not validated by the reviewer.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in

USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Endosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) was raised accordingly for the samples.

C. Continuing Calibration:

C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.

C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and samples are qualified "J" as estimated and usable for limited purposes.

C.3 The laboratory analyzed many of the pesticide analytes separately prior to

analyzing the two samples listed above. These chromatograms are included in the data package for reference information only.

D. Laboratory Blanks:

D.1 Target analytes were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample BTR-EB-05 was designated as the field equipment blank for this project sample set.

F.2 Target analytes were not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 There were no field replicate samples for the pesticide fraction associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries calculated from the Aroclor 1254 continuing calibration standard met all QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 No matrix spike and matrix spike duplicate analyses for the pesticide fraction were performed for this project sample set.

J. System Performance:

J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.

J.2 The Endrin and 4,4'-DDT breakdown ranged between 22-24%, and the results are considered acceptable.

J.3 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 25 ppb in the method blank and samples. The PQL for all other target analytes are 2.5 ppb.

K.2 The laboratory did not report the two water sample results on the summary results page. The reviewer calculated the results and are listed below.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC10-SW01	---	<2.5 ppb *
BTR-EB-05	---	<2.5 ppb *

* Methoxychlor PQL is 25 ppb for both samples due to sensitivity problems associated with the initial calibration.

K.3 The laboratory reported the results for soil samples BTR-AOC07-S01, BTR-LF01-S01 and BTR-LF04-S01 on the summary results page. These three soil samples were not validated by the reviewer.

K.4 No other problems with compound quantitation and identification were observed.

L. Conclusion:

L.1 No target analytes were detected in the method blank or the samples at a concentration above the PQL.

L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and samples are qualified "J" as estimated and usable for limited purposes.

L.3 Due to low sensitivity detected in the initial calibration, the PQL for methoxychlor in the method blank and the samples was raised to 25 ppb.

L.4 The laboratory did not report the results for the water samples on the summary results page. The reviewer calculated the results and are reported in Section K.2.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Pesticides by USEPA Method 8080
MATRIX: Soil
DATE: April 19, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). One soil sample was requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for pesticides by USEPA Method 8080 on August 24, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC15-S01	364	Soil

The analytical results for the soil sample were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Endosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) was raised accordingly for the sample.

C. Continuing Calibration:

C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.

C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and sample are qualified "J" as estimated and usable for limited purposes.

C.3 The laboratory analyzed many of the pesticide analytes separately prior to analyzing sample BTR-AOC15-S01. These chromatograms are included in the data package for reference information only.

D. Laboratory Blanks:

D.1 Target analytes were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples for the pesticide fraction submitted for analysis with this project sample set.

H. Surrogate Recoveries:

H.1 The surrogate recovery calculated from the Aroclor 1254 continuing calibration standard met all QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 No matrix spike and matrix spike duplicate analyses for the pesticide fraction were performed for this project sample set.

J. System Performance:

J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.

J.2 The Endrin and 4,4'-DDT breakdown ranged between 22-24%, and the results are considered acceptable.

J.3 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 0.5 ppm in the sample.

K.2 No other problems with compound quantitation and identification were observed.

L. Conclusion:

L.1 No target analytes were detected in the method blank or the sample at a concentration above the PQL.

L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and sample are qualified "J" as estimated and usable for limited purposes.

L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and the sample was raised to <0.5 ppm.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Pesticides by USEPA Method 8080.
MATRIX: Soil
DATE: April 7, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). One sample was requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for pesticides by USEPA Method 8080 on August 24, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF12-S01	416	Soil

The analytical results were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve caluclated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the EC detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	38%
Endrin Aldehyde	31%
DDT/Endo. Sulfate -	32%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD except for the 0.5 ppm initial calibration. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) is raised to <0.5 ppm.

C. Continuing Calibration:

C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.

C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and sample are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Target analytes were not detected in the method blank at a concentration above the PQLs and the results are considered acceptable.

E. Instrument Blanks:

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

G. Field Duplicate Analyses:

G.1 No field duplicate analyses were requested for the pesticide fraction.

H. Surrogate Recoveries:

H.1 The surrogate recovery calculated from the Aroclor 1254 continuing calibration met all QC criteria.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 No matrix spike and matrix spike duplicate analyses were performed for this project sample set.

J. System Performance:

J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.

J.2 The Endrin and 4,4'-DDT breakdown ranged between 5-20%, and the results are considered acceptable.

J.3 No other problems with system performance were observed for all other project sample analyses.

K. Quantitation and Identification:

K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL is raised to 0.5 ppm for this analyte.

K.2 No other problems with compound quantitation and identification were observed.

L. Conclusion:

L.1 No target analytes were detected in the method blank and the sample.

L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and sample are qualified "J" as estimated and usable for limited purposes.

L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and samples is raised to <0.5 ppm.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water
DATE: April 26, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). One water sample was requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-06	1688	Water

The following set of QC sample designations were included in project documentation: sample number BTR-EB-06 was designated as an equipment blank.

The quantitation limits reported by the laboratory (<2 ppm) for the water sample was lower than those specified in the Project Sampling and Analysis Plan (<5 ppm). Since the low point of the initial calibration is 0.1 ppm, the PQL should be 5 ppb. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Sample number BTR-EB-06 was designated as an equipment blank.

F.2 Diesel was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 No matrix spike and matrix spike duplicate analyses were performed for this sample set.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quant itationand Identification:

K.1 No problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 PCBs were not detected in in the method blank and sample BTR-EB-06.

L.2 The PQLs for the method blank and sample were raised to 5 ppb by the reviewer on the summary results page.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water and Soil
DATE: April 8, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). Three samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The analytical results were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 No field replicate analyses were requested for the PCB fraction.

H. Surrogate Recoveries:

H.1 All surrogate recoveries were calculated referenced to the closest continuing calibration standard.

H.2 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 The percent recovery of the matrix spike duplicate sample was 252%, exceeding the percent recovery and %RPD QC criteria. It is the opinion of the

reviewer that since the surrogate recovery was also high for this QC sample, the final volume of the sample extract had somehow concentrated to less than 5 mL. Since this is a QC sample, no action is taken.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 No problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 No PCBs were detected in the method blank or the samples.

L.2 The matrix spike duplicate sample exceeded the percent recovery QC criteria. Since this is a QC sample, no action is necessary.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water and Soil
DATE: April 14, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). Eleven soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-S01	339	Soil
BTR-SS14-S02 (1:10 DIL)	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	357	Soil
BTR-AOC10-S04	359	Soil
BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	363	Soil

The analytical results were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-SS14-S03 and BTR-SS14-S06 along with sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limits (PQLs) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate

comparability.

G.2 Samples BTR-SS14-S03 and BTR-SS14-S06 were utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.

G.3 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were also utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF01-S01 was used for the soil matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 The PQLs for sample BTR-SS14-S02 should all have been raised to <5 ppb due to the 10 fold dilution necessary for the diesel fraction. The PQLs have been corrected on the summary result page by the reviewer.

K.2 The PQLs for sample BTR-AOC10-S05 were not corrected for moisture content by the laboratory. The PQLs have been corrected on the summary result page by the reviewer.

K.3 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 No PCBs were detected in the method blank or the samples at a concentration above the PQL and all results are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water and Soil
DATE: April 20, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Seven of the samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-EB-04	308	Water
BTR-AOC10-SW01	304	Water
BTR-AOC07-S01	320	Soil
BTR-AOC07-S02	321	Soil
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	328	Water

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks.

The quantitation limits reported by the laboratory (<0.5 ppm) for the soil samples were

higher than those specified in the Project Sampling and Analysis Plan (<0.1 ppm). It is the opinion of the reviewer that the quality of the data was not affected.

It should be noted that the laboratory did not report the results for the three water samples on the summary result page. The laboratory stated they were not reported due to extraction and/or instrument problems. By reviewing the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted by the laboratory). However, the reviewer could not locate the raw data for sample BTR-LF01-S01 reported by the laboratory, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 Samples BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks for this project sample set.

F.2 No PCBs were detected in the equipment blanks at a concentration above

the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

H. Surrogate Recoveries:

H.1 The surrogate recovery for sample BTR-AOC07-S01 could not be calculated due to the high level of Aroclor 1254 detected in the sample interfering with the surrogate area. It is unknown how the laboratory reported a surrogate recovery of 120%.

H.2 All other surrogate recoveries, including the samples not reported by the laboratory, met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-LF01-S01 was used for the matrix spike/matrix spike duplicate analyses. No water matrix spike/matrix spike duplicate analyses were submitted.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 The laboratory reported extraction and/or instrument problems with samples BTR-EB-04, BTR-AOC10-SW01 and BTR-EB-05 resulting in non submittal of results by the laboratory.

J.2 No other problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 The laboratory did not report results for samples BTR-EB-04, BTR-AOC10-SW01 and BTR-EB-05 stating that due to extraction and/or instrument problems no quantitative results were possible. However, by going through the data the reviewer found that the laboratory did reanalyze the three water samples noted above (evident by the submitted raw data). Listed below are the samples that were not reported by the laboratory, but were reported by the reviewer.

ICF Site No.	Laboratory Results	Validation Results
BTR-EB-04	---	<5 ppb
BTR-AOC10-SW01	---	<5 ppb
BTR-EB-05	---	<5 ppb

K.2 The reviewer was unable to locate the raw data for sample BTR-LF01-S01, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample. Therefore, the PQL for this sample is qualified "R" as rejected and unusable.

K.3 Discrepancies exist between the results reported by the laboratory and the

results regenerated by the reviewer for sample BTR-AOC07-S01. The laboratory reported a PQL of <0.5 ppm for Aroclor 1254, whereas the reviewer calculated Aroclor 1254 at a concentration of 52 ppm, exceeding the linear range of the initial calibration. Therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

K.4 The laboratory adjusted the PQL for Aroclor 1254 only in sample BTR-LF04-S01 to allow for the moisture content, when they should have adjusted the PQLs for all the PCBs. It has been corrected by the reviewer on the summary result page.

K.5 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Results for sample BTR-LF01-S01 are qualified "R" as rejected and unusable since the reviewer was unable to locate the raw data for verification of sample results.

L.2 Due to a discrepancy between the result reported by the laboratory and the result regenerated by the reviewer, the detected result for sample BTR-AOC07-S01 is qualified "J" as estimated and usable for limited purposes.

L.3 Results for the three water samples were not reported by the laboratory, but were calculated by the reviewer and are reported in Section K.1.

L.4 PCBs were not detected in the other project samples at concentrations above the PQL.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Soil
DATE: April 19, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Five soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC07-S07	374	Soil

The analytical result for the soil samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC07-S06 and BTR-AOC07-S07 along with sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This

report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC07-S06 and BTR-AOC07-S07 were utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.

H. Surrogate Recoveries:

H.1 The laboratory reported surrogate percent recovery values of 130% for sample BTR-AOC07-S06 and 145% for sample BTR-AOC07-S07. When calculated by the reviewer using peak height in place of area due to interference, the surrogate recoveries were 157% for sample BTR-AOC07-S06 and 156% for sample BTR-AOC07-S07. If the laboratory reintegrated the surrogate areas to achieve the above

surrogate recoveries, they were not submitted with the data for verification by the reviewer.

H.2 All other surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC14-SD02 was used for the matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 Aroclor 1254 was detected in samples BTR-AOC07-S06 and BTR-AOC07-S07 at concentrations above the initial calibration range. The laboratory did not dilute and reanalyze the samples.

J.2 No other problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 All samples were quantitated using the closest continuing calibration standard (File 098R0201).

K.2 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC07-S06	21 ppm	20 ppm
BTR-AOC07-S07	20 ppm	30 ppm

It is the opinion of the reviewer that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

K.3 Samples BTR-AOC07-S06 and BTR-AOC07-S07 contained Aroclor 1254 at concentrations exceeding the linear range of the initial calibration. Since the laboratory failed to dilute and reanalyze these two samples, the detected results are qualified "J" as estimated and usable for limited purposes.

K.4 The laboratory confirmed the Aroclor 1254 in sample BTR-AOC07-S07 with a second analysis using the GC confirmation column.

K.5 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Due to previously mentioned problems stated above, the detected results for samples BTR-AOC07-S06 and BTR-AOC07-S07 are qualified "J" as estimated and usable for limited purposes.

L.2 PCBs were not detected in the other project soil samples at concentrations above the PQL.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Soil
DATE: April 26, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 6 soil and 6 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 474). Six soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 6, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-AOC7-2S08-1	1671	Soil
BTR-AOC7-2S09	1672	Soil
BTR-AOC7-2S10	1673	Soil
BTR-AOC7-2S11	1674	Soil
BTR-AOC7-2S12	1675	Soil
BTR-AOC7-2S13	1676	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-AOC7-2S10 and BTR-AOC7-2S11 were designated as field replicate samples.

The quantitation limits reported by the laboratory (<0.5 ppm) for the soil samples were higher than those specified in the Project Sampling and Analysis Plan (<0.1 ppm). It is the

opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of $\leq$ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC7-2S10 and BTR-AOC7-2S11 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-SS14-2S06-3 was used for the matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-AOC7-2S09. The laboratory reported a PQL of <0.5 ppm for Aroclor 1254, whereas the reviewer calculated Aroclor 1254 at a concentration of 8.7 ppm. The result for this sample has been corrected on the summary results page by the reviewer. The detected results are qualified "J" as estimated and usable for limited purposes.

K.2 The other samples appeared to possibly contain low levels of Aroclor 1254. However, since all calculated results were below the PQL of 0.5 ppm, they were not reported by the laboratory on the summary result page.

K.3 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Due to a discrepancy between the result reported by the laboratory and the result regenerated by the reviewer, the detected result for Aroclor 1254 in sample BTR-AOC7-S09 is qualified "J" as estimated and usable for limited purposes.

L.2 PCBs were possibly detected in the other project soil samples, but were detected at concentrations below the PQL. Since these results were below the PQL of 0.5 ppm, they were not reported by the laboratory.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water
DATE: April 15, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 water samples from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 396). Requested analyses were for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 1, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF01-SW04	1348	Water
BTR-LF01-SW03	1362	Water
BTR-LF01-SW02	1368	Water
BTR-LF01-SW01	1372	Water

The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were found on the summary result page.

It should be noted that the quantitation limits reported by the laboratory (<2 ppb) for the samples were lower than those specified in the Project Sampling and Analysis Plan. Since the lowest point of the initial calibration was 10 ppm, the practical quantitation limits (PQLs) should be <5 ppb. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets

submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 Continuing calibration standard (File 098R4201) percent recovery of 129% was outside the QC criteria of 75-125%. Therefore, all detected results and practical quantitation limits (PQLs) for samples associated with this calibration standard are qualified "J" as estimated and usable for limited purposes.

C.2 All QC criteria for the other continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number TW (tap water) was used for the water matrix spike/matrix spike duplicate analyses.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 The PQL of the water samples was raised to 5 ppb by the reviewer since the low point of the initial calibration was 0.1 ppm.

K.2 The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were reported on the summary result page. Since no raw data was submitted for sample result verification, the results are qualified "R" as rejected and unusable.

K.3 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 Due to previously mentioned problems in Section K.2, results for sample BTR-LF01-SW01 are qualified "R" as rejected and unusable.

L.2 PCBs were not detected in the method blank or in all other samples at a concentration above the PQL (5 ppb) and the results are considered valid and usable for all purposes.

L.3 Due to continuing calibrations problems, the PQL for samples BTR-LF01-SW04 and BTR-LF01-SW02 are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Friedman & Bruya, Inc. (Seattle, WA)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.
MATRIX: Water and Soil
DATE: April 12, 1994

I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 2 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). Requested analyses were for polychlorinated biphenyls (PCBs) by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	1324	Water
BTR-LF04-SW02	1328	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project water samples were lower than those specified in the Project Sampling and Analysis Plan. Since the low point of the initial calibration is 0.1 ppm, the correct PQL is 5 ppm. It is the

opinion of t hereviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

B.2 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 The continuing calibration (file 098R1901) analyzed on GC instrument ICF6 reported a percent recovery of 133%, exceeding the QC criteria of 75-125%. All detected results and the practical quantitation limits (PQLs) of the samples associated with this continuing calibration are qualified "J" as estimated and usable for limited purposes.

C.2 All QC criteria for the other continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Inst rumentBlanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analyses for this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries were calculated referenced to the closest continuing calibration standard.

H.2 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.

I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

K. Quantitation and Identification:

K.1 Samples BTR-LF04-SW02 and BTR-LF01-SD03 exhibited some type of biogenic material interference within the PCB retention time window, but did not interfere with PCB identification. No PCBs were detected in the two samples.

K.2 The PQLs for the water samples have been raised to 2500 ppm.

K.3 No other problems with compound quantitation and identification were observed for this project sample set.

L. Conclusion:

L.1 No PCBs were detected in the method blanks or the samples at a concentration above the PQL.

L.2 Due to continuing calibration problems the PQLs for sample BTR-LF01-SD03 are qualified "J" as estimated and usable for limited purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia Schlag, ICF Kaiser Engineers
ANALYSIS: Semivolatile Organic Compounds by USEPA Method 8270
MATRIX: Soil and Water
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received nine (9) soil samples and six (6) water samples for semivolatile organic compound (SVOC) analyses by USEPA Method 8270 on August 16, 17, 18, 20, 21, and September 3, 1993. The water samples were extracted on August 21, 27, and 28, 1993 and analyzed for SVOCs by gas chromatography/mass spectrometry (GC/MS) on August 23, 24, 29 and September 3 and 4, 1993. The soil samples were extracted on August 30, 31 and September 3, 4 and 15, 1993 and analyzed for SVOCs by GC/MS on September 9, 16, 21, 28, 29, 30, and October 6 and 21, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-SW01	93.4301-01	Water
BTR-SS14-SD01	93.4301-04	Soil
BTR-AOC10-S04	93.4301-08	Soil
BTR-AOC14-SD01	93.4305-01	Soil
BTR-AOC14-S02	93.4305-06	Soil
BTR-AOC14-SW01	93.4305-07	Water
BTR-SD08-WEB	93.4179-01	Water
BTR-BKGD-SW01	93.4179-02	Water
BTR-BKGD-SD01	93.4179-04	Soil
BTR-SD08-SD01	93.4178-03	Soil
BTR-SS13-S02	93.4212-05	Soil
BTR-AOC9-2S11-1.5	93.4616-06	Soil
BTR-AOC08-S04	93.4302-04	Soil
BTR-AOC09-SW01	93.4302-08	Water
BTR-EB-04	93.4302-10	Water

The following QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-SD08-WEB were designated as "equipment blanks."

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

Sample number BTR-SD08-SD01 was not analyzed by the laboratory due to the fact that the sample was not recovered during extraction. Therefore, the results of this sample could not be validated.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8270, and the Project Sampling and Analysis Plan.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Sample number BTR-AOC09-SW01 exceeded the technical holding time criteria of 7 days. This sample exceeded the extraction holding time by one day and it is the opinion of the reviewer that this will not affect data quality.

A.2 Technical holding time QC criteria were met for all other project sample analyses.

B. GC/MS Instrument Performance Check:

B.1 All QC criteria for the decafluorotriphenylphosphine (DFTPP) tunes were met and the results are considered acceptable.

C. Initial Calibration:

C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:

D.1 The percent differences (%Ds) in the continuing calibrations exceeded the $\leq \pm 25\%$ QC validation criteria. The detected results and quantitation limits for the analytes listed on Table A are considered estimated (J) and usable for limited purposes only (see modified sample data sheets and Table A).

%Ds exceeding the $\leq \pm 25\%$ QC validation criteria were observed for several analytes in the continuing calibrations performed on August 23, 29, September 3, 4, 7, 20, 28, 29, and October 20 and 21, 1993. These deviations are not expected to affect the quality of the results, except for those listed on Table A.

E. Laboratory Blanks:

E.1 Target analytes were detected in the method blanks listed at concentrations above the Practical Quantitation Limit (PQL):

Date extracted	Analyte	Concentration
09/03/93	Di-n-butylphthalate	0.587 mg/Kg
09/03/93	Benzyl alcohol	0.336 mg/Kg
09/03/93	Bis(2-ethylhexyl)phthalate	0.360 mg/Kg
09/15/93	Di-n-butylphthalate	0.714 mg/Kg

Due to method blank contamination, the result reported for di-n-butylphthalate in sample number BTR-AOC9-2S11-1.5 is considered nondetected (U) (see modified sample data sheets).

E.2 Due to laboratory contamination, the result reported for di-n-butylphthalate in sample number BTR-BKGD-SD01 is considered nondetected (U) (see modified sample data sheets). Although not detected in the laboratory method blank, di-n-butylphthalate has historically been recognized as a common laboratory contaminant. It is the opinion of the reviewer that the di-n-butylphthalate reported in the sample noted above is an artifact.

E.3 The laboratory observed benzyl alcohol to be a contaminant in the extraction process by finding benzyl alcohol in some of the method blanks. Therefore, benzyl alcohol results reported in sample numbers BTR-AOC10-S04 and BTR-BKGD-SD01 are considered nondetected (U) (see modified sample data sheets).

E.4 Due to low surrogate recoveries in the acid fraction of the method blank extracted on August 27, 1993, the possibility of blank contamination in the acid fraction for all associated project samples cannot be determined.

E.5 No other target analytes were detected in the method blanks at concentrations above the PQL and the results are considered acceptable.

F. Surrogate Recoveries:

F.1 All acid surrogate recoveries for the laboratory method blank extracted on August 27, 1993 were below the 10% QC validation criteria. Therefore, the quantitation limits for all target analytes in the acid fraction are considered rejected (R) and unusable for all purposes (see modified sample data sheets).

F.2 All surrogate recoveries for sample number BTR-AOC14-SD01 MS were below the 10% QC validation criteria. Therefore the quantitation limits for all target analytes are considered rejected (R) and unusable for all purposes (see modified sample data sheets).

F.3 The following percent surrogate recoveries, listed below, for sample numbers BTR-EB-04, BTR-EB-04 MS, and BTR-AOC14-SD01 were outside the method QC limits.

Sample No.	Analyte	Recovery	QC criteria
BTR-EB-04	2-Fluorobiphenyl	41%	43-116%
BTR-EB-04 MS	2-Fluorophenol	19%	21-100%
BTR-AOC14-SD01	2-Fluorphenol	10%	25-121%
BTR-AOC14-SD01	Phenol-d6	11%	24-113%
BTR-AOC14-SD01	Nitrobenzene-d5	10%	23-120%
BTR-AOC14-SD01	2-Fluorobiphenyl	11%	30-115%
BTR-AOC14-SD01	2,4,6-Tribromophenol	12%	19-122%
BTR-AOC14-SD01	Terphenyl-d14	11%	18-137%

The following associated detected and nondetected results are considered estimated (J) (see modified sample data sheets):

- all target analytes in sample number BTR-AOC14-SD01

F.4 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

G. Field Blanks:

G.1 The following target analytes listed below were detected in the equipment blank at concentrations above the PQL:

Sample No.	Analyte	Concentration
BTR-EB-04	Phenol	0.027 mg/L
BTR-EB-04	2-Chlorophenol	0.069 mg/L
BTR-EB-04	4-Chloro-3-methylphenol	0.075 mg/L
BTR-EB-04	Pentachlorophenol	0.046 mg/L

G.2 No other target analytes were detected in the field blank at concentrations above the PQL and the results are considered acceptable.

H. Laboratory Control Sample Analysis:

H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

I. Laboratory Replicate Analysis:

I.1 No laboratory replicate analysis is included with the project documentation.

J. Field Duplicate Analysis:

J.1 No field duplicate analyses were included with the project documentation.

K. Matrix Spike/Matrix Spike Duplicate Analysis:

K.1 All matrix spike (MS) compounds in sample BTR-AOC14-SD01 were below 10% recovery. According to USEPA guidelines, organic data are not qualified based on low MS recoveries alone. The affect on the quality of the data is not known.

K.2 The recoveries in the matrix spike (MS) and matrix spike duplicate (MSD) associated with sample number BTR-EB-04 did not meet the QC criteria as noted below.

Sample No.	Compound	Recovery	QC Limits
BTR-EB-04 MS	Pyrene	48%	52-115%
BTR-EB-04 MSD	2-Chlorophenol	9%	23-134%
BTR-EB-04 MSD	4-Chloro-3-methylphenol	9%	22-147%
BTR-EB-04 MSD	Pentachlorophenol	0%	14-176%

According to USEPA guidelines, organic data are not qualified based on low MS recoveries alone. The affect on the quality of the data is not known.

The laboratory inappropriately used an equipment blank for MS/MSD analyses. Therefore, the accuracy and precision for the project samples based on a project sample matrix cannot adequately be determined.

K.3 All other MS and MSD analyses met the QC criteria and are considered acceptable.

L. Internal Standards:

L.1 Internal standard areas for all analyses met applicable QC criteria and the results are considered acceptable.

M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

N. Conclusion:

N.1 Due to the above noted low surrogate recoveries in the method blank and sample number BTR-AOC14-SD01 MS, select data are considered rejected and unusable for any purposes.

N.2 Due to the above noted deficiencies in continuing calibration performance and low surrogate recoveries in the samples, select data are considered as estimates and usable for limited purposes only.

N.3 Due to the above noted laboratory blank contamination, select data are considered nondetected.

N.4 All other data are considered valid and usable for all purposes.

TABLE A
CALIBRATIONS OUTSIDE %D CRITERIA

Date	Compound	%D	Samples
Continuing Calibration - August 23, 1993	3,3'-dichlorobenzidine benzo(g,h,i)perylene	47.0 56.0	blank (aq) BTR-SD08-WEB BTR-BKGD-SW01
Continuing Calibration - August 29, 1993	bis(2-chloroisopropyl)ether 3,3'-dichlorobenzidine	26.3 34.5	BTR-SS14-SW01 BTR-SS14-SW01MS BTR-SS14-SW01MD
Continuing Calibration - September 3, 1993	3,3'-dichlorobenzidine	30.2	blank(aq)
Continuing Calibration - September 4, 1993	3,3'-dichlorobenzidine	29.5	blank(aq) BTR-AOC14-SW01 BTR-AOC14-SW01MS BTR-AOC14-SW01MD BTR-AOC09-SW01
Continuing Calibration - September 7, 1993	hexachlorocyclopentadiene 2,4-dinitrophenol 4,6-dinitro-2-methylphenol	46.2 34.3 31.8	blank(soil)
Continuing Calibration - September 20, 1993	pentachlorophenol	27.4	BTR-AOC08-S04
Continuing Calibration - September 28, 1993	hexachlorocyclopentadiene	39.0	BTR-AOC14-SD01 BTR-AOC14-SD01MS BTR-AOC14-S02
Continuing Calibration - September 29, 1993	hexachlorocyclopentadiene	51.5	BTR-AOC14-SD01MD
Continuing Calibration - September 29, 1993	hexachlorocyclopentadiene	39.0	BTR-SS14-SD01MD
Continuing Calibration - October 20, 1993	di-n-octylphthalate benzo(k)fluoranthene benzo(a)pyrene	29.2 28.7 28.3	blank(soil)
Continuing Calibration - October 21, 1993	di-n-octylphthalate dibenz(a,h)anthracene benzo(g,h,i)perylene	28.9 26.8 26.8	BTR-AOC9-2S11-1.5 BTR-AOC9-2S11- 1.5MS

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Semi-Volatile Organic Compounds by USEPA Method 8270A
MATRIX: Water & Soil
DATE: January 18, 1994

INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received six (6) water samples and three (3) soil samples for Semi-Volatile Organic Compound (SVOC) analysis by USEPA Method 8270A on August 19, 1993 through August 24, 1993. The samples were extracted on August 21, 1993 through September 4, 1993 and analyzed for SVOCs by gas chromotography/mass spectrometry (GC/MS) on August 23, 1993, through September 29, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-BKGD-S02	93.4175-02	SOIL
BTR-SD08-SEB	93.4175-03	WATER
BTR-SS13-SEB2	93.4213-04	WATER
BTR-LF03-SD07	93.4213-03	SOIL
BTR-SS13-WEB2	93.4211-01	WATER
BTR-LF01-SW03	93.4285-02	WATER
BTR-A0C10-SW01	93.4303-06	WATER
BTR-LF01-S01	93.4303-02	SOIL
BTR-EB-05	93.4303-05	WATER

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 8270A and the Project Sampling and Analysis Plan.

The following QC sample designations were included in project sample analyses: sample numbers BTR-SD08-SEB, BTR-SS13-WEB2, and BTR-EB-05 were designated as equipment blanks.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project samples.

B. Instrument Tuning:

B.1 The GC/MS instrument tuning criteria were met for all project sample analyses.

C. Initial Calibration:

C.1 Initial calibration QC criteria were met for all project sample analyses.

D. Continuing Calibration:

D.1 The percent differences (%Ds) in the continuing calibrations (CCVS) exceeded the $\leq \pm$ 25% QC criteria. Therefore, the quantitation limits for the analytes listed below in the associated samples are considered estimated (J) (see modified laboratory reports):

- Target analyte 3,3'-dichlorobenzidine in sample numbers BTR-EB-05, BTR-AOC10-SW01, BTR-SS13-SEB2, BTR-SS13-WEB, BTR-LF01-SW03 and BTR-SD08-SEB

CCVS File	Date	% Difference
B2303	08/23/93	46.9
B2503	08/25/93	32.1
B2515	08/25/93	39.1
B2905	08/29/93	34.5
B2913	08/29/93	36.9

- Target analyte benzo(g,h,i)perylene in sample number BTR-SD08-SEB

CCVS File	Date	% Difference
B2303	08/23/93	56.0
B2316	08/23/93	55.0

- Target analyte bis(2-chloroisopropyl)ether in sample numbers BTR-SS13-SEB2 and BTR-SS13-WEB

CCVS File	Date	% Difference
B2503	08/25/93	63.0

D.2 All other continuing calibration QC criteria were met for all project sample analyses.

E. Laboratory Blanks:

E.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

F. Field Blanks:

F.1 No target analytes were detected in the field blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Duplicate Analysis:

G.1 There were no field duplicates associated with project sample analyses.

H. Surrogate Recoveries:

H.1 Surrogates were not added to sample BTR-LF01-S01 prior to extraction and the sample was not re-extracted. Since there were no target compounds detected in this sample, the quantitation limits in this sample are considered rejected (R) and the results are unusable for any purposes (see modified sample reports).

H.2 The surrogate recoveries for 2-fluorobiphenyl in sample BTR-SD08-SEB and method blank B2906 were 42% and 38%, respectively. Although the above noted surrogate recoveries fell below the QC criteria of 43-116%, according to USEPA validation guidelines, data are not qualified if one surrogate is out of QC limits unless it is below 10% recovery.

H.3 The surrogate QC criteria was met for all other project sample analyses.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The recoveries of 4-nitrophenol and pentachlorophenol in the matrix spike duplicate (MSD) analysis associated with sample BTR-LF03-SD07 exceeded the QC criteria as noted below.

Compound	Recovery	QC Criteria
4-Nitrophenol	124	11-114
Pentachlorophenol	120	17-109

According to USEPA validation guidelines, organic data are not qualified based on matrix spike recovery alone, it is the opinion of the reviewer that the quality of the data is not affected by the above noted deviations.

I.2 The recoveries of pentachlorophenol in the matrix spike (MS) and MSD analyses associated with sample BTR-LF01-S01 were 1% and 6%, respectively, falling below the QC criteria of 14-126%.

I.3 The relative percent differences (RPD) exceeding the advisory QC limits for the following two compounds were observed in the MS/MSD analyses:

Compound	RPD	QC Criteria
Acenaphthene	23	19
Pentachlorophenol	188	50

According to USEPA validation guidelines, organic data are not qualified based on matrix spike recovery alone, it is the opinion of the reviewer that the low MS recoveries are due to matrix interferences and the affect on the quality of the data is not known.

J. System Performance:

J.1 No problems with system performance were observed in project sample analyses.

K. Quantitation & Identification:

K.2 No problems were observed with sample quantitation and identification.

L. Conclusion:

L.1 Due to fact that surrogates were not added to sample BTR-LF01-S01 prior to extraction, select data are considered rejected and unusable for any purposes.

L.2 Due to deficiencies in the continuing calibrations, select data are considered estimated and usable for limited purposes only.

L.3 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-4312-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Timothy Vonnahme
ANALYSIS: Pesticides by USEPA Method 8080
MATRIX: Water & Soil
DATE: January 18, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and two (2) soil samples for Pesticide analysis by USEPA Method 8080 on August 19 and 20, 1993. The samples were analyzed for Pesticides on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	MATRIX
BTR-SS13-SEB2	93.4215-6	Water
BTR-SS13-WEB2	93.4215-7	Water
BTR-BKGD-SD01	93.4199-1	Soil
BTR-BKGD-SW01	93.4199-6	Water
BTR-BKGD-S02	93.4203-6	Soil
BTR-SD08-SEB	93.4203.8	Water

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document " National Functional Guidelines for Organic Data Review", December 1985, the standard operating procedure, "Guidelines for Validation of Pesticide/PCB Data Packages", the analytical guidelines in USEPA Method 8080 and the Project Sampling and Analysis Plan.

The following QC sample designations were included in project sample analyses: sample numbers BTR-SS13-SEB2, BTR-SS13-WEB2 and BTR-SD08-SEB were designated as equipment blanks.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:
A.1 Technical Holding time QC criteria were met for all project sample analyses.

B. Instrument Performance:
B.1 All DDT/Endrin breakdown QC criteria were met for all project sample analyses.

B.2 All retention time windows QC criteria were met for all project sample analyses.

B.3 All other QC criteria were met for all project sample analyses.

C. Initial Calibration:
C.1 Initial calibration QC criteria were met for all project sample analyses.

D. Continuing Calibration:
D.1 Continuing calibration QC criteria were met for all project sample analyses.

E. Surrogate Recoveries:
E.1 Surrogate spike percent recoveries (%Rs) for project analyses were observed to be lower than established control limits as follows:

Sample No.	Surrogate	%R	QC Limits
BLK	Tetrachloro-m-xylene	52	70-130%
BTR-SS13-SEB2	Tetrachloro-m-xylene	65	70-130%
BTR-SS13-WEB2	Tetrachloro-m-xylene	58	70-130%
BTR-BKGD-SW01	Tetrachloro-m-xylene	66	70-130%
BTR-BKGD-S02	Tetrachloro-m-xylene	49	70-130%
BTR-BKGD-S02	Decachlorobiphenyl	53	70-130%

The analytical results for alpha-BHC, beta-BHC, delta-BHC, aldrin, heptachlor, heptachlorepoxide and endosulfan I in sample BTR-BKGD-S02 are considered as estimates ("J") and usable for limited purposes.

The detected results for the sample noted above may be biased low and are the minimum values at which these compounds are present in the samples. Where the results are nondetected false negatives may exist.

E.2 All other surrogate QC criteria were met for project sample analyses.

F. Laboratory Blanks:
F.1 No target analytes were detected in the method blanks at concentrations above the practical quantitation limits (PQLs), and the results are considered acceptable.

G. Field Blanks:
G.1 No target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.

H. FIELD DUPLICATE ANALYSIS:
H.1 There were no field duplicates associated with these samples.

I. Matrix Spike/Matrix Spike Duplicate:
I.1 The matrix spike/matrix spike duplicate samples associated with BTR-BKGD-SD01 contained the following analytes outside the QC limits:

Sample No.	Compound	%R	QC Limits
SPKA:	4,4-DDT	43	70-130%
	Methoxychlor	43	70-130%
DUPA	4,4-DDT	32	70-130%
	Methoxychlor	36	70-130%

No action is taken on matrix spike/matrix spike duplicate analyses alone, therefore all QC criteria were met.

Laboratory bench matrix spike/matrix spike duplicate samples associated with the above sample were analyzed, and all QC criteria were met.

I.2 All QC criteria were met for all additional matrix spike/matrix spike duplicate analyses.

J. Quantitation and Identification:
J.1 No problems were encountered with sample quantitation and identification for all samples.

K. System Performance:
K.1 No problems with system performance were observed in project sample analyses.

L. Conclusion:
L.1 Due to low surrogate recoveries in sample BTR-BKGD-S02, all analytical results are flagged as estimates and are considered usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-4312-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Timothy Vonnahme
ANALYSIS: Polychlorinated Biphenyls (PCBs) Organic Compounds by USEPA Method 8080
MATRIX: Water & Soil
DATE: January 17, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for PCB analysis by USEPA Method 8080 on August 19 and 20, 1993. The samples were analyzed for PCBs on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	Matrix
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-SD08-SEB	93.4203-08	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document,"National Functional Guidelines for Organic Data Review", December 1990, the standard operating procedure, "Guidelines for Validation of Pesticide/PCB Data Packages", December 1992, the analytical guidelines in USEPA Method 8080 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:
A.1 Technical Holding time QC criteria were met for all project sample analyses.

B. Instrument Performance:
B.1 All DDT/Endrin breakdown QC criteria were met for all project sample analyses.

B.2 All other QC criteria were met for all project sample analyses.

C. Initial Calibration:
C.1 All initial calibration QC criteria were met for all project sample analyses.

D. Continuing Calibration:
D.1 The percent recovery (%R) between the calculated and true amount for the compound Aroclor 1254 in the continuing calibration standard analyzed on August 24, 1993 was reported to be 123%, exceeding the recommended QC limit of 115%. Since no Aroclor 1254 was detected in the samples, the above noted deviation is not expected to have an adverse effect on data quality.

D.2 All other continuing calibration QC criteria were met for all project sample analyses.

E. Surrogate Recoveries:
E.1 The following percent surrogate recoveries (%Rs), listed below, were outside established control limits:

Sample No.	Surrogate	%R	QC Limits
BTR-SS13-S02	Tetrachloro-m-xylene	61	70-130%
BLK	Tetrachloro-m-xylene	52	70-130%
SPK	Tetrachloro-m-xylene	49	70-130%
DUP	Tetrachloro-m-xylene	35	70-130%
BTR-SS13-SEB2	Tetrachloro-m-xylene	65	70-130%
BTR-SS13-WEB2	Tetrachloro-m-xylene	58	70-130%

The following detected and nondetected results are considered estimated (J) (The laboratory reports for the SPK and DUP were not located in the data packages, therefore there are no modified data sheets for these QC samples provided in the report appendix.):

- aroclors 1016, 1221, 1232 and 1242 in QC sample numbers SPK and DUP

The detected results for the samples noted above may be biased low and are the minimum values at which these compounds are present in the samples. Where the results are nondetected, false negatives may exist.

E.2 All other surrogate QC criteria were met for project sample analyses.

F. Laboratory Blanks:
F.1 No target analytes were detected in the method blanks at a concentrations above the practical quantitation limits (PQL), and the results are considered acceptable.

G. Field Blanks:
G.1 No target analytes were detected in the field blanks at a concentrations above the (PQL), and the results are considered acceptable.

H. Field Duplicate Analysis:
H.1 There were no field duplicates associated with these samples.

I. Matrix Spike/Matrix Spike Duplicate:
I.1 All QC criteria were met for the matrix spike/matrix spike duplicate analyses associated with all project sample analyses.

J. Quantitation and Identification:
J.1 No problems were encountered with sample quantitation and identification for all project sample analyses.

K. System Performance:
K.1 No problems with system performance were encountered in project sample analyses.

L. Conclusion:
L.1 Due to deficiencies in surrogate recoveries, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Total Organic Carbon by USEPA Method 9060
MATRIX: Water & Soil
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received six (6) water samples and three (3) soil samples for Total Organic Carbon (TOC) analysis by EPA Method 9060 on August 19, 1993 through August 24, 1993. The samples were analyzed for TOC on August 30, 1993 through September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF01-SW03	93.4285-02	Water
BTR-SD08-SEB	93.4175-03	Water
BTR-BKGD-S02	93.4175-02	Soil
BTR-LF03-SD07	93.4213-03	Soil
BTR-SS13-SEB2	93.4213-04	Water
BTR-SS13-WEB	93.4211-01	Water
BTR-AOC10-SW01	93.4303-06	Water
BTR-LF01-S01	93.4303-02	Soil
BTR-EB-05	93.4303-05	Water

Sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, BTR-SS13-WEB and BTR-EB-05 were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 9060 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Sample number BTR-LF01-S01 was sampled on August 21, 1993 and analyzed on September 20, 1993, exceeding the technical holding time QC criteria of twenty-eight (28) days by two (2) days. It is the opinion of the reviewer that this is not expected to have an adverse effect on the data quality.

A.2 All other technical holding time criteria were met for project sample analyses.

B. Initial Calibrations:

B.1 Initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:

C.1 The calibration verification standard recoveries for the samples listed below fell outside the advisory QC limits of 90-110%. Therefore the detected results for TOC in samples BTR-A0C10-SW01 and BTR-LF01-SW03 and the practical quantitation limits (PQL) for TOC in sample BTR-EB-05 are considered as estimated (J) and usable for limited purposes (see modified sample data sheets).

Sample No.	CVS % Recovery
BTR-A0C10-SW01	114%
BTR-EB-05	114%
BTR-LF01-SW03	85%

D. Laboratory Blanks:

D.1 TOC was not detected in the method blanks associated with these samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 TOC was not detected in the equipment blank at a concentration above the (PQL) and the results are considered acceptable.

F. Laboratory Control Sample Analysis:

F.1 The laboratory control sample (LCS) recovery associated with samples BTR-LF01-SW03 and BTR-SS13-WEB was 87%, falling marginally below the QC criteria of 89-110%. It is the opinion of the reviewer that this is not expected to have an adverse effect on the data quality.

F.2 All other LCS percent recoveries met applicable QC criteria for accuracy.

G. Laboratory Replicate Analysis:

G.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

H. Field Duplicate Analysis:

H.1 There were no field duplicates designated for analysis with these samples.

I. Matrix Spike:

I.1 The matrix spike recovery met all applicable QC criteria and the results are considered acceptable.

J. Quantitation:

J.1 No problems were encountered with sample quantitation and the results are considered acceptable.

K. Conclusion:

K.1 Due to deficiencies in calibration, select data are considered estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia Schlag
ANALYSIS: Total Organic Carbon by USEPA Method 9060
MATRIX: Water
DATE: January 27, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for Total Organic Carbon (TOC) analysis by USEPA Method 9060 on August 20, 1993. The samples were analyzed for TOC on August 31 and September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-AOC09-SW01	93.4305-08
BTR-EB-04	93.4305-10
BTR-LF04-SW01	93.4286-01

The following QC sample designation was included in project documentation: sample number BTR-EB-04 was designated as an "equipment blank."

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis" (October 1989), USEPA Method 9060 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project samples.

B. Initial Calibrations:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 The target analyte was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

F. Laboratory Control Sample Analysis:

F.1 The laboratory control sample (LCS) recovery associated with sample BTR-EB-04 was 87%, falling marginally below the QC criteria of 89-110%. It is the opinion of the reviewer that this is not expected to have an adverse effect on data quality.

F.2 All other LCS percent recoveries met applicable QC criteria for accuracy.

G. Laboratory Replicate Analysis:

G.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

H. Field Duplicate Analysis:

H.1 No field duplicates analysis are included with project documentation.

I. Matrix Spike:

I.1 The matrix spike recovery met all applicable QC criteria and the results are considered acceptable.

J. Quantitation:

J.1 No problems were encountered with sample quantitation and the results are considered acceptable.

K. Conclusion:

K.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total and Dissolved Metals by USEPA Method 6010
MATRIX: Soil and Water
DATE: January 4, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) water samples for total and dissolved metals analyses and one (1) soil sample for total metals analyses by USEPA Method 6010 on August 19, 1993. The samples were digested on August 20 and August 24, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 24 and August 25, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-WEB	4179-1
BTR-BKGD-SW01	4179-2
BTR-SD08-WEB (F)	4179-1
BTR-BKGD-SW01 (F)	4179-2
BTR-BKGD-SD01	4179-4

The above noted sample numbers identified as (F) were field-filtered samples and analyzed for dissolved metals on August 24, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The percent recovery for silver in the initial calibration performed on August 24, 1993 was marginally below the applicable QC criteria. This slight discrepancy is not expected to affect data quality.

B.2 All other initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Blank Analyses:

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. ICP Interference Check Sample (ICS) Analyses:

E.1 The spike recovery for the indicated target analyte exceeded the established QC limits for the interference check sample (ICS) analysis performed on August 24, 1993 as follows:

Analyte	Recovery	QC limits
Zinc	132%	80-120%

The ICS recovery for zinc exceeded the upper QC limit of 120%, indicating a possible high bias. However, since the zinc results for all samples were non-detected, no adverse effects are expected on data quality due to the above noted ICS recovery. The ICS analyses met all other applicable QC criteria.

F. Laboratory Control Sample Analyses:

F.1 All laboratory control sample QC criteria were met.

G. Laboratory Replicate Analysis:

G.1 There were no laboratory replicate analyses included in the project documentation.

H. Field Duplicate Analysis:

H.1 There were no field duplicate analyses included in the project documentation.

I. Matrix Spike Analysis:

I.1 Sample number BTR-SD08-WEB was utilized for the matrix spike (MS) analyses. The MS recoveries for aluminum and iron were 225% and 3800%, respectively; exceeding the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries. Post-digestion spike recovery analyses were performed on August 25, 1993 and the recovery results for all re-analyses met applicable QC criteria.

J. Quantitation and Identification:

J.1 No problems were observed with analyte quantitation and identification in project sample analyses.

K. Conclusion:

K.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Total Dissolved Solids by USEPA Method 160.1
MATRIX: Water
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received three (3) water samples for total dissolved solids (TDS) analysis by USEPA Method 160.1 on August 18 through 21, 1993. The samples were analyzed for total dissolved solids (TDS) on August 27 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-AOC10-SW01	93.4303-06
BTR-LF01-SW03	93.4285-02
BTR-SS13-WEB	93.4211-01

Sample number BTR-SS13-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, USEPA Method 160.1 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Sample number BTR-AOC10-SW01 was sampled on August 21, 1993 and analyzed on August 31, 1993, exceeding the technical holding

time QC criteria of seven (7) days by three (3) days. Therefore, the detected sample result in the above noted sample is considered as an estimated (J) and usable for limited purposes only.

A.2 All technical holding time QC criteria were met for other project sample analyses.

B. Calibration:

B.1 The calibration recovery associated with sample number BTR-LF01-SW03 was 120%, slightly exceeding the advisory QC recovery criteria of 83-117%. Therefore, the detected result for TDS in the above noted sample is considered as an estimated (J) and usable for limited purposes.

B.2 All other calibration QC criteria were met for sample calibration analyses.

C. Laboratory Blanks:

C.1 TDS was detected in the method blank associated with sample number BTR-AOC10-SW01 at a concentration of 12 mg/L, exceeding the QC criteria of 10 mg/L. Therefore the practical quantitation limit for TDS in the above noted sample is raised to 12 mg/L. This is not expected to have an effect on the TDS result in the above noted sample.

C.2 All other QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

D. Field Blanks:

D.1 TDS was detected in the equipment blank BTR-SS13-WEB at a concentration of 70 mg/L. This is not expected to have an effect on the detected results of sample numbers BTR-AOC10-SW01 and BTR-LF01-SW03, because the above noted equipment blank is not associated with the two samples.

E. Laboratory replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with these samples.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 Due to exceeded holding time and deficiency in calibration, select data are considered estimates and usable for limited

purposes. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Sharon Lin, ICF Kaiser Engineers, Inc.
ANALYSIS: Total Dissolved Solids by USEPA Method 160.1
MATRIX: Water
DATE: January 27, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received one (1) water sample for Total Dissolved Solids (TDS) analysis by USEPA Method 160.1 on August 20, 1993. The sample was analyzed for TDS on August 27, 1993.

The ICF site identification number and corresponding CT&E laboratory sample identification number are listed below.

ICF Site No.	Lab Sample No.
BTR-LF04-SW01	4286-1

The analytical result is presented on modified sample data sheet submitted by the laboratory. (Definitions of data qualifiers are listed in Table 1B). This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis," October 1989. the analytical guidelines in USEPA Method 160.1 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 All technical holding time QC criteria were met for project sample analyses.

B. Calibration:

B.1 All applicable QC criteria were met for sample calibration analyses.

C. Laboratory Blanks:

C.1 All QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

D. Field Blanks:

D.1 There were no field blanks analyses associated with the project sample.

E. Laboratory replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with the project sample.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Sharon Lin, ICF Kaiser Engineers, Inc.
ANALYSIS: Total Dissolved Solids by USEPA Method 160.1
MATRIX: Water
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received five (5) water samples for Total Dissolved Solids (TDS) analysis by USEPA Method 160.1 on August 19 and 24, 1993. The samples were analyzed for TDS on August 23 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-WEB	4179-1
BTR-BKGD-SW01	4179-2
BTR-BKGD-SW02	4179-3
BTR-AOC09-SW01	4302-8
BTR-AOC14-SW01	4305-7

Sample number BTR-SD08-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.1 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The following samples exceeded the technical holding time QC criteria of seven (7) days. Therefore, the results in the following listed samples are considered as estimates (J) and usable for limited purposes only.

Sample Number	Collection Date	Analyses Date	Days Exceeded
BTR-AOC09-SW01	8/20/93	8/31/93	4
BTR-AOC14-SW01	8/21/93	8/31/93	3

A.2 All other technical holding time QC criteria were met for project sample analyses.

B. Calibration:

B.1 All applicable QC criteria were met for sample calibration analyses.

C. Laboratory Blanks:

C.1 TDS was detected in the method blank associated with all samples at a concentration of 12 mg/L, exceeding the QC criteria of 10 mg/L. Therefore the practical quantitation limit for TDS in all associated samples is raised to 12 mg/L. This is not expected to have an effect on TDS results in the indicated samples.

C.2 All other QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

D. Field Blanks:

D.1 TDS was detected in equipment blank BTR-SD08-WEB at a concentration of 30 mg/L. Due to high concentrations of TDS detected in the associated sample numbers BTR-BKGD-SW01 and BTR-BKGD-SW02, the TDS result in the above noted equipment blank is not qualified.

E. Laboratory replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with these samples.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 Due to exceeded holding times, select data are considered as estimates and usable for limited purposes. Due to method blank contaminations, select PQLs were raised. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Total Suspended Solids by USEPA Method 160.2
MATRIX: Water
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for Total Suspended Solids (TSS) analysis by USEPA Method 160.2 on August 18, 1993 through 21, 1993. The samples were analyzed for TSS on August 24 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-AOC10-SW01	93.4303-06
BTR-LF01-SW03	93.4285-02
BTR-SS13-WEB	93.4211-01

Sample number BTR-SS13-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.2 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Sample number BTR-AOC10-SW01 was sampled on August 21, 1993 and analyzed on August 31, 1993, exceeding the technical holding time QC criteria of seven (7) days by three (3) days. Therefore,

the detected sample result in the above noted sample is considered as an estimate (J) and usable for limited purposes only.

A.2 All technical holding time QC criteria were met for other project sample analyses.

B. Calibration:

B.1 Method calibration is not a requirement for USEPA Method 160.2.

C. Laboratory Blanks:

C.1 TSS was not detected in the method blanks associated with the samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

D. Field Blanks:

D.1 TSS was detected in equipment blank BTR-SS13-WEB at a concentration of 7 mg/L. This is not expected to have an effect on the detected results of sample numbers BTR-AOC10-SW01 and BTR-LF01-SW03, because the above noted equipment blank is not associated with the two samples.

E. Laboratory Replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analyses:

F.1 There were no field duplicate analyses associated with these samples.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 Due to exceeded holding time, select data is considered as an estimate and usable for limited purposes. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Sharon Lin, ICF Kaiser Engineers, Inc.
ANALYSIS: Total Suspended Solids by USEPA Method 160.2
MATRIX: Water
DATE: January 24, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received five (5) water samples for Total Suspended Solids (TSS) analysis by USEPA Method 160.2 on August 19 and 24, 1993. The samples were analyzed for TSS on August 24 through September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-WEB	4179-1
BTR-BKGD-SW01	4179-2
BTR-BKGD-SW02	4179-3
BTR-AOC09-SW01	4302-8
BTR-AOC14-SW01	4305-7

Sample number BTR-SD08-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.2 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The following samples exceeded the technical holding time QC criteria of seven (7) days. Therefore, the results in the following listed samples are considered as estimates (J) and usable for limited purposes only.

Sample Number	Collection Date	Analyses Date	Days Exceeded
BTR-AOC09-SW01	8/20/93	8/31/93	4
BTR-AOC14-SW01	8/21/93	9/02/93	5

A.2 All other technical holding time QC criteria were met for project sample analyses.

B. Calibration:

B.1 Method calibration is not a requirement for USEPA Method 160.2.

C. Laboratory Blanks:

C.1 TSS was not detected in the method blanks associated with the samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

D. Field Blanks:

D.1 TSS was detected in equipment blank BTR-BKGD-WEB at a concentration of 3.5 mg/L. Due to elevated TSS concentration detected in the above noted equipment blank, the detected TSS result in sample number BTR-BKGD-SW01 is considered as an estimate (J) and usable for limited purposes only.

E. Laboratory Replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analyses:

F.1 There were no field duplicate analyses associated with these samples.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 Due to exceeded holding times and high TSS concentration detected in the equipment blank, select data are considered as estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout, ICF Kaiser Engineers
ANALYSIS: Total Metals by USEPA Method 6010 and USEPA Method 7841 (Thallium)
MATRIX: Water & Soil
DATE: January 12, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples and two (2) soil samples for total metals analyses by USEPA Method 6010 and thallium analyses by USEPA Method 7841 on August 19 through 24, 1993. The samples were digested on August 23 through 28, 1993, and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 24 through 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	Matrix
BTR-LF01-S01	93.4303-02	Soil
BTR-EB-05	93.4303-05	Water
BTR-SS13-SEB2	93.4213-04	Water
BTR-BKGD-S02	93.4175-02	Soil
BTR-SD08-SEB	93.4175-03	Water

Sample numbers BTR-EB-05, BTR-SS13-SEB2 and BTR-SD08-SEB were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B.

This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, USEPA Method 6010 and USEPA Method 7841, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 Initial calibration QC criteria were met for project sample analyses.

C. Continuing Calibration:

C.1 A percent recovery (%R) of 88% was obtained for sodium analyte in the continuing calibration verification analyses performed on August 24, 1993, falling outside the advisory QC limits of 90-110%. Therefore, the detected result for sodium in sample BTR-SD08-SEB is estimated (J) and usable for limited purposes only (see modified sample data sheets).

C.2 Continuing calibration QC criteria were met for all other project sample analyses.

D. Laboratory Blanks:

D.1 The target analytes were not detected in the calibration blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 Iron was detected in the equipment blank BTR-EB-05 at a concentration of 0.200 mg/L, exceeding the QC criteria of 0.100 mg/L. However, since iron was detected at a concentration of 5000 mg/Kg (greater than 10X the PQL) in the associated sample number BTR-LF01-S01, data were not qualified.

E.2 No other target analytes were detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicates analyses included in the project documentation associated with these samples.

G. Laboratory Replicate Analysis:

G.1 The sample duplicate analyses associated with sample BTR-BKGD-S02 exceeded the QC criteria of $\leq$50% for precision as measured by Relative Percent Difference (RPD) for the following analytes:

Analytes	RPD
Ca	63.0
Mg	74.0

All detected results for the above analytes in sample number BTR-BKGD-S02 are considered as estimates (J) and usable for limited purposes (see modified sample data sheets).

G.2 All other analytes in the above duplicate analyses, and all other duplicate analyses associated with project samples met all QC criteria and the results are considered acceptable.

H. ICP Interference Check Sample (ICS) Analysis:

H.1 The ICS analyses met all applicable QC criteria.

I. Laboratory Control Sample Analysis:

I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

J. Matrix Spike Analysis:

J.1 The matrix spike (MS) recoveries for the target analytes were outside the established QC limits of 75-125% in the samples listed below:

Sample Number	Analyte	Recovery
BTR-BKGD-S02	Aluminum	225%
BTR-SD08-SEB	Aluminum	225%
BTR-BKGD-S02	Calcium	198%
BTR-SD08-SEB	Calcium	198%
BTR-BKGD-S02	Iron	-3800%
BTR-SD08-SEB	Iron	-3800%
BTR-LF01-S01	Magnesium	70%
BTR-EB-05	Magnesium	70%
BTR-BKGD-S02	Magnesium	143%
BTR-SD08-SEB	Magnesium	143%
BTR-BKGD-S02	Manganese	60%
BTR-SD08-SEB	Manganese	60%
BTR-LF01-S01	Sodium	-110%
BTR-EB-05	Sodium	-110%
BTR-SS13-SEB2	Sodium	1466%

The sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of the deviations in MS recoveries. Post-digestion spike recovery analyses were performed on August 24 through 30, 1993. The recovery results for all post-digestion spike analyses met applicable QC criteria.

J.2 All remaining analytes in the above matrix spike analyses, and all other matrix spike analyses associated with project samples met all acceptable criteria and the results are considered acceptable.

K. Quantitation:

K.1 No problems were encountered with sample quantitation in project sample analyses.

L. Conclusion:

L.1 Due to the above noted deficiencies in continuing calibration check and laboratory replicate analyses, select data are considered estimated and usable for limited purposes only. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Sharon Lin, ICF Kaiser Engineers, Inc.
ANALYSIS: Total & Dissolved Metals by USEPA Method 6010 & Thallium by USEPA Method 7841
MATRIX: Soil and Water
DATE: January 27, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) water and one (1) soil sample for total and dissolved metals analyses by USEPA Methods 6010 and 7841 on August 20 and 24, 1993. The samples were digested on August 27 and 28, 1993 and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 28 through 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	4286-1	Water
BTR-LF04-SD01	4286-3	Soil
BTR-LF04-SW01 (F)	4286-1	Water

Sample number BTR-LF04-SW01 (F) was designated as a field-filtered sample and analyzed for dissolved metals and dissolved thallium by ICP and GFAA, respectively, on August 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis," October 1989, USEPA Method 6010, USEPA Method 7841 and the Project Sampling and Analysis Plan.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:
A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 Initial calibration QC criteria were met for project sample analyses.

C. Continuing Calibrations:
C.1 Continuing calibration QC criteria were met for project sample analyses.

D. Laboratory Blank Analyses:
D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 There were no field blank analyses included in the project documentation.

F. Field Duplicate Analysis:
F.1 There were no field duplicate analyses included in the project documentation.

G. Laboratory Replicate Analysis:
G.1 There were no laboratory replicate analyses included in the project documentation.

H. ICP Interference Check Sample (ICS) Analyses:
H.1 All applicable QC criteria were met for the ICS analyses.

I. Laboratory Control Sample Analyses:
I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

J. Matrix Spike Analysis:

J.1 The matrix spike (MS) recovery analysis associated with sample number BTR-LF04-SW01 was not performed and this should be noted. However, post-digestion spike analyses were performed and the results met all applicable QC criteria.

J.2 The MS recovery results for the following target analytes exceeded the established QC limits of 75-125% in the sample listed below:

Sample Number	Analyte	%Recovery
BTR-LF04-SD01-MS	Aluminum	21400
BTR-LF04-SD01-MS	Iron	360

Due to above noted deviations in MS recoveries, post-digestion spike recovery analyses were performed on August 29, 1993. The recovery results for all post-digestion spike analyses met applicable QC criteria and the results are considered acceptable.

J.3 All other applicable QC criteria were met for the MS analyses.

K. Quantitation:

K.1 No problems were observed with analyte quantitation in project sample analyses.

L. Conclusion:

L.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total Metals by USEPA Method 6010
MATRIX: Soil
DATE: January 4, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received one (1) soil sample for total metals analyses by USEPA Method 6010 on August 19, 1993. The sample was digested on August 24, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 25, 1993.

The ICF site identification number and corresponding Commercial Testing & Engineering Co. laboratory sample identification number are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-SD01	4178-3

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 Initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:
C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Blank Analyses:
D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. ICP Interference Check Sample (ICS) Analyses:
E.1 The spike recovery for the indicated target analyte exceeded the established QC limits for the interference check sample (ICS) analysis performed on August 25, 1993 as follows:

Analyte	Recovery	QC limits
Zinc	139%	80-120%

The ICS recovery for zinc exceeded the upper QC limit of 120%, indicating possible high bias. Therefore, the result for zinc in the associated sample is considered an estimate (J) (see modified sample data sheet).

E.2 The results for all other ICS analyses met applicable QC criteria.

F. Laboratory Control Sample Analyses:
F.1 All laboratory control sample QC criteria were met.

G. Laboratory Replicate Analysis:
G.1 There were no laboratory replicate analyses included in the project documentation.

H. Field Duplicate Analysis:
H.1 There were no field duplicate analyses included in the project documentation.

I. Matrix Spike Analysis:
I.1 Sample number BTR-SD08-SD01 was utilized for the matrix spike (MS) analyses. The spike recoveries for magnesium and manganese are 143% and 60%, respectively, falling outside the advisory QC criteria of 75-125%. Due to the above noted deficiency in MS analysis, the detected results for magnesium and manganese in the project sample are considered as estimates (J) and usable for limited purposes only (see modified sample data sheet). A post-digestion spike recovery analysis was performed on August 25, 1993 and the recovery results for all re-analyses met

applicable QC criteria.

The MS recoveries for aluminum, calcium and iron did not meet the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

I.2 All other QC criteria were met for the MS analysis.

J. Quantitation and Identification:

J.1 No problems were observed with analyte quantitation and identification in project sample analyses.

K. Conclusion:

K.1 Due to the above noted performance deficiency in the interference check sample and matrix spike analyses, select data are considered estimates and usable for limited purposes only. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Sharon Lin, ICF Kaiser Engineers
ANALYSIS: Total Metals by USEPA Method 6010 & Thallium by USEPA Method 7841
MATRIX: Soil and Water
DATE: January 21, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) water and two (2) soil samples for total metals analyses by USEPA Methods 6010 and 7841 on August 20 and 24, 1993. The samples were digested on August 24 and 28, 1993 and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 25 and 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS13-SD01	4212-2	Soil
BTR-SS13-S02	4212-5	Soil
BTR-EB04	4302-10	Water

Sample number BTR-EB04 was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, USEPA Method 6010 and USEPA Method 7841, and the Project Sampling and Analysis Plan.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:
A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 Initial calibration QC criteria were met for project sample analyses.

C. Continuing Calibrations:
C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Laboratory Blank Analyses:
D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 No target analyte was detected in equipment blank BTR-EB04 at a concentration above the PQL and the results are considered acceptable.

F. Field Duplicate Analysis:
F.1 There were no field duplicate analyses included in the project documentation.

G. Laboratory Replicate Analysis:
G.1 There were no laboratory replicate analyses included in the project documentation.

H. ICP Interference Check Sample (ICS) Analyses:
H.1 All applicable QC criteria were met for the ICS analyses.

I. Laboratory Control Sample Analyses:
I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

J. Matrix Spike Analysis:
J.1 Sample number BTR-SS13-SO2 was utilized for the matrix spike (MS) analysis. The spike recoveries for aluminum and iron fell outside of the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

J.2 All other applicable QC criteria were met for the matrix spike analyses.

K. Quantitation:
K.1 No problems were observed with analyte quantitation in project sample analyses.

L. Conclusion:
L.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total and Dissolved Metals by USEPA Method 6010
MATRIX: Soil and Water
DATE: January 4, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received three (3) soil samples for total metals analyses and one (1) water sample for total and dissolved metals analyses by USEPA Method 6010 on August 24, 1993. The samples were digested on August 27, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 29 and August 30, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SS14-S04	4301-7
BTR-SS14-SD01	4301-4
BTR-SS14-SW01	4301-1
BTR-AOC10-S04	4301-8
BTR-SS14-SW01 (F)	4301-1

Sample number BTR-SS14-SW01 (F) was a field-filtered sample and analyzed for dissolved metals on August 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 Initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:

C.1 The percent recovery for silver in the continuing calibration performed on August 29, 1993 was below the QC criteria. Therefore, the results for silver in the following associated samples are considered estimates (UJ) (see modified sample data sheets):

- Sample numbers BTR-SS14-SD01, BTR-SS14-S04 and BTR-AOC10-S04.

C.2 All other continuing calibration QC criteria were met for all project sample analyses.

D. Blank Analyses:

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. ICP Interference Check Sample (ICS) Analyses:

E.1 The ICS analyses met all applicable QC criteria.

F. Laboratory Control Sample Analyses:

F.1 All laboratory control sample QC criteria were met.

G. Laboratory Replicate Analysis:

G.1 QC limits for precision of $\leq$20% for water samples and $\leq$35% for soil samples, as measured by the Relative Percent Difference (RPD) between sample results, were specified for laboratory replicate comparability.

Water sample BTR-SS14-SW01 and soil sample BTR-SS14-SD01 were utilized for the laboratory replicate analyses.

The laboratory replicate analyses for sample number BTR-SS14-SW01 met all applicable QC criteria.

G.2 The results of the laboratory replicate analyses for sample number BTR-SS14-SD01 for the indicated target analytes exceeded the established QC limits as follows:

Analyte	RPD
Calcium	96%
Chromium	38%
Magnesium	200%
Manganese	41%

The RPDs for analytes calcium and magnesium substantially exceeded the QC limit of ≤35%. The inconsistency of the results in the analysis of the laboratory replicate may be due to sample non-homogeneity. Due to the above noted deviations, the reported results for the above noted analytes are considered estimates (J) (see modified sample data sheets) for the following associated samples:

- Sample numbers BTR-SS14-SD01, BTR-SS14-S04 and BTR-AOC10-S04.

G.3 All other QC criteria for the above laboratory replicate analyses were met.

H. Field Duplicate Analysis:

H.1 There were no field duplicate analyses included in the project documentation.

I. Matrix Spike Analysis:

I.1 Project sample numbers BTR-SS14-SD01 and BTR-SS14-SW01 (F) were utilized for the associated matrix spike (MS) analyses. The spike recovery for lead was 63% for sample BTR-SS14-SD01-MS, falling below the lower QC limit of 75%. Due to the above noted low MS recovery, the detected and non-detected results for lead in all samples are considered as estimates (J) and usable for limited purposes only (see modified sample data sheets). A post-digestion spike recovery analysis was performed on August 29, 1993 and the result was within the advisory QC limits of 75-125%.

The MS recoveries for aluminum, calcium and iron exceeded the upper QC limit of 125%. However, since the sample concentrations exceeded the spike concentrations by a factor of four or more for the above noted target analytes, associated sample data were not qualified on the basis of these high MS recoveries.

I.2 All other QC criteria were met for project MS analyses.

J. Quantitation:

J.1 No problems were observed with analyte quantitation in project sample analyses.

K. Conclusion:

K.1 Due to the above noted performance deficiencies in the continuing calibration, laboratory replicate and matrix spike analyses, select data are considered estimates and usable for

limited purposes only. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia E. Schlag
ANALYSIS: Extractable Petroleum Hydrocarbons by USEPA Method 8100M
MATRIX: Soil
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for Extractable Petroleum Hydrocarbons (EPH) analysis by USEPA Method 8100M (modified) on August 16 and 18, 1993. The samples were extracted on August 20 and 21, 1993 and analyzed for EPH by gas chromatography with flame ionization detection on August 21 and 26, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-SD01	93.4198-08
BTR-LF03-SD07	93.4219-10

There were no QC sample designations included in project documentation.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8100M and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:

C.1 All QC criteria for continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable

E. Field Blanks:

E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Laboratory Control Sample Analysis:

F.1 The laboratory control sample QC criteria were met for all blank spike analyses and the results are considered acceptable.

G. Field Duplicate Analysis:

G.1 No field duplicate analysis is included in the project documentation.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with sample BTR-SD08-SD01 exceeded the QC criteria. This is probably attributable to the high concentration of native EPH detected in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.

I.2 All other QC criteria were met for MS and MSD analyses associated with all other samples.

J. Quantitation and Identification:

J.1 The chromatographic pattern of sample BTR-LF03-SD07 is not consistent with the chomatographic pattern of middle distillate fuel (diesel fuel). It is the opinion of the reviewer that the peaks are due to higher molecular weight hydrocarbons. Therefore, the detected results for EPH in these samples are estimated (J) and are usable for limited purposes (see modified sample data sheets).

J.2 No other problems were observed with sample quantitation and identification.

K. Conclusion:

K.1 Due to the inconsistency of the chromatographic pattern of sample BTR-LF03-SD07 with the diesel fuel standard, the detected result in this sample is considered as estimated and usable for limited purposes.

K.2 The data for all other samples are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Extractable Petroleum Hydrocarbons by USEPA Method 8100M
MATRIX: Water & Soil
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for Extractable Petroleum Hydrocarbons (EPH) analysis by USEPA Method 8100M (modified) on August 19 and 20, 1993. The samples were analyzed for EPH on August 21 through 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SD08-SEB	93.4203-08	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, and BTR-SS13-WEB2 were designated as "equipment blanks."

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8100M and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:

C.1 All QC criteria for continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable

E. Field Blanks:

E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Laboratory Control Sample Analysis:

F.1 The laboratory control sample QC criteria were met for all blank spike analyses and the results are considered acceptable.

G. Field Duplicate Analysis:

G.1 No field duplicate analysis is included in the project documentation.

H. Surrogate Recoveries:

H.1 The surrogate recoveries in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with samples BTR-SS13-S02 and BTR-SS13-SD01 could not be determined because of the dilution required due to the high concentration of EPH in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The MS and MSD analyses associated with samples BTR-SS13-S02 and BTR-SS13-SD01 exceeded the QC criteria. This is probably due to the high concentration of native EPH detected in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.

I.2 All other QC criteria were met for matrix spike and matrix spike duplicate analyses associated with all other samples.

J. Quantitation and Identification:

J.1 The chromatographic pattern of samples BTR-BKGD-SD01, BTR-BKGD-S02, BTR-SS13-S02, and BTR-SS13-SD01 is not consistent with the chomatographic pattern of middle distillate fuel (diesel fuel). It is the opinion of the reviewer that the peaks are due to higher molecular weight hydrocarbons. Therefore, the detected results for EPH in these samples are estimated (J) and are usable for limited purposes (see modified sample data sheets).

J.2 No other problems were observed with sample quantitation and identification of the samples.

K. Conclusion:

K.1 Due to the inconsistency of the chromatographic pattern of samples BTR-BKGD-SD01, BTR-BKGD-S02, BTR-SS13-S02, and BTR-SS13-SD01 with the diesel fuel standard, the detected results in these samples are considered as estimated and usable for limited purposes.

K.2 The data for all other samples are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Halogenated Volatile Organic Compounds by USEPA Method 8010
MATRIX: Water & Soil
DATE: January 19, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples and three (3) soil samples for Halogenated Volatile Organic Compound (HVOC) analysis by USEPA Method 8010 on August 19 and August 20, 1993. The samples were analyzed for HVOCs on August 20, 1993, through August 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-BKGD-SD01	93.4199-01	SOIL
BTR-BKGD-SW01	93.4199-06	WATER
BTR-SD08-TB02	93.4199-13	WATER
BTR-BKGD-S02	93.4203-06	SOIL
BTR-SD08-SEB	93.4203-08	WATER
BTR-SS13-S02	93.4216-10	SOIL

The following QC sample designation were included in project documentation: sample number BTR-SD08-SEB was designated as an "equipment blank" and sample number BTR-SD08-TB02 was designated as a "trip blank."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8010. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8010 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project samples.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 Target analyte 1,2-dichloroethane was detected in soil equipment blank BTR-SD08-SEB at a concentration of 0.0025 mg/L. This compound was not detected in the laboratory blank or in the associated soil sample. Since the soil PQL is fifty times greater than the water PQL for this analyte, the PQL for the associated soil sample has not been qualified.

F. Field Duplicate Analysis:

F.1 No field duplicate analysis in included in the project documentation.

G. Surrogate Recoveries:

G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

H. Matrix Spike/Matrix Spike Duplicate Analyses:

H.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

I. Internal Standards:

I.1 Internal standard areas for all sample analysis were within specified QC criteria and the results are considered acceptable.

J. Quantitation & Identification:

J.1 No problems were observed with sample quantitation and identification in project sample analysis.

K. Conclusion:

K.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia E. Schlag
ANALYSIS: Halogenated Volatile Organic Compounds by USEPA Method 8010
MATRIX: Soil
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) soil sample for Halogenated Volatile Organic Compound (HVOC) analysis by USEPA Method 8010 on August 18, 1993. The samples were analyzed for HVOCs by gas chromatography with electrolytic conductivity detection (HECD) on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-LF03-SD07	93.4219-10

There were no QC sample designations included in project documentation.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8010. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8010 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:
A.1 The technical holding time QC criteria were met for all project samples.

B. Initial Calibration:
B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibration:
C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:
D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 No field blank analysis is included in the project documentation.

F. Field Duplicate Analysis:
F.1 No field duplicate analysis is included in the project documentation.

G. Surrogate Recoveries:
G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

H. Matrix Spike/Matrix Spike Duplicate Analyses:
H.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

I. Internal Standards:
I.1 Internal standard areas for all sample analysis were within specified QC criteria and the results are considered acceptable.

J. Quantitation & Identification:
J.1 No problems were observed with sample quantitation and identification in project sample analysis.

K. Conclusion:
K.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Volatile Organic Compounds by USEPA Method 8260
MATRIX: Water & Soil
DATE: January 20, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received ten (10) water samples and three (3) soil samples for Volatile Organic Compound (VOC) analysis by USEPA Method 8260 on August 19, 1993 through August 24,1993. The samples were analyzed for VOCs on August 20, 1993, through September 5, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SD08-AB	93.4173-09	WATER
BTR-SD08-TB01	93.4173-10	WATER
BTR-A0C10-SW01	93.4303-06	WATER
BTR-LF01-S01	93.4303-02	SOIL
BTR-AB-02	93.4303-01	WATER
BTR-EB-05	93.4303-05	WATER
BTR-SS13-SEB2	93.4213-04	WATER
BTR-LF03-SD07	93.4213-03	SOIL
BTR-LF03-TB	93.4211-02	WATER
BTR-SS13-WEB	93.4211-01	WATER
BTR-BKGD-S02	93.4175-02	SOIL
BTR-SD08-SEB	93.4175-03	WATER
BTR-LF01-SW03	93.4285-02	WATER

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-AB and BTR-AB-02 were designated as "ambient blanks;" sample numbers BTR-SD08-TB01 and BTR-LF03-TB were designated as "trip blanks;" and BTR-EB-05, BTR-SS13-SEB2, BTR-SS13-WEB and BTR-SD08-SEB were designated as "equipment blanks."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opionion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed on Table 1B.

This report was prepared in accordance with the USEOA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8260 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Sample BTR-LF01-S01 was collected on August 21, 1993 and analyzed on September 5, 1993. The technical holding time QC criteria of 14 days was exceeded by 1 day. Therefore the practical quantitation limits for this sample are qualified as estimated (J) and are considered usable for limited purposes.

A.2 The technical holding time QC criteria were met for all other project samples.

B. Instrument Tuning:

B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.

C. Initial Calibration:

C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:

D.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

E. Laboratory Blanks:

E.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

F. Field Blanks:

F.1 Target compounds were detected in the equipment and ambient blanks as listed below (mg/L).

Field Blank	Compound#1*	Compound#2	Compound#3
BTR-SD08-AB	0.011	0.0019	0.0016
BTR-AB-02	0.0058	0.0022	0.0063
BTR-EB-05	0.0029	0.0023	0.0032
BTR-SS13-SEB2	0.0024		0.0022
BTR-SS13-WEB	0.0036	0.0033	
BTR-SD08-SEB			0.0044

* Compound #1 = methylene chloride
Compound #2 = toluene
Compound #3 = 1,2-dichloroethane

Due to field blank contamination, the results reported for the following analytes are considered nondetected (U) (see sample data sheets):

- Chloromethane in sample number BTR-AOC10-SW01
- 1,2-Dichloroethane in sample number BTR-AOC10-SW01

G. Laboratory Control Sample Analyses:

G.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

H. Field Duplicate Analysis:

H.1 No field duplicate analyses were included with the project documentation.

I. Surrogate Recoveries:

I.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

J. Matrix Spike/Matrix Spike Duplicate Analyses:

J.1 The recovery of 1,1-dichloroethene in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with samples BTR-BKGD-S02, BTR-A0C10-SW01, BTR-LF01-S01, BTR-AB-02, BTR-EB-05 and BTR-LF03-SD07 exceeded the applicable QC criteria.

According to USEPA validation guidelines, organic data are not qualified based on low MS recoveries alone. It is the opinion of the reviewer that the quality of the data is not affected.

J.2 The MS and MSD analyses associated with all other samples met all applicable QC criteria and are considered acceptable.

K. System Performance:

K.1 Samples BTR-SD08-SEB, BTR-SS13-SEB2 and BTR-LF03-SD07 were analyzed more than 12 hours after the instrument tune as verified by data submitted with the samples. Therefore, the detected and nondetected results for samples BTR-LF03-TB, BTR-SS13-WEB and BTR-LF01-SW03 are considered estimated (J) (see modified sample data sheets). It is not known what effect this method noncompliance will have on the quality of the data.

K.2 No other problems with system performance were observed for project sample analyses.

L. Quantitation & Identification:

L.1 Sample BTR-LF03-SD07 required dilution in order to quantitate target compound tetrachloroethene within the linear range of the system.

L.2 No problems were observed with sample quantitation and identification.

M. Conclusion:

M.1 Due to 12 hour sample analysis time criteria and technical holding time QC criteria being exceeded, select data are considered as estimated and usable for limited purposes.

M.2 Due to field blank contamination, select data are considered as nondetected and estimated and usable for limited purposes.

M.3 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia Schlag, ICF Kaiser Engineers
ANALYSIS: Volatile Organic Compounds by USEPA Method 8260
MATRIX: Water and Soil
DATE: January 20, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received thirteen (13) soils and ten (10) water samples for volatile organic compounds (VOC) analyses by USEPA Method 8260 on August 16, 17, 18, 20, 21, and September 2 and 3, 1993. The samples were analyzed for VOCs by gas chromatography/mass spectrometry (GC/MS) on August 20, 21, 28 and September 1, 2, 6, 7, 9, 15, 23, 28, 29, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SS14-SW01	93.4301-01	Soil
BTR-SS14-SD01	93.4301-04	Soil
BTR-SS14-S04	93.4301-07	Soil
BTR-AOC10-S04	93.4301-08	Soil
BTR-AOC14-SD01	93.4305-01	Soil
BTR-AOC14-S02	93.4305-06	Soil
BTR-AOC14-SW01	93.4305-07	Water
BTR-SD08-WEB	93.4179-01	Water
BTR-BKGD-SW01	93.4179-02	Water
BTR-BKGD-SD01	93.4179-04	Soil
BTR-SD08-TB	93.4179-05	Water
BTR-SD08-SD01	93.4178-03	Soil
BTR-SS13-S02	93.4212-05	Soil
BTR-AOC9-2S11-1.5	93.4616-06	Soil
BTR-EB-07	93.4616-09	Water
BTR-SS13-2S05	93.4616-10	Soil
BTR-EB-08	93.4616-13	Water
BTR-LF04-2SW03	93.4616-14	Water
BTR-LF04-2SD04	93.4616-16	Soil

BTR-AOC08-S04	93.4302-04	Soil
BTR-AOC09-SW01	93.4302-08	Water
BTR-TB-04	93.4302-04	Water
BTR-EB-04	93.4302-04	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-TB and BTR-TB-04 were designated as "trip blanks;" and sample numbers BTR-EB-04, BTR-EB-07, BTR-EB-08, and BTR-SD08-WEB were designated as "equipment blanks."

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

Laboratory sample numbers were referenced to identify some matrix spike (MS) and matrix spike duplicate (MSD) samples in comment K.1, because the laboratory reports for these samples were not provided. The corresponding ICF sample numbers could not be determined for reference.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8260, and the Project Sampling and Analysis Plan.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Sample numbers BTR-TB-05 and BTR-SS14-SW01 exceeded technical holding time criteria of 14 days. Therefore, the laboratory did not analyze the samples.

A.2 Technical holding time QC criteria were met for all other project sample analyses.

B. GC/MS Instrument Performance Check:

B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.

C. Initial Calibration:

C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:

D.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

E. Laboratory Blanks:

E.1 No target analytes were detected in the method blank at concentrations above the Practical Quantitation Limits (PQL) and the results are considered acceptable.

F. Surrogate Recoveries:

F.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

G. Field Blanks:

G.1 The following target analytes were detected in the equipment blanks listed below at concentrations above the PQL:

Sample No.	Analyte	Concentration
BTR-EB-04	Methylene chloride	0.0060 mg/L
BTR-EB-04	Toluene	0.0023 mg/L
BTR-EB-04	1,2-Dichloroethane	0.0015 mg/L
BTR-EB-07	Methylene chloride	0.0083 mg/L
BTR-EB-07	Toluene	0.0017 mg/L
BTR-EB-08	Methylene chloride	0.0066 mg/L
BTR-EB-08	Toluene	0.0013 mg/L
BTR-SD08-WEB	Methylene chloride	0.0013 mg/L
BTR-SD08-WEB	1,2-Dichloroethane	0.0030 mg/L

Due to equipment blank contamination, the results reported for the following analytes are considered nondetected (U) (see sample data sheets):

- Toluene in sample number BTR-AOC9-2S11-1.5
- 1,2-Dichloroethane in sample numbers BTR-AOC09-SW01 and BTR-BKGD-SW01

G.2 No other target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.

H. Laboratory Control Sample Analysis:

H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

I. Laboratory Replicate Analysis:

I.1 No laboratory replicate analysis was included with the project documentation.

J. Field Duplicate Analysis:

J.1 No field duplicate analyses were included with the project documentation.

K. Matrix Spike/Matrix Spike Duplicate Analysis:

K.1 The recoveries of 1,1-Dichloroethane in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with all the soil samples did not meet the laboratory established QC limits as noted below.

Sample No.	% Recovery	QC Limits
BTR-AOC10-S04 MS	16	80-120%
BTR-AOC10-S04 MSD	16	80-120%
BTR-AOC14-SD01 MS	64	80-120%
BTR-AOC14-SD01 MSD	66	80-120%
93.4173-07	20	80-120%
93.4173-11	18	80-120%
93.4173-07	20	80-120%
93.4173-08	18	80-120%
93.4209-02	16	80-120%
93.4209-03	19	80-120%
93.4514-03	64	80-120%
93.4514-04	68	80-120%
93.4483-11	57	80-120%
93.4483-12	58	80-120%

According to USEPA data validation guidelines, organic data are not qualified based on MS/MSD QC outliers alone. It is the opinion of the reviewer that the low recoveries in these samples are due to sample matrix interferences, and the affect on the quality of the data is not known.

L. Internal Standards:

L.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

N. Conclusion:

N.1 Due to equipment blank contamination, select data are considered nondetected. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia Schlag, ICF Kaiser Engineers
ANALYSIS: Volatile Organic Compounds by USEPA Method 8260
MATRIX: Water and Soil
DATE: January 26, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received one (1) soil and one (1) water sample for volatile organic compound (VOC) analyses by USEPA Method 8260 on August 20, 1993. The samples were analyzed for VOCs by gas chromatography/mass spectrometry (GC/MS) on August 30 and September 6, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	93.4286-01	Water
BTR-LF04-SD01	93.4286-03	Soil

There were no QC sample designations included in project documentation.

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8260, and the Project Sampling and Analysis Plan.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:
A.1 Technical holding time QC criteria were met for all project sample analyses.

B. GC/MS Instrument Performance Check:
B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.

C. Initial Calibration:
C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:
D.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

E. Laboratory Blanks:
E.1 No target analytes were detected in the method blank at concentrations above the Practical Quantitation Limits (PQL) and the results are considered acceptable.

F. Surrogate Recoveries:
F.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

G. Field Blanks:
G.1 No target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.

H. Laboratory Control Sample Analysis:
H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

I. Laboratory Replicate Analysis:
I.1 No laboratory replicate analysis was included with the project documentation.

J. Field Duplicate Analysis:
J.1 No field duplicate analyses were included with the project documentation.

K. Matrix Spike/Matrix Spike Duplicate Analysis:

K.1 The recoveries of 1,1-Dichloroethene and Trichloroethene in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with the soil sample did not meet the laboratory established QC limits as noted below.

Compound	% Recovery	QC Limits
1,1-Dichloroethene	18	80-120%
1,1-Dichloroethene	16	80-120%
Trichloroethene	78	80-120%
Trichloroethene	78	80-120%

According to USEPA data validation guidelines, organic data are not qualified based on MS/MSD QC outliers alone. Based on the acceptable recoveries of the laboratory control sample analysis, it is the opinion of the reviewer that the low recoveries in these samples are due to sample matrix interferences, and the affect on the quality of the data cannot be determined.

L. Internal Standards:

L.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

N. Conclusion:

N.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Timothy Vonnahme
ANALYSIS: Total Metals & Dissolved Metals by USEPA Method 6010 and USEPA Method 7841 (Thallium)
MATRIX: Water
DATE: November 19, 1993 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for total metals and dissolved metals analyses by USEPA Method 6010 and USEPA Method 7814 on August 20 through 24, 1993. The samples were digested on August 25 and 28, 1993, and analyzed for total and dissolved metals by inductively coupled plasma atomic emission spectrometry (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 26 and 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	Matrix
BTR-AOC10-SW01	93.4303-06	Water
BTR-LF01-SW03	93.4285-02	Water
BTR-SS13-WEB2	93.4211-01	Water
BTR-AOC10-SW01 (F)	93.4303-06	Water
BTR-LF01-SW03 (F)	93.4285-02	Water
BTR-SS13-WEB2 (F)	93.4211-01	Water

Sample numbers BTR-AOC10-SW01(F), BTR-LF01-SW03(F) and BTR-SS13-WEB2(F) were field-filtered samples and analyzed for dissolved metals on August 26 and 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B.

This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, and USEPA SW-846 Method 6010 and Method 7841, and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 Initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibration:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Laboratory Blanks:

D.1 The target analytes were not detected in the calibration blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.

D.2 Calcium in the method blank associated with sample number BTR-LF01-SW03 was detected at a concentration of 0.378 mg/L, exceeding the QC criteria of 0.200 mg/L. However, since the associated sample number BTR-LF01-SW03 contained calcium at a concentration of 130 mg/L (greater than 10X the PQL), no data are qualified.

D.3 No other target analytes were detected in the above method blank.

D.4 No target analytes were detected at concentrations above the PQLs in the method blanks associated with sample numbers BTR-AOC10-SW01 and BTR-SS13-WEB2 and the results are considered acceptable.

E. Field Blanks:

E.1 Target analytes were not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses included in the project documentation associated with project sample analyses.

G. Laboratory Replicate Analysis:

G.1 The sample duplicate analyses associated with these samples met all QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

H. ICS Interference Check Sample (ICS) Analysis:

H.1 The ICS analyses met all applicable QC criteria.

I. Laboratory Control Sample Analysis:

I.1 A percent recovery of 116% was obtained for calcium in the laboratory control sample analysis associated with sample number BTR-AOC10-SW01. The percent recovery marginally exceeded the QC criteria of 90-110% for accuracy, therefore the result reported for calcium in the above noted sample is considered acceptable.

I.2 Percent recoveries of 117% and 89% were obtained for calcium and potassium, respectively, in the laboratory control sample analyses associated with sample number BTR-LF01-SW03. The above noted percent recoveries were marginally outside the QC criteria of 90-110% for accuracy, therefore the result reported for calcium in the above noted sample is considered acceptable.

I.3 All other analytes in the above laboratory control sample analyses, and all other laboratory control sample analyses associated with project samples met all applicable QC criteria and the results are considered acceptable.

J. Matrix Spike Analysis:

J.1 The matrix spike (MS) recoveries for the indicated target analytes were outside the established QC limits of 75-125% for the project MS analyses as follows:

Sample	Analyte	Recovery
BTR-AOC10-SW01	Sodium	-110%
BTR-AOC10-SW01 (F)	Sodium	-165%
BTR-AOC10-SW01	Magnesium	70%
BTR-AOC10-SW01 (F)	Magnesium	68%
BTR-LF01-SW03 (F)	Calcium	58%
BTR-LF01-SW03 (F)	Sodium	3%
BTR-SS13-WEB2	Thallium	58%
BTR-SS13-WEB2 (F)	Thallium	59%
BTR-SS13-WEB2	Sodium	1466%

The sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of the deviations in MS recoveries. Post-digestion spike recovery analyses were performed on August 26 and 30, 1993 and the percent recoveries for all post-digestion spike analyses met applicable QC criteria.

J.2 All remaining analytes in the above noted matrix spike analyses, and all other matrix spike analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

K. Quantitation:

K.1 No problems were encountered with sample quantitation in project sample analyses.

L. Conclusion:

L.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total Metals by USEPA Method 6010
MATRIX: Soil
DATE: January 4, 1994 (Revision February 2, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) soil samples for total metals analyses by USEPA Method 6010 on August 19, 1993. The samples were digested on August 27, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 29, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-AOC14-S02	4305-6
BTR-AOC14-SD01	4305-1

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The recovery for silver was marginally below the QC criteria. This slight discrepancy is not expected to affect data quality.

B.2 All other initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Blank Analyses:

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. ICP Interference Check Sample (ICS) Analyses:

E.1 The ICS analyses met all applicable QC criteria.

F. Laboratory Control Sample Analyses:

F.1 All laboratory control sample QC criteria were met.

G. Laboratory Replicate Analysis:

G.1 A QC limit for precision of $\leq$35%, as measured by the Relative Percent Difference (RPD) between sample results, was specified for laboratory replicate comparability.

Sample number BTR-AOC14-SD01 was utilized for the laboratory replicate analysis. The RPD between sample results for the indicated target analytes marginally exceeded the established QC limits as follows:

Analyte	RPD	QC limits
Lead	36%	≤35%
Chromium	40%	≤35%
Copper	40%	≤35%

No adverse effects are expected on data quality due to the above noted deviations.

H. Field Duplicate Analysis:

H.1 There were no field duplicate analyses included in the project documentation.

I. Matrix Spike Analyses:

I.1 Sample number BTR-AOC14-SD01 was utilized for the matrix spike (MS) analysis. The spike recovery for magnesium was 209%, exceeding the advisory QC criteria of 75-125%. Due to the above noted deficiency in MS analysis, the detected results for

magnesium in the associated samples are considered as estimates (J) and usable for limited purposes only (see modified sample data sheets). A post-digestion spike recovery analysis was performed on August 29, 1993 and the magnesium recovery result for the re-analysis was within the advisory QC limits.

The MS recoveries for aluminum, calcium, and iron exceeded the upper QC limit of 125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

I.2 All other QC criteria were met for the MS analysis.

J. Quantitation and Identification:

J.1 No problems were observed with analyte quantitation and identification in project sample analyses.

K. Conclusion:

K.1 Due to the above noted performance deficiency in matrix spike analyses, select data are considered estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total Thallium by USEPA Method 7841
MATRIX: Soil
DATE: December 29, 1993

I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) soil samples for total thallium analysis by USEPA Method 7841 on August 24, 1993. The samples were digested on August 27, 1993 and analyzed for thallium by atomic absorption, furnace technique on August 28, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-AOC14-SD01	4305-1
BTR-AOC14-SO2	4305-6

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 7841.

II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 Initial calibration QC criteria were met for all project sample analyses.

C. Continuing Calibrations:
C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Laboratory Blanks:
D.1 The target analyte was not detected in the method blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 There were no field blank analyses included in the project documentation.

F. Laboratory Control Sample Analysis:
F.1 All laboratory control sample QC criteria were met.

G. Laboratory Replicate Analysis:
G.1 Sample number BTR-A0C14-SD01 was utilized for the laboratory replicate analysis. The results of the laboratory replicate analysis met all applicable QC criteria and the results are considered acceptable.

H. Field Duplicate Analysis:
H.1 There was no field duplicate analysis included in the project documentation.

I. Matrix Spike Analysis:
I.1 Sample number BTR-A0C14-SD01 was utilized for the matrix spike (MS) analysis. The MS recovery met all applicable QC criteria and the results are considered acceptable.

J. Quantitation:
J.1 No problems were observed with analyte quantitation in project sample analyses.

K. Conclusion:
K.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: Volatile Petroleum Hydrocarbons by USEPA Method 8015M
MATRIX: Water & Soil
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for Volatile Petroleum Hydrocarbons (VPH) analysis by USEPA Method 8015M (modified) on August 19 and 20, 1993. The samples were analyzed for VPH on August 20 through 27, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-SD08-SEB	93.4203-08	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, and BTR-SS13-WEB2 were designated as "equipment blanks."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8015M. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets (IRPIMS) submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:
A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:
C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:
D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Laboratory Control Sample Analysis:
F.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

G. Field Duplicate Analysis:
G.1 No field duplicate analysis is included in the project documentation.

H. Surrogate Recoveries:
H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:
I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with these samples met all applicable QC criteria and the results are considered acceptable.

J. Internal Standards:
J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

K. Quantitation and Identification:

K.1 No other problems were observed with sample quantitation and identification in project sample analysis.

L. Conclusion:

L.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia E. Schlag
ANALYSIS: Volatile Petroleum Hydrocarbons by USEPA Method 8015M
MATRIX: Soil
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for Volatile Petroleum Hydrocarbons (VPH) analysis by USEPA Method 8015M (modified) on August 16 and 18. 1993. The samples were analyzed for VPH by gas chromatography with flame ionization detection on August 21, 24, and 25, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-SD01	93.4198-08
BTR-LF03-SD07	93.4219-10

There were no QC sample designations included in project documentation.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8015M. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets (IRPIMS) submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:
A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:
B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:
C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:
D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 No field blank analysis is included in project documentation.

F. Laboratory Control Sample Analysis:
F.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

G. Field Duplicate Analysis:
G.1 No field duplicate analysis is included in the project documentation.

H. Surrogate Recoveries:
H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:
I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with these samples met all applicable QC criteria and the results are considered acceptable.

J. Internal Standards:
J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

K. Quantitation and Identification:
K.1 No other problems were observed with sample quantitation and identification in project sample analysis.

L. Conclusion:
L.1 All data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Keith Strout
ANALYSIS: BTEX Compounds by USEPA Method 8020
MATRIX: Water & Soil
DATE: January 19, 1994 (revised March 4, 1994)

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received five (5) water samples and four (4) soil samples for BTEX (benzene, toluene, ethylbenzene, and xylenes) analysis by USEPA Method 8020 on August 19 and August 20, 1993. The samples were analyzed for BTEX on August 20, 1993, through August 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-BKGD-SD01	93.4199-01	SOIL
BTR-BKGD-SW01	93.4199-06	WATER
BTR-SD08-TB02	93.4199-13	WATER
BTR-SS13-S02	93.4216-10	SOIL
BTR-SS13-SD01	93.4216-05	SOIL
BTR-SD08-SEB	93.4203-08	WATER
BTR-BKGD-S02	93.4203-06	SOIL
BTR-SS13-SEB2	93.4215-06	WATER
BTR-SS13-WEB2	93.4215-07	WATER

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, and BTR-SS13-WEB2 are designated as "equipment blanks"; and BTR-SD08-TB02 is designated as a "trip blank."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8020. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 8020 and the Project Sampling and Analysis Plan.

II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project samples.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 Target analyte toluene was detected in soil equipment blank BTR-SS13-SEB2 at a concentration of 0.0032 mg/L. This compound was not detected in the laboratory blank or in the associated soil sample, therefore no data are qualified due to field blank contamination.

F. Field Duplicate Analysis:

F.1 No field duplicate analysis is included in the project documentation.

G. Laboratory Control Sample Analysis:

G.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

J. Internal Standards:

J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

K. Quantitation & Identification:

K.1 Due to analyte identification problems, the following analytes are considered to be presumptively present (N) and the detected results are usable for limited purposes only (see modified sample data sheets):

- toluene in sample numbers BTR-SS13-S02 and BTR-SS13-SEB2
- ethylbenzene in sample numbers BTR-SS13-SD01 and BTR-SS13-S02
- p&m-xylene in sample numbers BTR-SS13-SD01 and BTR-SS13-S02
- o-xylene in sample numbers BTR-SS13-SD-1 and BTR-SS13-S02

The laboratory did not confirm all detected results by using a secondary column or GC/MS analysis. The results for the smaples listed above are considered to be tentatively identified and qualitatively questionable.

K.2 No other problems were observed with sample quantitation and identification in project sample analysis.

L. Conclusion:

L.1 Due to the lack of confirmation, select data are considerd to be tentatively identified and qualitatively questionable.

L.2 All other data are considered valid and usable for all purposes.

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DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)
LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)
REVIEWER: Cynthia E. Schlag
ANALYSIS: BTEX Compounds by USEPA Method 8020
MATRIX: Soil
DATE: January 21, 1994

I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for BTEX (benzene, toluene, ethylbenzene, and xylenes) analysis by USEPA Method 8020 on August 16 and 18, 1993. The samples were analyzed for by gas chromatography with photo-ionization detection BTEX on August 21, 24, and 25, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.
BTR-SD08-SD01	93.4198-08
BTR-LF03-SD07	93.4219-10

There were no QC sample designations included in project documentation.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8020. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", (December 1990) USEPA Method 8020 and the Project Sampling and Analysis Plan.

II. **VALIDITY & COMMENTS:**

A. Technical Holding Times:
A.1 The technical holding time QC criteria were met for all project samples.

B. Initial Calibration:
B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibration:
C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:
D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:
E.1 No field blank analysis is included in the project documentation.

F. Field Duplicate Analysis:
F.1 No field duplicate analysis is included in the project documentation.

G. Laboratory Control Sample Analysis:
G.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

H. Surrogate Recoveries:
H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:
I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

J. Internal Standards:
J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

K. Quantitation & Identification:
K.1 No problems were observed with sample quantitation and identification in project sample analysis.

L. Conclusion:
L.1 All data are considered valid and usable for all purposes.