

**1996 ANNUAL LONG-TERM
MONITORING**

**CORNHUSKER ARMY
AMMUNITION PLANT
GRAND ISLAND, NEBRASKA**

Prepared for
Department of the Army
U.S. Army Environmental Center
Aberdeen Proving Grounds, Maryland

July 1997

Woodward-Clyde



10975 El Monte, Suite 100
Overland Park, Kansas 66211
Project Number K9642

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FINAL REPORT

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TABLE OF CONTENTS

Section 1	Introduction	1-1
	1.1 Purpose.....	1-1
	1.2 Site History	1-1
	1.3 Scope of Work	1-2
	1.4 Objective	1-2
Section 2	Field Activities.....	2-1
	2.1 Groundwater Level Measurements	2-1
	2.2 Monitoring Well Purging and Water Quality Parameter Measurements	2-1
	2.3 Groundwater Sampling	2-2
Section 3	Hydrogeologic Results	3-1
	3.1 Groundwater Levels.....	3-1
	3.2 Hydraulic Gradients.....	3-1
Section 4	Chemical Investigation Results	4-1
	4.1 Summary of Analytical Results	4-1
	4.1.1 Chemicals Reported in Groundwater Samples	4-1
	4.2 Data Quality Review.....	4-1
	4.2.1 Data Package Completeness	4-2
	4.2.2 Laboratory Case Narrative	4-2
	4.2.3 Holding Times	4-2
	4.2.4 Blank Samples	4-3
	4.2.5 Surrogate Compound Percent Recoveries.....	4-3
	4.2.6 Low Spikes, High Spikes/High Spike Duplicates Samples.....	4-3
	4.2.7 Field Duplicate Analysis.....	4-4
	4.2.8 Matrix Spike/Matrix Spike Duplicate Analysis.....	4-4
	4.2.9 PARCC Parameters.....	4-5
	4.3 Laboratory Audit Results.....	4-6
	4.4 Water Quality Parameters	4-6
Section 5	Nature and Extent of Contamination	5-1
	5.1 Groundwater	5-1
	5.1.1 Horizontal Extent of Groundwater Plume	5-1
	5.1.2 Vertical Extent of Groundwater Plume.....	5-2
Section 6	References.....	6-1

TABLE OF CONTENTS

List of Tables

Table 2-1	Off-Post Wells Sampled for The 1996 Annual LTM Program
Table 3-1	Water Level Measurements for Off-Post Wells
Table 4-1	Summary of Detected Compounds in Groundwater
Table 4-2	Frequency and Concentration Ranges for Detected Compounds in Groundwater
Table 4-3	Water Quality Parameters for Off-Post Wells
Table 4-4	Water Quality Parameter Ranges

List of Figures

Figure 1-1	Well Location Map
Figure 5-1	Explosives Plume - December 1996
Figure 5-2	RDX Plume - December 1996
Figure 5-3	RDX Plume - July 1994
Figure 5-4	TNT Plume - December 1996
Figure 5-5	Geologic Cross-Section A-A'

List of Appendixes

Appendix A	Chain-of-Custodies
Appendix B	Daily Quality Control Reports
Appendix C	Summary of Present and Historical Analytical Results

1.1 PURPOSE

The United States Army Environmental Center (USAEC) contracted Woodward-Clyde Federal Services (WCFS) to complete the long-term monitoring (LTM) for off-post groundwater locations at the Cornhusker Army Ammunition Plant (CHAAP), located near Grand Island, Nebraska. Work for this assignment is being performed under Contract No. DCAC31-94-D-0059, Delivery Order 0001. This report presents the results of the 1996 annual LTM program for the off-post locations at CHAAP.

1.2 SITE HISTORY

CHAAP is located on an 11,936-acre tract approximately 2 miles west of Grand Island, Nebraska (Figure 1). The site also includes an off-post area (to the northeast) which has groundwater impacted by explosive compounds which originated at CHAAP.

CHAAP was constructed and became fully operational in 1942 as a U.S. Government-owned, contractor-operated facility. CHAAP was responsible for the production of artillery shells, mines, bombs, and rockets for World War II and the Korean and Vietnam conflicts. The plant was operated intermittently for 30 years with the most recent operations ending in 1973. From 1942-1945, various bombs, shells, boosters and supplementary charges were produced at CHAAP using primarily 2,4,6-trinitrotoluene (TNT). From 1950-1955, artillery shells and rockets were produced using a mixture of TNT, cyclonite (RDX) and cyclotetramethylenetetranitramine (HMX). CHAAP was activated again from 1965-1973 to produce bombs, projectiles, and gravel mini-mines. Explosive wastes and residues associated with munitions loading, assembly, and packing operations have resulted in a groundwater contamination plume that originates at waste leach pits and cesspools of the CHAAP load lines and extends east-northeastward into the city of Grand Island, Nebraska.

The explosive compounds have migrated east-northeast with the prevailing direction of groundwater flow. Relatively nonsorbing compounds, RDX and HMX, have migrated the greatest distance. Highly sorbing compounds such as 2,4,6-TNT historically have migrated shorter distances. The Site Characterization Document (SCD) (Watkin-Johnson Environmental 1993) provides the most comprehensive description of the nature and extent of groundwater contamination.

Evaluation and remediation of explosives contamination at CHAAP has been an on-going process. The U.S. Army conducted an incineration project (1987-1988) designed to excavate and treat soils beneath unlined leach pits and cesspools of the CHAAP loadlines. The purpose of the project was to remove the source of explosives contamination. The project reduced the sources of contamination, but was unable to remove all contaminated soil. At many locations, remediation action levels could not be achieved before groundwater was encountered. Water quality sampling on- and off-post has been completed repeatedly since the middle 1980s to identify the extent of groundwater contamination. Where affected water users have been

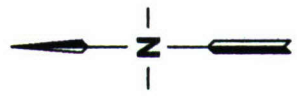
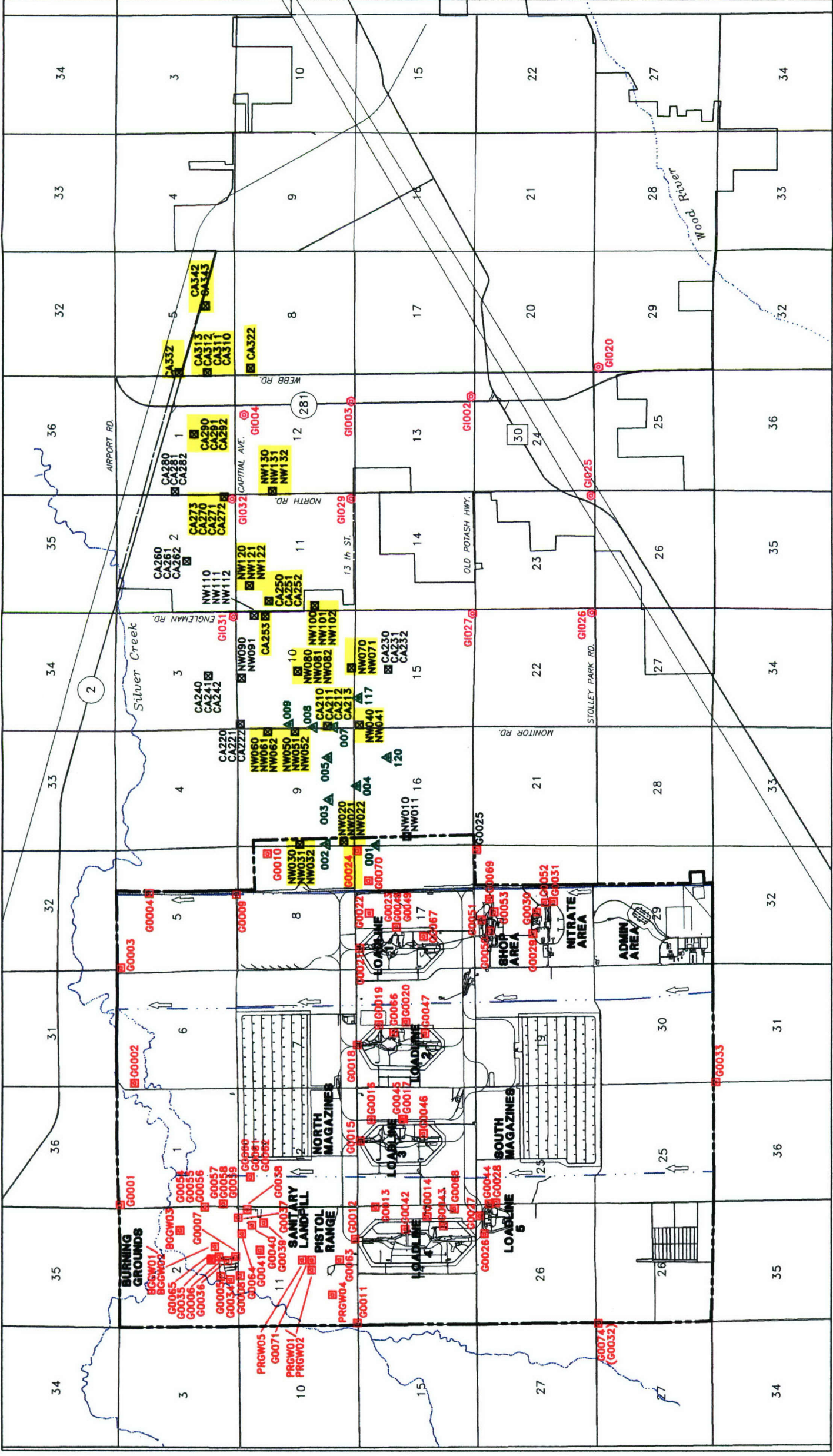
identified, the U.S. Army and the City of Grand Island have worked together to provide alternative water sources.

1.3 SCOPE OF WORK

Groundwater samples were collected from 52 off-post wells and analyzed for explosives using USAEC approved Method UW51. Analytical testing was performed by Inchcape Testing Services Environmental Laboratories (ITS), Richardson, Texas. The groundwater samples were collected to identify concentrations and locations of contamination off-post. Water level readings and water quality parameters were also measured during well purging.

1.4 OBJECTIVE

The primary objective of the LTM program is to monitor and identify plume migration trends.



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CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
LOCATION: CORNHUSKER AAP
TITLE: WELL LOCATION MAP

PROJ. NO. **K9642**
CHK'D. BY
DATE 07/09/97
FIG. NO. **1-1**



- DECEMBER 1996 WELLS SAMPLED
- G0001 ON-POST GROUNDWATER MONITORING WELL
- NW082 ON-POST GROUNDWATER MONITORING WELL
- CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL

- FACILITY BOUNDARY
- GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- 281 STATE ROUTE
- 30 U.S. ROUTE

NOTE:
ON-POST AST/UST MONITORING WELLS
AND MINIWELLS ARE NOT SHOWN.

SOURCE: ICF KAISER

Field activities for the LTM program consisted of:

- Collecting and analyzing two water samples from the water source used in decontamination and other general field activities
- Collecting and analyzing groundwater from 52 off-post monitoring wells
- Measuring water levels in the off-post monitoring wells
- Measuring water quality parameters (e.g., dissolved oxygen, temperature, pH, conductivity, turbidity, redox) during well purging
- Documenting all field activities

All field activities were completed in accordance with the Technical Plan Addendum (W-C 1996). Standard Operating Procedures (SOPs) were included in the Cornhusker Army Ammunition Plant Remedial Investigation and Feasibility Study Technical Plan, Final Document, June 1995 (ICF Kaiser Engineers). Table 2-1 presents a summary of the 52 off-post monitoring wells sampled during the LTM program at CHAAP. Copies of chain-of-custodies (COCs) are presented in Appendix A.

2.1 GROUNDWATER LEVEL MEASUREMENTS

Groundwater level measurements were taken using a Slope Indicator Model 51453 electronic water level meter to evaluate the configuration of the water table off-post at CHAAP. Water levels were collected as specified in the Technical Plan. Water levels were measured for all wells at the surveyed reference point found on the top of the PVC casing.

Prior to inserting the water level probe into the well casing, an HNu photoionization detector (PID) was used to monitor air quality in the casing and breathing zone. The water level probe was decontaminated between measurements at each of the wells with deionized (DI) water. All measurements were recorded in the field logbook.

2.2 MONITORING WELL PURGING AND WATER QUALITY PARAMETER MEASUREMENTS

Prior to sampling, the wells were purged with 2-inch Grundfos submersible pumps. A quantity of water equal to at least five times the well volume and not greater than ten times was removed from each well prior to collection of the groundwater sample. Water quality parameters included dissolved oxygen, temperature, pH, conductivity, turbidity, and redox which were measured and recorded for each well volume. Purging continued until field parameters had stabilized within 10 percent for three consecutive readings. Wells that had turbidity measurements greater than 10 NTUs were purged 10 well volumes. Daily Quality Control Reports (DQCRs) are presented in Appendix B.

Water quality parameters were measured downhole using a HydroLab Data Sonde 3 to determine when the well was stable and ready for sampling. Parameters measured and recorded included redox, dissolved oxygen, pH, conductivity, temperature, and turbidity.

The instrument was calibrated by the manufacturer prior to shipment to CHAAP for field use. Calibration was verified at the beginning and end of each day that samples were collected with standards provided by the manufacturer and the United States Army Corps of Engineers (USACE). The Sonde was decontaminated between measurements at each of the wells. The following steps were performed during decontamination: steam-cleaner rinse, Alconox/water mixture rinse, decon water rinse, and triple rinse with DI water. All Sonde measurements were recorded on the water sample collection sheets. Final water quality parameter measurements are summarized in Section 4.4.

2.3 GROUNDWATER SAMPLING

Groundwater samples were collected from 52 off-post monitoring wells in December 1996 at CHAAP. As described above, the static water level and well depth were measured prior to purging and sample collection.

Groundwater samples were collected after the wells had been purged and were placed in appropriately labeled one liter amber glass bottles (2 per well). Quality control (QC) samples were collected, one per every 20 groundwater samples collected. The groundwater samples were packed in coolers with ice (4° C) and shipped to ITS via Federal Express for explosives analysis.

Twenty-three of the 52 off-post monitoring wells sampled in December 1996 had to be resampled in February 1997 due to laboratory error. The laboratory extracted samples outside the recommended holding time of 7 days. Table 2-1 identifies which 23 monitoring wells were resampled. The February 1997 resampling event followed the same procedures outlined above. The laboratory problems and corrective actions are described in Section 4.2.3.

TABLE 2-1

OFF-POST WELLS SAMPLED
FOR THE 1996 ANNUAL LTM PROGRAM

WELL ID NUMBER	DATE SAMPLED	FIELD QC SAMPLE ID ¹	EPA SPLIT SAMPLE
NW020	12/09/96		
NW021	12/09/96		
NW022	12/09/96	NW023	
G0024	12/15/96		
NW030 ²	02/17/97		
NW031 ²	02/17/97		NW031
NW032 ²	02/17/97	NW033	
NW040	12/10/96		
NW041	12/10/96		
NW050	12/09/96		
NW051	12/09/96		
NW052	12/09/96		
NW060	12/09/96		
NW061	12/09/96		
NW062	12/09/96		
NW070 ²	02/18/97		
NW071 ²	02/18/97		NW071
NW080	12/10/96		
NW081	12/10/96		
NW082	12/10/96		
NW100 ²	02/18/97		
NW101 ²	02/18/97		
NW102 ²	02/18/97		NW102
NW120	02/18/97		
NW121	12/12/96		NW121
NW122	12/12/96		
NW130 ²	02/19/97		
NW131 ²	02/19/97		
NW132 ²	02/19/97	NW133	
CA210	12/10/96		
CA211	12/10/96		
CA212	12/10/96		
CA213	12/10/96		
CA250	12/15/96		
CA251	12/15/96		
CA252	12/15/96		
CA253 ²	02/18/97		CA253
CA270 ²	02/18/97		
CA271 ²	02/18/97		
CA272 ²	02/18/97		
CA273 ²	02/18/97		
CA290 ²	02/19/97		
CA291 ²	02/19/97		
CA292 ²	02/19/97		
CA310 ²	02/18/97		
CA311 ²	02/18/97		
CA312 ²	02/18/97		
CA313	12/12/96		CA313
CA322	12/12/96		CA322
CA332	12/12/96		CA332
CA342	12/12/96		CA342
CA343	12/12/96		CA343

¹The field QC samples taken at well locations included field duplicate, matrix spike and matrix spike duplicate samples.

²Wells were resampled in February 1997 because samples were extracted outside the recommended holding time.

3.1 GROUNDWATER LEVELS

Groundwater levels were measured at each well as part of the annual sampling event. The water level depths are presented in Table 3-1. The depth to groundwater generally ranged from 4.5 to 10.8 feet below ground surface (bgs).

3.2 HYDRAULIC GRADIENTS

Regionally, groundwater flow is generally to be northeast near the City of Grand Island. Hydraulic gradients were calculated using water level elevations from the off-post monitoring wells. An average horizontal hydraulic gradient of 0.0011 feet per foot was calculated from October 1992 groundwater data (Watkins-Johnson Environmental 1993). Gradients indicated groundwater generally flows to the northeast in the off-post area from CHAAP toward the city. Due to data gaps, the water table map based on December 1996 water level data was not completed. Top-of-casing (TOC) elevations were not available for the off-post monitoring wells during a recent report search at CHAAP.

TABLE 3-1

WATER LEVEL MEASUREMENTS FOR OFF-POST WELLS

Well Number	Sample Date	Well Depth (ft. TOC)	Depth to Water (ft. TOC)	Water Level Elevation (ft. MSL)
NW020	12/09/96	25.28	9.87	TOC Elevations Not Found
NW021	12/09/96	43.00	9.96	TOC Elevations Not Found
NW022	12/09/96	63.88	9.93	TOC Elevations Not Found
G0024	12/15/96	33.30	9.65	1,896
NW030	12/13/96	20.40	5.80	TOC Elevations Not Found
NW030	02/17/97	20.40	5.96	TOC Elevations Not Found
NW031	12/13/96	37.85	6.15	TOC Elevations Not Found
NW031	02/17/97	37.85	6.22	TOC Elevations Not Found
NW032	12/13/96	62.50	5.77	TOC Elevations Not Found
NW032	02/17/97	62.50	5.96	TOC Elevations Not Found
NW040	12/10/96	15.19	4.70	TOC Elevations Not Found
NW041	12/10/96	57.46	4.46	TOC Elevations Not Found
NW050	12/09/96	20.23	7.91	TOC Elevations Not Found
NW051	12/09/96	34.56	8.06	TOC Elevations Not Found
NW052	12/09/96	60.80	7.46	TOC Elevations Not Found
NW060	12/09/96	20.00	10.60	TOC Elevations Not Found
NW061	12/09/96	45.30	9.23	TOC Elevations Not Found
NW062	12/09/96	63.15	10.40	TOC Elevations Not Found
NW070	12/13/96	20.55	7.75	TOC Elevations Not Found
NW070	02/18/97	20.69	7.77	TOC Elevations Not Found
NW071	12/13/96	60.15	7.15	TOC Elevations Not Found
NW071	02/18/97	60.12	7.56	TOC Elevations Not Found
NW080	12/10/96	18.53	5.95	TOC Elevations Not Found
NW081	12/10/96	45.54	6.14	TOC Elevations Not Found
NW082	12/10/96	56.42	5.81	TOC Elevations Not Found
NW100	12/13/96	20.05	10.42	TOC Elevations Not Found
NW100	02/18/97	20.05	10.67	TOC Elevations Not Found
NW101	12/13/96	40.65	10.55	TOC Elevations Not Found
NW101	02/18/97	40.68	10.53	TOC Elevations Not Found
NW102	12/13/96	59.55	10.50	TOC Elevations Not Found
NW102	02/18/97	59.55	10.73	TOC Elevations Not Found
NW120	12/13/96	20.73	6.84	TOC Elevations Not Found
NW120	02/18/97	20.74	6.99	TOC Elevations Not Found
NW121	12/12/96	57.45	6.73	TOC Elevations Not Found
NW122	12/12/96	87.35	6.62	TOC Elevations Not Found
NW130	12/11/96	15.20	5.15	TOC Elevations Not Found
NW130	02/19/97	16.15	5.27	TOC Elevations Not Found
NW131	12/11/96	38.16	5.08	TOC Elevations Not Found
NW131	02/19/97	38.19	5.24	TOC Elevations Not Found
NW132	12/11/96	60.41	5.12	TOC Elevations Not Found
NW132	02/19/97	60.31	5.24	TOC Elevations Not Found
CA211	12/10/96	42.84	8.33	TOC Elevations Not Found
CA212	12/10/96	67.06	8.33	TOC Elevations Not Found
CA213	12/10/96	89.76	8.92	TOC Elevations Not Found
CA250	12/15/96	15.05	5.72	TOC Elevations Not Found
CA251	12/15/96	40.10	5.79	TOC Elevations Not Found
CA252	12/15/96	57.35	5.70	TOC Elevations Not Found

TABLE 3-1

WATER LEVEL MEASUREMENTS FOR OFF-POST WELLS

Well Number	Sample Date	Well Depth (ft. TOC)	Depth to Water (ft. TOC)	Water Level Elevation (ft. MSL)
CA253	12/13/96	86.60	9.45	TOC Elevations Not Found
CA253	02/18/97	86.56	9.66	TOC Elevations Not Found
CA270	12/11/96	17.70	8.59	TOC Elevations Not Found
CA270	02/18/97	17.74	8.66	TOC Elevations Not Found
CA271	12/11/96	40.51	8.07	TOC Elevations Not Found
CA271	02/18/97	4.56	8.16	TOC Elevations Not Found
CA272	12/11/96	58.48	8.05	TOC Elevations Not Found
CA272	02/18/97	58.50	8.19	TOC Elevations Not Found
CA273	12/11/96	85.90	9.20	TOC Elevations Not Found
CA273	02/18/97	85.52	9.25	TOC Elevations Not Found
CA290	12/11/96	17.50	9.69	TOC Elevations Not Found
CA290	02/19/97	17.52	9.92	TOC Elevations Not Found
CA291	12/11/96	38.45	9.65	TOC Elevations Not Found
CA291	02/19/97	38.42	9.87	TOC Elevations Not Found
CA292	12/11/96	59.00	9.73	TOC Elevations Not Found
CA292	02/19/97	59.12	9.93	TOC Elevations Not Found
CA310	12/11/96	18.26	12.00	TOC Elevations Not Found
CA310	02/19/97	17.52	12.28	TOC Elevations Not Found
CA311	12/11/96	42.15	11.82	TOC Elevations Not Found
CA311	02/19/97	42.26	12.16	TOC Elevations Not Found
CA312	12/11/96	60.22	11.45	TOC Elevations Not Found
CA312	02/19/97	60.03	11.79	TOC Elevations Not Found
CA313	12/12/96	86.22	11.22	TOC Elevations Not Found
CA322	12/12/96	57.55	9.98	TOC Elevations Not Found
CA332	12/12/96	56.05	9.12	TOC Elevations Not Found
CA342	12/12/96	57.83	9.95	TOC Elevations Not Found
CA343	12/12/96	83.34	10.37	TOC Elevations Not Found

4.1 SUMMARY OF ANALYTICAL RESULTS

Groundwater samples were sent to ITS for explosives analysis by USAEC approved Method UW51. Table 4-1 summarizes the detected compounds for the groundwater samples collected from CHAAP off-post wells in December 1996 and February 1997. Analytical results for groundwater samples collected from CHAAP off-post wells (present and historical) are summarized in Appendix C.

4.1.1 Chemicals Reported in Groundwater Samples

The primary explosives detected in groundwater samples collected off-post at CHAAP included RDX, HMX, and TNT. Additionally, explosives breakdown products detected included: 1,3,5-trinitrobenzene (TNB), 2,4-dinitrotoluene (DNT), 2-amino-4,6-dinitrotoluene (2DNT) and 4-amino-2, 6-dinitrotoluene (4DNT). Table 4-2 summarizes the frequency and concentrations of detected compounds.

4.2 DATA QUALITY REVIEW

One hundred percent of the analytical data were reviewed following the procedures described below utilizing quality assurance/quality control (QA/QC) data specified in the QAPP addendum (W-C 1996); United States Army Toxic and Hazardous Materials Agency (USATHAMA), Quality Assurance Program, January 1990; and USAEC approved Method UW51. Ten percent of the analytical data underwent full validation using the evaluation criteria established in USAEC Method UW51. The QC elements reviewed in the laboratory analytical data packages included the following:

- Completeness of package
- Review of laboratory case narrative
- Compliance with required holding times
- Presence or absence of compounds in method and field blanks
- Results of laboratory control samples (LS, HS and HSD)
- Surrogate spike recovery in samples
- Results of matrix spike and matrix spike duplicate samples
- Field duplicate samples

The data review process was implemented to assess the quality of data resulting from the field sampling program with respect to the QA/QC objectives established for the project. Data was assessed to evaluate the appropriate usage to support decision making. Data assessment involved a consideration of data use, the decision type, identification of data which were qualified or did not meet project QA/QC requirements, and limitations on data use. The data review was based on the laboratory data summary reports and raw data. The following sections collectively

summarize the data review of Laboratory Lot Numbers (Lot). The following lots were included: ABOZ, ABPA, ABPB, ABPE, ABPD, ABPG, ABPH and ABPI. Findings of the data review process are presented in the following sections.

4.2.1 Data Package Completeness

The data packages were reviewed to verify each Lot contained the data contractually required in the deliverable and that all samples listed on the COC forms were analyzed for the requested parameters. The review indicated that the data packages were complete.

4.2.2 Laboratory Case Narrative

Due to laboratory error, all surrogates and spikes were not spiked at the USAEC specified levels for samples in Lots ABPA, ABPB, and ABPE. All samples were diluted in order to quantify the spiking concentrations. The low spike did not require dilution; however, the spike concentrations were also incorrect. Although spiking concentrations were incorrect they had no impact on data usability, since the spiked compounds were within evaluation criteria

In addition, the laboratory case narrative noted samples which were not confirmed due to co-elution on the confirmation column were reported from the primary column.

No other problems were noted in the laboratory case narratives which are not discussed in subsequent sections.

4.2.3 Holding Times

Review of the sample collection and analyses dates involved comparing the COCs, the summary forms, and the raw data forms for accuracy, consistency, and holding time compliance. The samples were extracted and analyzed within the required holding time, with the exception of the samples from Lots ABPE, ABPD and ABPG. Samples in Lot ABPE were extracted one day outside evaluation criteria and were qualified as estimated (UJ/J) based upon exceeded holding times.

Samples in Lot ABPD were extracted 32 days outside evaluation criteria and the samples in Lot ABPG were extracted 14 days outside the evaluation criteria. Sample results from Lots ABPD and ABPG were rejected (R) and considered unusable due to the exceeded holding times.

Samples from Lots ABPD and ABPG were resampled and resubmitted for analysis in February 1997. Lots ABPH and ABPI contain the resampled groundwater samples for analysis. Samples from Lots ABPH and ABPI were analyzed within acceptable holding times and required no qualification.

4.2.4 Blank Samples

Blank samples were established to assess the existence and magnitude of contamination during laboratory activities. All method blank data was reported below the reporting limit (RL) and required no qualification based on method blank contamination.

All rinsate data were reported below the RL with the exception of Rinsate No. 4 (12/12/96). Rinsate No. 4 reported HMX (0.232 µg/L) above the RL (0.16 µg/L). The analytical results for samples collected on December 12, 1996 were reported non-detect for HMX with the exception of NW121 (0.702 µg/L). NW121 was the last environmental sample collected that day; Rinsate No. 4 was collected after the sample collection of NW121. Contamination found in Rinsate No. 4 can be explained as residual HMX remaining on the sampling device after the collection of NW121; therefore, no qualifications were required.

4.2.5 Surrogate Compound Percent Recoveries

Surrogate recoveries were used to evaluate the accuracy of the analytical measurement on a sample-specific basis. Surrogate recoveries for all samples were within evaluation criteria; therefore, no qualification of data was required.

4.2.6 Low Spikes, High Spikes/High Spike Duplicates Samples

The low spike (LS), high spike/high spike duplicate (HS/HSD) samples were established to assess the accuracy of the analytical method and demonstrate laboratory performance. The evaluation criteria used for LS and HS/HSD was 50 to 150 percent. LS and HS/HSD recoveries were within the evaluation criteria with the following exceptions:

LS recoveries for Lot ABOZ were reported within the evaluation criteria with the exception of tetryl. Tetryl (49 percent) was reported below the evaluation criteria indicating a potential low bias. Tetryl results were reported as non-detect; therefore, tetryl results for samples WB1 and WB2 were qualified as estimated (UJ) based on low LS recovery. HS/HSD recoveries were within the evaluation criteria with the exception of tetryl. Tetryl (39/43 percent) was reported below the evaluation criteria, indicating a potential low bias. Samples were previously qualified due to low LS recoveries and required no additional qualifications. The HS/HSD relative percent differences (RPD) were within evaluation criteria with the exception of 3-nitrotoluene (3-NT). The RPD for 3-NT (27.7 percent) was reported above the evaluation criteria of 25 percent. Associated QC and the remaining HS/HSD compounds were within evaluation criteria; therefore, no qualifications were required based on laboratory precision.

LS and HS/HSD recoveries for Lot ABPB were reported within evaluation criteria for all compounds with the exception of RPD for nitrobenzene (NB). Associated QC and the remaining HS/HSD compounds were within evaluation criteria; therefore, no qualifications were required based on laboratory precision.

LS recoveries for Lot ABPH were reported within the evaluation criteria with the exception of NB. NB (200 percent) was above the evaluation criteria, indicating a potential high bias. NB results were reported non-detect; therefore, no qualifications were required based on high LS recovery. HS/HSD recoveries were reported within evaluation criteria with the exception of tetryl in the HS. Tetryl (33.5 percent) was reported below the evaluation criteria indicating a potential low bias. Results for tetryl were reported as non-detect. Since the LS and HSD recoveries were within evaluation criteria, no qualifications were required based on low HS recovery.

LS recoveries in Lot ABPI were reported within evaluation criteria with the exception 2-nitrotoluene (2NT). 2NT (47.6 percent) was reported below the evaluation criteria, indicating a potential low bias. 2NT results were reported as nondetect; therefore, 2NT results for samples NW130, NW131, NW132, NW133, CA290, CA291, and CA292 were qualified as estimated (UJ) based on low LS recovery. HS/HSD recoveries were reported within evaluation criteria with the exception of tetryl. Tetryl (37.2/34.7 percent) was reported below the evaluation criteria indicating a potential low bias. Results for tetryl were reported as non-detect. Since LS recovery was within evaluation criteria for tetryl, no qualifications were required based on low HS/HSD recovery.

4.2.7 Field Duplicate Analysis

Field duplicate samples were established to determine both field and laboratory precision. Three groundwater field duplicate sample pairs (NW022/NW023; NW132/NW133; NW032/NW033) were collected and submitted to the laboratory for analyses. Field duplicate sample results were all reported as non-detect; therefore, no qualification of data was required based on field duplicate analysis.

4.2.8 Matrix Spike/Matrix Spike Duplicate Analysis

Matrix spike/matrix spike duplicate (MS/MSD) samples were established to assess laboratory accuracy and the effects of matrix inferences on sample preparation and analyses. Three groundwater samples (NW022; NW032, NW132) were collected and submitted to the laboratory to be spiked and analyzed with their respective Lot. The evaluation criteria used for MS/MSD was 50 to 150 percent. MS/MSD recoveries were within the evaluation criteria with the following exceptions:

MS/MSD recoveries for sample NW032 were reported within the evaluation criteria with the exception of NB. NB (178/209 percent) was reported above the evaluation criteria indicating a potential high bias. Results for NB were reported as non-detect; therefore, no qualifications were required based on MS/MSD criteria.

MS/MSD recoveries for sample NW132 were reported within evaluation criteria with the exception of tetryl. Tetryl (34.4/33.0 percent) was reported below the evaluation criteria

indicating a potential low bias. Results for tetryl were reported as non-detect; therefore, tetryl results for samples NW130, NW131, NW132, NW133, CA290, CA291, and CA292 were qualified as estimated (UJ) based on outlying MS/MSD criteria.

4.2.9 PARCC Parameters

The agreement between duplicate analyses within control limits indicates satisfactory precision in a measurement system, and the recovery of predetermined amount of a spike within control limits indicates satisfactory accuracy with respect to the method on the individual sample and general matrix. For all analyses, 97.5 percent of the indicators reviewed for accuracy (matrix spikes, LCS, and/or surrogate spikes) were within evaluation criteria. Ninety-nine percent of the indicators (matrix spike duplicate, high spike duplicate, and/or field duplicates) were within evaluation criteria.

The overall accuracy and precision of the off-post monitoring well groundwater sample data reported for CHAAP LTM Program was concluded to be satisfactory.

Representativeness

Representativeness expresses the degrees to which sample data accurately and precisely represent the characteristics of a population. Representativeness is a qualitative parameter which is of concern in the proper design of the sampling program, such that the sampling locations selected will provide representative data for decisions at CHAAP. Representativeness was assessed using the three field duplicate sample pairs collected at CHAAP. Field duplicate sample pairs were within evaluation criteria; therefore, it was concluded that representativeness was satisfactory.

Comparability

Comparability expresses the confidence with which one data set can be compared to another. In accordance with the QAPP, data are comparable when siting considerations, collection techniques, measurement methods, and reporting procedures are equivalent for the samples within a sample set. Throughout this investigation, appropriate procedures for sampling and shipping were implemented as specified in the Technical Plan and CHAAP QAPP Addendum (W-C 1996). Within this data set, it was concluded that results were comparable to one another.

Completeness

Completeness is defined as the percentage of the total number of analytical results requested which are judged to be valid (including estimated J values) in accordance with the CHAAP QAPP Addendum (W-C 1996). Twenty-three groundwater samples were rejected based on exceeded holding times; however, the samples were recollected and reanalyzed; completeness was determined to be 100 percent, within acceptable DQO limits.

4.3 LABORATORY AUDIT RESULTS

Due to problems encountered during the analysis of project samples, specifically in regards to spiking compound concentrations and holding time exceedances as identified above, W-C completed an on-site audit of ITS Laboratory. The laboratory audit was completed concurrent with the re-sampling effort in February 1997. The laboratory audit included reviewing custody procedures, instrument calibrations and maintenance, documentation, and compliance with laboratory standard operating procedures (SOPs). Results from the laboratory audit indicate the problems encountered during the analysis of the original CHAAP samples appear to be isolated incidents and the proper corrective actions have been implemented. No deviations from accepted practice were observed during the ITS laboratory audit.

4.4 WATER QUALITY PARAMETERS

Final water quality parameter measurements are presented in Table 4-3. Table 4-4 summarizes water quality parameter concentration ranges.

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	NW020		NW021		G0024	
	METHOD	UW51	METHOD	UW51	METHOD	UW51
COLLECT DATE	12/09/96		12/09/86		12/15/96	
	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)						
1,3,5-Trinitrobenzene	1.2	0.125		0.41	0.125	1.3 0.125
2,4,6-Trinitrotoluene	30	0.29		3.8	0.29	18 0.29
2,4-Dinitrotoluene	0.78	0.233		0.24	0.233	0.26 0.233
2-Amino-4,6-Dinitrotoluene	13	0.173		<	0.173	6.5 0.173
4-Amino-2,6-Dinitrotoluene	8	0.309		1.6	0.309	12 0.309
HMX	4.8	0.16		<	0.16	6.5 0.16
RDX	12	0.558	U	4.6	0.558	21.1 0.558 U

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	NW051		NW081		NW082		NW120		NW121	
	Result	RL	Qual	Result	RL	Qual	Result	RL	Result	RL
METHOD	UW51	UW51	UW51	UW51	UW51	UW51	UW51	UW51	UW51	UW51
COLLECT DATE	12/09/96	12/10/96	12/10/96	12/10/96	12/10/96	02/18/97	02/18/97	02/18/97	12/12/96	12/12/96
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	<	0.125		<	0.125		<	0.125	<	0.125
HMX	1.9	0.16	4.9	1.7	0.16	0.404	0.16	0.7	0.7	0.16
RDX	4.12	0.558	9.4	<	0.558	2.88	0.558	<	<	0.558

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	CA210		CA211		CA212		CA250		CA251	
	METHOD	COLLECT DATE	METHOD	COLLECT DATE	METHOD	COLLECT DATE	METHOD	COLLECT DATE	METHOD	COLLECT DATE
	UW51	12/10/96	UW51	12/10/96	UW51	12/10/96	UW51	12/15/96	UW51	12/15/96
	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
	Qual	Qual	Qual	Qual	Qual	Qual	Qual	Qual	Qual	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	<	0.125	<	0.125	<	0.125	<	0.125	0.31	0.125
HMX	0.41	0.16	1.8	0.16	0.45	0.16	0.61	0.16	3.65	0.16
RDX	<	0.558	<	0.558	<	0.558	<	0.558	13.6	0.558 U

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 USAEC Method UW51

TABLE 4-1

SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER

FIELD ID	CA252		CA271		CA272		CA312	
	Result	RL	Qual	Result	RL	Qual	Result	RL
METHOD	UW51	UW51	UW51	UW51	UW51	UW51	UW51	UW51
COLLECT DATE	12/15/96	02/18/97	02/18/97	02/18/97	02/18/97	02/18/97	02/18/97	02/18/97
EXPLOSIVES (µg/L)								
1,3,5-Trinitrobenzene	<	0.125	<	0.125	<	0.125	0.127	0.125
HMX	4.6	0.16	1.32	0.16	1.57	0.16		
RDX	7.2	0.558	8.12	0.558	6.29	0.558	4.09	0.558

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 USAEC Method UW51

TABLE 4-2

**FREQUENCY AND CONCENTRATION RANGES FOR
DETECTED COMPOUNDS IN GROUNDWATER**

Compound Detected	Frequency of Detects¹	Concentration Range
Cyclonite (RDX)	11	4.09 µg/L to 21.1 µg/L
Cyclotetramethylenetetranitramine (HMX)	15	4.04 µg/L to 6.5 µg/L
2,4,6-Trinitrotoluene (TNT)	3	3.8 µg/L to 30.0 µg/L
1,3,5-Trinitrobenzene (TNB)	5	0.127 µg/L to 1.3 µg/L
2,4-Dinitrotoluene (DNT)	3	0.24 µg/L to 0.78 µg/L
2-Amino-4, 6-Dinitrotoluene (2DNT)	2	6.5 µg/L to 13 µg/L
4-Amino-2, 6-Dinitrotoluene (4DNT)	3	1.6 µg/L to 12 µg/L

¹Field QC samples (field duplicates, matrix spike/matrix spike duplicates) were not included.

TABLE 4-3

WATER QUALITY PARAMETERS FOR OFF-POST WELLS

Well Number	Sample Date	Redox (mV)	DO (mg/L)	pH	Conductivity (ms/cm)	Temperature (°C)	Turbidity (NTU's)
NW020	12/09/96	311	0.00	6.99	565	11.79	4.7
NW020R	12/09/96	18	0.00	6.82	576	11.90	11
NW021	12/09/96	130	4.45	6.88	491	11.33	40.3
NW022	12/09/96	-89	0.00	7.12	444	11.64	2.1
G0024	12/15/96	146	0.00	6.55	590	11.90	9.8
NW030	12/13/96	29	0.00	6.80	405	12.23	14
NW030	02/17/97	190	0.70	6.65	477	10.21	4.8
NW031	12/13/96	67	4.25	7.56	476	11.31	11.3
NW031	02/17/97	98	1.08	7.29	526	11.35	4.1
NW032	12/13/96	-119	0.00	7.44	456	11.50	6.5
NW032	02/17/97	-69	2.06	6.90	430	11.50	2.2
NW040	12/10/96	-13	0.23	6.03	149.8	11.35	214
NW041	12/10/96	99	3.21	7.11	391	11.85	11
NW050	12/09/96	402	0.00	6.21	1450	12.87	5.6
NW051	12/09/96	357	3.45	6.67	861	11.80	4.6
NW052	12/09/96	-111	10.36	7.09	864	11.83	2.6
NW060	12/09/96	90	5.80	6.22	467	13.10	8.4
NW061	12/09/96	312	3.40	6.70	754	11.94	3.2
NW062	12/09/96	-107	5.65	6.69	665	12.20	3.2
NW070	12/13/96	137	0.00	6.95	432	16.83	12.8
NW070	02/18/97	79	0.00	6.88	513	11.56	3.2
NW071	12/13/96	130	0.00	6.86	429	12.80	6.2
NW071	02/18/97	366	1.72	6.37	450	12.70	1.8
NW080	12/10/96	176	5.37	6.26	664	13.89	14.2
NW081	12/10/96	173	1.35	6.39	801	11.73	2
NW082	12/10/96	139	0.00	6.75	727	11.68	2.2
NW100	12/13/96	164	4.51	6.01	885	13.40	7.4
NW100	02/18/97	273	5.62	5.87	1050	10.83	5.2
NW101	12/13/96	211	0.00	6.58	917	11.80	11.6
NW101	02/18/97	224	0.51	6.37	1164	11.93	3.8
NW102	12/13/96	122	0.00	6.52	700	11.99	6.1
NW102	02/18/97	387	3.07	6.05	693	12.00	2.2
NW120	12/13/96	102	1.11	6.42	447	13.13	27.7
NW120	02/18/97	389	3.43	5.84	469	11.37	14.4
NW121	12/12/96	24	0.00	7.05	719	12.40	14.8
NW122	12/12/96	-108	0.00	7.12	347	12.69	4.2
NW130	12/11/96	159	5.16	6.63	510	12.97	10.2
NW130	02/19/97	244	7.76	6.54	609	9.60	12.8
NW131	12/11/96	3.06	8.61	6.41	480	12.37	1.5
NW131	02/19/97	261	10.59	6.22	536	12.46	4.3
NW132	12/11/96	169	3.77	6.42	521	12.48	4.1
NW132	02/19/97	373	9.57	5.97	510	12.48	2.5
CA210	12/10/96	119	1.26	6.28	1762	12.80	*
CA211	12/10/96	75	0.00	6.51	927	11.25	34.4
CA212	12/10/96	12	0.00	7.03	691	11.46	6.1
CA213	12/10/96	-109	0.00	7.26	357	11.93	2.8

TABLE 4-3

WATER QUALITY PARAMETERS FOR OFF-POST WELLS

Well Number	Sample Date	Redox (mV)	DO (mg/L)	pH	Conductivity (ms/cm)	Temperature (°C)	Turbidity (NTU's)
CA250	12/15/96	212	5.51	6.61	643	13.30	13.7
CA251	12/15/96	137	2.25	6.55	695	12.15	4.6
CA252	12/15/96	103	0.00	6.72	774	11.97	4.4
CA253	12/13/96	-97	0.00	7.21	364	12.11	6.4
CA253	02/18/97	-50	0.00	7.12	441	12.00	2.5
CA270	12/11/96	132	1.54	6.55	467	12.95	15.5
CA270	02/18/97	368	2.30	5.96	454	9.30	16.4
CA271	12/11/96	132	11.14	6.39	420	12.66	3.7
CA271	02/18/97	400	8.20	5.40	520	12.66	3.1
CA272	12/11/96	114	4.74	6.74	492	12.60	4.1
CA272	02/18/97	230	2.75	6.61	549	12.69	3.8
CA273	12/11/96	132	0.57	7.36	354	12.77	1.0
CA273	02/18/97	-67	7.74	6.70	325	12.80	2.3
CA290	12/11/96	109	1.93	6.82	712	12.50	5.8
CA290	02/19/97	329	3.30	6.29	734	8.76	9.1
CA291	12/11/96	125	3.90	6.47	441	11.75	4.2
CA291	02/19/97	254	7.53	6.41	481	11.74	1.6
CA292	12/11/96	120	0.00	6.61	365	11.75	4.2
CA292	02/19/97	352	11.32	6.20	357	11.91	2.6
CA310	12/11/96	127	0.00	6.85	961	13.62	134
CA310	02/19/97	365	3.21	6.48	668	11.41	26.1
CA311	12/11/96	144	3.00	6.82	697	12.73	54.3
CA311	02/19/97	247	2.84	6.74	826	12.80	1.6
CA312	12/11/96	221	0.20	6.91	540	12.61	1.1
CA312	02/19/97	386	4.89	6.25	503	12.71	2.6
CA313	12/12/96	-73	0.00	7.26	358	12.64	1.3
CA322	12/12/96	154	0.00	6.68	581	13.46	10.5
CA332	12/12/96	90	0.00	6.71	397	12.44	5.5
CA342	12/12/96	247	0.82	7.05	800	11.21	3.8
CA343	12/12/96	98	0.00	7.04	607	11.66	3.3

* Outside instrument calibration range.

Water quality parameters were measured downhole using the HydroLab Data Sonde 3.

TABLE 4-4

WATER QUALITY PARAMETER RANGES

Water Quality Parameters (Units)	Measurement Range
Redox (mV)	-119 to 402
Dissolved Oxygen (mg/L)	0.00 to 11.32
pH	5.40 to 7.56
Conductivity (ms/cm)	347 to 1762
Temperature (°C)	8.76 to 16.83
Turbidity (NTUs)	1.0 to 214 ¹

¹ Sample CA210 was outside the instrument calibration range.

This section provides a description of the nature and extent of explosives observed in the groundwater off-post at CHAAP. RDX, HMX, and TNT were selected for this discussion because of their frequency of occurrence, magnitude of detected concentrations, and potential adverse health effects.

Health advisory explosives concentrations levels have been established for CHAAP in the ROD by the USEPA and USAEC. These levels include:

- 2 ppb for RDX and TNT
- 400 ppb for HMX

Nature and extent discussions will generally focus on contaminant concentrations above these levels.

5.1 GROUNDWATER

The off-post groundwater plume consists primarily of RDX and HMX, which range in concentrations up to 21.1 µg/L (RDX) and 6.5 µg/L (HMX) (Figures 5-1 and 5-2). TNT was only detected at locations near the northeast edge of the CHAAP facility boundary with concentrations up to 30 µg/L (Figure 5-4). Explosives breakdown products including DNT and TNB were detected at the site; however, these explosives were only observed at the start of the plume and in scattered locations at the end of the plume with concentrations below 0.5 µg/L.

5.1.1 Horizontal Extent of Groundwater Plume

Horizontal extent of total explosives, RDX and TNT in December 1996 are shown on Figures 5-1, 5-2, and 5-4, respectively. The explosives plume originates on the northeast edge of the CHAAP Facility and extends over 21,000 feet northeast into the surrounding rural and urban areas.

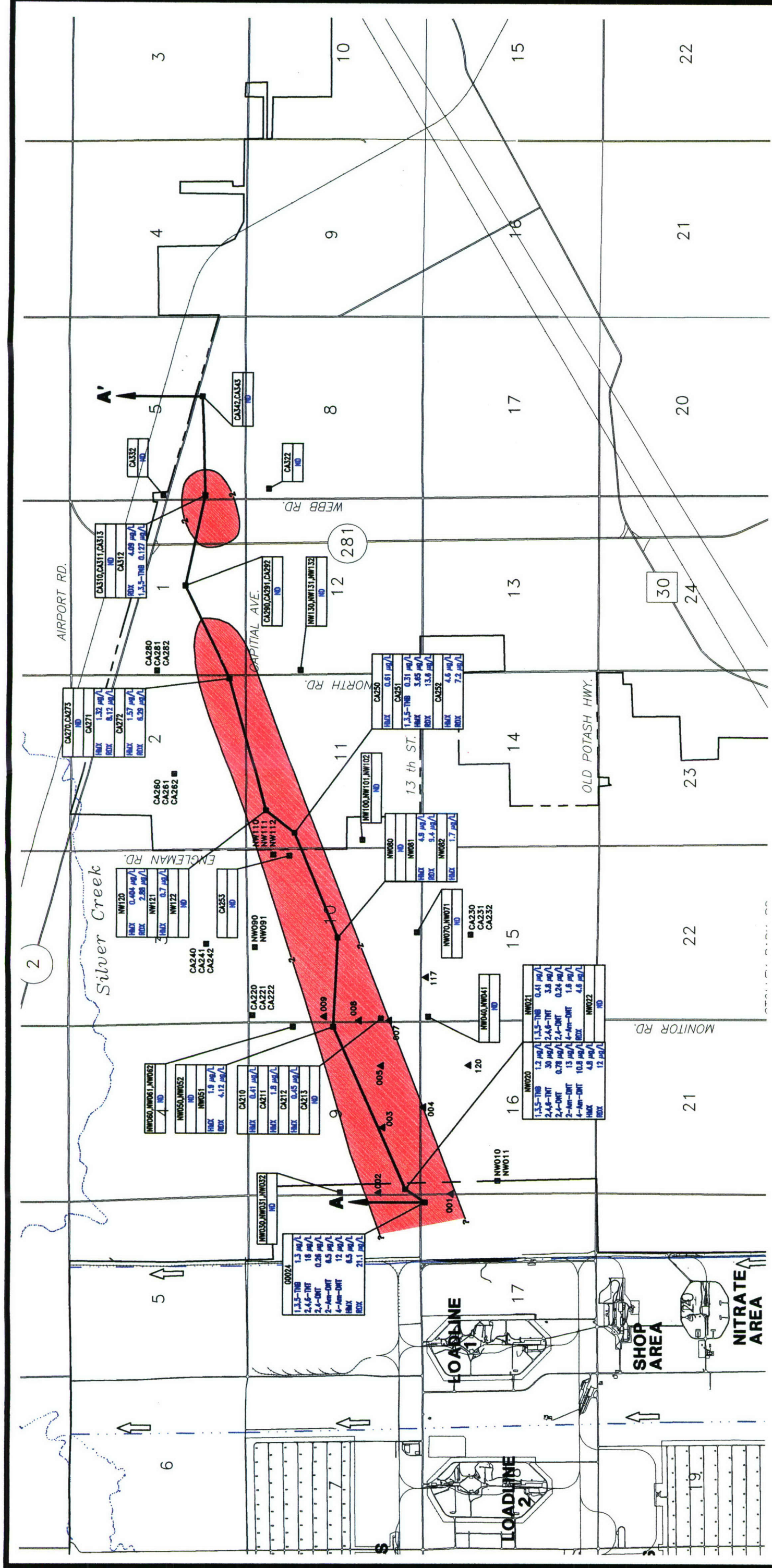
The axis of the explosives plume trends southwest to northeast (Figure 5-1). The highest explosives concentrations were located at the facility boundary. Explosives concentrations declined to the northeast, dissipating near well cluster CA290. Low explosives concentrations (4 µg/L RDX) were detected at well cluster CA310, but only in the intermediate well. Explosives were not detected downgradient of CA310.

July 1994 RDX concentrations are shown on Figure 5-3. In general, RDX concentrations have decreased slightly from 1994 to 1996 at most of the monitoring well clusters. For example, RDX concentrations have decreased at NW020 (26 to 12 µg/L), NW081 (17 to 9.4 µg/L), CA251 (from 28 to 13.6 µg/L), CA272 (15 to 6.29 µg/L), CA292 (5.85 µg/L to ND), and CA342 (1.07 µg/L to ND).

5.1.2 Vertical Extent of Groundwater Plume

Interpreted vertical extent of the explosives plume is shown on geologic cross-section A-A' (Figure 5-5). Stratigraphic changes between the Grand Island Formation and Fullerton Formation profiles have apparently limited the vertical migration of groundwater contamination to the Grand Island Formation (alluvial sand aquifer).

The plume was detected at depths of 6 to 57 feet bgs and approximately 5 to 33 feet below the water table. There appears to be a clean zone at the shallow water table in the distal edges of the plume. Explosives were not detected in the deep aquifer (Holdrege Formation). The Fullerton Formation appears to act as a natural barrier stopping the vertical migration of explosives to the underlying Holdrege Formation (gravel-paleovalley fill aquifer).



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CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
LOCATION: CORNHUSKER AAP
TITLE: **EXPLOSIVES PLUME-DECEMBER 1996**

PROJ. NO. **K9642** CHK'D. BY DATE 07/09/97 FIG. NO. **5-1**

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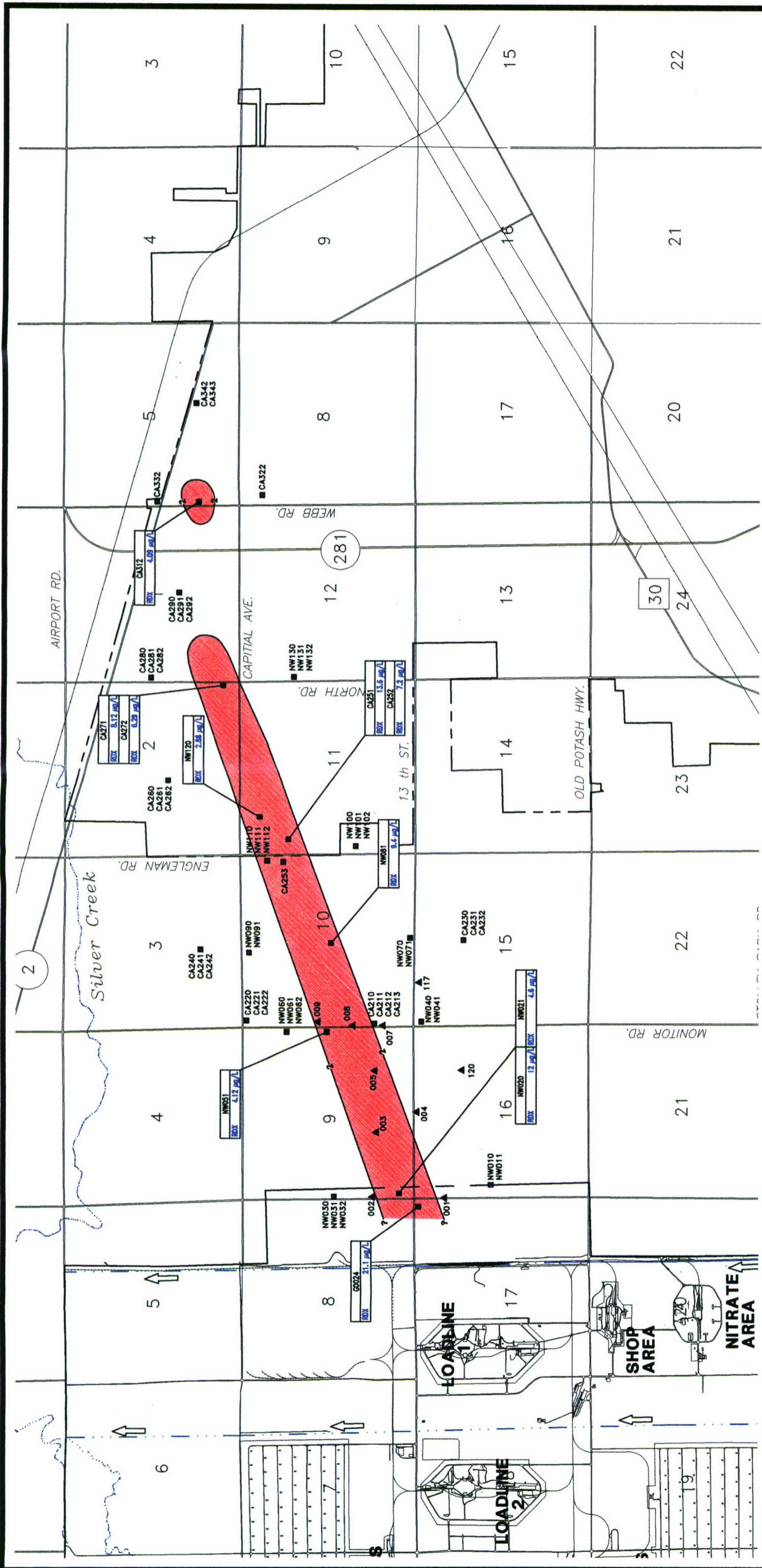
NOTE:
ON-POST AST/UST MONITORING WELLS
AND MINIWELLS ARE NOT SHOWN.

LEGEND:

- FACILITY BOUNDARY
- - - GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- (281) STATE ROUTE
- [30] U.S. ROUTE
- ON-POST GROUNDWATER MONITORING WELL
- NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL
- HORIZONTAL EXTENT OF EXPLOSIVES (CONCENTRATIONS > 2µg/L)-DECEMBER 1996
- ▲ GEOLOGIC CROSS SECTION

LEGEND:

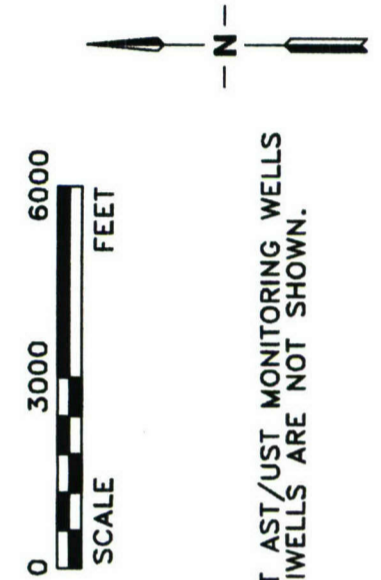
- FACILITY BOUNDARY
- - - GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- (281) STATE ROUTE
- [30] U.S. ROUTE
- ON-POST GROUNDWATER MONITORING WELL
- NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL
- HORIZONTAL EXTENT OF EXPLOSIVES (CONCENTRATIONS > 2µg/L)-DECEMBER 1996
- ▲ GEOLOGIC CROSS SECTION



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CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
 LOCATION: CORNHUSKER AAP
 TITLE: **RDX PLUME-DECEMBER 1996**

PROJ. NO. **K9642** CHK'D. BY DATE FIG. NO.
07/09/97 **5-2**

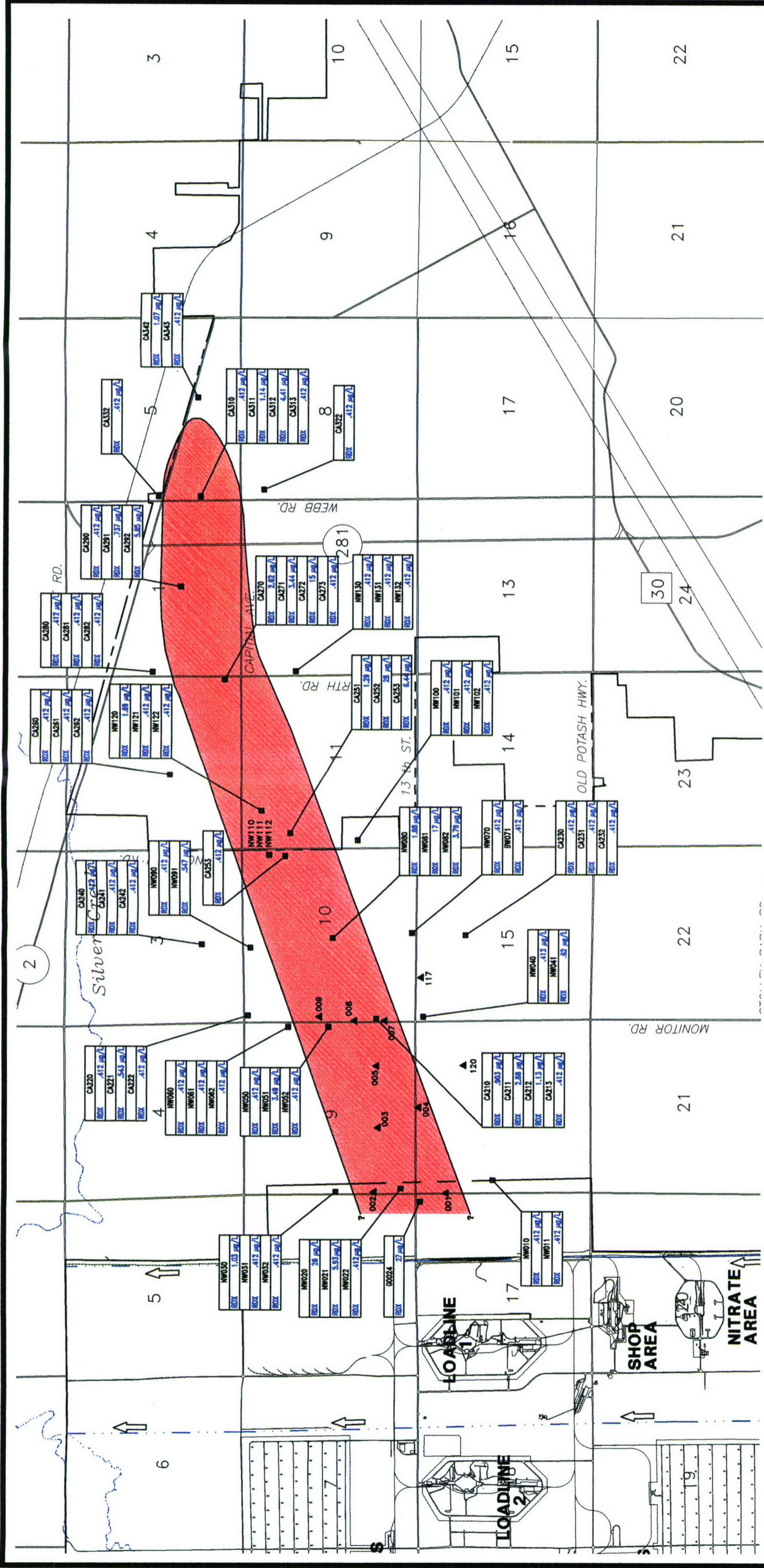


LEGEND:

- FACILITY BOUNDARY
- GRAND ISLAND CITY LIMITS
- DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- (281) STATE ROUTE
- (30) U.S. ROUTE
- G0001 ON-POST GROUNDWATER MONITORING WELL
- NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL
- HORIZONTAL EXTENT OF RDX (CONCENTRATIONS > 2µg/L)-DECEMBER 1996

NOTE:
 ON-POST AST/UST MONITORING WELLS
 AND MINIWELLS ARE NOT SHOWN.

July 07, 1997 11:29:44 a.m.
 Drawing: T:\CAAP\T01.05.2\F5-2K9642.DWG (TSSM)
 Xrefs: REF-01.DWG



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CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
LOCATION: CORNHUSKER AAP
TITLE: RDX PLUME-JULY 1994

PROJ. NO. **K9642** CHK'D. BY DATE 06/20/97 FIG. NO. **5-3**

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SCALE
FEET

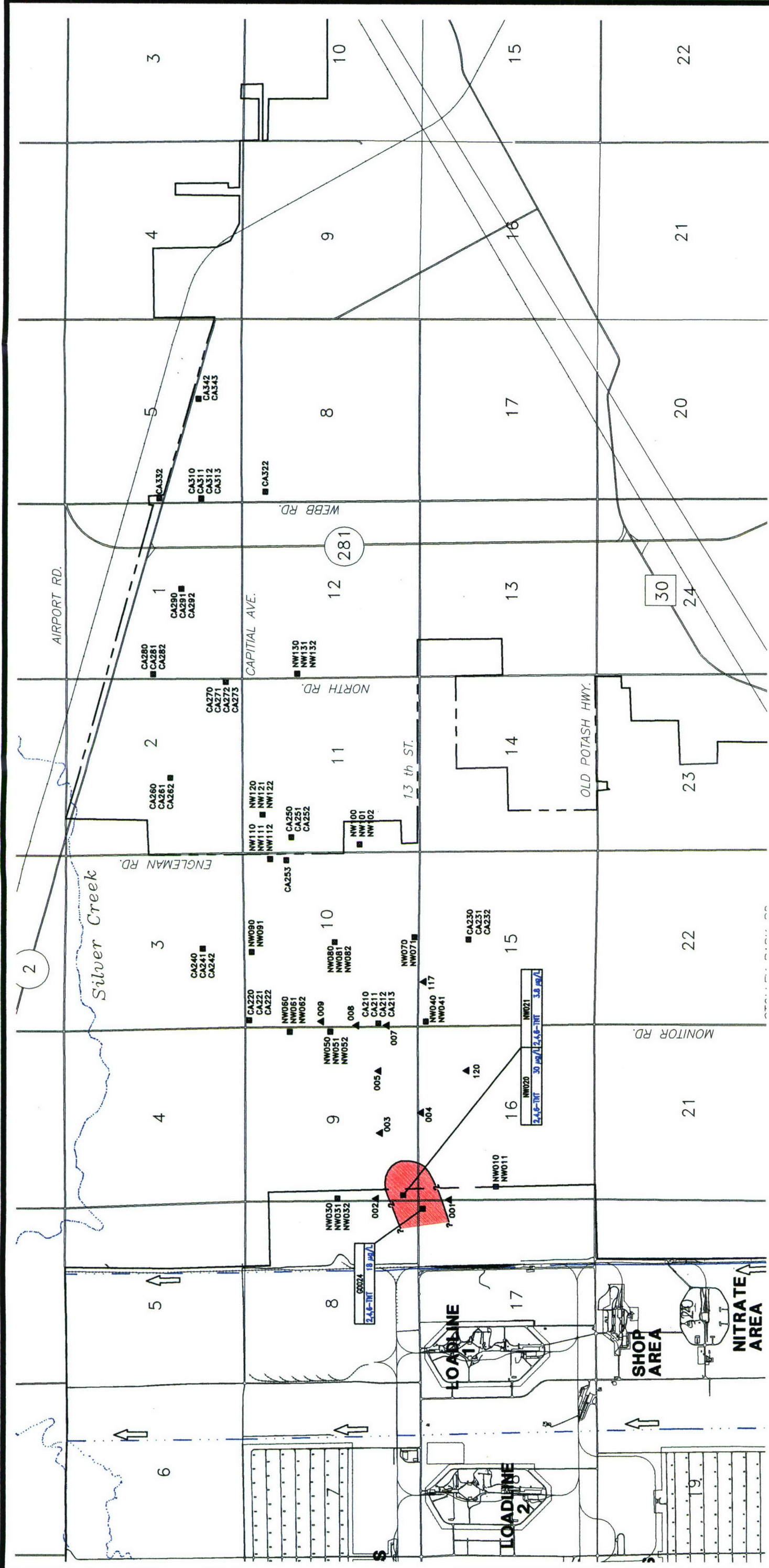
— N —

NOTE:
ON-POST AST/UST MONITORING WELLS
AND MINIWELLS ARE NOT SHOWN.

LEGEND:

- — — FACILITY BOUNDARY
- — — GRAND ISLAND CITY LIMITS
- ⇨ DRAINAGE DITCH FLOW DIRECTION
- SURFACE DRAINAGE
- ② STATE ROUTE
- ③ U.S. ROUTE
- G0001 ON-POST GROUNDWATER MONITORING WELL
- NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL
- 2 (Red shaded area) HORIZONTAL EXTENT OF RDX (CONCENTRATIONS > 2µg/L) JULY 1994

June 30, 1997 2:10:52 p.m.
Drawing: T:\CAAP\T01.05.2\F5-3AK9642.DWG (TSSM)
Xrefs: REF-01.DWG



**Woodward-Clyde
Federal Services**
Engineering & sciences applied to the earth and its environment
10975 El Monte, Suite 100
Overland Park, Kansas 66211

CLIENT: U.S. ARMY ENVIRONMENTAL CENTER
LOCATION: CORNHUSKER AAP
TITLE: **TNT PLUME-DECEMBER 1996**

PROJ. NO. K9642	CHK'D. BY	DATE 07/09/97	FIG. NO. 5-4
---------------------------	-----------	------------------	------------------------

LEGEND:

- FACILITY BOUNDARY
- GRAND ISLAND CITY LIMITS
- ↑ DRAINAGE DITCH FLOW DIRECTION
- ... SURFACE DRAINAGE
- (281) STATE ROUTE
- [30] U.S. ROUTE
- ON-POST GROUNDWATER MONITORING WELL
- NW082 OR CA211 OFF-POST GROUNDWATER MONITORING WELL
- ⊙ CITY OF GRAND ISLAND PIEZOMETER
- ▲ OFF-POST IRRIGATION WELL
- HORIZONTAL EXTENT OF TNT (CONCENTRATIONS >2µg/L)-DECEMBER 1996

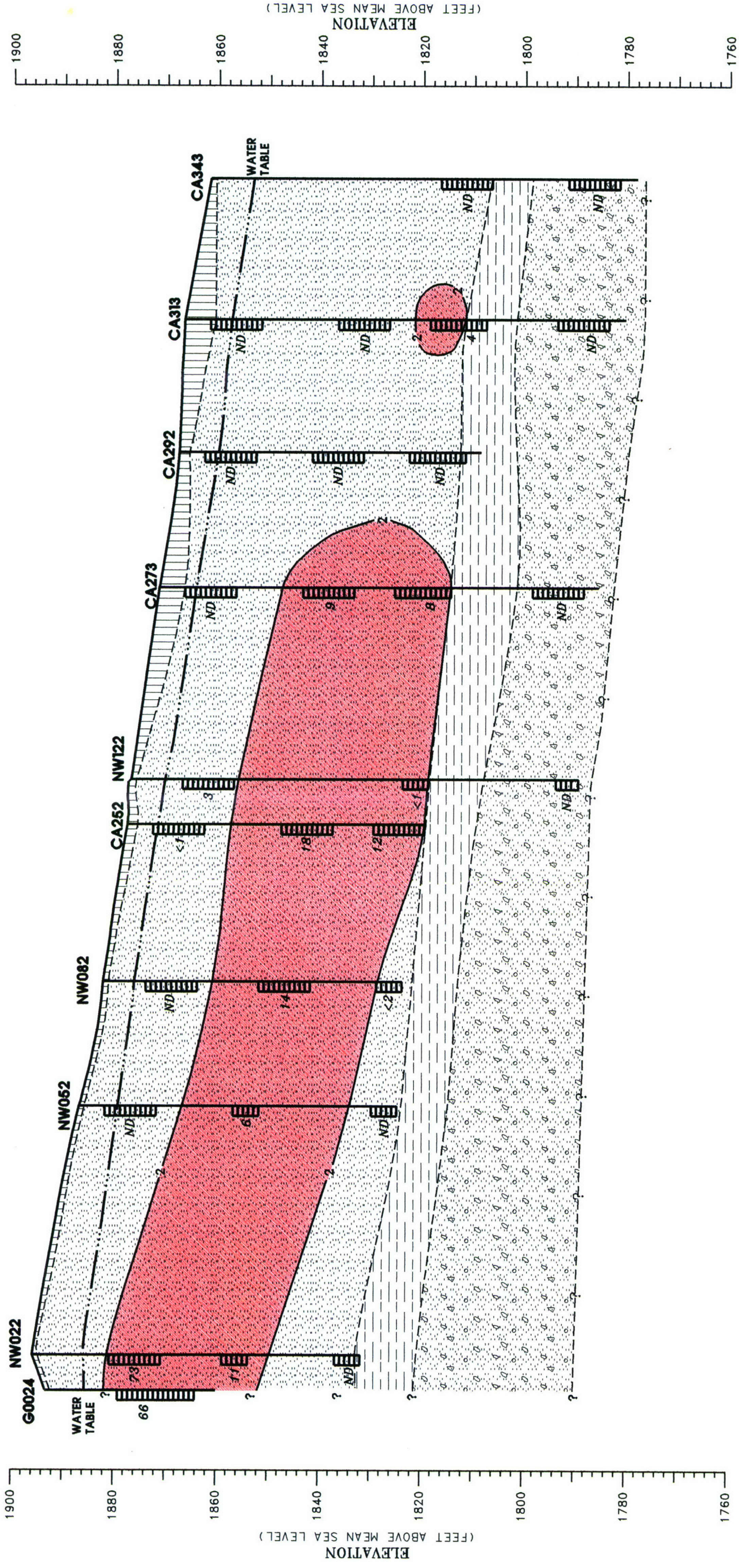
NOTE:
ON-POST AST/UST MONITORING WELLS
AND MINIWELLS ARE NOT SHOWN.

SCALE
0 3000 6000 FEET

N
-- N --

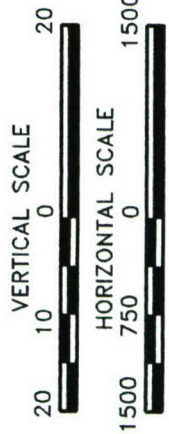
A
SOUTHWEST

A'
NORTHEAST



LEGEND

- MONITORING WELL SCREEN INTERVAL WITH DECEMBER 1996 TOTAL EXPLOSIVES CONCENTRATION
- EXPLOSIVES PLUME
- TOPSOIL/CLAY AND SILT
- GRAND ISLAND FORMATION (ALLUVIAL SAND AQUIFER)
- FULLERTON FORMATION (BLUE CLAY AQUITARD)
- HOLDREGE FORMATION (GRAVEL-PALEOVALLEY FILL AQUIFER)
- WATER TABLE-DECEMBER 1996



NOTE : VERTICAL EXAGGERATION IS 75:1

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10975 El Monte, Suite 100
Overland Park, Kansas 66211

CLIENT: U.S. ARMY ENVIRONMENTAL CENTER

LOCATION: CORNHUSKER AAP

TITLE: **GEOLOGIC CROSS-SECTION A-A'**

PROJ. NO. **K9642**

CHK'D. BY

DATE

FIG. NO. **5-5**

- ICF Kaiser Engineers (ICF-Kaiser). 1995. Cornhusker Army Ammunition Plant Remedial Investigation and Feasibility Study, Technical Plan, Final Document. Prepared for United States Army Environmental Center (USAEC). June.
- ICF Kaiser Engineers (ICF-Kaiser). 1995. Cornhusker Army Ammunition Plant Remedial Investigation and Feasibility Study, Quality Assurance Project Plan, Final Document. Prepared for United States Army Environmental Center (USAEC). June.
- United States Army Toxic and Hazardous Material Agency (USATHAMA). 1990. Quality Assurance Program. USATHAMA PAM 11-41. January.
- United States Environmental Protection Agency (EPA). 1994. Laboratory Data Validation, Functional Guidelines for Evaluating Organics Analyses. EPA Data Review Work Group. February.
- United States Environmental Protection Agency (EPA). 1995. EPA Region III Risk-Based Concentration Table, Background Information. March.
- Watkins-Johnson Environmental, Inc. 1993. Site Characterization Document. Cornhusker Army Ammunition Plant. Remedial Investigation and Feasibility Study. Prepared for United States Army Environmental Center (USACE). June.
- Woodward-Clyde (W-C). 1996. Project Plan Addendum for December 1996 Groundwater Sampling Event. Cornhusker Army Ammunition Plant. Prepared for United States Army Environmental Center (USACE). December.

Appendix A
Chain-of-Custodies

CHAIN OF CUSTODY RECORD

Woodward-Clyde
101 South 108 Avenue, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

Project Name Cornhusker Army Ammunition Plant		Project No. K9642/Tark		Analytical Parameters		
Project Location CHAPP		Project Manager Dave Conroy		Remarks 43282-1 2M J 10 97		
Sampler(s) Terry Thonen						
Sample Date	Time	Type		Matrix	Containers	
		Comp.	Grab		No.	Type
11/18/96	1415	X		WTR	2	1-Liter
11/18/96	1400	X		"	2	1-Liter
				LBI		
				BSI		
				BDI		
				MSI		
				SDI		
ORIGINAL						
Signatures			Date		Time	
Reinquished by:			1-18-96			
Received by:					Method of Shipment	
Reinquished by:					Airbill No.	
Received for Laboratory by:			11/19/96 1015		Lab Address	
					Special Instructions	
					SCREENED FOR RADIOACTIVITY	
					COOLER TEMPERATURE WHEN RECEIVED 4 °C	

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

#1083

Project Name		Project No.		Project Location		Project Manager		Sampling Company		Analytical Parameters		Remarks	
CHART		K9642		GRAND ISLAND, NE		DAVE CONVY		WOODWARD-CLYDE					
Sampler(s)		D. HEDENKAMP, J. METTRICK, E. HEPPOLD, J. BOVINSEY		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Containers	
Date	Time	Type	Comp.	Grab	Sample* Begin Depth	Sample* End Depth	Matrix	No.	Type				
12/11/16	1120	V			NW020	0	SWINGING PUMP	12	P.L. AMPHIB	15M		R965-	
	1140				NW021							MS	
	1250				NW022								
					NN027MS								
	1315				NN027MSD								
	1530				NW023								
	1500				NW050								
	1459				NW057								
	1734				NW052								
	1556				NW060								
					NW061								
	1653				NW062								
	1735				KINSALE #1								

* Only applicable for nonaqueous samples

Signatures		Date		Time		Shipping Details		Special Instructions	
Relinquished by:		12/10/16		800am		Method of Shipment: FED - X		SUPPLIED BY WOODWARD-CLYDE COOLER TEMPERATURE WHEN RECEIVED <u>4</u> °C	
Received by:						Airbill No. 0175215477			
Relinquished by:						Lab Address: 173 1089 EAST CONNORS BLVD. RICHARDSON, TX 75081			
Received for laboratory by:		12/11/16		1110					

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks	
Sample	Type	Time	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix		Containers No.
CHAPP		K01642		DAVE DONOVY		WOODWARD-CLYDE					
GRAND ISLAND, NE		B HORTON & HORTON, JMETTNER, VERMILION									
11-16-96	1758	✓			NW080	0	0	SAMP	UNTESTED	1 X PACKAGE	
	1245				NN081						
	1304				NN082						
	1553				CA 210						
	1530				CA 211						
	1459				CA 212						
	1416				CA 213						
	1325				NN040						
	1310				NN041						
	1815				PINSATE #2						
* Only applicable for nonaqueous samples											
Relinquished by:		Signatures		Date		Time		Shipping Details		Special Instructions	
				12-11-96				Method of Shipment FED X		COOLER TEMPERATURE WHEN RECEIVED 44°C	
Received by:								Airbill No. 9252158392		SCREENED FOR RADIOACTIVITY	
Relinquished by:								Lab Address 175 1089 COST COAST LN - BLD RICHARDSON TX, 75081			
Received for laboratory by:				12/12/96		1000					

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

Sample Date	Time	Type		Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers		Remarks
		Comp.	Grab						No.	Type	
11/11/00	1003	✓		CA 271	0	0	SWAMP	GLASS	2	12 AMPER	R90-7
10/29/00		✓		CA 271							
10/4/00		✓		CA 270							
10/4/00		✓		CA 270MS							
10/4/00		✓		CA 270MS							
10/5/00		✓		CA 271							
12/15/00		✓		CA 272							
1/5/01		✓		CA 273							
1/24/01		✓		CA 271							
1/31/01		✓		CA 270							
1/25/01		✓		NW 120							
1/15/01		✓		NW 131							
1/20/01		✓		NW 137							
1/14/01		✓		CAD 12							
1/15/01		✓		CAD 11							

* Only applicable for nonaqueous samples

Analytical Parameters

Special Instructions

Project No. K9642
Project Manager DAVE CONY
Sampling Company WOODWARD-CLYDE

Shipping Details

Method of Shipment FED. X ORIGINAL
Airbill No. _____

Signatures

Relinquished by: [Signature]
Received by: [Signature]
Relinquished by: _____
Received for Laboratory by: [Signature]

Date

12-17-00

Time

8:00 AM

Lab Address

175
KIETH BARON
1089 GOWNS BLVD
WILMINGTON, DE 19801

COOLER TEMPERATURE
WHEN RECEIVED
54.5 °C

CHAIN OF CUSTODY RECORD FOR IRPIMS/IRDMIS

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters				Remarks
Project Location		Project Manager		Sampling Company		Analytical Parameters				Remarks		
Sampler(s)		Project Manager		Sampling Company		Analytical Parameters				Remarks		
Sample Date	Time	Type	Comp	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks
12-11-96	1715	✓			CAB10	0	0	SPUR	water	2	12 AMP	14
12-11-96	1915	✓			BRINGATE #3	+	+					15

Relinquished by: [Signature] Date: 12-11-96 Time: 6:00 PM Shipping Details: Fed-Ex

Received by: [Signature] Airbill No. 175 Method of Shipment

Relinquished by: [Signature] Lab Address: 1189 E COLONY BLVD, RICHMOND, TX 75081

Received for Laboratory by: [Signature] Lab Address

COOLER TEMPERATURE WHEN RECEIVED: 4 °C

CHAIN OF CUSTODY RECORD
 FOR IRPIMS/IRDMIS

Project Name		Project No.		Analytical Parameters												
Project Location		Project Manager														
Sampler(s)		Sampling Company														
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks				
12-13-96	0914	✓			NW103	0	0	SUP PUMP	GWA103	2	11.400012	✓	RACG - 8-5			
10:38		✓			NW 70							✓	975			
11:02		✓			NW 71							✓				
12:02		✓			NW 031							✓				
* Only applicable for nonaqueous samples																
Signatures						Shipping Details			Special Instructions							
Relinquished by: <i>Dwight Hedley</i>						Date: 12-13-96			Time: 6PM				Method of Shipment: <i>FEDEX</i>			
Received by: <i>M. Durbale</i>						Date: 10/14			Time:				Airbill No. 0125218381			
Relinquished by:													Lab Address: 175 1099 E. CUMMINS DR. WOODBRIDGE TX			
Received for Laboratory by:																

Project Name CTAAP		Project No. K9642			Analytical Parameters				
Project Location Grand Island, Ne		Project Manager Dave Conway			Remarks U#81				
Sampler(s) S. Mettaver i. B. Helantay		Sampling Company Woodward Clyde							
Sample Date	Time	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers	
								Comp.	Grab
12-13-96	1700	<input checked="" type="checkbox"/>	Rinsate #5	0	0	Siphon	Gravel	2	1 L amber

* Only applicable for nonaqueous samples

Signatures		Shipping Details	
Relinquished by: David Hedy	Date 12/13/96	Time 1800	Method of Shipment FedEx
Received by: M. Driskill	Date 12/14		Airbill No. 9252158532
Relinquished by:			Lab Address Inchape 16 Collins Blvd Richardson TX 75081
Received for Laboratory by:			

CHAIN OF CUSTODY RECORD
 FOR IRPIMS/IRDMIS

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters							
CARR		K 01642		DAVE COVY		WORLDWIDE - CLYDE		0015							
Project Location		Project Manager		Sampling Company		Containers		Remarks							
CARR 15 AND 1 NE		DAVE COVY		WORLDWIDE - CLYDE		No. Type		0015							
Sampler(s)		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Matrix		Containers		Remarks	
C. HERRND - METALLOG, BENTONITE SAND - SAMPLE 1		CARR 15		0		0		SUPPORT		GAMES		11 ANALOG		RAC - 9 - 1	
Date	Time	Comp.	Type	Grab	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Containers Type	Remarks				
12-17-16	0:55		✓	✓	CARR 15										
	1:00		✓	✓	CA 313										
	1:05		✓	✓	CA 317										
	1:35		✓	✓	CA 340										
	1:45		✓	✓	CA 342										
	6:15		✓	✓	NW 122										
	11:20		✓	✓	NW 121										
	12:20		✓	✓	UNSATURATED										

* Only applicable for nonaqueous samples

Signatures		Shipping Details		Special Instructions	
Relinquished by:	Date	Time	Method of Shipment	Special Instructions	
	12/15/16		FEDEX - X		
Received by:	Airbill No.				
Relinquished by:	Lab Address				
	15 1051 GLOUINS RD. WILMINGTON TX 75781				
Received for Laboratory by:				COOLER TEMPERATURE WHEN RECEIVED °C	
	12/16/16	1:00			

CHAIN OF CUSTODY RECORD
 FOR IRPIMS/IRDMIS

Project Name		Project No.		Analytical Parameters						
CHAAP		KA642								
Project Location		Project Manager								
GRAND ISLAND, NE		DAVE CONVY								
Sampler(s)		Sampling Company								
JONNY, RECORD		NORTHWARD, CLYDE								
Sample Date	Time	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers		Remarks
								Comp.	Grab	
12/15/16	1104	✓	CA 700D	0	0	SURF	WATER	2	1 L AMP	✓
	1145	✓	CA 752							✓
	1223	✓	CA 751							✓
	1224	✓	COO 24							✓
* Only applicable for nonaqueous samples										
Project Location		Project Manager		Shipping Details						
				Method of Shipment						
				FEP - X						
				Airbill No.						
				925 2158521						
				Lab Address						
				ITS 1089 G. LEWINS BLVD MICHIGAN, TX 75381						
Relinquished by:		Date		Time						
		12/16		700pm						
Received by:		Date		Time						
		12/18/96		1050						
Relinquished by:		Date		Time						
Received for Laboratory by:		Date		Time						

CHAIN OF CUSTODY RECORD
 FOR IRPIMS/IRDMIS

Account

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks				
CHAPP COPENHAGEN ARMY AVIATION		K9702		DAVE CONY		WOODWARD-CLYDE		ORIGINAL						
Project Location		Sample Identification		Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks				
GRAND ISLAND NE		SAMPLE DATA 2-17-97		0	0	SURF	GRAVEL	2	1 LAMPEN					
Sampler(s)	J. POLINSKI	Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Type	Remarks
		2-17-97	1617	✓			NW032	0	0	SURF	GRAVEL	2	1 LAMPEN	4°C
				✓			NW032MS					1		4°C
				✓			NW032MSD					1		4°C
				✓			NW033					2		
				✓			RINSTATE #1					2		
		2-17-97	1700	✓			NW030					2		
		2-17-97	1621	✓			NW031					2		
COOLER TEMPERATURE WHEN RECEIVED											4°C		SCREENED FOR RADIOACTIVITY	

* Only applicable for nonaqueous samples

Signatures		Date	Time	Shipping Details		Special Instructions
Relinquished by:		2-17-97		Method of Shipment FEDERAL EXPRESS		Air bill # 3257067715 4 3257067785
Received by:				Airbill No.		
Relinquished by:				Lab Address 175 1059 E COLLINGS BLVD GUYTON, MO 65241		
Received for Laboratory by:		2/18/97	0930			

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

COOLING # 1
COOLING # 1
Page 1 of 1

Project Name		Project No.		Project Manager		Sampling Company		Analytical Parameters		Remarks							
CORD HUSKER BENTON PAVIL PLANT (CHAPP)		K9702		DAVE CONVY		WOODWARD-CLYDE		LSPM									
Project Location		Project Manager		Sampling Company		Containers		Special Instructions									
BENTON ISLAND		DAVE CONVY		WOODWARD-CLYDE		Type		Airbill # 3257067752									
Sampler(s)		Sample Date		Sample Identification		Sample* Begin Depth		Sample* End Depth		Sampling Method		Matrix		Containers No.		Type	
2-18-97	0820			NW070	0	0	5.10MP	5.10MP	2	1	2	8-11	8	40c			
2-18-97	0911			NW071									9				
	1002			NW100									10				
	1025			NW102									11				
				NW101									11				
				COOLING # 2									8-07				
COOLER TEMPERATURE WHEN RECEIVED _____ °C										SCREENED FOR RADIOACTIVITY							
Relinquished by:		Date		Time		Shipping Details		Special Instructions									
		7-18-97		1055a		Method of Shipment: FEDEX - BY PRESS		Airbill # 3257067752									
Received by:		Airbill No.		Lab Address		Special Instructions											
		3747647723		1089 E. COLWINS BLVD KILMORNOCK TX 75081													
Relinquished by:		Date		Time		Shipping Details		Special Instructions									
		8/19/97		1020		Method of Shipment: FEDEX - BY PRESS		Airbill # 3257067752									
Received for Laboratory by:		Date		Time		Shipping Details		Special Instructions									
		8/19/97		1020		Method of Shipment: FEDEX - BY PRESS		Airbill # 3257067752									

* Only applicable for nonaqueous samples

2-18-97

Project Name		Project No.		Analytical Parameters								
CHAAP		K9702		15MIN								
Project Location		Project Manager		Remarks								
STANLEY ISLAND		DAVE CONY										
Sampler(s)		Sampling Company										
M. SONTAGNON - J. GRUNSKY		WOODWARD-CLYDE										
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers No.	Containers Type	
2-18-97	1350	-	-	-	CA 272	0	0	S. PUMP	WASTE	2	LEAKAGE	
	1440	-	-	-	CA 270							
	1530	-	-	-	CA 271							
	1651	-	-	-	CA 272							
COOLER TEMPERATURE WHEN RECEIVED												
SCREENED FOR RADIOACTIVITY												
R97-11 - 16 17 18 19												

* Only applicable for nonaqueous samples

Signatures		Shipping Details	
Relinquished by:	Date	Time	Method of Shipment
	2-18-97	1658	FEDERAL EXPRESS
Received by:			Airbill No. 3257067774
Relinquished by:			Lab Address
			175 1081E LOVELL BLVD RICHARDSON TX 75081
Received for Laboratory by:			Airbill # 3257067774

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

#24

2-18-97

Project Name		Project No.		Project Manager		Sampling Company		Containers		Analytical Parameters		Remarks
Date	Time	Comp.	Type	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	No.	Type		
2/18/97	1700			CA 311	0	0	SRMP	CONCRETE	2	1 LITER	20	
	1720			CA 310	I	I	I	I	I	I	21	
	1740			KINSAITE #2	I	I	I	I	I	I	22	
COOLER TEMPERATURE WHEN RECEIVED °C												
SCREENED FOR RADIOACTIVITY												

* Only applicable for nonaqueous samples

Signatures		Shipping Details	
Relinquished by:	Date	Time	Special Instructions
	2-18-97	1751	Method of Shipment: REGISTERED EXPRESS
Received by:			Airbill No.
Relinquished by:			Lab Address
Received for Laboratory:	2/16/97	1005	Airbill # 3257067764

ITS
1039 C COLYNS BLDG
DICKINSON, TX 75281

2-19-97

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

COOLER #

Page () of ()

Project Name: CHAMP		Project No.: K9702		Analytical Parameters							
Project Location: GRAND ISLAND		Project Manager: DAVE CONLY		Remarks							
Sampler(s): M. SONDREMAN, MCH WILLIAMS		Sampling Company: WOODWARD-CLYDE		01000							
Sample Date	Time	Type	Comp.	Grab	Sample Identification	Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	Containers	
										No.	Type
2-19-97	0855	✓			CA 292	0	0	S. PUMP	GRAVEL	2	12 AMPAC
	0900	✓			CA 291						
	0935	✓			CA 290						
	0937	✓			KINISATE #3						
COOLER TEMPERATURE WHEN RECEIVED: 10°C											
SCREENED FOR RADIOACTIVITY											
* Only applicable for nonaqueous samples											
Relinquished by: <i>[Signature]</i>						Shipping Details					
Date: 2-19-97						Method of Shipment: FEDERAL EXPRESS					
Received by: <i>[Signature]</i>						Airbill No.: 3597604640					
Relinquished by: <i>[Signature]</i>						Lab Address: ITS 10896 COLLINS BLVD MILWAUKEE, WI 53081					
Received for Laboratory by: <i>[Signature]</i>						Airbill # 3597604640					

2-19-97

CHAIN OF CUSTODY RECORD
FOR IRPIMS/IRDMIS

GROUP #2

Project Name		Project No.		Analytical Parameters				Remarks			
Project Location		Project Manager		Containers							
Sampler(s)		Sampling Company		Sample* Begin Depth	Sample* End Depth	Sampling Method	Matrix	No.	Type		
2/19/97	1130	✓	Grab	NW122	0	S-PUMP	GUMBO	2	12 AMPER	RTT-12	154°C
↓	↓	✓	Grab	NW122MS	↓	↓	↓	1	↓	↓	↓
↓	1125	✓	Grab	NW132-MSP	↓	↓	↓	1	↓	↓	↓
↓	1155	✓	Grab	NW131	↓	↓	↓	2	↓	↓	↓
↓	↓	✓	Grab	NW130	↓	↓	↓	4	↓	↓	↓

Signatures		Date	Time	Shipping Details	
Relinquished by:		2/19/97	1200	Method of Shipment FEDEX EXPRESS	
Received by:				Airbill No. 3597604636	
Relinquished by:				Lab Address M/S 10846 COLUMBIA RD MURKIN TX 75081	
Received for Laboratory by:		2/20/97	1020	Airbill # 3597604636	

Project Name: **CHARP**
Project Location: **GRAND ISLAND**
Sampler(s): **M. SANDERMAN**


Project No.: **K9702**
Project Manager: **DAVE CONY**
Sampling Company: **WOODWARD-CLYDE**

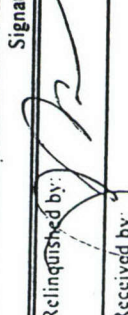
Sample Date	Time	Type		Sample Identification	Sample* Depth		Sampling Method	Containers		Remarks
		Comp.	Grab		Begin	End		No.	Type	
2-19-97	1720	✓		17N17b	0	0	S-PUMP	GRAPHIC	1, 11, 11, 11, 11, 11	RPT 12-10400

COOLER TEMPERATURE WHEN RECEIVED _____ °C


SCREENED FOR RADIOACTIVITY

* Only applicable for nonaqueous samples

Relinquished by:  Date: **2/19/97** Time: _____ Shipping Details: _____ Special Instructions: **Airbill #3597604625**

Received by:  Method of Shipment: **FEDERAL EXPRESS**

Relinquished by: _____ Airbill No.: **3597604625**

Received for Laboratory by:  Lab Address: **1057 E. LEVINE'S BLVD
MICHIGAN IN TX 75351**

Appendix B
Daily Quality Control Reports

Date 12/9/96

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
---	--------------	---	---	----	---	---

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid		

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: None Terry Thoren (Woodward-Clyde, Omaha)
Subcontractor Personnel: None
Work Performed/Sampling Activities: Water sampling collection of the following water samples from wells: NW020, 021, 022; NW050, 51, 52, NW060, 61, 62 The following QA samples were collected: NW022 MS, NW022 MRD, NW023 (NW022 duplicate), NW022-QA (MRD split), Pimsate # 7
Quality Control Activities (including field calibrations):

Calibration verification of Data Sonds III (3.1 and 3.3 units); PID mini ray were calibrated to using 100 ppm isobutylene
Health and Safety Levels and Activities:
level D
Problems Encountered/Corrective Actions Taken:
Data Sonds 3 (field parameter unit): not giving same response to the same well or even DI water relative to Redox - we call the vendor, they will send a standardization solution
Downtime/Standby:
~ 2 - 2 1/2 hours
Special Notes:

By Bruce Hedy Title Site Mgr
Ryan R. Herald

Date 12/10/96

W-C DAILY QUALITY CONTROL REPORT

Day	S	M	T	W	TH	F	S
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W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	#2	

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: <u>T. Thomson (Woodward-Clyde, Omaha)</u> <u>Craig Johnson (Woodward-Clyde, Omaha)</u>
Subcontractor Personnel: <u>NONE</u>
Work Performed/Sampling Activities: <u>collected (4W51) explosive</u> <u>Samples at monitoring well NW80, 81, 82, CA 210, 211,</u> <u>212, 213, NW40, 41</u>
Quality Control Activities (including field calibrations):

CALIBRATED DATA Sonde III (3.1 & 3.3)	
" PID mini RAY were CALIBRATED to 100ppm ^{w/} 100 ISO	
Rinseate # 2	
Health and Safety Levels and Activities:	Level "D"
Problems Encountered/Corrective Actions Taken:	
Data sonde III (3.1) unit not working, awaiting standard solution via Fed Ex. Verification of the new standards takes time as well.	
Downtime/Standby:	
~ 3 hours	
Special Notes:	

By Ryan R. Herald Title Environmental Scientist
Bret A. Healy

Date 12-11-96

W-C DAILY QUALITY CONTROL REPORT

Day	S	M	T	W	TH	F	S
				X			

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	H3	
		X			

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: <u>None</u>
Subcontractor Personnel: <u>None</u>
Work Performed/Sampling Activities: <u>collected (4w51) explosive</u> <u>Samples at monitoring wells CA290, 291, 292,</u> <u>CA270, 271, 272, 273, NW130, 131, 132, CA310</u> <u>311, 312,</u>
Quality Control Activities (including field calibrations): <u>calibration verification</u> <u>of Data Sonde III (3.1, 3.3), Orion SA250 redox, mini</u> <u>ray PIP.</u>

PiDs were calibrated to 100 ppm ^w /ISOBUTYLENE.
CA290 / ^{QA} SPLIT, ^{MS} /MSD, Field Dup (CA293) 1105
CA311 / ^{QA} SPLIT.
Rinseate #3
Health and Safety Levels and Activities: Level "D"
Problems Encountered/Corrective Actions Taken: DATA Sonde 3 (3.1)
Redox PROBE WAS NOT FUNCTIONING PROPERLY, AND WAS
REPLACED WITH A SEPARATE Redox PROBE (ORION SA250).
Redox PARAMETERS WERE COLLECTED OUTSIDE THE WELL DO
TO HEAVY FLUCTUATION OF THE DIGITAL DISPLAY.
Downtime/Standby:
Special Notes: Roots were encountered in the SCREEN AREA OF
CA310

By Ryan R. Herald Title ENVIRONMENTAL SCIENTIST
Bret A. Hely

Date 12/12/86

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	#4	

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: <i>EPA representative: Leslie Scally from Jacobs Engineering in Overland Park, ks</i>
Subcontractor Personnel: <i>none</i>
Work Performed/Sampling Activities: <i>water sampling of the following well locations:</i>
<i>CA 322</i>
<i>CA 313</i>
<i>CA 332</i>
<i>CA 342</i>
<i>CA 343</i>
<i>NW 121</i>
<i>NW 122</i>
Quality Control Activities (including field calibrations): <i>See next page</i>

<u>Cont</u> :
Calibrated data sonde III (3.1 & 3.3)
PID mine ray were calibrated using 100ppm isobutylene
Health and Safety Levels and Activities:
Level D
Problems Encountered/Corrective Actions Taken:
Data Sonde 3.1 not working off and on
Downtime/Standby: ~ 1 hour + not able to use 2 pump system at NW 120 cluster
Special Notes:

By Burt A Hedy Title Site task leader

Date 12/13/96

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	45	

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: <i>EPA representative Leslie Scally from Jacobs Engineering</i>
Subcontractor Personnel: <i>none</i>
Work Performed/Sampling Activities: <i>water sampling from the following locations:</i>
<i>NW 101 CA 253</i>
<i>NW 100 NW 120</i>
<i>NW 102</i>
<i>NW 070</i>
<i>NW 071</i>
<i>NW 030</i>
<i>NW 031</i>
<i>NW 032</i>
Quality Control Activities (including field calibrations): <i>next page</i>

<u>cont</u>
calibrated data sonde III (units 3.1 and 3.3)
the PID mini Ray was calibrated using 100 ppm
isobutylene
Health and Safety Levels and Activities:
level D
Problems Encountered/Corrective Actions Taken:
none
Downtime/Standby:
Special Notes:

By Burt A. Hedy Title Site Task Leader

Date 12/15/96

W-C DAILY QUALITY CONTROL REPORT

Day

S X	M	T	W	TH	F	S
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W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun X	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40 X	40-60	60-up
Wind	Still X	Moderate	High	Report No. #6	
Humidity	Dry	Moderate X	Humid		

W-C Personnel: Bret Hedenkamp, John Mattauer, Ryan Herold, Jacquelyn Bolinski
Visitors Present: <u>NONE</u>
Subcontractor Personnel: <u>NONE</u>
Work Performed/Sampling Activities: <u>Resumed collecting explosive</u> <u>Samples at mw, GA0024, and CA 250, 251, 252</u>
Quality Control Activities (including field calibrations):

2

Date 12/16/96

W-C DAILY QUALITY CONTROL REPORT

Day	S	M	T	W	TH	F	S
		X					

W-C PM: Dave Convy
 USAEC PO: Heather Black
 Project: CHAAP
 Project No.: K9642

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	#7	
		X	X		
		X			

W-C Personnel: Bret Hedenkamp, John Mattauer , Ryan Herold, Jacquelyn Bolinski
Visitors Present: <u>None</u>
Subcontractor Personnel: <u>None</u>
Work Performed/Sampling Activities: <u>Began loading and unloading supplies, mobilized back to the office in "Omaha"</u>
Quality Control Activities (including field calibrations):

Health and Safety Levels and Activities: <u>Level "D"</u>
Problems Encountered/Corrective Actions Taken: <u>None</u>
Downtime/Standby: <u>None</u>
Special Notes:

By Ryan R. Herald Title STAFF Scientist

Date ^{(JM) 4/17} 2/17/46 97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
	✓					

Weather	Bright Sun	Clear	Overcast ✓	Rain	Snow
Temp	Below 0	0-20	20-40	40-60 ✓	60-up
Wind	Still	Moderate ✓	High	Report No.	
Humidity	Dry ✓	Moderate	Humid	#1 or 8	


W-C PM: DAVE CONY
 Contact: HEATHER BLACK
 Project: CHAAP
 Project No.: K9702-RESAMPLING

W-C Personnel MIKE SONDERMAN, JACQUELYN BOLINSKI, BEN WILLIAMS, DEET HEDENKAMP	
Visitors Present: NONE	
Subcontractor Personnel: NONE	
Work Performed/Sampling Activities: GROUNDWATER SAMPLING FROM THE FOLLOWING WELLS:	
NW030	
NW031	
NW032	
FIELD SAMPLE IDs:	
2/12	SAMPLES COLLECTED: NW030
	NW031
	NW032
QC SAMPLES	<ul style="list-style-type: none"> NW032MS + MSD NW033 - FIELD DUPLICATE TO NW032
Quality Control Activities (including field calibrations):	
CALIBRATION VERIFICATION OF DATA SONDE 3 (3.1 + 3.3) WITH MANUFACTURER'S STANDARDS AND USACE STANDARDS. PID MINI-RAY	

Report No. #108-8

Date 2-17-77

CALIBRATED USING 100PPM ISOBUTYLENE
Health and Safety Levels and Activities:
LEVEL D
Problems Encountered/Corrective Actions Taken:
NONE
Downtime/Standby:
NONE
Special Notes: OFF-PIST GROUNDWATER SAMPLING - LTM PROGRAM @ CHAAP

By  Title ENVIRONMENTAL SPECIALIST

Date 2/18/97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W	TH	F	S
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W-C PM: DAVE CONY
Contact: HEATHER BLACK
Project: CAAP
Project No.: K9702 - RESAMPLING

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40	40-60	60-up
Wind	Still	Moderate	High	Report No.	
Humidity	Dry	Moderate	Humid	H 2 ^{OR 9}	

W-C Personnel	MIKE SONDERMAN, JACQUELYN BODVINSKI, BEN WILLIAMS BRET HEDENKAMP				
Visitors Present:	N/A - NONE				
Subcontractor Personnel:	N/A - NONE				
Work Performed/Sampling Activities:	GROUNDWATER SAMPLING FROM THE FOLLOWING WELLS:				
	NW070	NN100	NW120	CA272	CA311
	NW071	NN101	CA270	CA273	CA312
	CA253	NW102	CA271	CA310	
FIELD SAMPLE IDs:	SAME AS ABOVE				
Quality Control Activities (including field calibrations):	CALIBRATION VERIFICATION OF DATA SONDE 3 (3.1 + 3.3) WITH MANUFACTURERS STANDARDS AND USCG STANDARDS. PID MINI-FAY CALIBRATED USING 100 PPM				

Health and Safety Levels and Activities: LEVEL D

Problems Encountered/Corrective Actions Taken:

DATA SONDE 3.1 NOT RESPONDING DOWN HOLE - RAN BATTERY CHECK - EVERYTHING APPEARED TO BE FUNCTIONING PROPERLY - HOOK-UPS CORRECT ETC. CALLED ENVIRO SERVICES - THEY MADE ^{2/18 100} ~~SEVERAL~~ SEVERAL SUGGESTIONS - TRIED AIR - STILL NO RESPONSE. ¹⁰⁰ ~~DAY~~ TRIED OUT SONDE CABLES WITH TRUCK HEATER - SONDE ¹⁰⁰ RESPONDING. OFF TO THE NEXT WELL CLUSTER.

NO-DOWNTIME TWO PUMPS.

Special Notes: OFF-PIST GROUNDWATER SAMPLING - LTM PROGRAM & CHDAP

By  Title FIELD MANAGER ENVIRONMENTAL SPECIALIST

Date 2/19/97

W-C DAILY QUALITY CONTROL REPORT

Day

S	M	T	W ✓	TH	F	S
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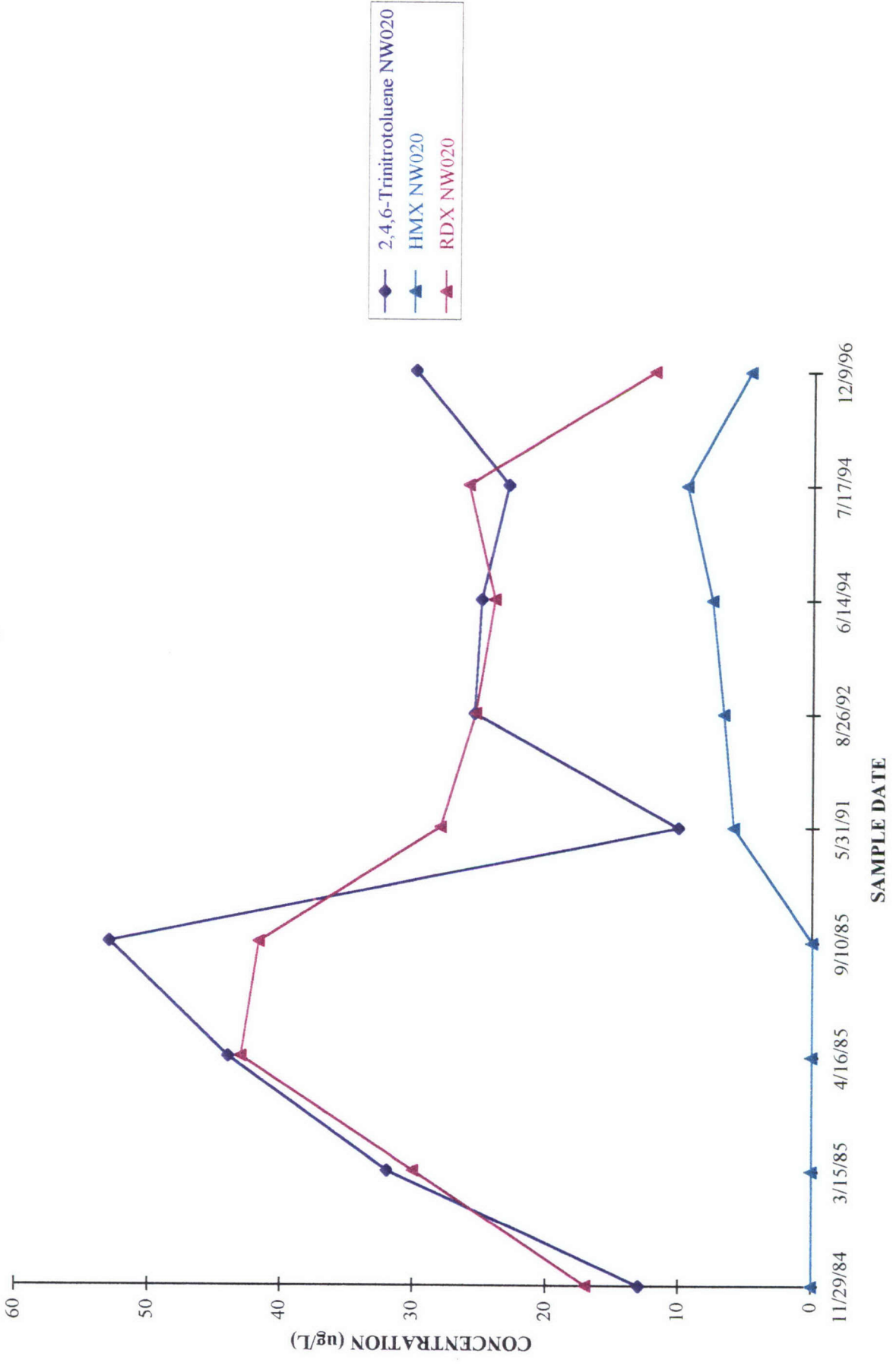
W-C PM: DAVE CONY
Contact: HEATHER BLAKE
Project: CHAD
Project No.: K9702 - PESAMPING

Weather	Bright Sun	Clear ✓	Overcast	Rain	Snow
Temp	Below 0	0-20	20-40 ✓	40-60	60-up
Wind	Still ✓	Moderate	High	Report No.	
Humidity	Dry ✓	Moderate	Humid	#2 ^{up} 10	

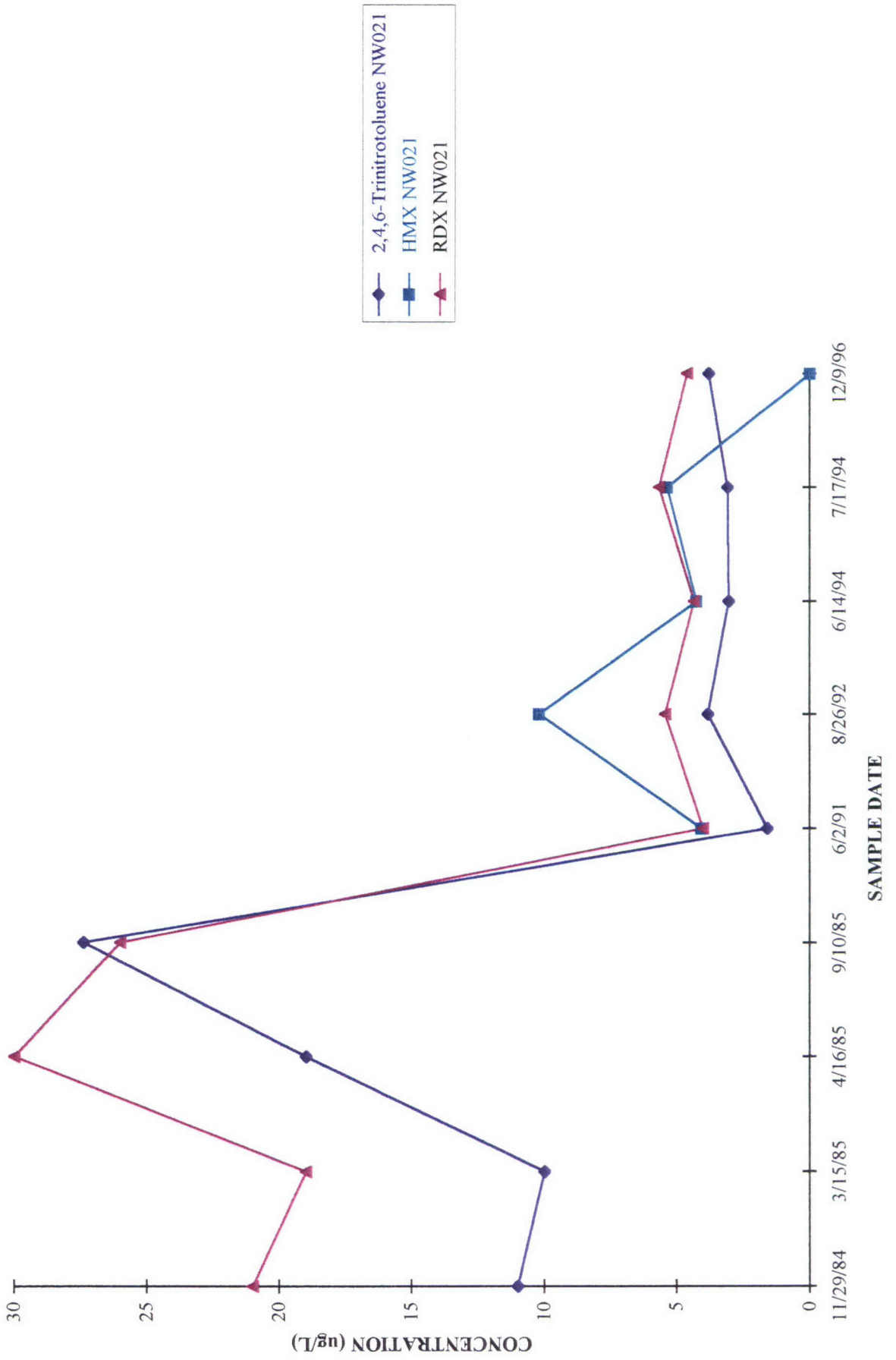
W-C Personnel	MIKE SONDERMAN, JACQUELYN BOZINSKI, DEN WILLIAMS	
	BRET HEDENKAMP	
Visitors Present:	N/A - NONE	
Subcontractor Personnel:	N/A - NONE	
Work Performed/Sampling Activities:	GROUND WATER SAMPLING FROM THE FOLLOWING WELLS:	
	CA290	NW130
	CA291	NW131
	CA293	NW132
Field Sample IDs:	SAME AS ABOVE	
QC Samples:	NW132 MS + MSD	
	NW133 FIELD DUPLICATE TO NW132	
Quality Control Activities (including field calibrations):	CALIBRATED ^{10/11} VERIFICATION OF DATA SONDE 3(3.1 + 3.3) WITH MANUFACTURERS STANDARDS AND VSACE STANDARDS.	
	VSACE P10 MINI-RAY CALIBRATED USING 100PPM ISOBOTYLENE.	

Appendix C
Summary of Present and Historical Analytical Results

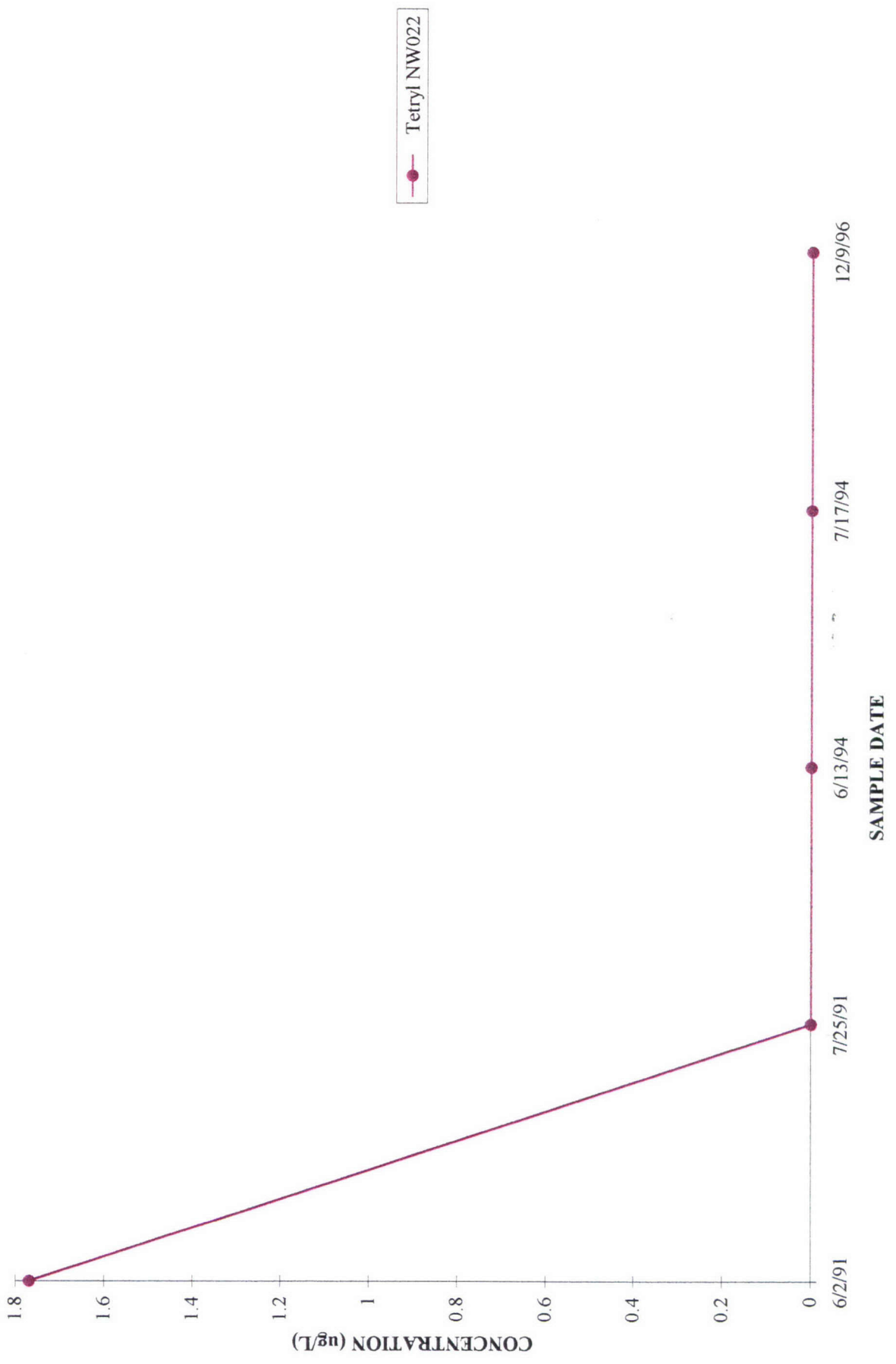
CORNHUSKER ARMY AMMUNITION PLANT WELL NW020 - HMX, RDX AND TNT



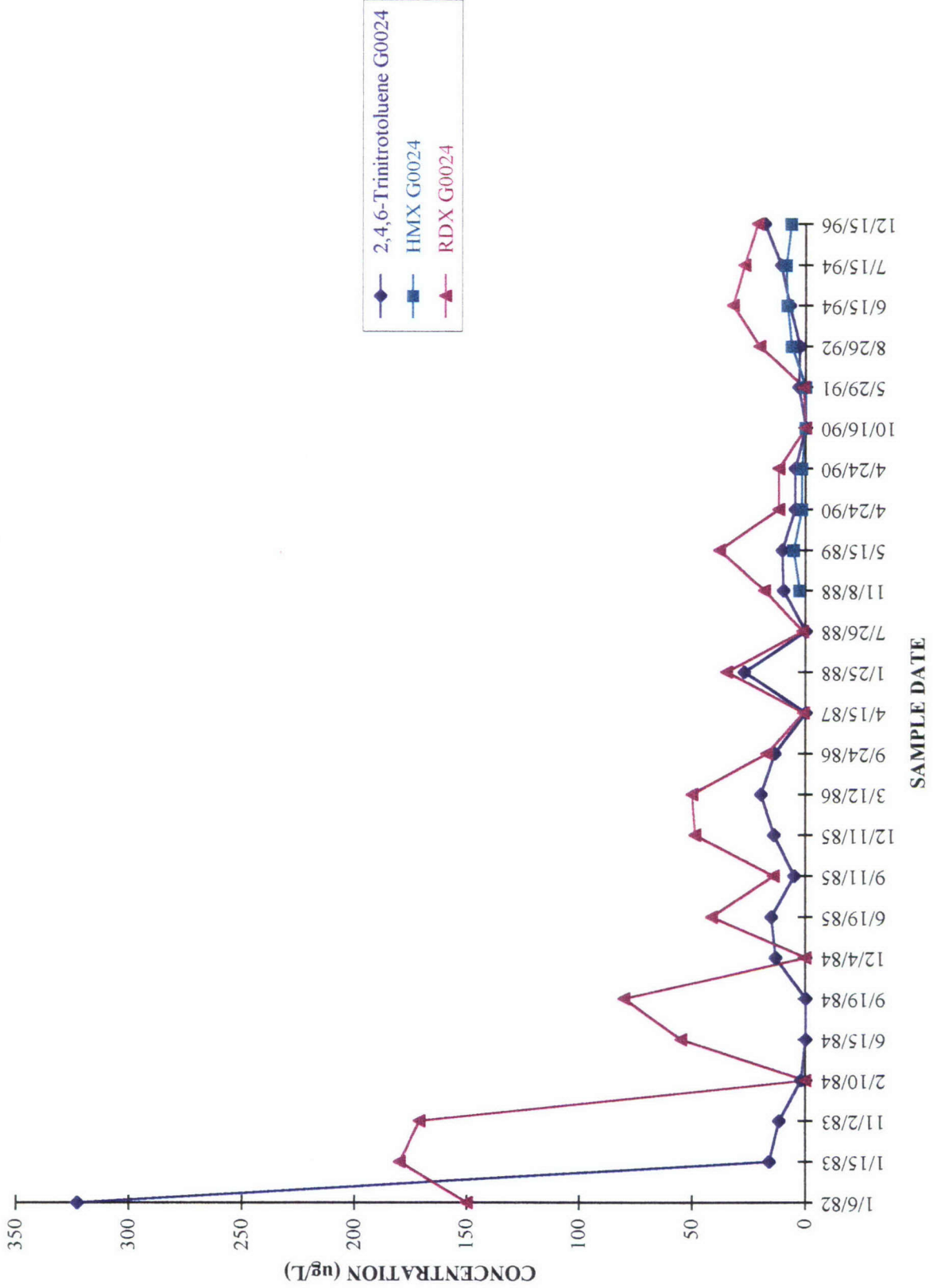
CORNHUSKER ARMY AMMUNITION PLANT WELL NW021 - HMX, RDX AND TNT



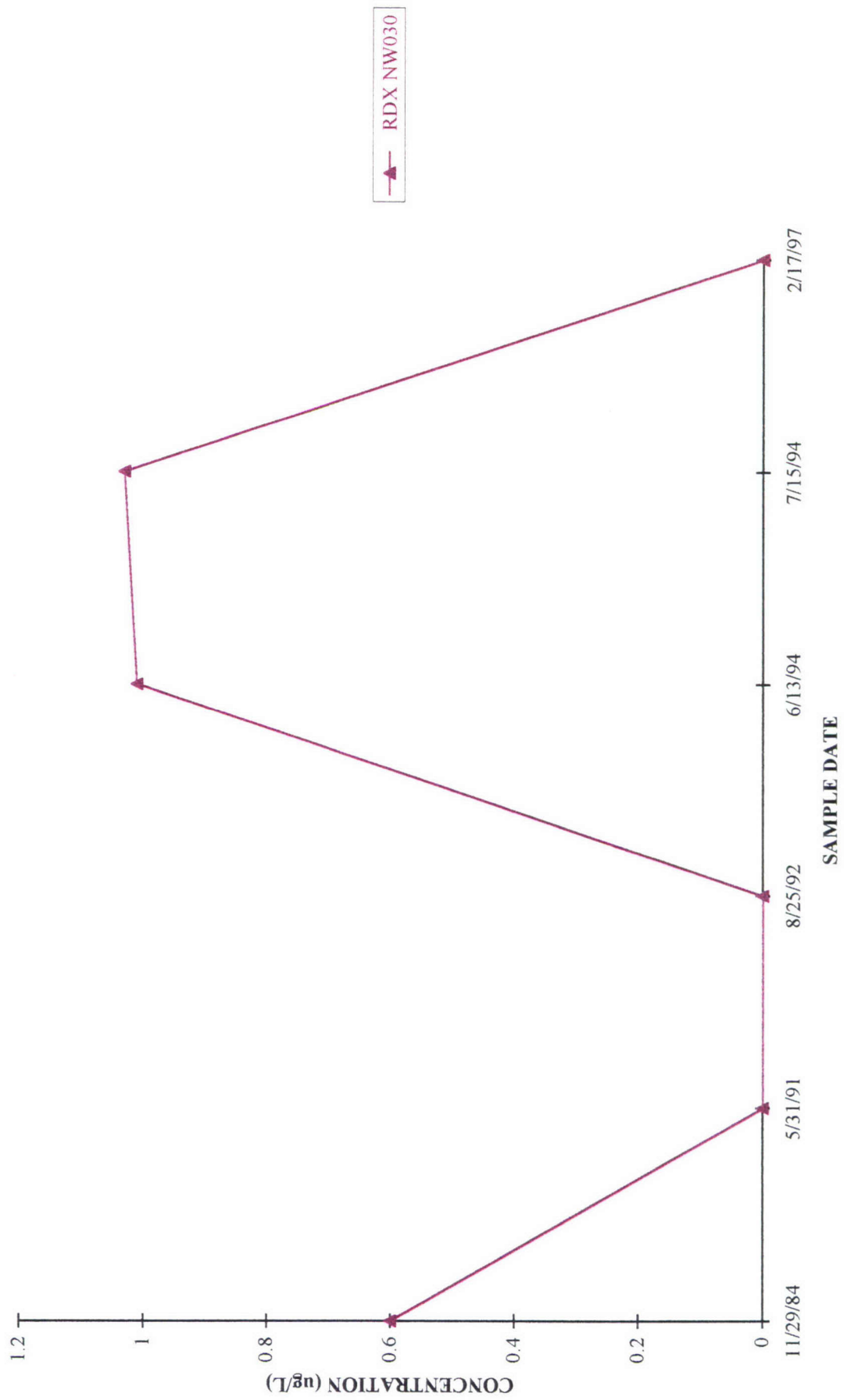
CORNHUSKER ARMY AMMUNITION PLANT WELL NW022 - TETRYL



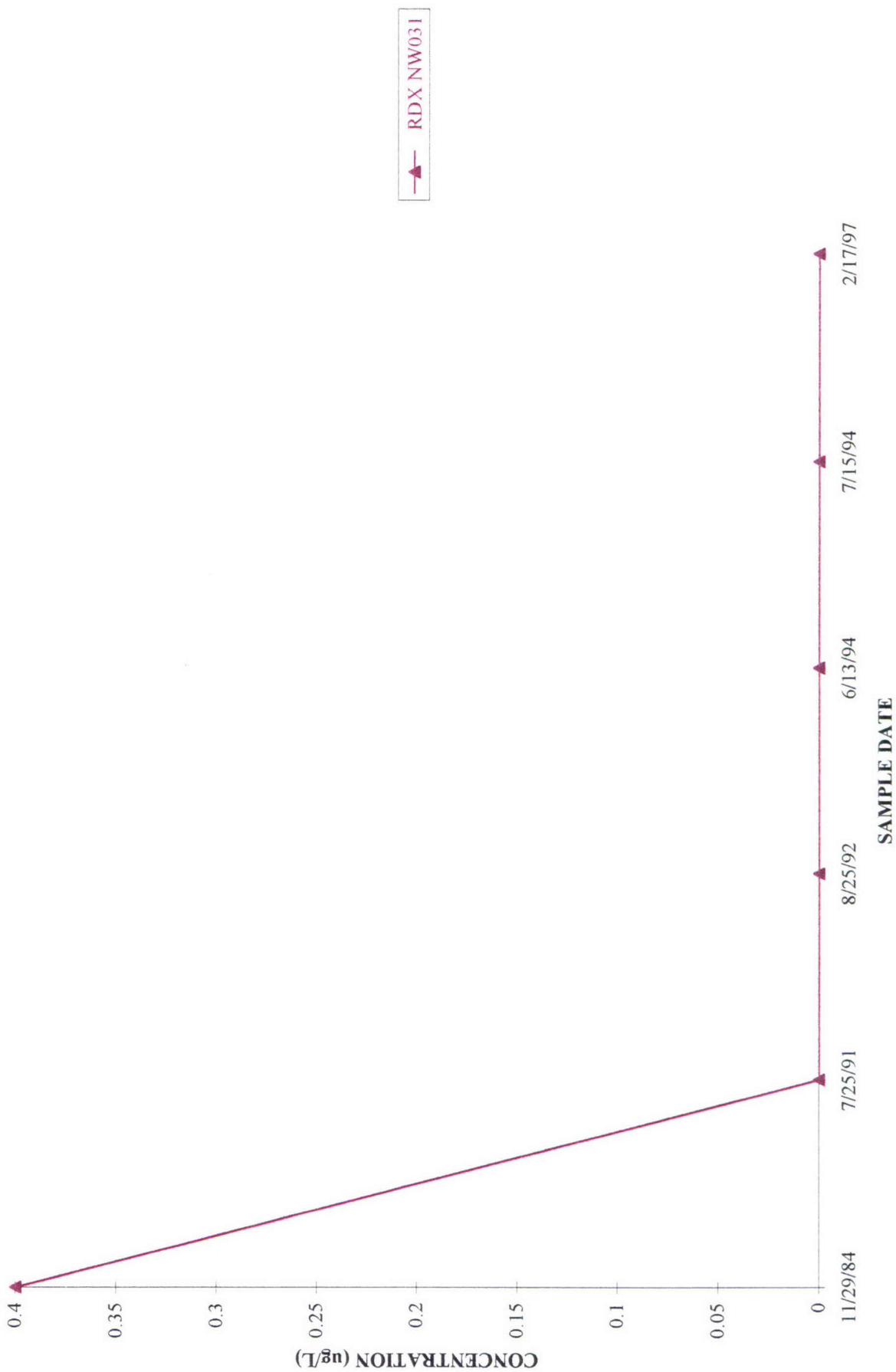
CORNHUSKER ARMY AMMUNITION PLANT WELL G0024 - HMX, RDX AND TNT



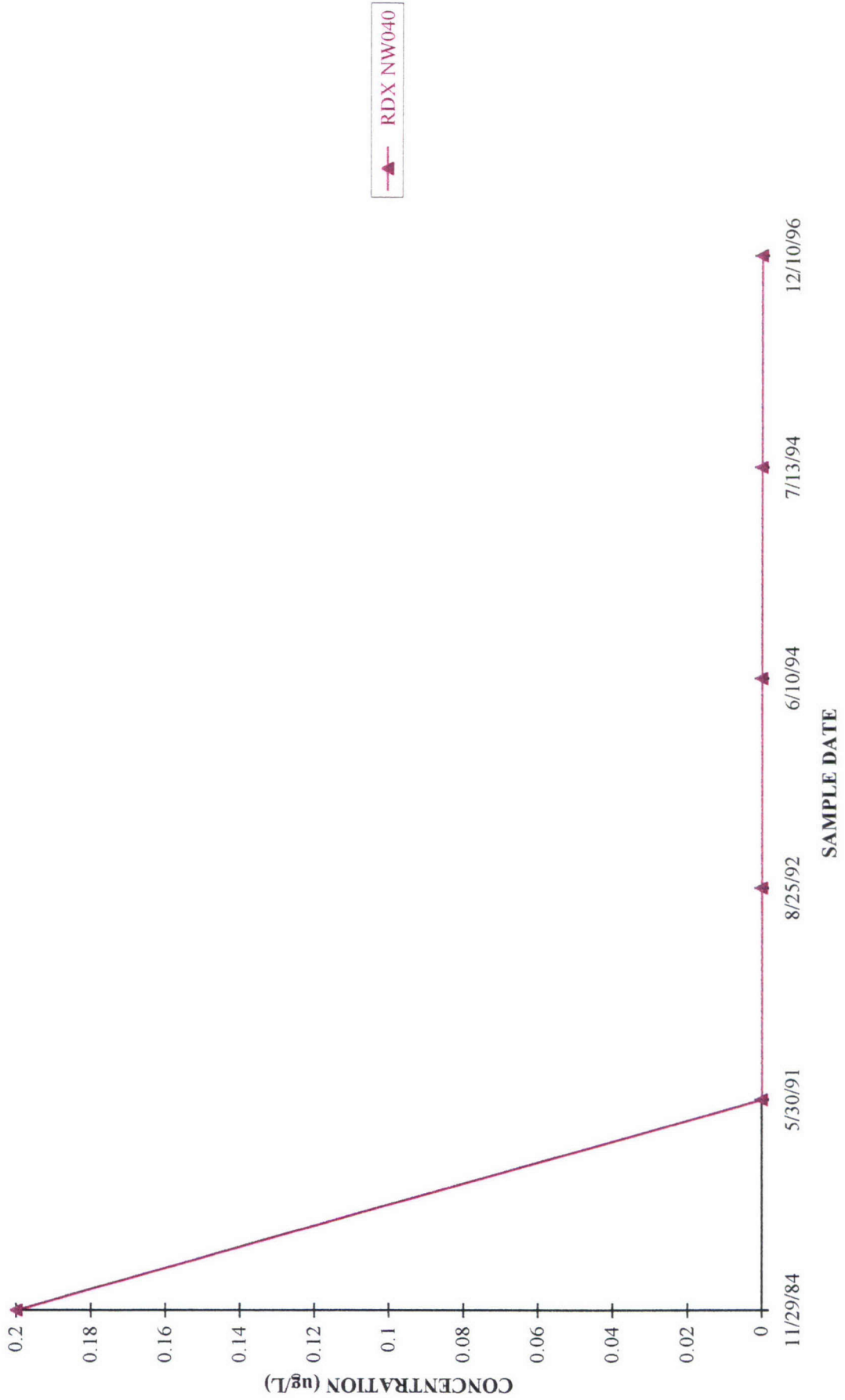
CORNHUSKER ARMY AMMUNITION PLANT WELL NW030 - RDX



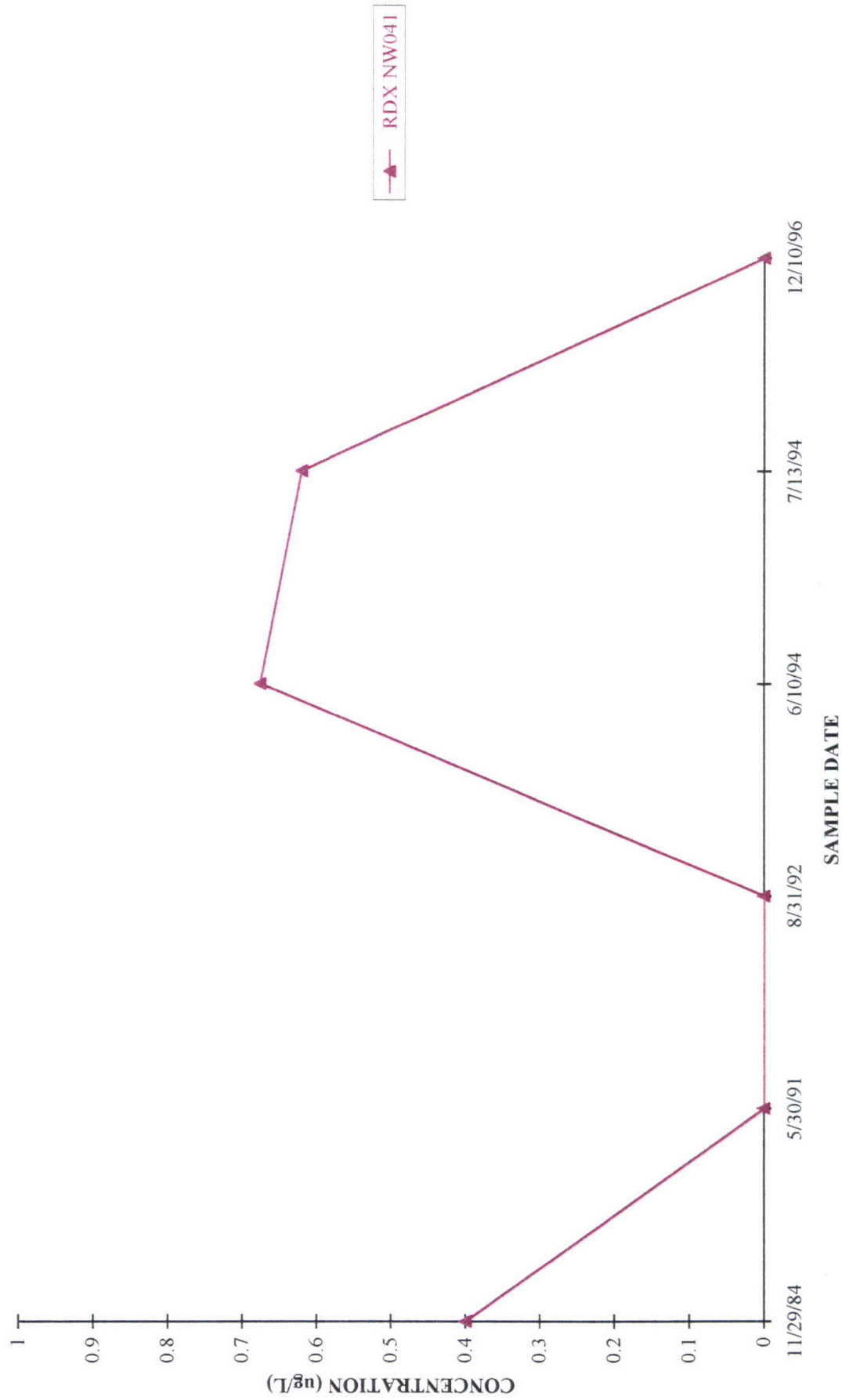
CORNHUSKER ARMY AMMUNITION PLANT WELL NW031 - RDX



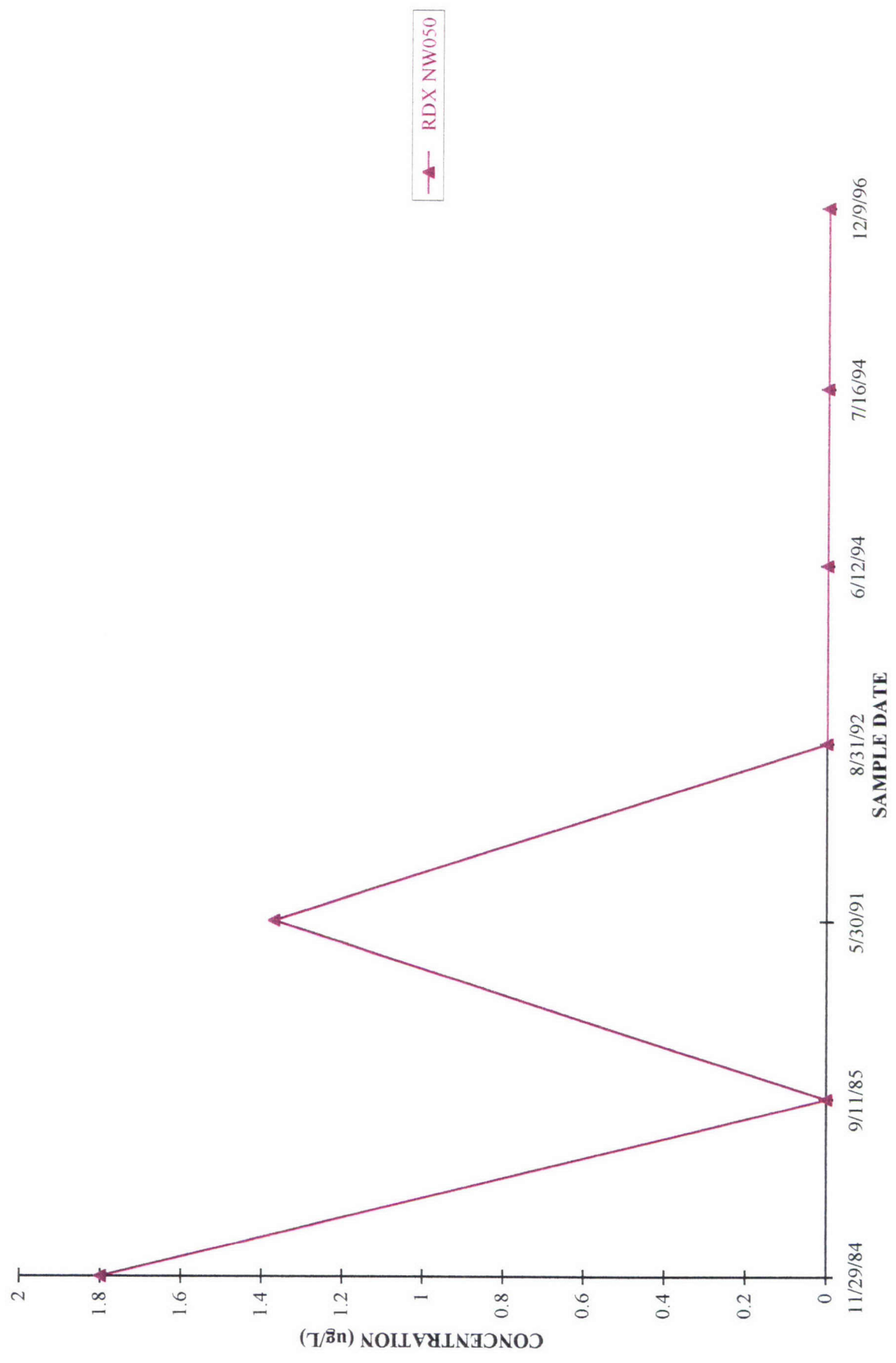
CORNHUSKER ARMY AMMUNITION PLANT WELL NW040 - RDX



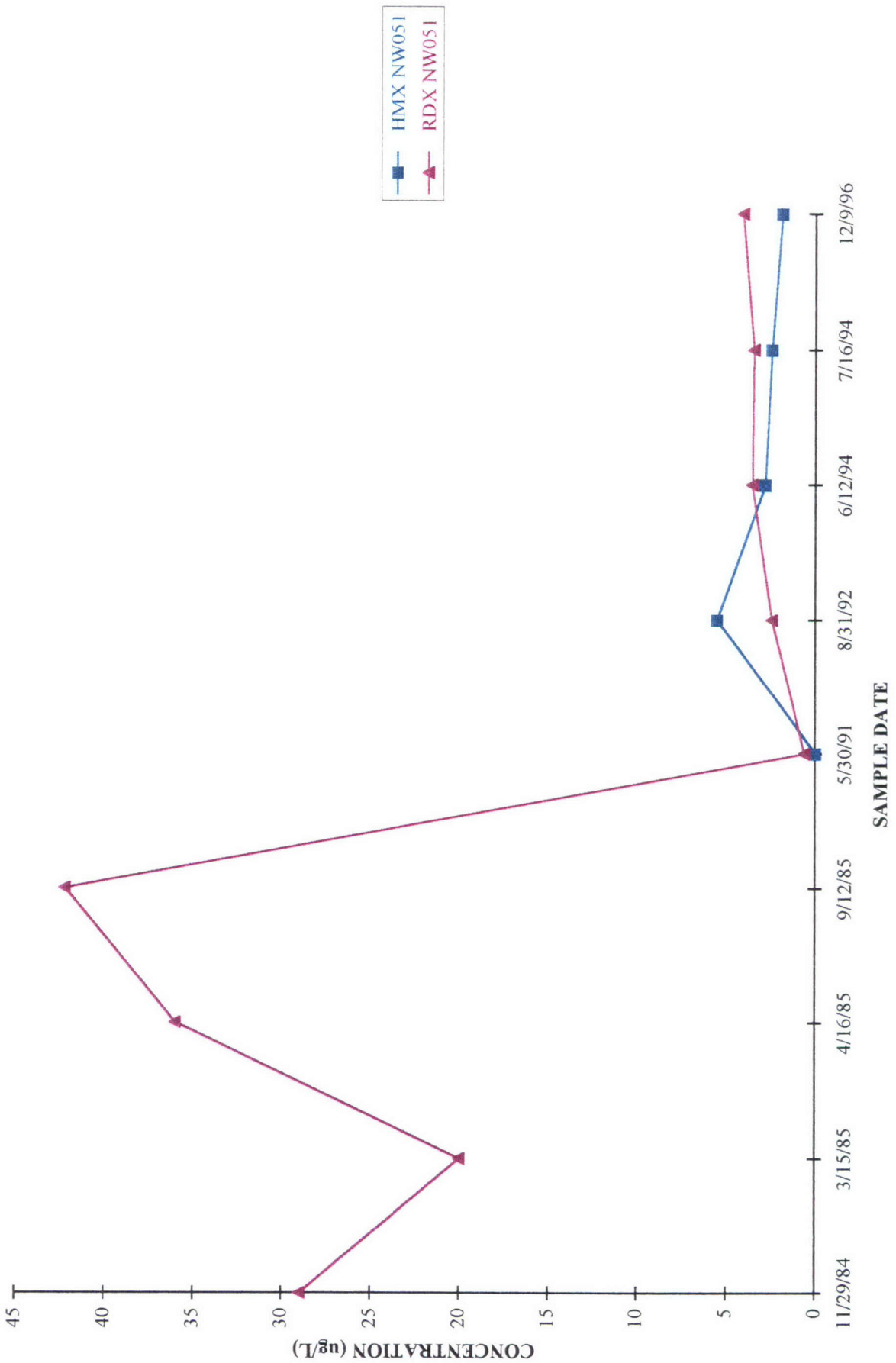
CORNHUSKER ARMY AMMUNITION PLANT WELL NW041 - RDX



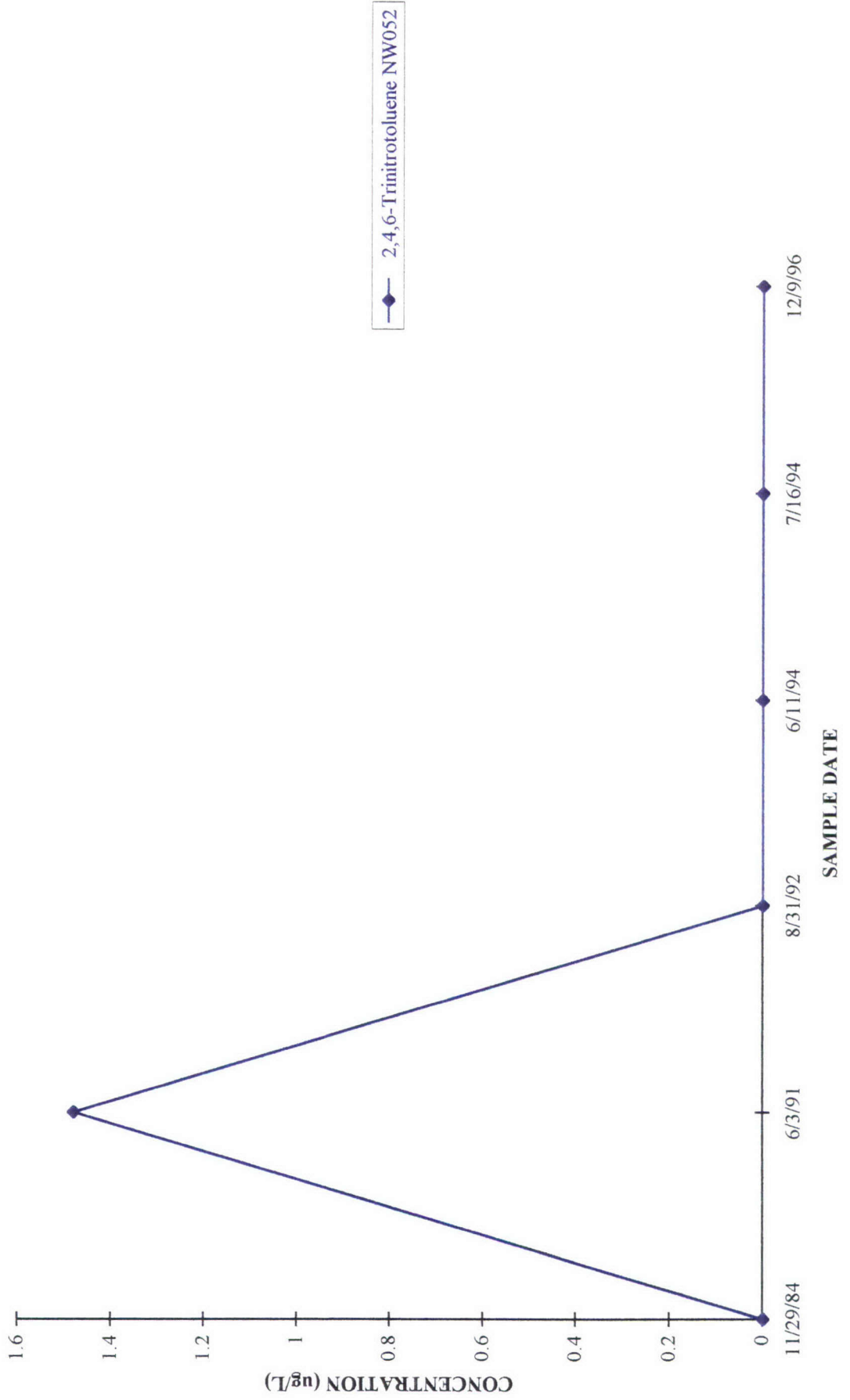
CORNHUSKER ARMY AMMUNITION PLANT WELL NW050 - RDX



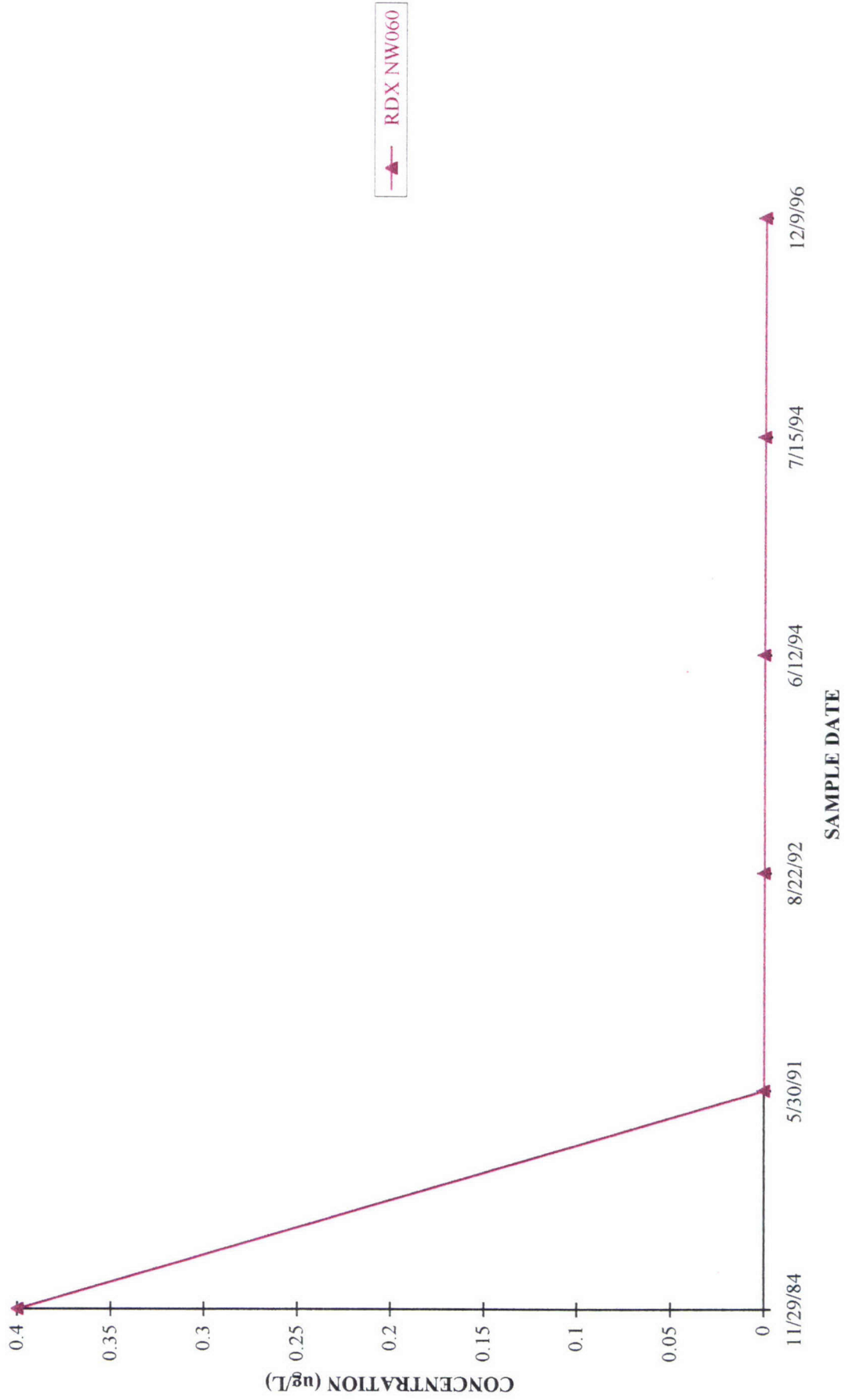
CORNHUSKER ARMY AMMUNITION PLANT WELL NW051 - HMX AND RDX



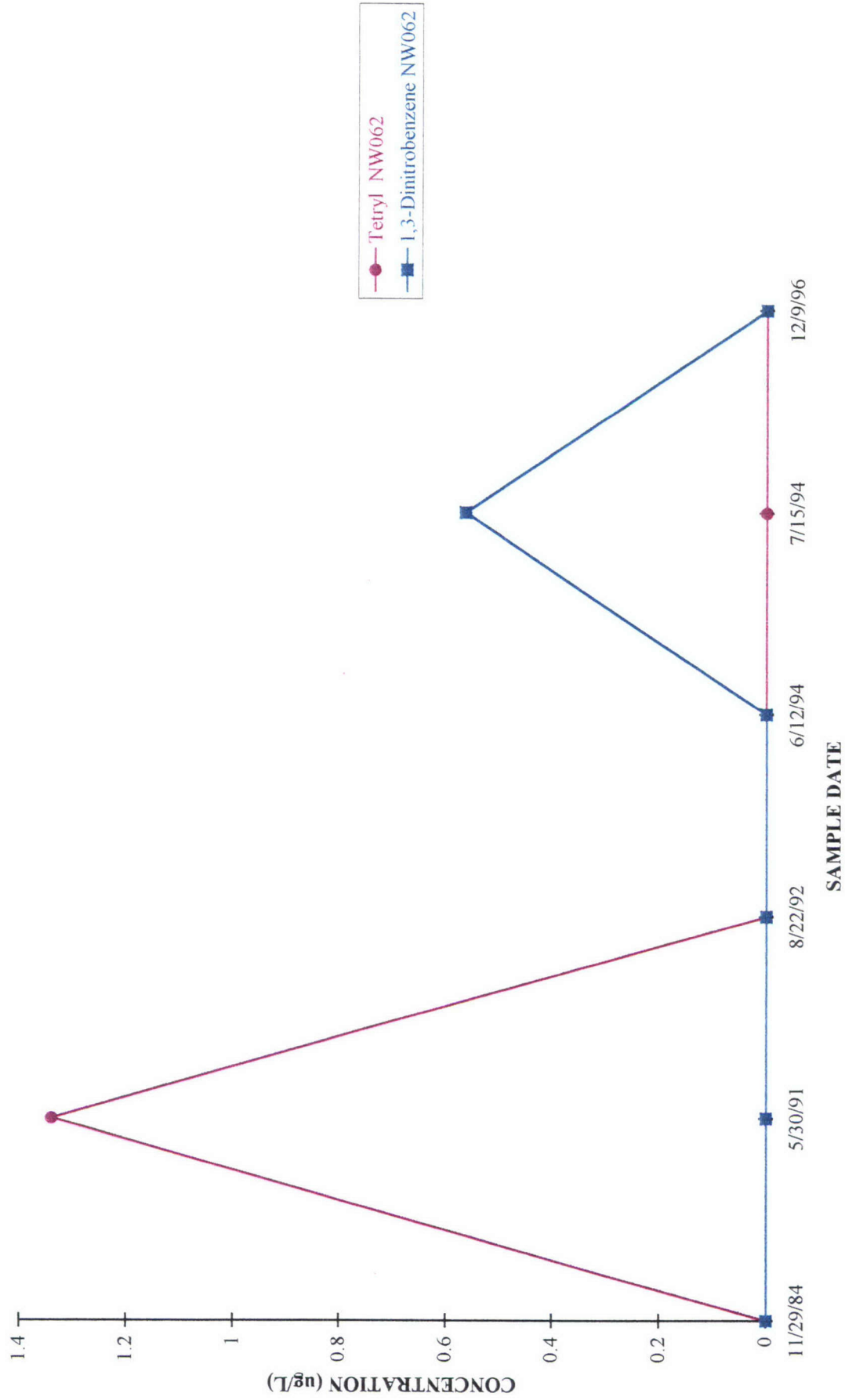
CORNHUSKER ARMY AMMUNITION PLANT WELL NW052 - TNT



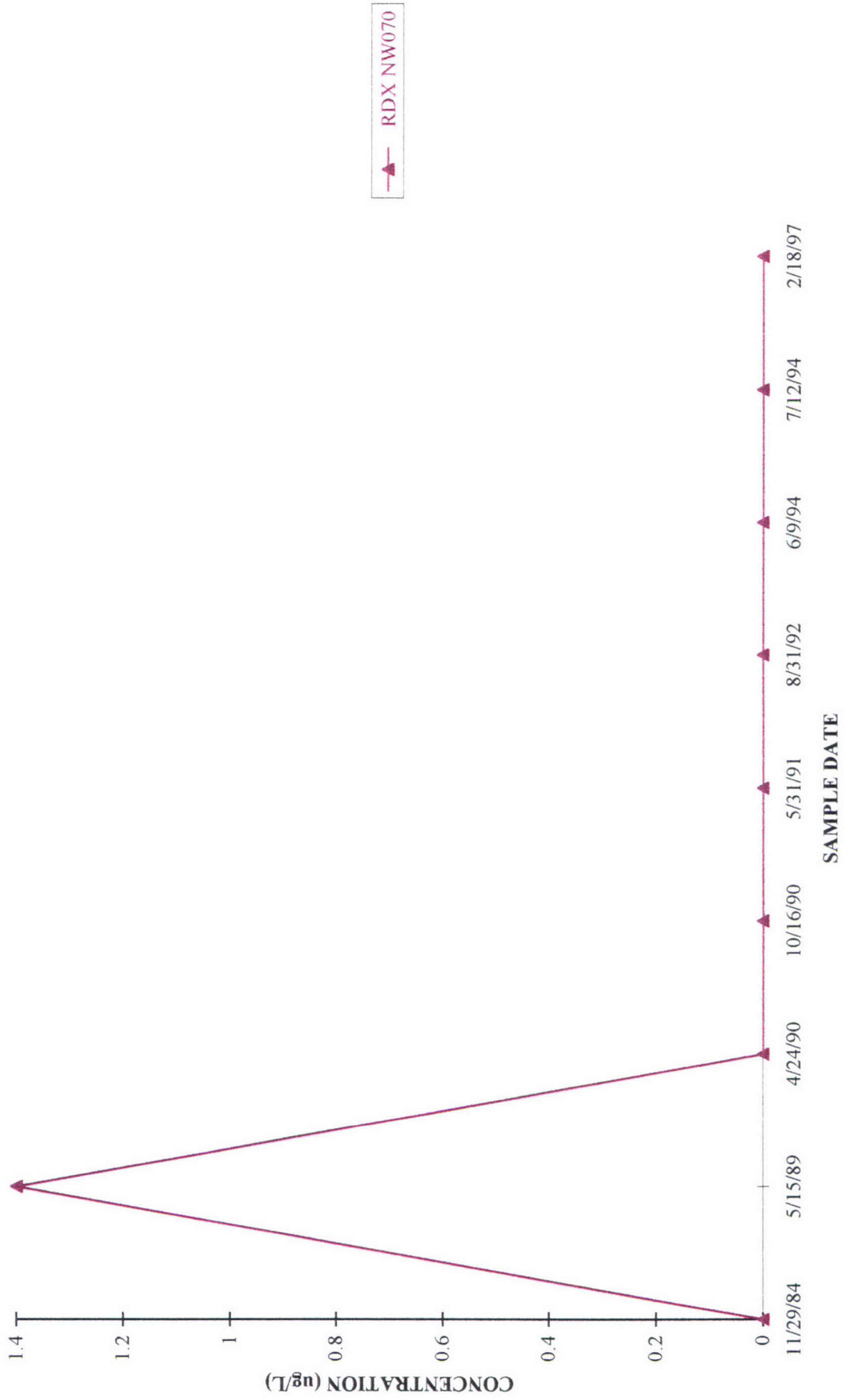
CORNHUSKER ARMY AMMUNITION PLANT WELL NW060 - RDX



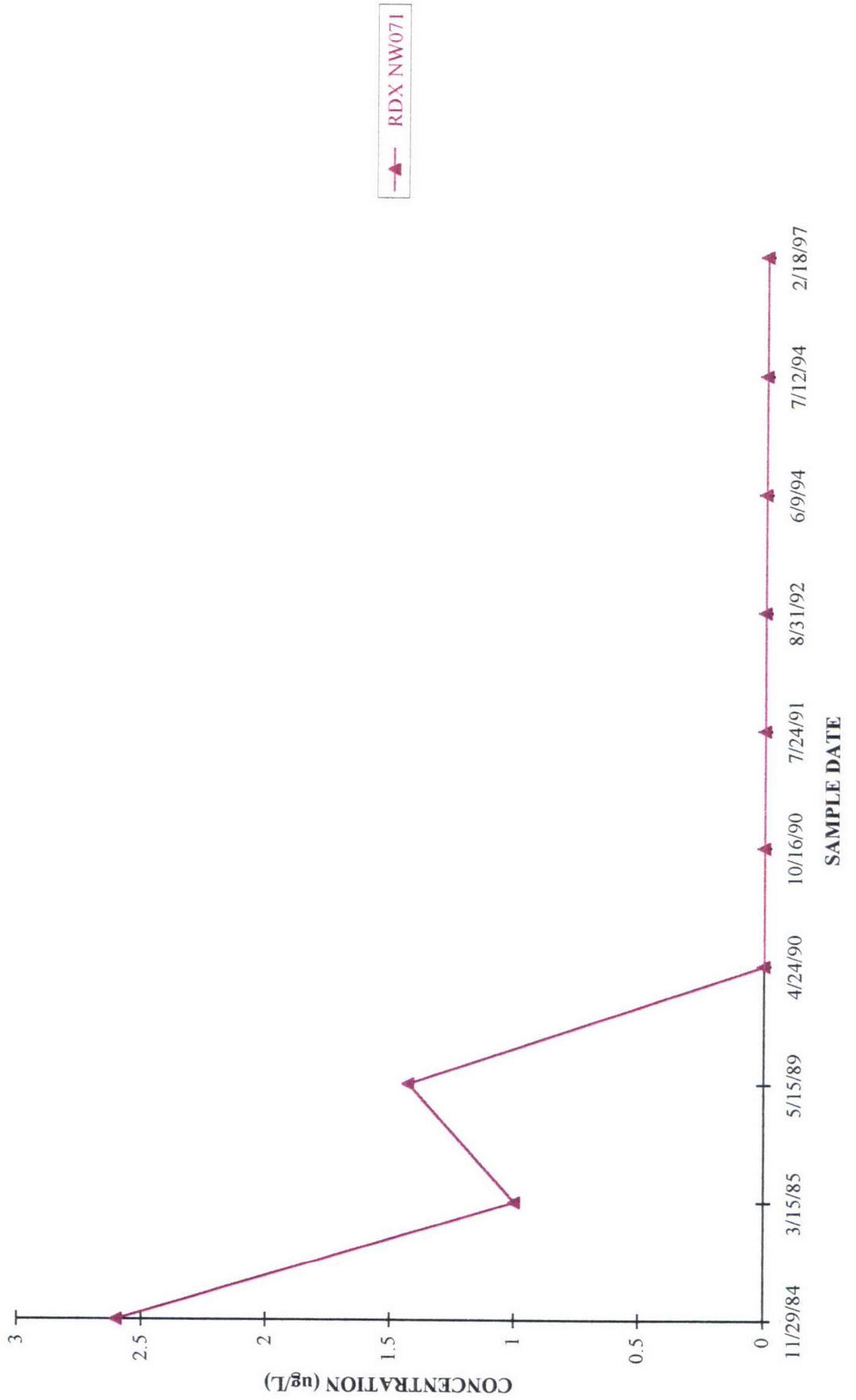
CORNHUSKER ARMY AMMUNITION PLANT WELL NW062 - TETRYL AND DNB



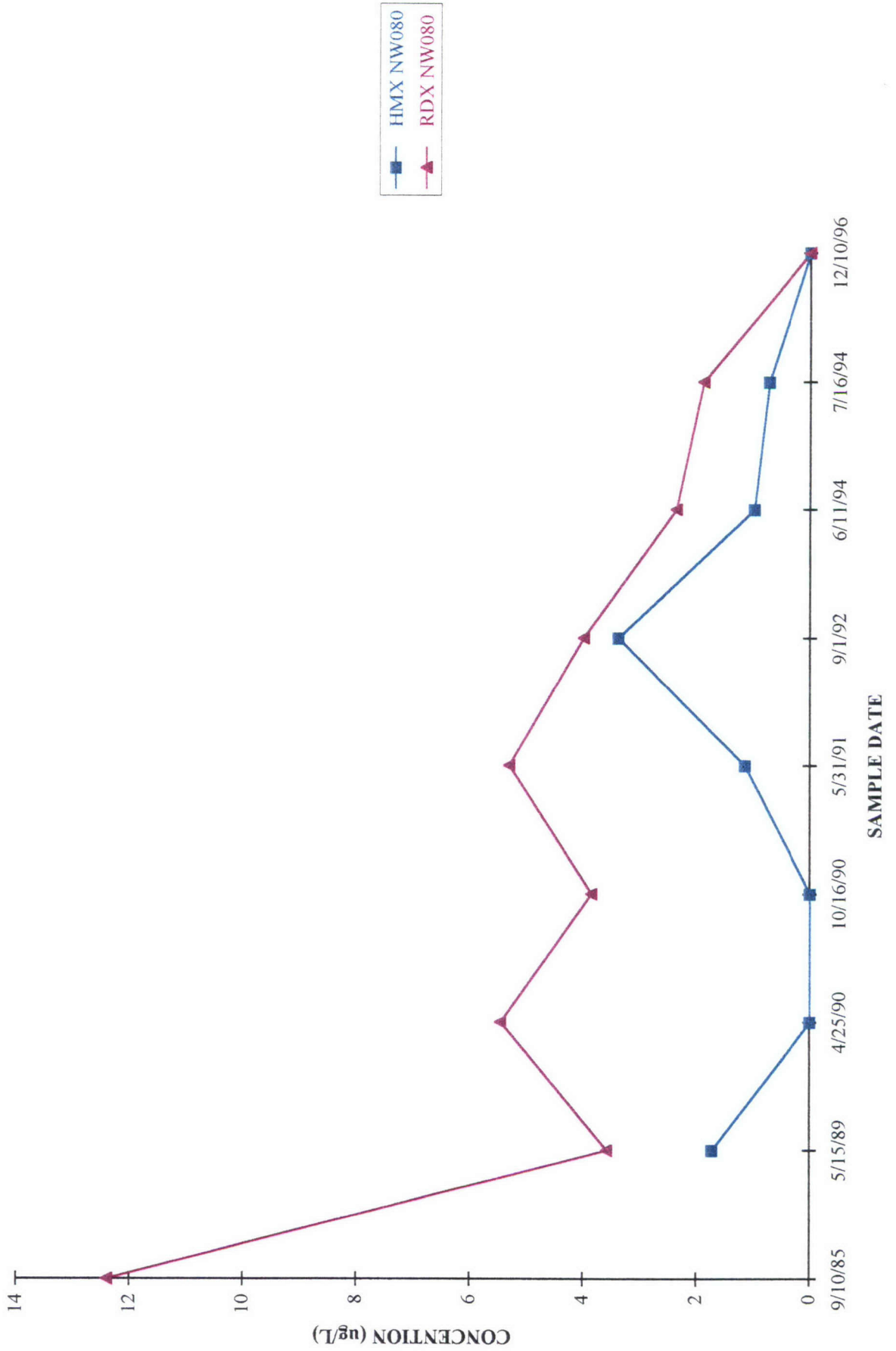
CORNHUSKER ARMY AMMUNITION PLANT WELL - NW070 RDX



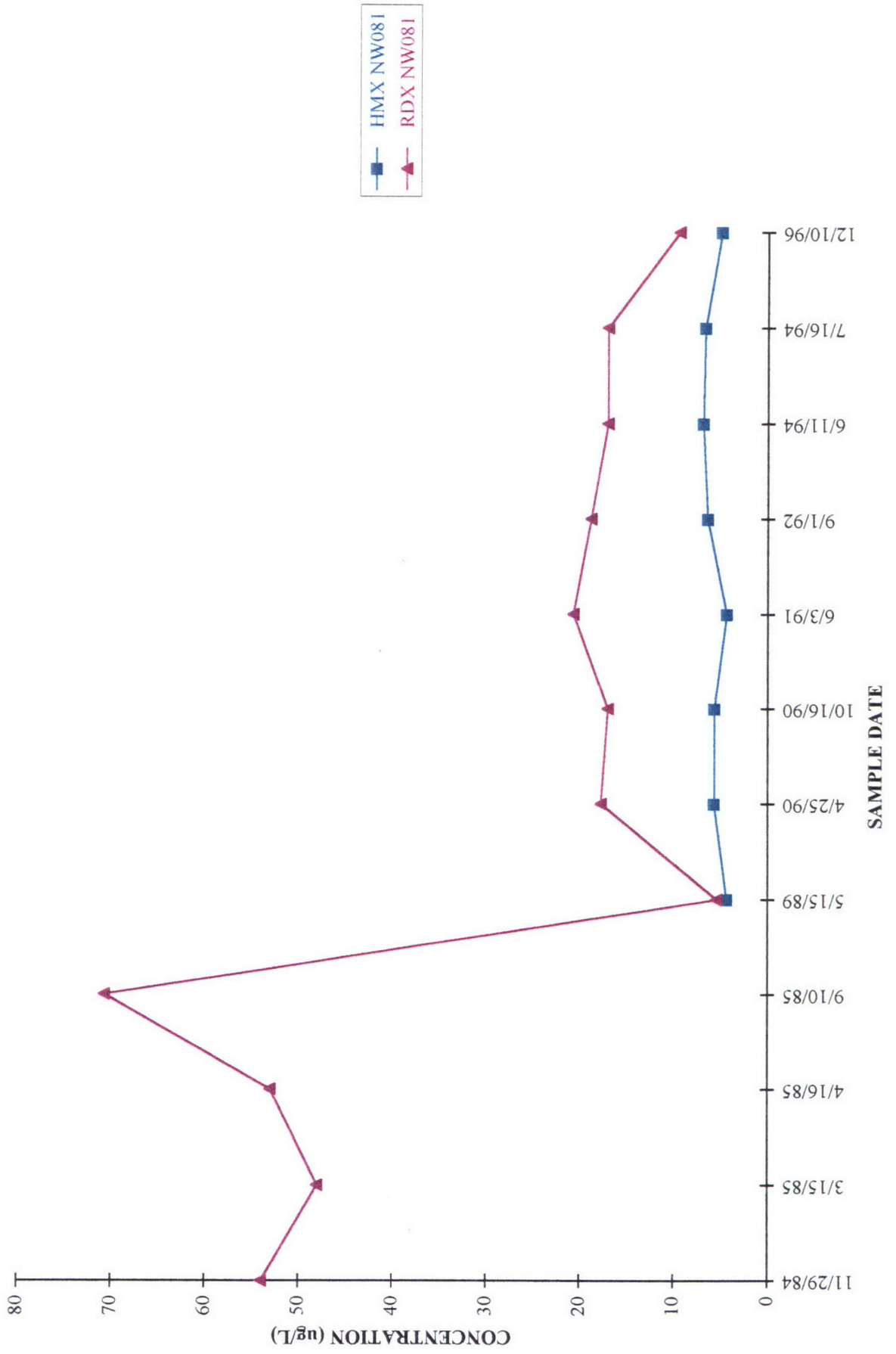
CORNHUSKER ARMY AMMUNITION PLANT WELL NW071 - RDX



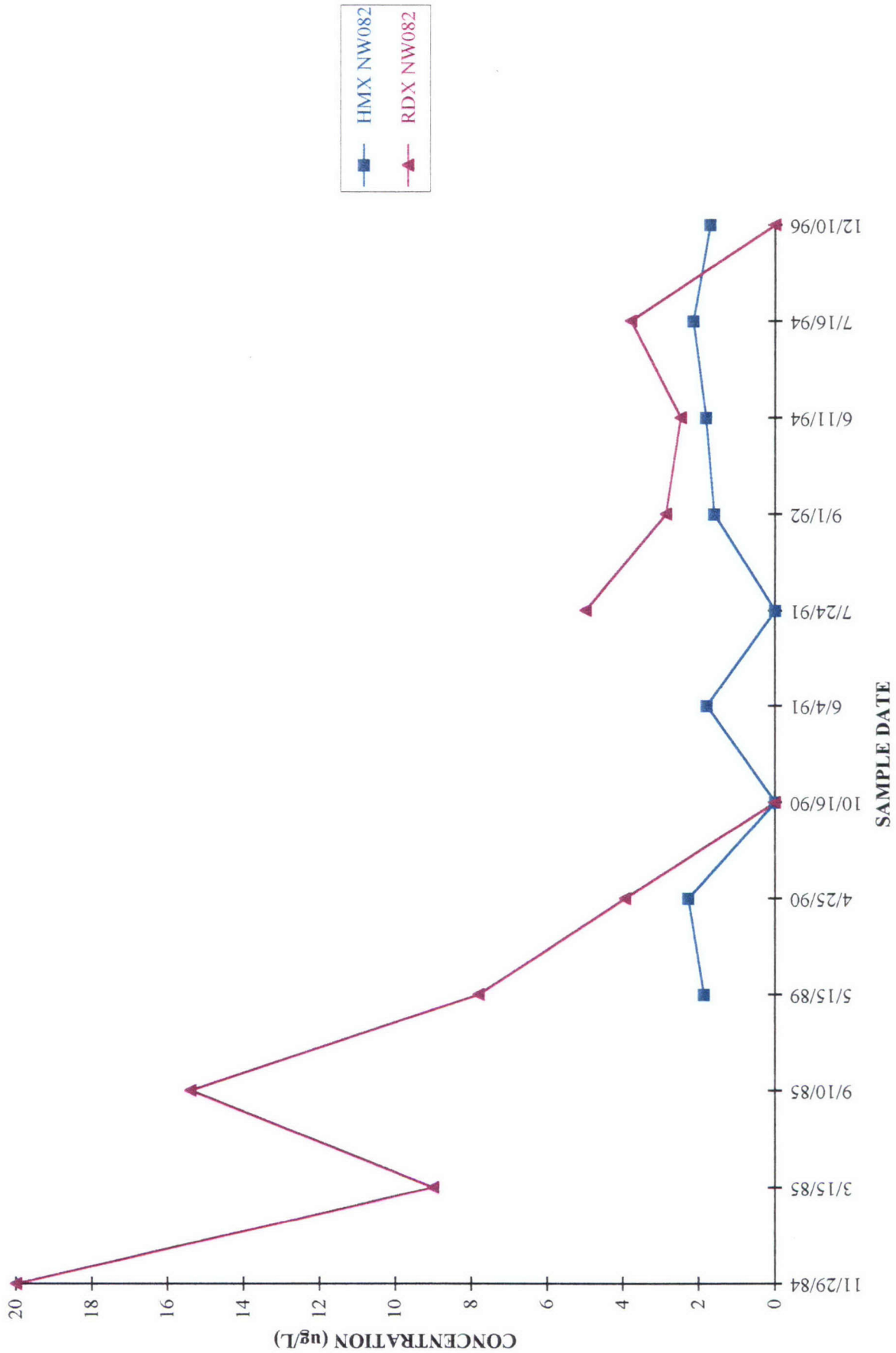
CORNHUSKER ARMY AMMUNITION PLANT WELL NW080 - HMX AND RDX



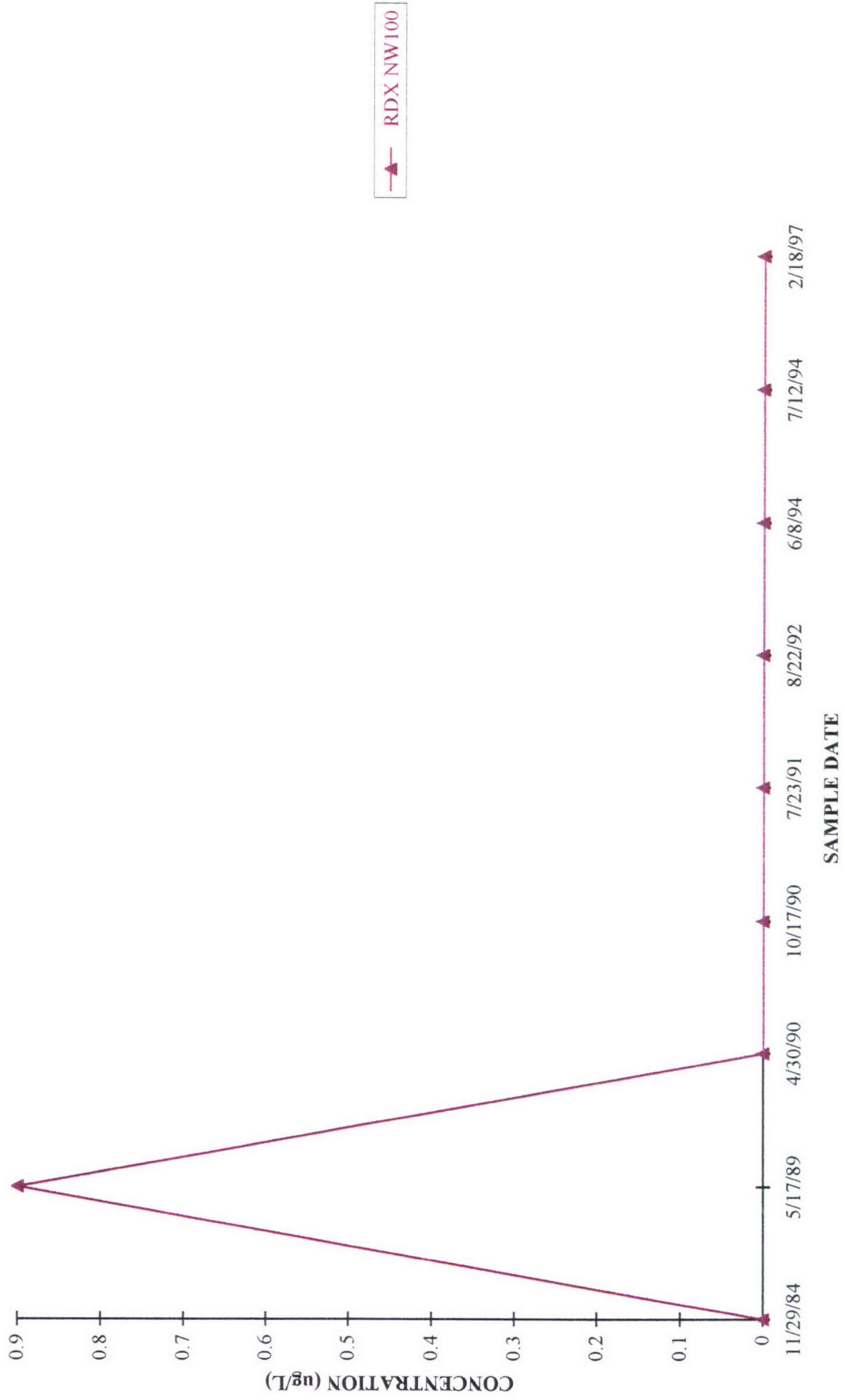
CORNHUSKER ARMY AMMUNITION PLANT WELL NW081 - RDX AND HMX



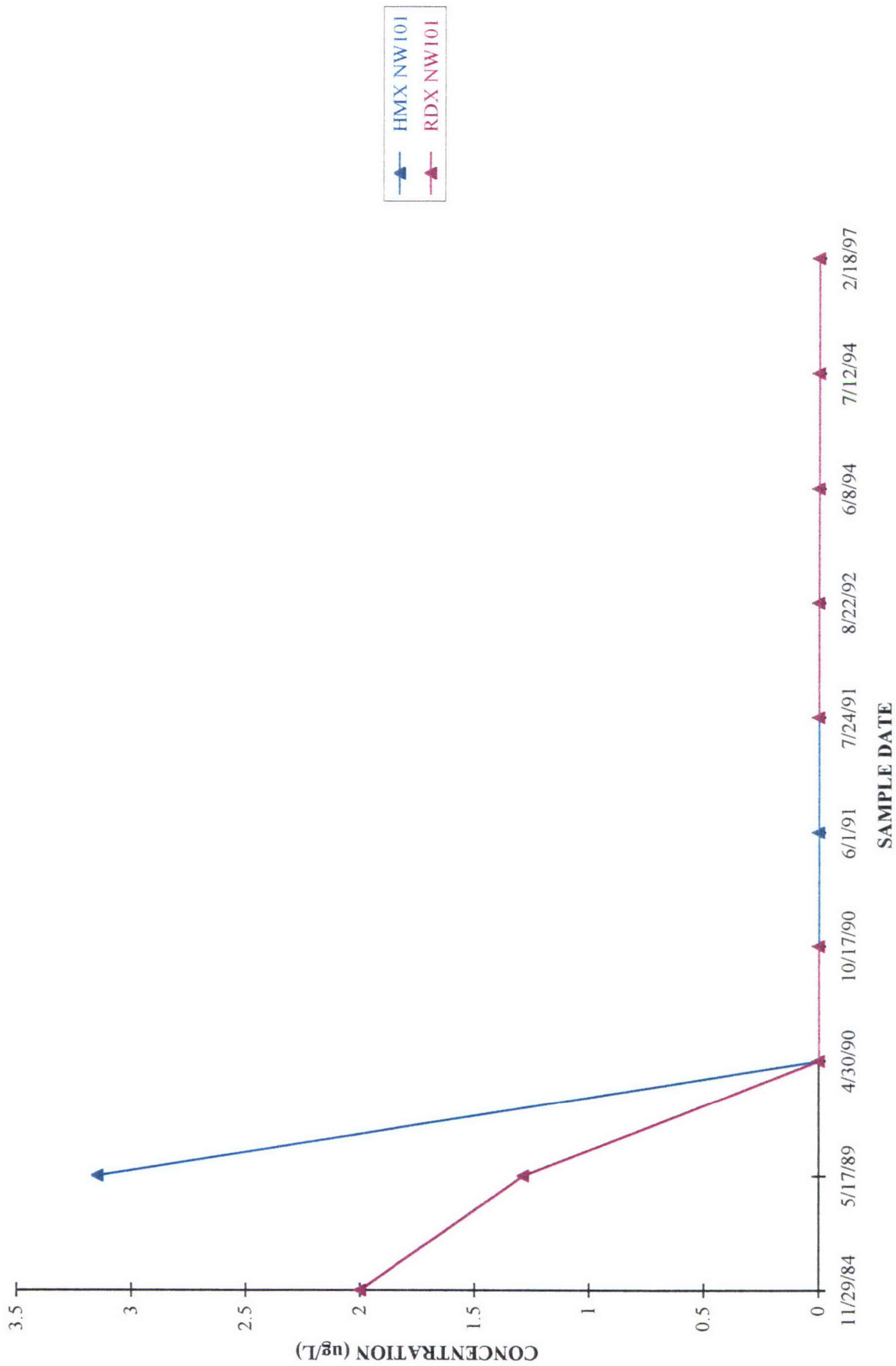
CORNHUSKER ARMY AMMUNITION PLANT WELL NW082 - HMX AND RDX



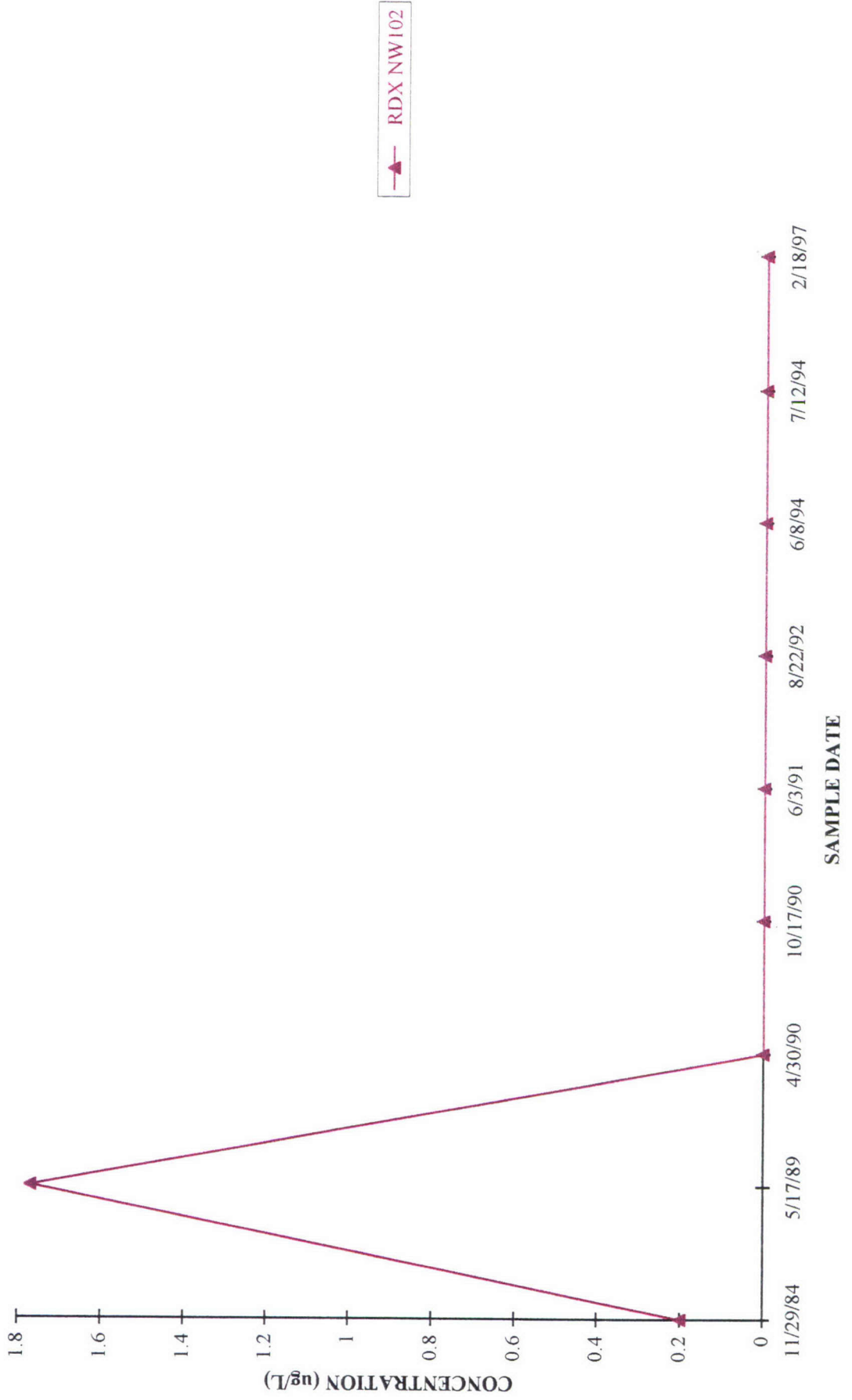
CORNHUSKER ARMY AMMUNITION PLANT WELL NW100 - RDX



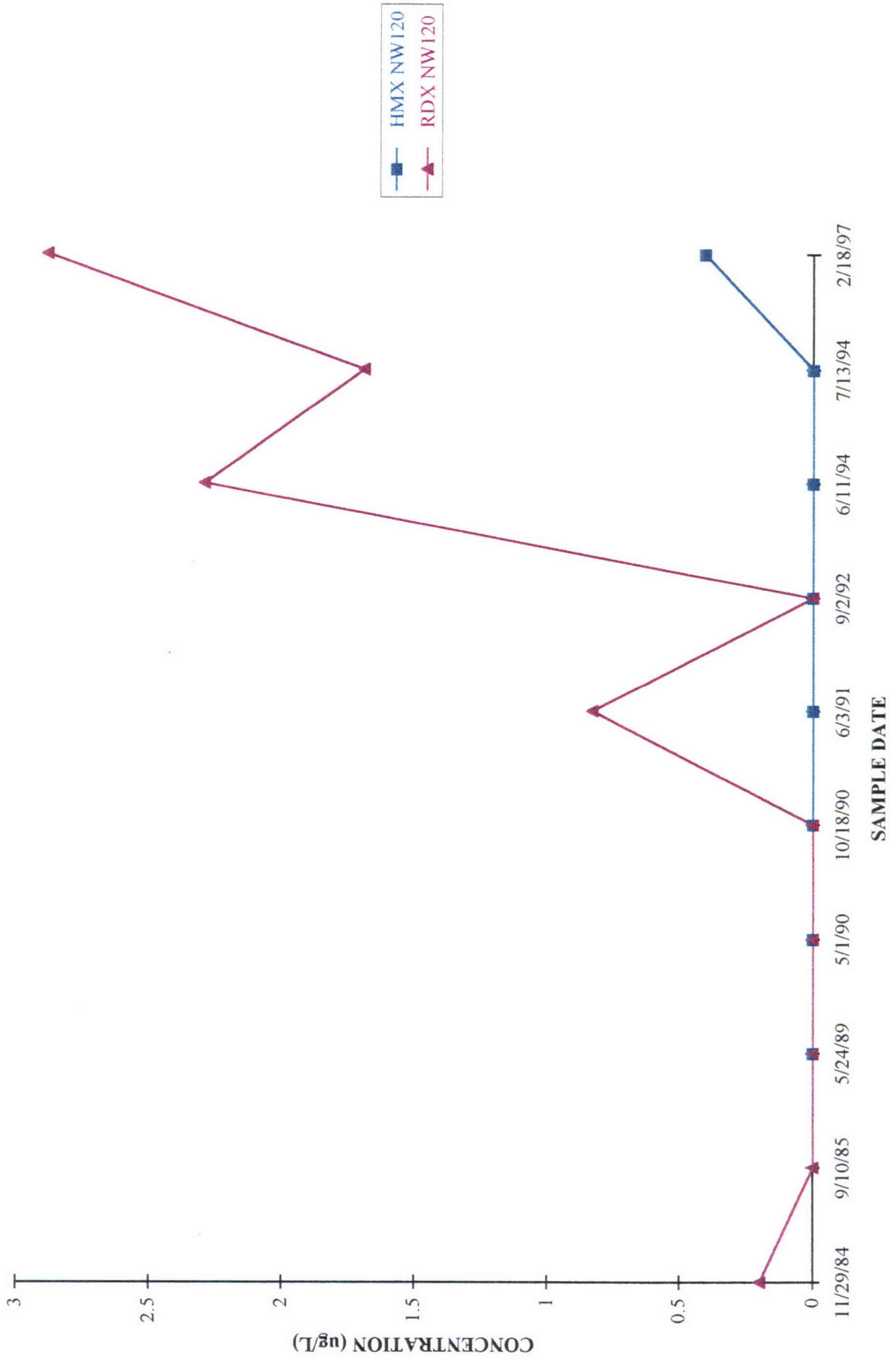
CORNHUSKER ARMY AMMUNITION PLANT WELL NW101 - HMX AND RDX



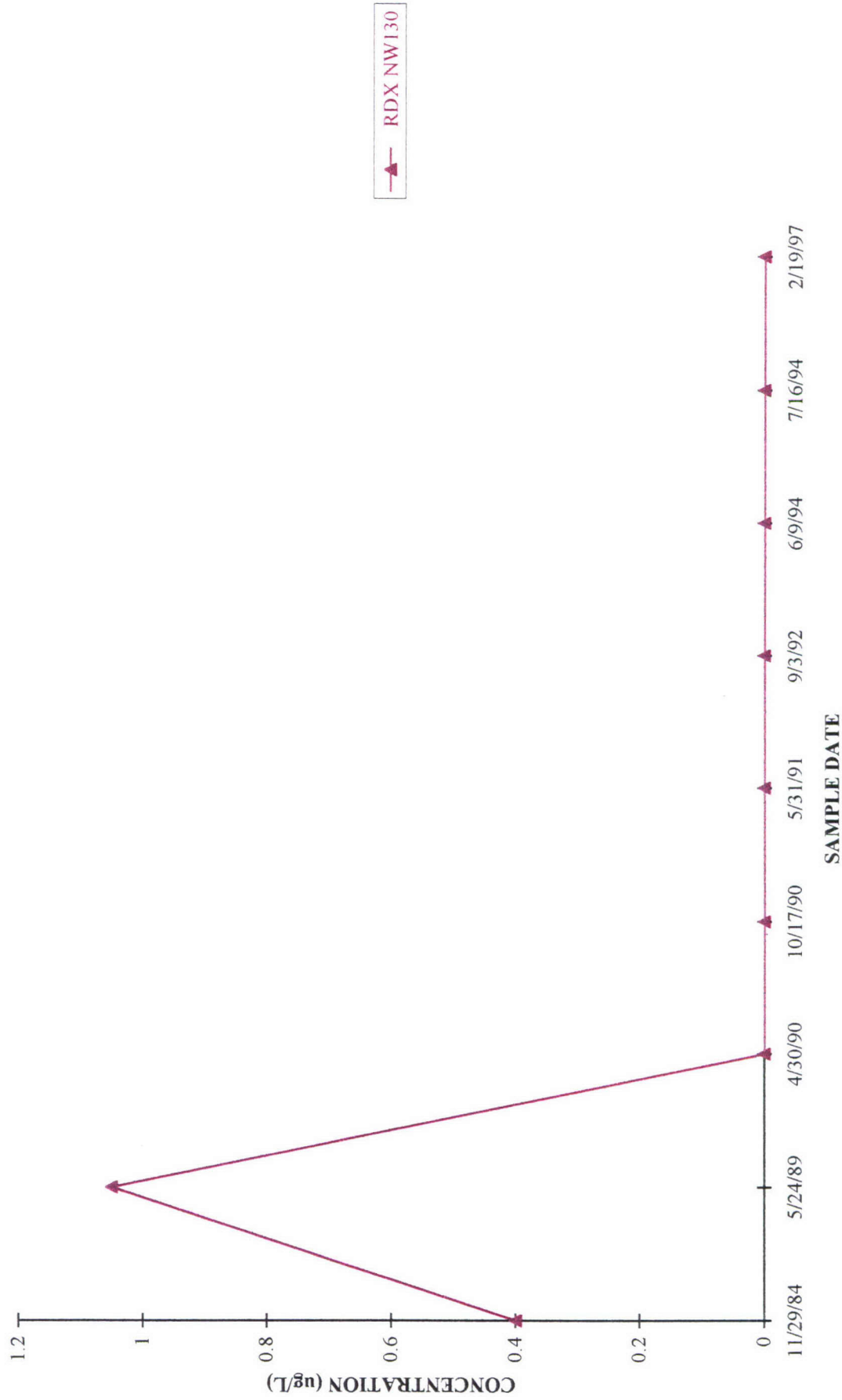
CORNHUSKER ARMY AMMUNITION PLANT WELL NW102 - RDX



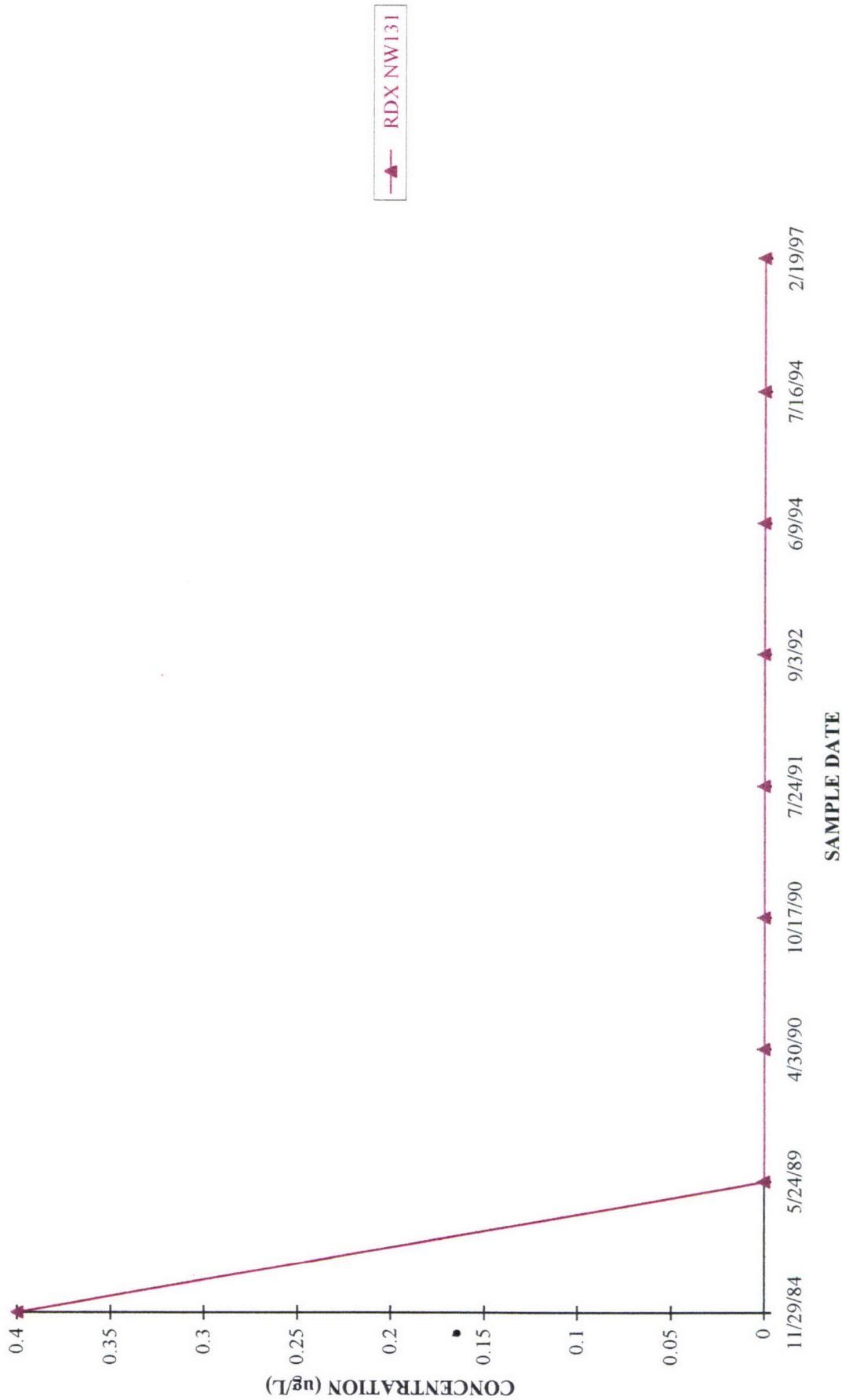
CORNHUSKER ARMY AMMUNITION PLANT WELL NW120 - HMX AND RDX



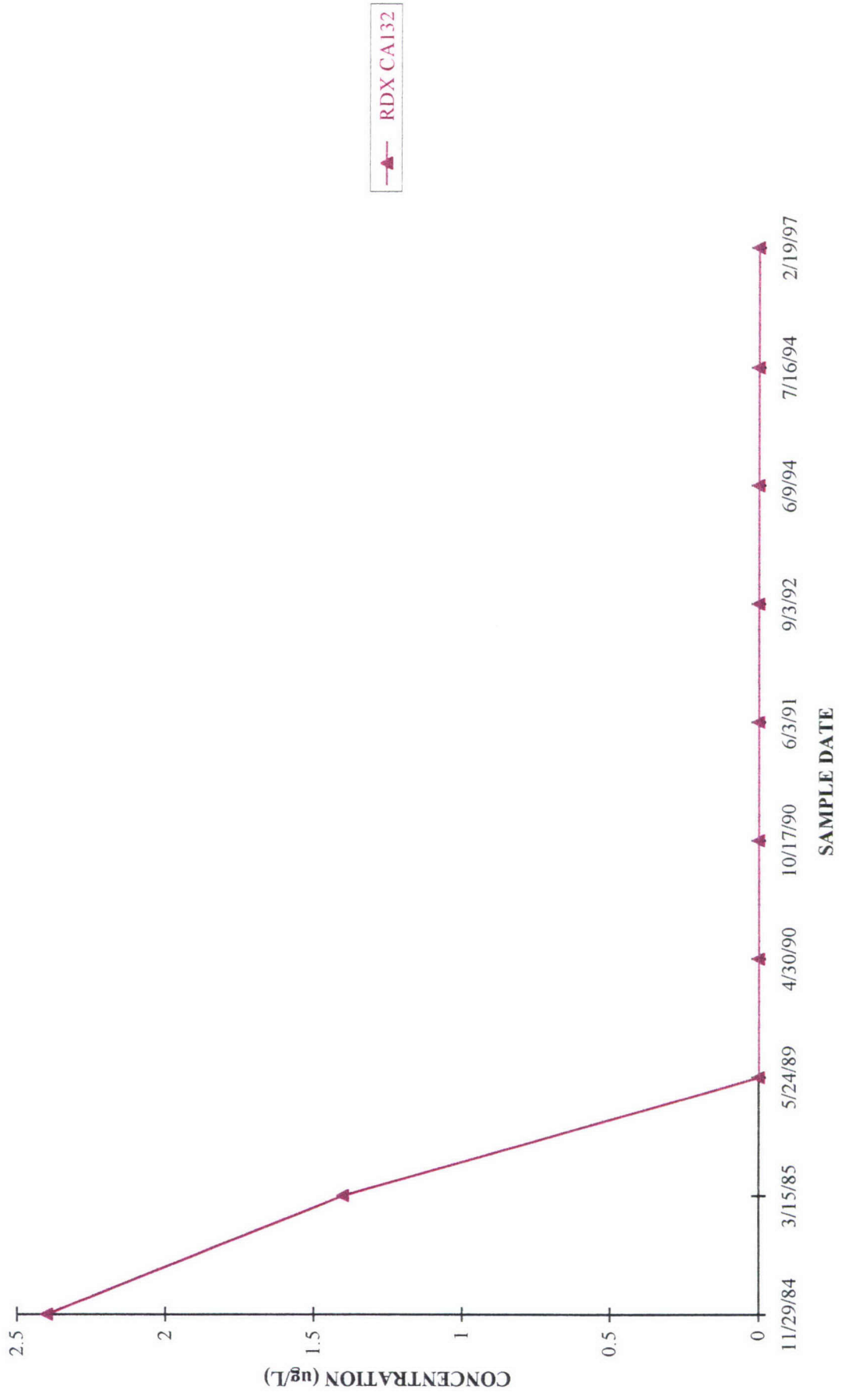
CORNHUSKER ARMY AMMUNITION PLANT WELL - NW130 RDX



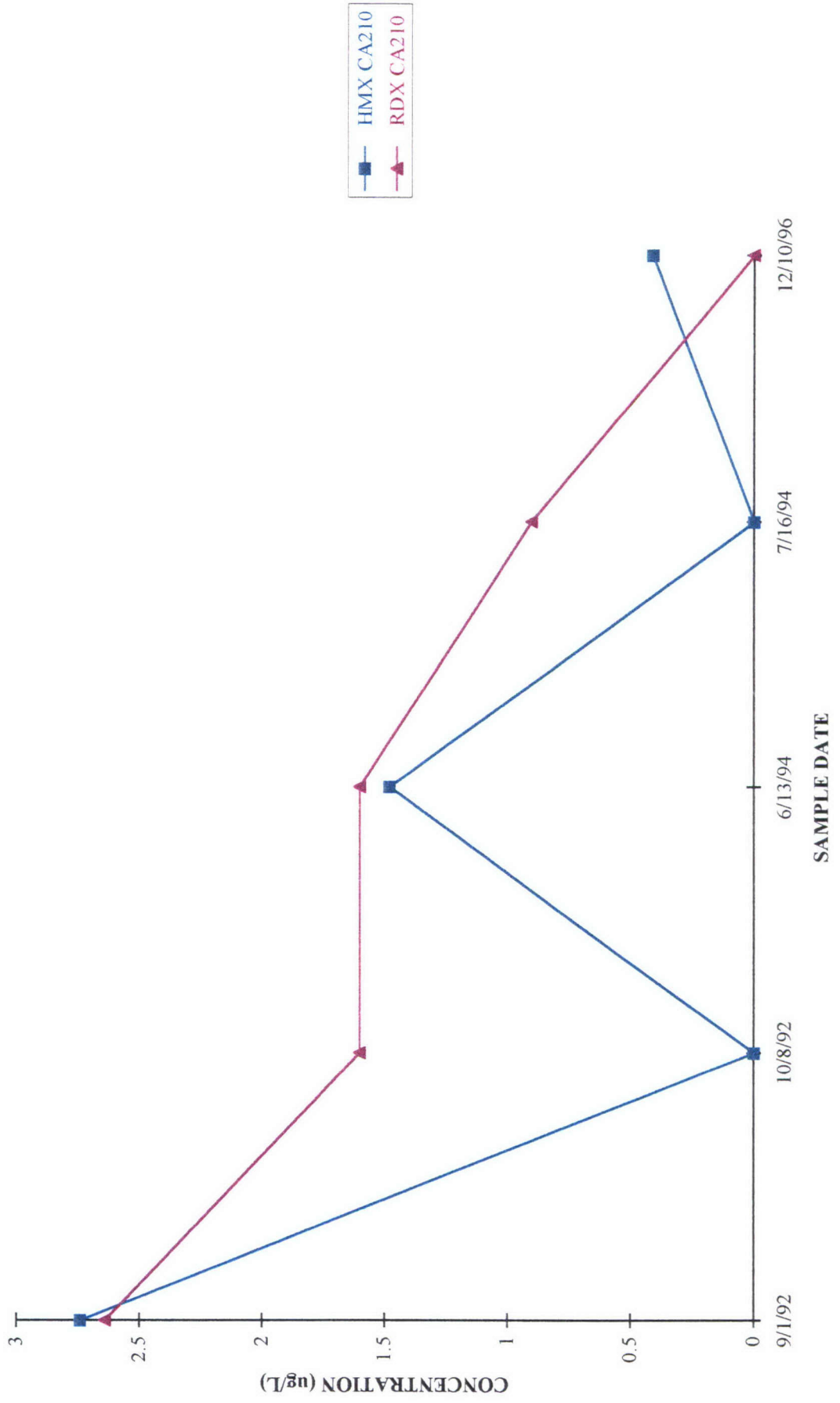
CORNHUSKER ARMY AMMUNITION PLANT WELL NW131 - RDX



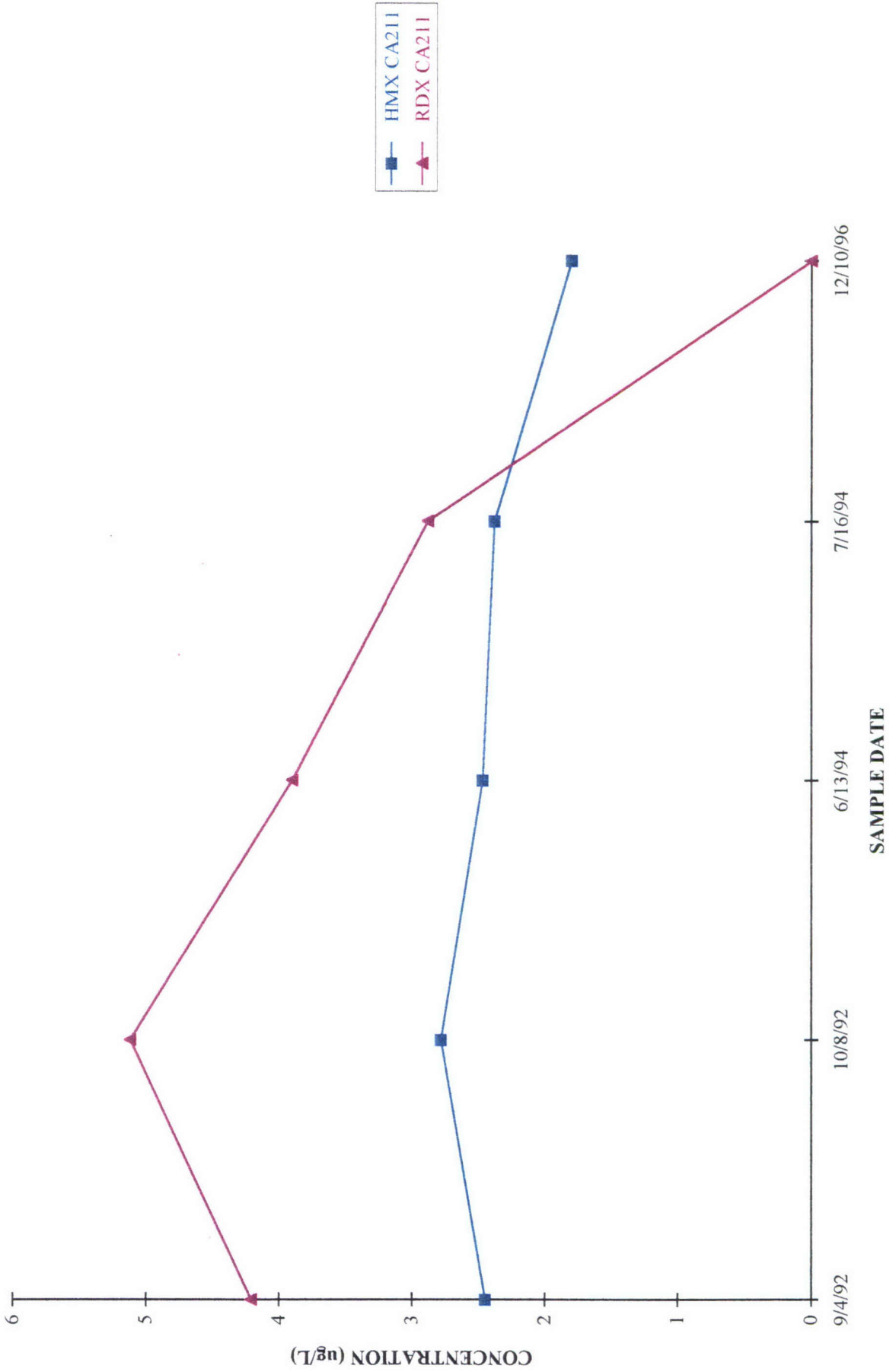
CORNHUSKER ARMY AMMUNITION PLANT WELL CA132 - RDX



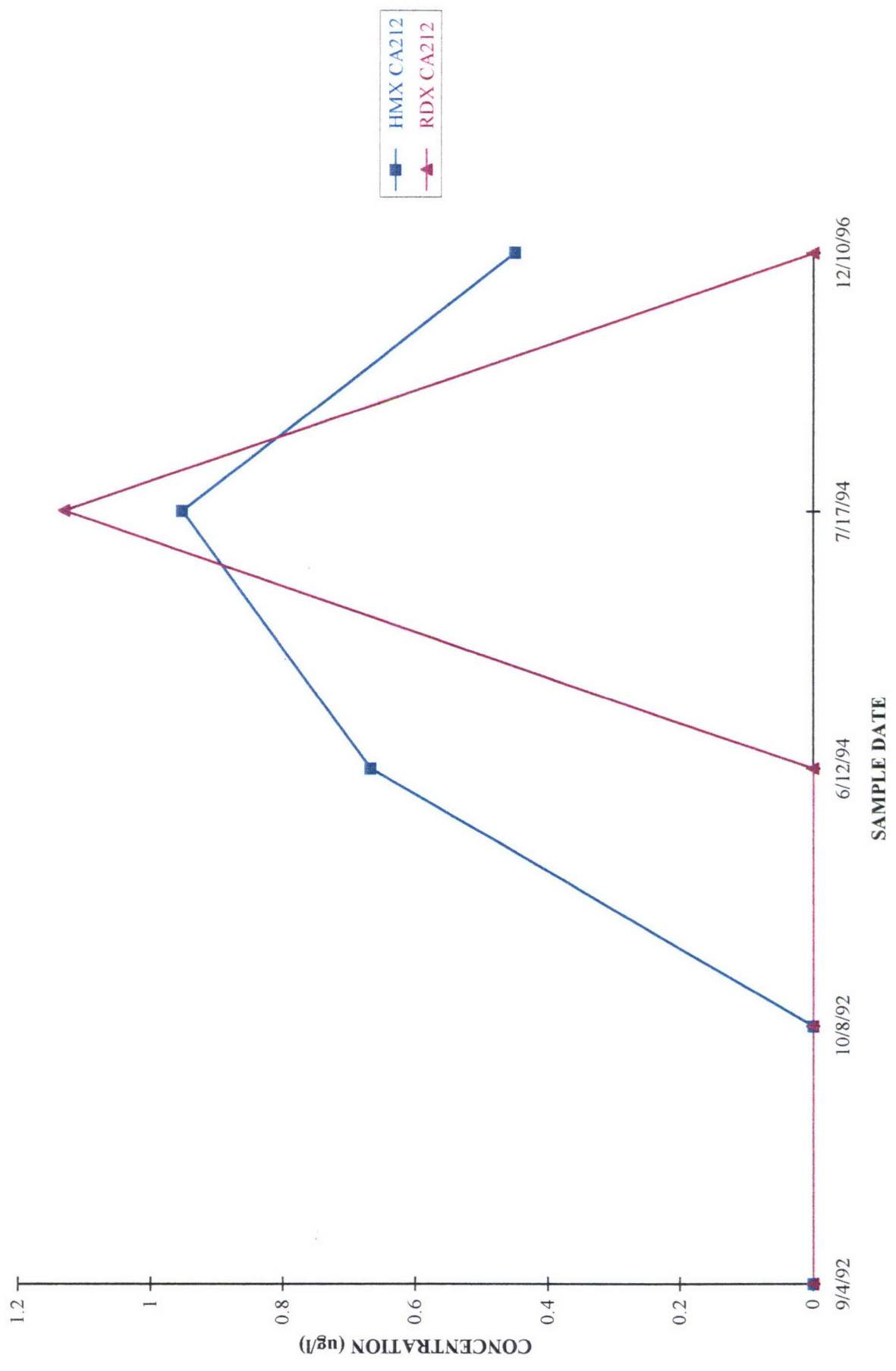
CORNHUSKER ARMY AMMUNITION PLANT WELL CA210 - HMX AND RDX



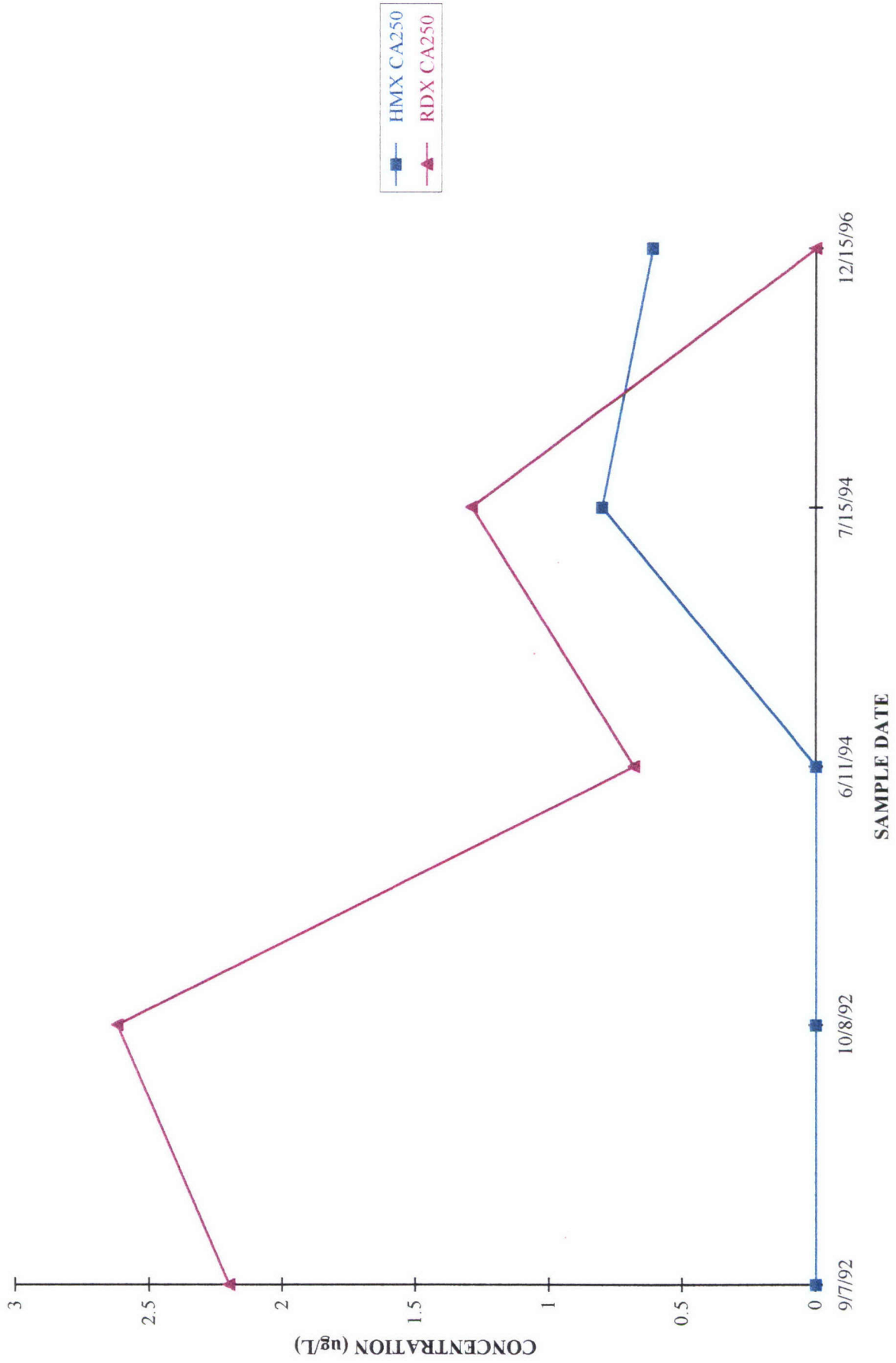
CORNHUSKER ARMY AMMUNITION PLANT WELL CA211 - HMX AND RDX



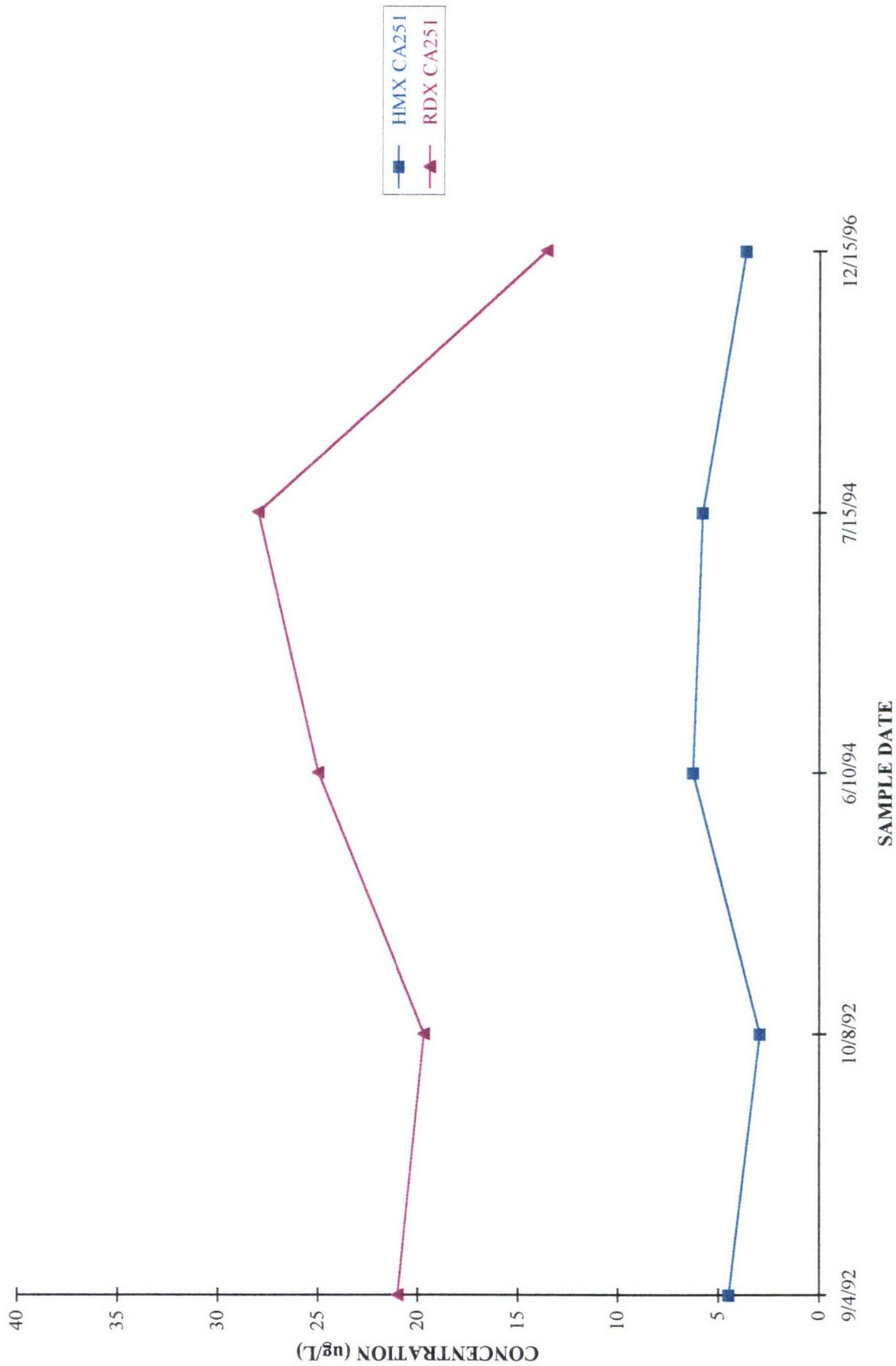
CORNHUSKER ARMY AMMUNITION PLANT WELL CA212 - HMX AND RDX



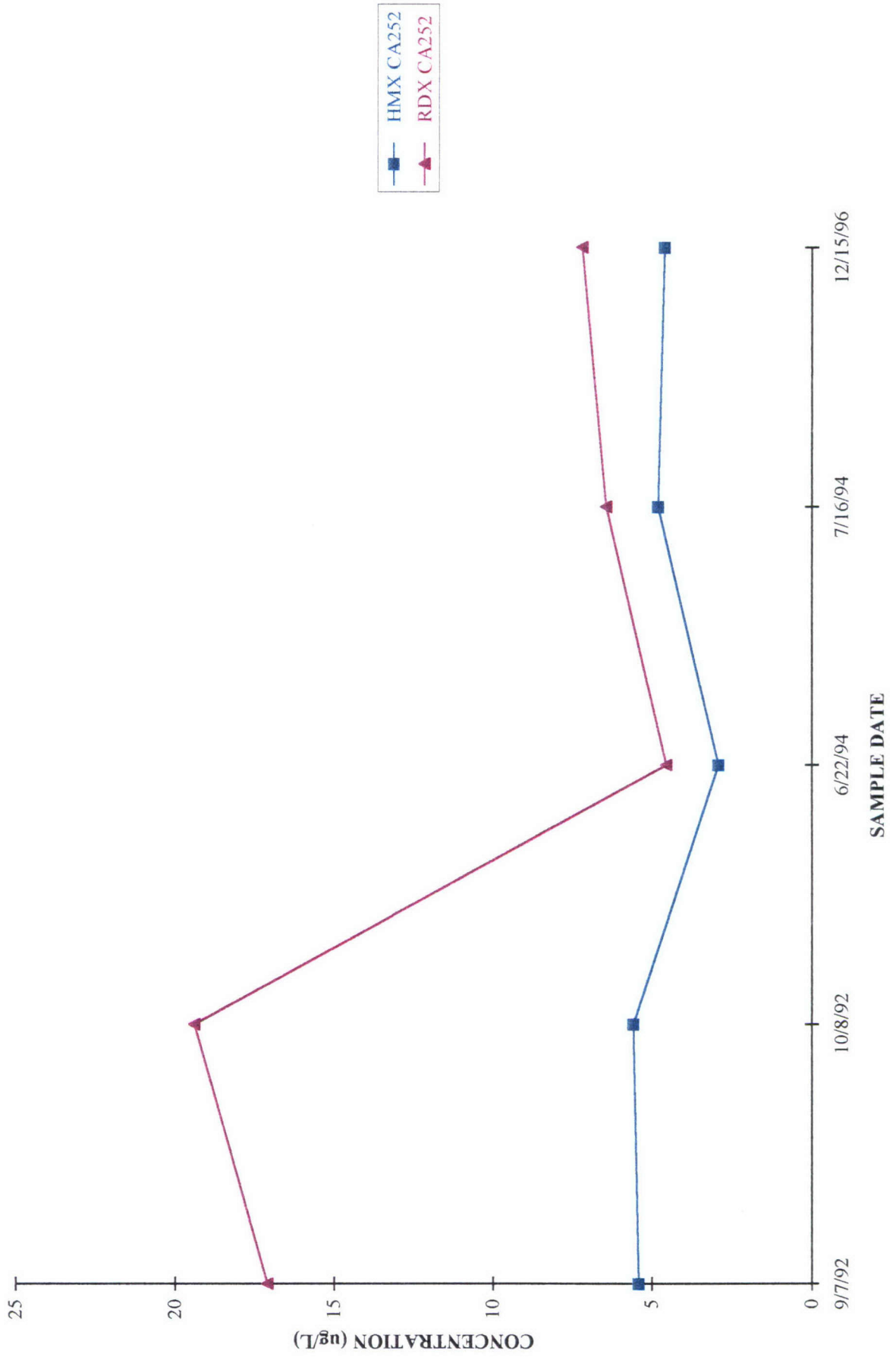
CORNHUSKER ARMY AMMUNITION PLANT WELL CA250 - HMX AND RDX



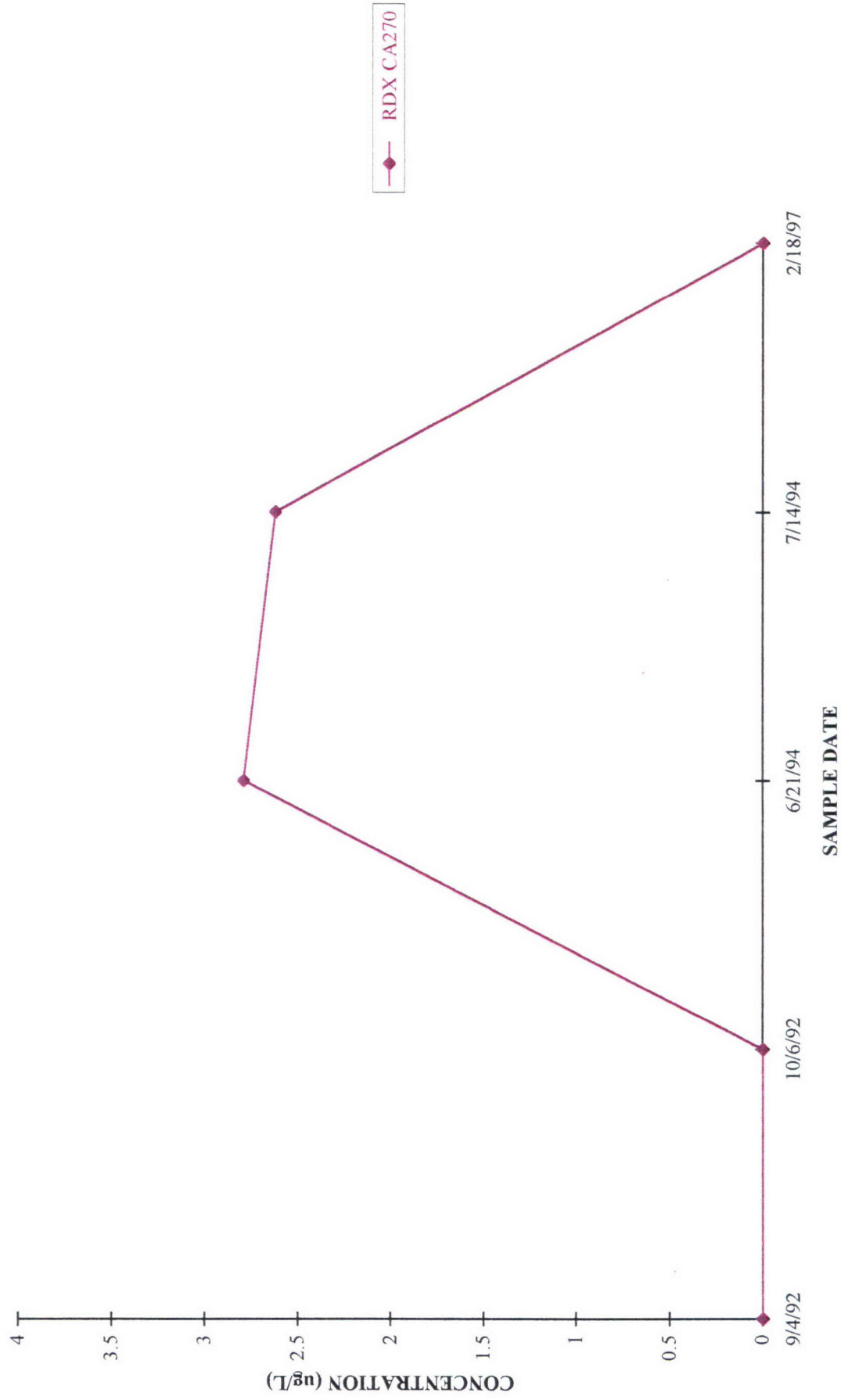
CORNHUSKER ARMY AMMUNITION PLANT WELL CA251 - HMX AND RDX



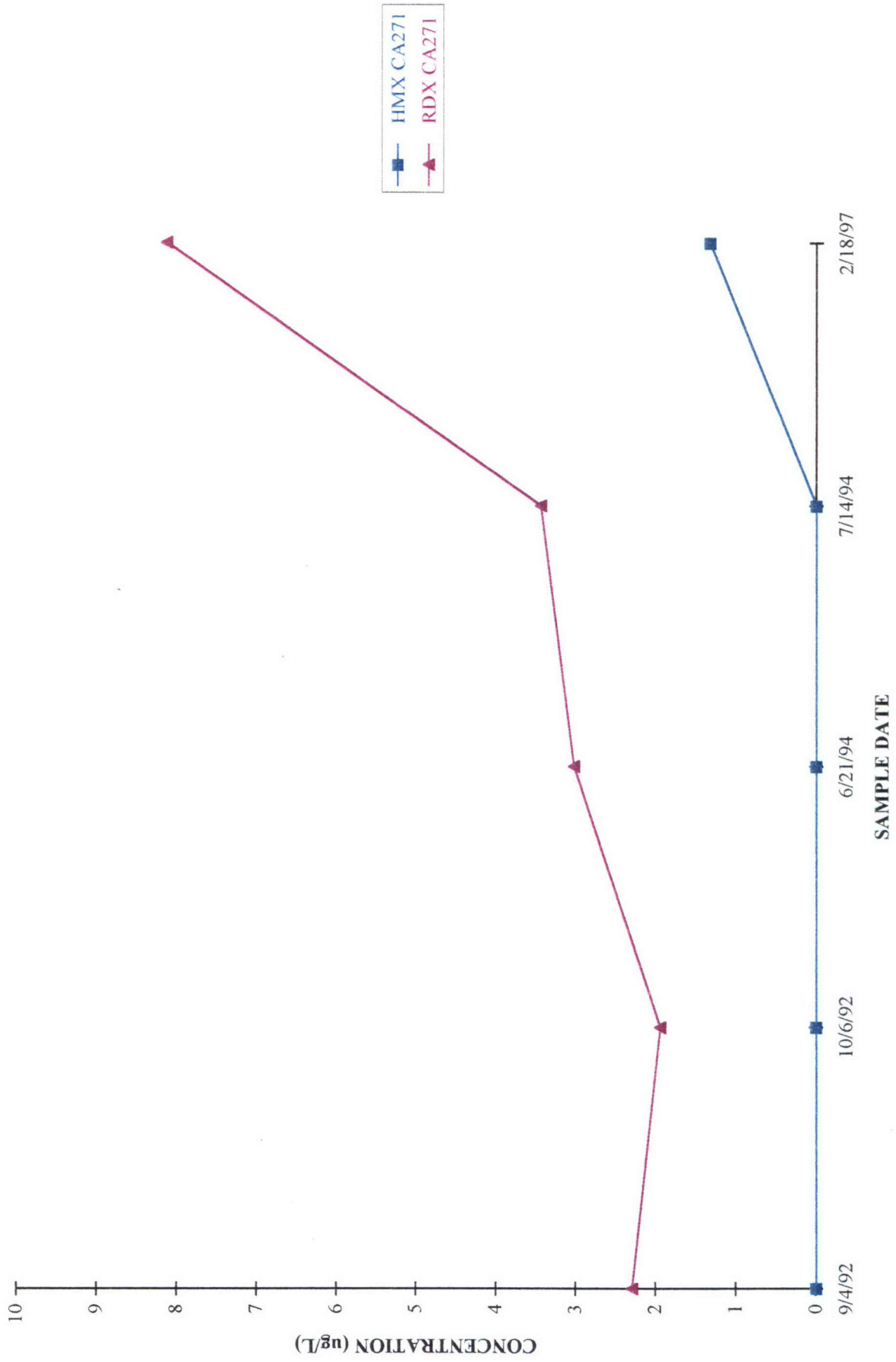
CORNHUSKER ARMY AMMUNITION PLANT WELL CA252 - HMX AND RDX



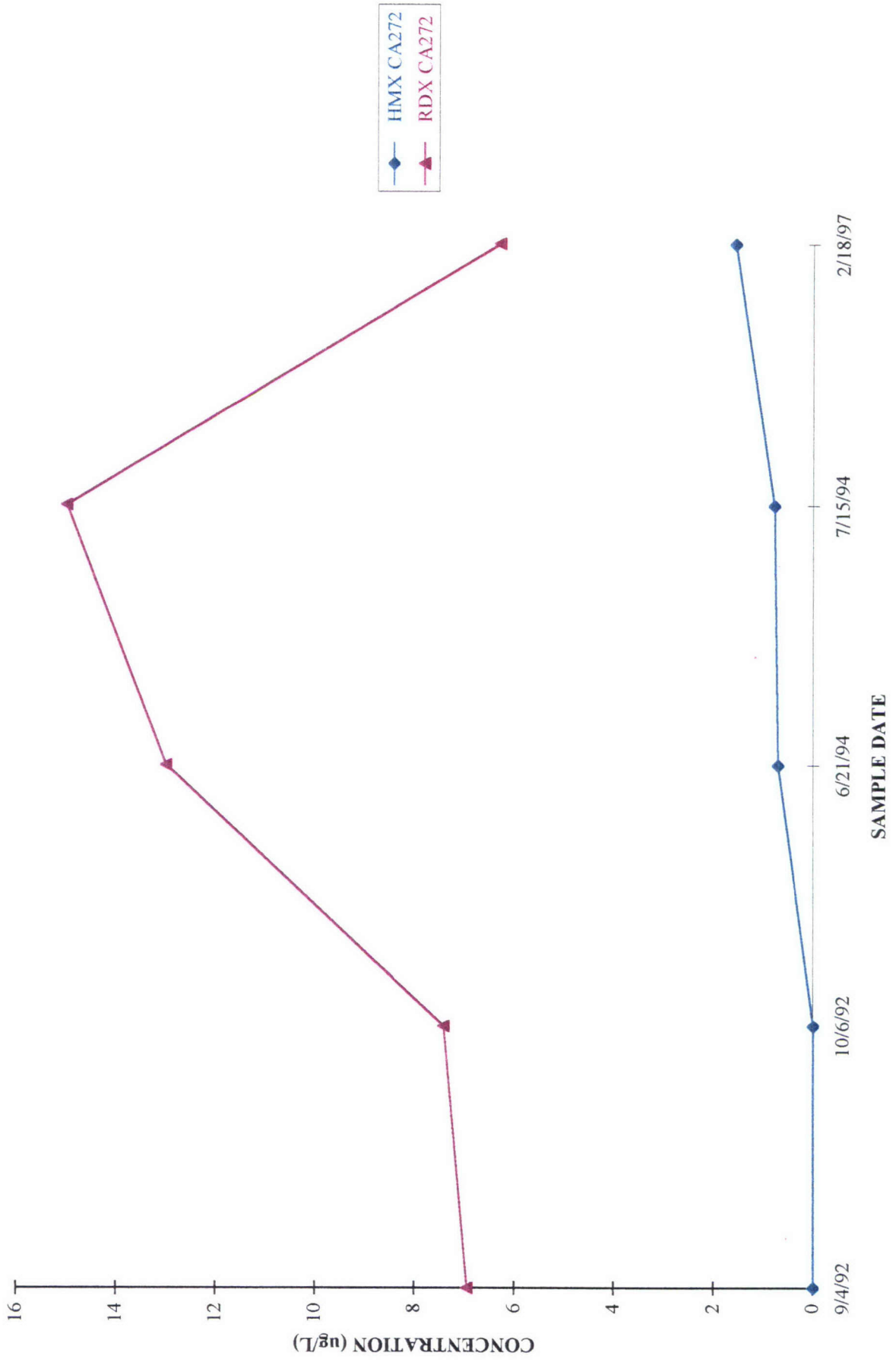
CORNHUSKER ARMY AMMUNITION PLANT WELL CA270 - RDX



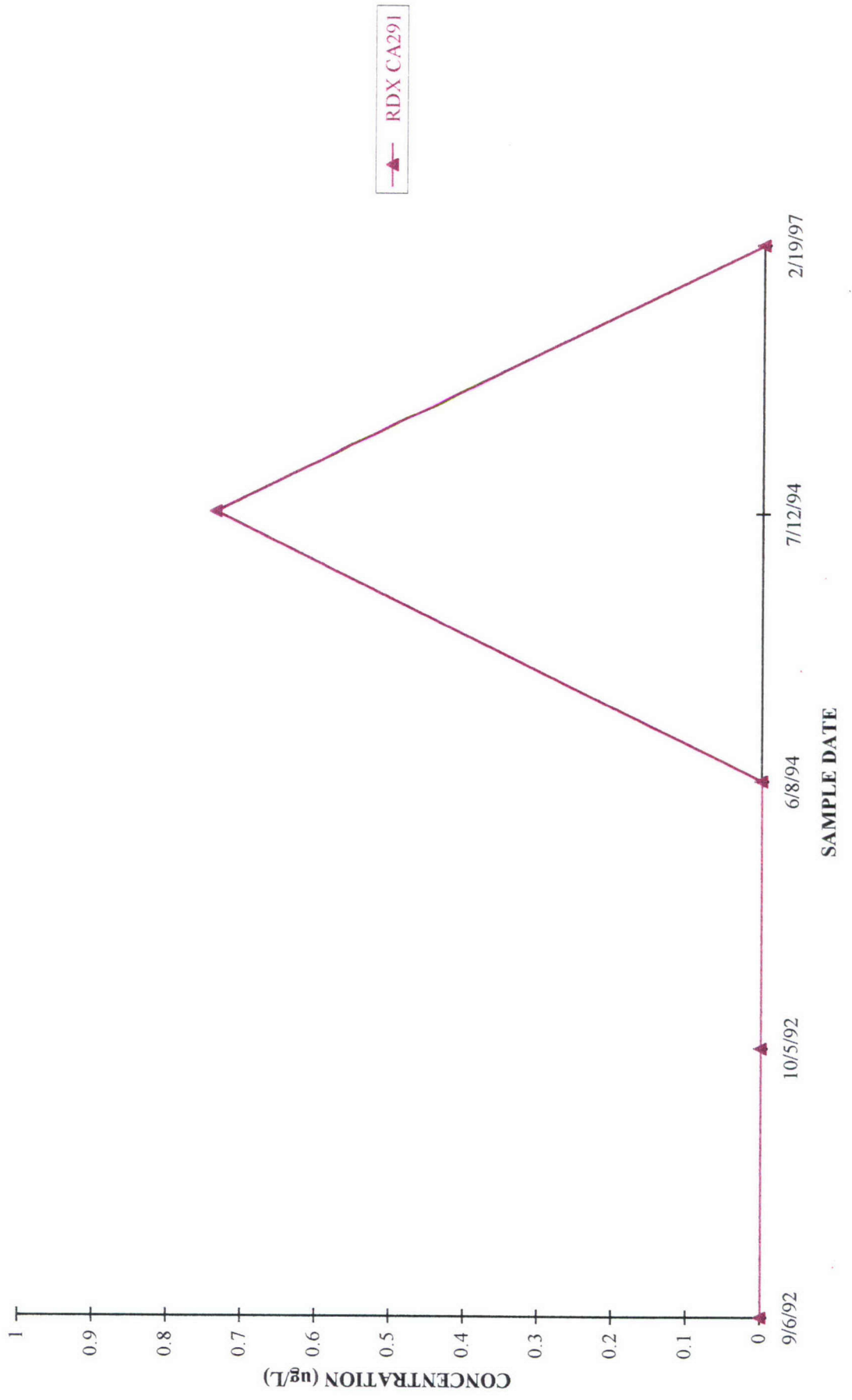
CORNHUSKER ARMY AMMUNITION PLANT WELL CA271 - HMX AND RDX



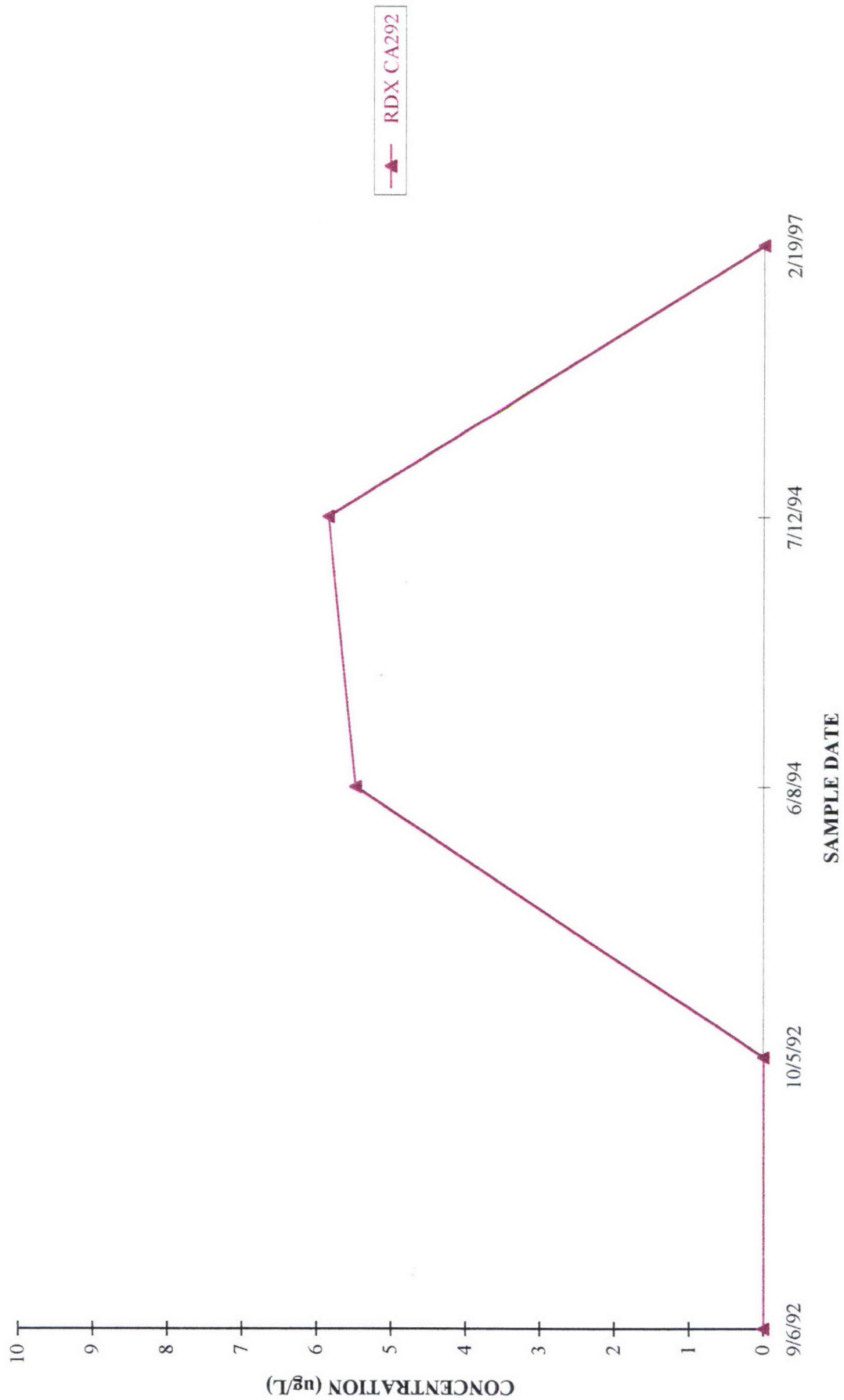
CORNHUSKER ARMY AMMUNITION PLANT WELL CA272 - HMX AND RDX



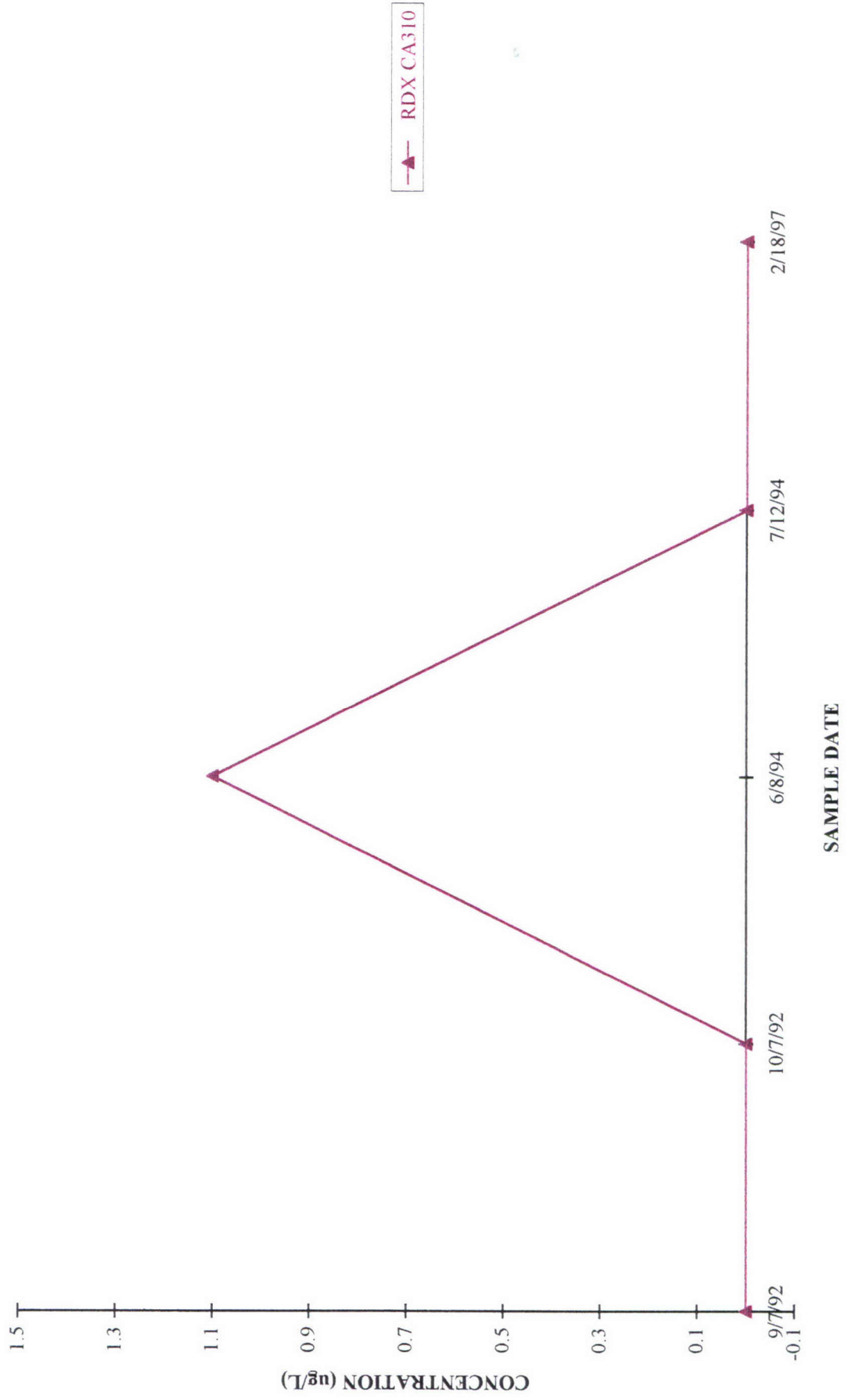
CORNHUSKER ARMY AMMUNITION PLANT WELL CA291 - RDX



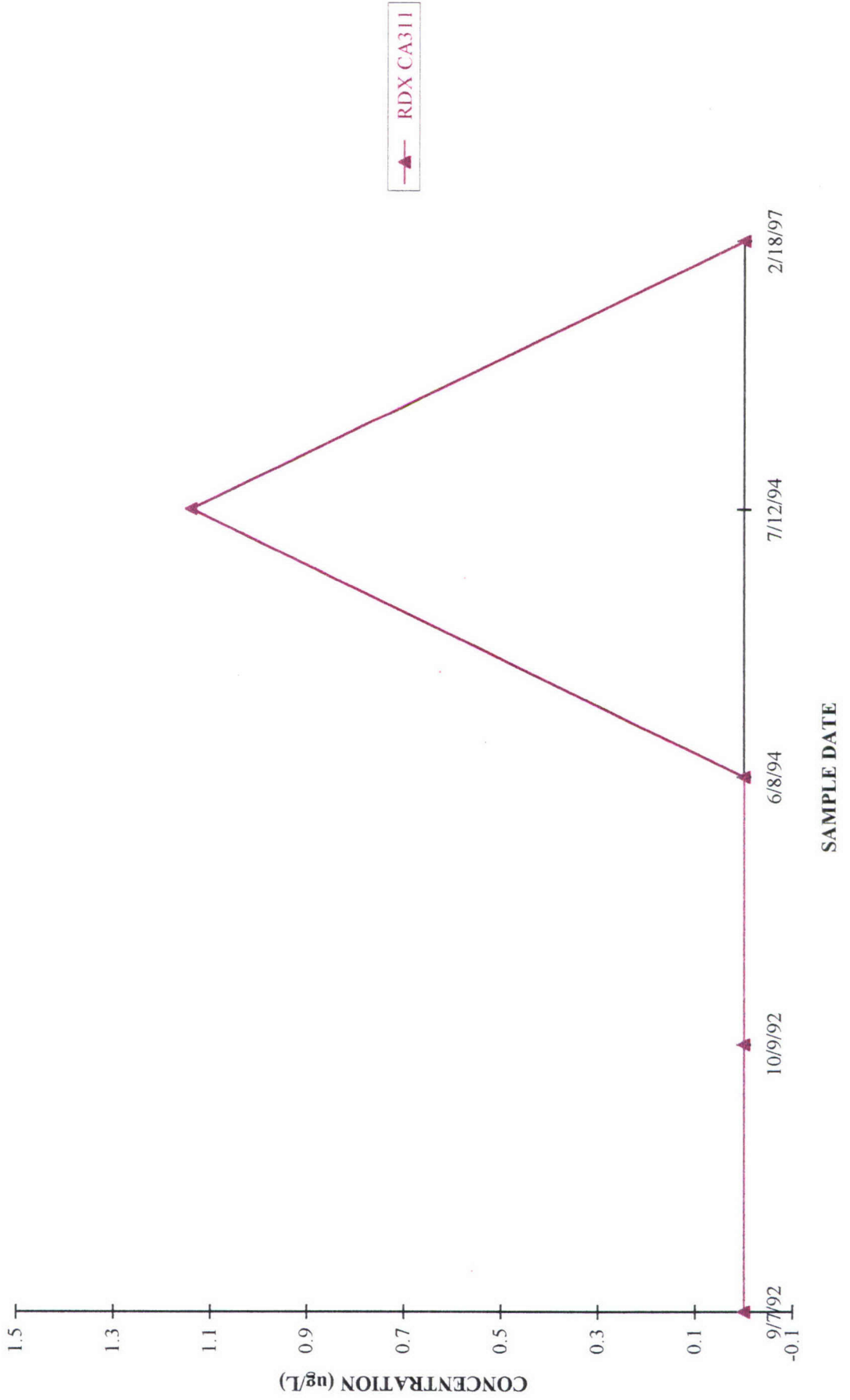
CORNHUSKER ARMY AMMUNITION PLANT WELL CA292 - RDX



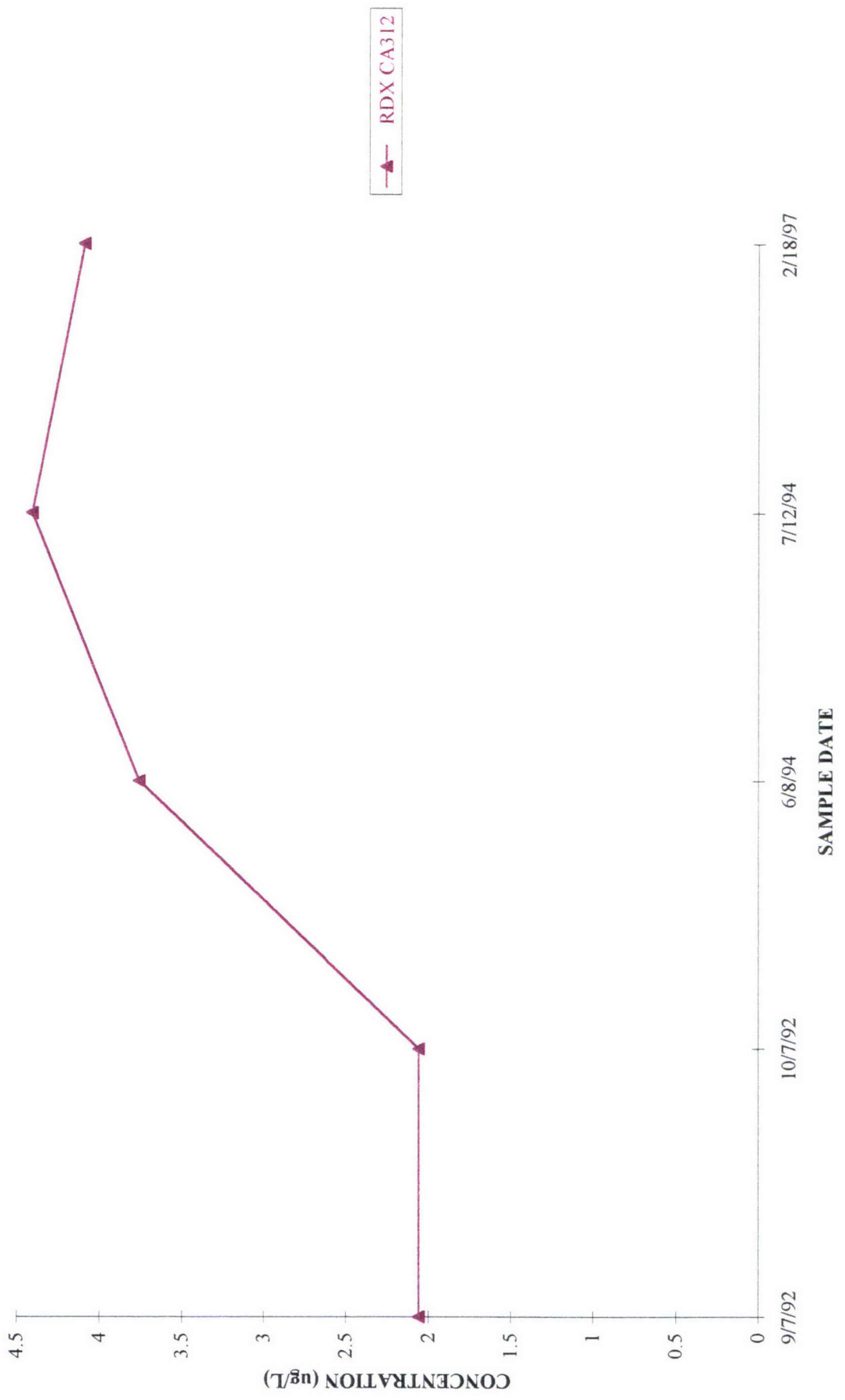
CORNHUSKER ARMY AMMUNITION PLANT WELL CA310 - RDX



CORNHUSKER ARMY AMMUNITION PLANT WELL CA311 - RDX



CORNHUSKER ARMY AMMUNITION PLANT WELL CA312 - RDX



CORNHUSKER ARMY AMMUNITION PLANT WELL CA342 - RDX



TABLE C-1

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW020

FIELD ID METHOD COLLECT DATE	NW020		NW020		NW020		NW020		NW020		NW020		
	Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	2.3	9/11	1.2	0.125	1.54	1.23	0.839	0.382					
1,3-Dinitrobenzene	-	0/10	<	0.989	<	0.549	<	0.611	<	0.458			
2,4,6-Trinitrotoluene	53	11/11	30	0.29	23	25	25.5	10.1					
2,4-Dinitrotoluene	2.4	5/11	0.78	0.233	0.311	<	0.106	<	<	4			
2,6-Dinitrotoluene	17.7	1/11	<	0.2	<	0.26	<	0.074	<	17.7			
2-Amino-4,6-Dinitrotoluene	13	5/8	13	0.173	12	<	0.954	<	<	9.9			
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA	NA			
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA	NA			
4-Amino-2,6-Dinitrotoluene	10.8	2/3	8	0.309	NA	10.8	NA	NA	NA	NA			
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA	NA			
HMX	9.9	7/7	4.8	0.16	9.54	7.63	6.74	5.97					
Nitrobenzene	-	0/7	<	0.231	<	0.817	<	0.645	<	0.682			
RDX	43	11/11	12	0.558	U	24	25.4	28					
Tetryl	-	0/5	<	0.253	<	1.18	<	NA	<	0.631			

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-1

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW020

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW020 D1 9/10/85		NW020 4/16/85		NW020 3/15/85		NW020 11/29/84	
			Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	2.3	9/11	<	1.4	2.3	<	1.2	<	0.1	<
1,3-Dinitrobenzene	-	0/10		NA	<	0.1	<	0.1	<	0.1
2,4,6-Trinitrotoluene	53	11/11	53		44		32		13	
2,4-Dinitrotoluene	2.4	5/11	<	0.56	2.4		1.5		<	0.1
2,6-Dinitrotoluene	17.7	1/11	<	1.2	<	0.1	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	13	5/8		NA		NA		NA		NA
2-Nitrotoluene	-	0/1		NA		NA		NA		NA
3-Nitrotoluene	-	0/1		NA		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	10.8	2/3		NA		NA		NA		NA
4-Nitrotoluene	-	0/1		NA		NA		NA		NA
HMX	9.9	7/7		NA		NA		NA		NA
Nitrobenzene	-	0/7		NA		NA		NA		NA
RDX	43	11/11	41.7		43		30		17	
Tetryl	-	0/5		NA		NA		NA		NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-2

CORNHUSKER ARMY AMMUNITION PLANT

WELL NW021

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW021		NW021		NW021		NW021		NW021		NW021	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (ug/L)														
1,3,5-Trinitrobenzene	2.5	6/12	0.41	0.125	0.436	0.673	<	0.549	<	0.449	<	0.21	<	0.458
1,3-Dinitrobenzene	-	0/11	<	0.989	<	<	0.549	<	0.611	<	<	0.458	<	0.458
2,4,6-Trinitrotoluene	27.4	12/12	3.8	0.29	3.09	3.04	<	3.82	<	1.6	<	0.397	<	0.397
2,4-Dinitrotoluene	2.5	8/12	0.24	0.233	<	0.345	<	0.34	<	<	<	3.18	<	3.18
2,6-Dinitrotoluene	2.78	1/12	<	0.2	<	<	0.26	<	0.0738	<	<	4.21	<	4.21
2-Amino-4,6-Dinitrotoluene	6.87	4/7	<	0.173	4.25	3.71	<	6.87	<	<	<	NA	<	NA
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	1.6	1/1	1.6	0.309	NA	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	<	NA	<	NA	<	NA	<	NA
HMX	10.2	7/7	<	0.16	5.36	4.26	<	10.2	<	4.07	<	1.29	<	1.29
Nitrobenzene	-	0/8	<	0.231	<	<	0.817	<	0.645	<	<	1.29	<	1.29
RDX	30	12/12	4.6	0.558 U	5.66	4.34	<	5.43	<	4.01	<	0.631	<	0.631
Tetryl	-	0/7	<	0.253	<	<	1.18	<	NA	<	<	0.631	<	0.631

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-2

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW021

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW021 9/10/85		NW021 4/16/85		NW021 3/15/85		NW021 11/29/84	
			Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	2.5	6/12	<	1.4	2.5	<	0.1	0.9	<	0.1
1,3-Dinitrobenzene	-	0/11		NA	<	0.1	<	<	<	0.1
2,4,6-Trinitrotoluene	27.4	12/12	27.4		19		10		11	
2,4-Dinitrotoluene	2.5	8/12	0.722		2.5		1.3		0.5	
2,6-Dinitrotoluene	2.78	1/12	<	1.2	<	0.1	<	<	<	0.1
2-Amino-4,6-Dinitrotoluene	6.87	4/7		NA		NA		NA		NA
2-Nitrotoluene	-	0/1		NA		NA		NA		NA
3-Nitrotoluene	-	0/1		NA		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	1.6	1/1		NA		NA		NA		NA
4-Nitrotoluene	-	0/1		NA		NA		NA		NA
HMX	10.2	7/7		NA		NA		NA		NA
Nitrobenzene	-	0/8		NA		NA		NA		NA
RDX	30	12/12	26		30		19		21	
Tetryl	-	0/7		NA		NA		NA		NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-3

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW022

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW022		NW022		NW022		NW022	
			Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/8	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.449
1,3-Dinitrobenzene	-	0/7	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.611
2,4,6-Trinitrotoluene	-	0/8	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.635
2,4-Dinitrotoluene	-	0/8	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.0637
2,6-Dinitrotoluene	-	0/8	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.0738
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.158
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/6	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 1.21
Nitrobenzene	-	0/6	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.645
RDX	-	0/7	< 0.558	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 1.17
Tetryl	1.77	1/5	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-3

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW022

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW022		NW022		NW022		NW022			
					UW33	UW25	D1	UW33	UW25	D1	UW33	UW25	D1	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/8	<	0.425	<	0.21	<	1.4	<	0.1	<	0.1	<	0.1
1,3-Dinitrobenzene	-	0/7	<	0.549	<	0.458	<	NA	<	0.1	<	0.1	<	0.1
2,4,6-Trinitrotoluene	-	0/8	<	0.451	<	0.426	<	1.9	<	0.1	<	0.1	<	0.1
2,4-Dinitrotoluene	-	0/8	<	0.26	<	0.397	<	0.56	<	0.1	<	0.1	<	0.1
2,6-Dinitrotoluene	-	0/8	<	0.26	<	0.6	<	1.2	<	0.1	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.5	<	0.8	<	NA	<	NA	<	NA	<	NA
2-Nitrotoluene	-	0/1	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/6	<	0.563	<	5.3	<	NA	<	NA	<	NA	<	NA
Nitrobenzene	-	0/6	<	0.817	<	0.682	<	NA	<	NA	<	NA	<	NA
RDX	-	0/7	<	0.412	<	NA	<	7	<	0.1	<	0.1	<	0.1
Tetryl	1.77	1/5	<	1.18	<	1.77	<	NA	<	NA	<	NA	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	G0024		G0024		G0024		G0024		G0024		Qual
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	1.3	3/24	1.3	0.125	0.597	0.513	<	0.449	<	0.21	<	0.458	G0024 UW25 5/29/91
1,3-Dinitrobenzene	-	0/14	<	0.989	<	<	<	0.611	<	0.458	<	0.458	
2,4,6-Trinitrotoluene	323	19/24	18	0.29	11	7.23	2.69		3.27				
2,4-Dinitrotoluene	0.26	1/24	0.26	0.233	<	<	<	0.0637	<	0.397	<	0.6	
2,6-Dinitrotoluene	-	0/24	<	0.2	<	<	<	0.0738	<	0.6	<	0.8	
2-Amino-4,6-Dinitrotoluene	6.5	4/6	6.5	0.173	5.6	5.41	1.72						
2-Nitrotoluene	-	0/1	<	0.319		NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	-	0/1	<	0.514		NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	12	2/3	12	0.309		<	0.704	NA	NA	NA	NA	NA	
4-Nitrotoluene	-	0/1	<	0.368		NA	NA	NA	NA	NA	NA	NA	
HMX	8.62	7/9	6.5	0.16	8.62	8.18	6.13						
Nitrobenzene	-	0/14	<	0.231	<	<	<	0.645	<	0.533	<	0.682	
RDX	180	21/24	21.1	0.558	U	32	20.3		0.985				
Tetryl	-	0/6	<	0.253	<	<	12	NA	<	0.631	<	0.631	

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-4

**CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024**

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	G0024		G0024		G0024		G0024		G0024			
					UW14	UW14	UW14	UW01	UW01	UW01	UW01	UW01	UW01	UW01	UW01	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene			1.3	3/24	<	0.626	<	0.626	<	0.56	<	0.56	<	0.56	<	0.56
1,3-Dinitrobenzene			-	0/14	<	0.519	<	0.519	<	0.61	<	0.61	<	0.61	<	0.61
2,4,6-Trinitrotoluene			323	19/24	<	0.588	4.69	10.3	<	0.6	<	0.6	9.82	<	0.6	0.78
2,4-Dinitrotoluene			0.26	1/24	<	0.612	<	0.612	<	0.6	<	0.6	<	0.6	<	0.6
2,6-Dinitrotoluene			-	0/24	<	1.15	<	1.15	<	0.55	<	0.55	<	0.55	<	0.55
2-Amino-4,6-Dinitrotoluene			6.5	4/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene			12	2/3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX			8.62	7/9	<	1.65	1.78	5.19	<	1.13	<	1.13	2.66	<	1.13	NA
Nitrobenzene			-	0/14	<	1.07	<	1.07	<	1.13	<	1.13	<	1.13	<	1.36
RDX			180	21/24	<	2.11	11.9	37.8	<	18	<	18	<	18	<	1.36
Tetryl			-	0/6	<	0.556	<	0.556	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	G0024 UW01 1/25/88		G0024 UW01 4/15/87		G0024 UW01 9/24/86		G0024 DI 3/12/86		G0024 DI 12/11/85	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	1.3	3/24	<	0.56	<	0.56	<	0.56	<	1.4	<	1.4
1,3-Dinitrobenzene	-	0/14		NA		NA		NA		NA		NA
2,4,6-Trinitrotoluene	323	19/24	27		<	0.78	13.5		19.6		14	
2,4-Dinitrotoluene	0.26	1/24	<	0.6	<	0.6	<	0.6	<	0.56	<	0.56
2,6-Dinitrotoluene	-	0/24	<	0.55	<	0.55	<	0.55	<	1.2	<	1.2
2-Amino-4,6-Dinitrotoluene	6.5	4/6		NA		NA		NA		NA		NA
2-Nitrotoluene	-	0/1		NA		NA		NA		NA		NA
3-Nitrotoluene	-	0/1		NA		NA		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	12	2/3		NA		NA		NA		NA		NA
4-Nitrotoluene	-	0/1		NA		NA		NA		NA		NA
HMX	8.62	7/9		NA		NA		NA		NA		NA
Nitrobenzene	-	0/14		NA		NA		NA		NA		NA
RDX	180	21/24	34.7		0.89		16.9		50		48.6	
Tetryl	-	0/6		NA		NA		NA		NA		NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	G0024		G0024		G0024		G0024		G0024			
					D1	3S	D1	3S	D1	3S	D1	3S				
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
	1,3,5-Trinitrobenzene		1.3	3/24	<	1.4	<	1.4	NA	<	1.4	NA	<	1.4	NA	NA
	1,3-Dinitrobenzene		-	0/14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,6-Trinitrotoluene		323	19/24	5.01	15	<	13.1	NA	<	13.1	NA	<	13.1	NA	NA
	2,4-Dinitrotoluene		0.26	1/24	<	0.56	<	0.6	NA	<	0.6	NA	<	0.6	NA	NA
	2,6-Dinitrotoluene		-	0/24	<	1.2	<	1.2	NA	<	1.2	NA	<	1.2	NA	NA
	2-Amino-4,6-Dinitrotoluene		6.5	4/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		12	2/3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	HMX		8.62	7/9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrobenzene		-	0/14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	RDX		180	21/24	14.1	41.2	<	9	NA	<	9	NA	<	9	NA	80.1
	Tetryl		-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	G0024 D1 9/19/84		G0024 3S 6/15/84		G0024 6N 6/15/84		G0024 3S 2/10/84		G0024 6N 2/10/84	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	1.3	3/24	<	0.5	NA	<	1.08	<	1.08	NA	<	1.08
1,3-Dinitrobenzene	-	0/14	<	NA	NA	<	1.24	<	1.24	NA	<	1.24
2,4,6-Trinitrotoluene	323	19/24	<	0.9	NA	<	1.08	<	1.08	NA	<	2.1
2,4-Dinitrotoluene	0.26	1/24	<	0.6	NA	<	0.62	<	0.62	NA	<	0.62
2,6-Dinitrotoluene	-	0/24	<	0.6	NA	<	1.58	<	1.58	NA	<	1.58
2-Amino-4,6-Dinitrotoluene	6.5	4/6		NA	NA		NA		NA	NA		NA
2-Nitrotoluene	-	0/1		NA	NA		NA		NA	NA		NA
3-Nitrotoluene	-	0/1		NA	NA		NA		NA	NA		NA
4-Amino-2,6-Dinitrotoluene	12	2/3		NA	NA		NA		NA	NA		NA
4-Nitrotoluene	-	0/1		NA	NA		NA		NA	NA		NA
HMX	8.62	7/9		NA	NA		NA		NA	NA		NA
Nitrobenzene	-	0/14		NA	NA	<	1.36	<	1.36	NA	<	1.36
RDX	180	21/24		NA	54.8		NA		NA	<	10	NA
Tetryl	-	0/6		NA	NA		NA		NA	NA		NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-4

CORNHUSKER ARMY AMMUNITION PLANT
WELL G0024

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	G0024		G0024		G0024		G0024		G0024	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene			1.3	3/24	NA	<	3.5	NA	<	1.9	NA	<	1.9	NA
1,3-Dinitrobenzene			-	0/14	NA	<	3.9	NA	<	2.2	NA	<	2.2	NA
2,4,6-Trinitrotoluene			323	19/24	NA	11.7		NA	16			323		
2,4-Dinitrotoluene			0.26	1/24	NA	<	1.9	NA	<	0.9	NA	<	0.9	NA
2,6-Dinitrotoluene			-	0/24	NA	<	4.2	NA	<	0.68	NA	<	0.68	NA
2-Amino-4,6-Dinitrotoluene			6.5	4/6	NA		NA	NA		NA		NA		NA
2-Nitrotoluene			-	0/1	NA		NA	NA		NA		NA		NA
3-Nitrotoluene			-	0/1	NA		NA	NA		NA		NA		NA
4-Amino-2,6-Dinitrotoluene			12	2/3	NA		NA	NA		NA		NA		NA
4-Nitrotoluene			-	0/1	NA		NA	NA		NA		NA		NA
HMX			8.62	7/9	NA		NA	NA		NA		NA		NA
Nitrobenzene			-	0/14	NA	<	4.8	NA	<	2.1	NA	<	2.1	NA
RDX			180	21/24	171		NA	180		NA		150		NA
Tetryl			-	0/6	NA		NA	NA		NA		NA		NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-5

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW030

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW030		NW030		NW030		NW030		NW030			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.21	<	0.1
1,3-Dinitrobenzene	0.739	1/6	<	0.989	<	0.549	0.739	<	0.611	<	0.611	<	0.458	<	0.1	
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.635	<	0.426	<	0.635	<	0.426	<	0.1
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.064	<	0.397	<	0.064	<	0.397	<	0.1
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.074	<	0.6	<	0.074	<	0.6	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.158	<	0.8	<	0.158	<	0.8	NA	NA
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	<	5.3	<	NA
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.645	<	0.682	<	0.645	<	0.682	<	NA
RDX	1.03	3/6	<	0.558	1.03	1.01	<	1.17	<	0.6	<	1.17	<	0.416	<	0.6
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	0.631	<	1.18	<	0.631	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-6

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW031

FIELD ID	METHOD	Collect Date	Maximum Hit	Frequency	NW031		NW031		NW031		NW031		
					UW51	UW33	UW33	UW33	UW33	UW33			
					2/17/97	7/15/94	7/15/94	6/13/94	8/25/92	Result	RL	Qual	
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene			0.7	1/9	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	<	0.425	<	0.449
1,3-Dinitrobenzene			-	0/9	< 0.989	< 0.549	< 0.549	< 0.549	< 0.611	<	0.549	<	0.611
2,4,6-Trinitrotoluene			-	0/9	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	<	0.451	<	0.635
2,4-Dinitrotoluene			-	0/9	< 0.233	< 0.26	< 0.26	< 0.26	< 0.064	<	0.26	<	0.064
2,6-Dinitrotoluene			-	0/9	< 0.2	< 0.26	< 0.26	< 0.26	< 0.074	<	0.26	<	0.074
2-Amino-4,6-Dinitrotoluene			-	0/8	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	<	0.244	<	0.158
2-Nitrotoluene			-	0/1	< 0.319	NA	NA	NA	NA	<	NA	<	NA
3-Nitrotoluene			-	0/1	< 0.514	NA	NA	NA	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	< 0.309	NA	NA	NA	NA	<	NA	<	NA
4-Nitrotoluene			-	0/1	< 0.368	NA	NA	NA	NA	<	NA	<	NA
HMX			-	0/8	< 0.16	< 0.563	< 0.563	< 0.563	< 1.21	<	0.563	<	1.21
Nitrobenzene			-	0/8	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	<	0.817	<	0.645
RDX			0.4	1/7	< 0.558	< 0.412	< 0.412	< 0.412	< 1.17	<	0.412	<	1.17
Tetryl			1.15	1/7	< 0.253	< 1.18	< 1.18	< 1.18	< NA	<	1.18	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-6

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW031

FIELD ID	NW031		NW031		NW031		NW031	
	METHOD	Frequency	Maximum Hit	Result	Qual	Result	Qual	Result
COLLECT DATE				7/25/91		6/2/91		11/29/84
EXPLOSIVES (µg/L)								
1,3,5-Trinitrobenzene	1/9	0.7	<	0.425	<	0.21	<	0.1
1,3-Dinitrobenzene	0/9	-	<	0.549	<	0.458	<	0.1
2,4,6-Trinitrotoluene	0/9	-	<	0.451	<	0.426	<	0.1
2,4-Dinitrotoluene	0/9	-	<	0.26	<	0.397	<	0.1
2,6-Dinitrotoluene	0/9	-	<	0.26	<	0.6	<	0.1
2-Amino-4,6-Dinitrotoluene	0/8	-	<	0.5	<	0.8	<	NA
2-Nitrotoluene	0/1	-		NA		NA		NA
3-Nitrotoluene	0/1	-		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	0/1	-		NA		NA		NA
4-Nitrotoluene	0/1	-		NA		NA		NA
HMX	0/8	-	<	0.563	<	5.3	<	NA
Nitrobenzene	0/8	-	<	0.817	<	0.682	<	NA
RDX	1/7	0.4	<	0.412	<	NA	0.4	NA
Tetryl	1/7	1.15	<	1.18	<	1.15		NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-7

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW032

FIELD ID	NW032		NW032		NW032		NW032		NW032		NW032					
	METHOD	Frequency	Maximum Hit	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual				
COLLECT DATE				2/17/97	UW51	7/15/94	UW33	6/13/94	UW32	8/25/92	UW25	6/2/91	UW32	11/29/84	NW032	99
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	-	0/6	-	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449	< 0.21	< 0.21	< 0.458	< 0.458	< 0.1	< 0.1
1,3-Dinitrobenzene	-	0/6	-	< 0.989	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611	< 0.458	< 0.458	< 0.458	< 0.458	< 0.1	< 0.1	
2,4,6-Trinitrotoluene	-	0/6	-	< 0.29	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635	< 0.426	< 0.426	< 0.426	< 0.426	< 0.1	< 0.1	
2,4-Dinitrotoluene	-	0/6	-	< 0.233	< 0.26	< 0.26	< 0.26	< 0.0637	< 0.0637	< 0.397	< 0.397	< 0.397	< 0.397	< 0.1	< 0.1	
2,6-Dinitrotoluene	-	0/6	-	< 0.2	< 0.26	< 0.26	< 0.26	< 0.0738	< 0.0738	< 0.6	< 0.6	< 0.6	< 0.6	< 0.1	< 0.1	
2-Amino-4,6-Dinitrotoluene	-	0/5	-	< 0.173	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158	< 0.8	< 0.8	< 0.8	< 0.8	NA	NA	
2-Nitrotoluene	-	0/1	-	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	-	0/1	-	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	-	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Nitrotoluene	-	0/1	-	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HMX	-	0/5	-	< 0.16	< 0.563	< 0.563	< 0.563	< 1.21	< 1.21	< 5.3	< 5.3	< 5.3	< 5.3	NA	NA	
Nitrobenzene	-	0/5	-	< 0.231	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645	< 0.682	< 0.682	< 0.682	< 0.682	NA	NA	
RDX	-	0/6	-	< 0.558	< 0.412	< 0.412	< 0.412	< 1.17	< 1.17	< 0.416	< 0.416	< 0.416	< 0.416	< 0.1	< 0.1	
Tetryl	-	0/4	-	< 0.253	< 1.18	< 1.18	< 1.18	NA	NA	< 3.56	< 3.56	< 3.56	< 3.56	NA	NA	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-8

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW040

FIELD ID	NW040		NW040		NW040		NW040		NW040		NW040	
	Method	Frequency	Maximum Hit	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	0/6		-	< 0.125	< 0.425	<	0.425	<	0.449	<	0.21	< 0.1
1,3-Dinitrobenzene	0/6		-	< 0.989	< 0.549	<	0.549	<	0.611	<	0.458	< 0.1
2,4,6-Trinitrotoluene	0/6		-	< 0.29	< 0.451	<	0.451	<	0.635	<	0.426	< 0.1
2,4-Dinitrotoluene	0/6		-	< 0.233	< 0.26	<	0.26	<	0.064	<	0.397	< 0.1
2,6-Dinitrotoluene	0/6		-	< 0.2	< 0.26	<	0.26	<	0.074	<	0.6	< 0.1
2-Amino-4,6-Dinitrotoluene	0/5		-	< 0.173	< 0.244	<	0.244	<	0.158	<	0.8	NA
2-Nitrotoluene	0/1		-	< 0.319	NA	<	NA	<	NA	<	NA	NA
3-Nitrotoluene	0/1		-	< 0.514	NA	<	NA	<	NA	<	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1		-	< 0.309	NA	<	NA	<	NA	<	NA	NA
4-Nitrotoluene	0/1		-	< 0.368	NA	<	NA	<	NA	<	NA	NA
HMX	0/5		-	< 0.16	< 0.563	<	0.563	<	1.21	<	0.533	NA
Nitrobenzene	0/5		-	< 0.231	< 0.817	<	0.817	<	0.645	<	0.682	NA
RDX	1/6		0.2	< 0.558	< 0.412	<	0.412	<	1.17	<	0.416	0.2
Tetryl	1/4		0.753	< 0.253	< 1.18	<	1.18	<	NA	<	0.753	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-9

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW041

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW041		NW041		NW041		NW041		NW041	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21	<	0.1
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.549	<	0.611	<	0.458	<	0.1
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.1
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<	0.1
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	NA
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	0.533	<	NA
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	<	NA
RDX	0.676	3/6	<	0.558	0.62	0.676	<	0.676	<	1.17	<	0.416	0.4	NA
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	NA	<	0.631	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-10

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW050

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW050		NW050		NW050		NW050		NW050		NW050				
			UW51	UW33	UW33	UW33	UW32	UW25	3S	UW51	UW33	UW33	UW32	UW25	3S		
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																	
1,3,5-Trinitrobenzene	-	0/7	< 0.125	< 0.425	<	0.425	NA	<	0.449	<	0.21	NA	<	0.1	<	0.1	NA
1,3-Dinitrobenzene	-	0/7	< 0.989	< 0.549	<	0.549	NA	<	0.611	<	0.458	NA	<	0.1	<	0.1	NA
2,4,6-Trinitrotoluene	-	0/7	< 0.29	< 0.451	<	0.451	NA	<	0.635	<	0.426	NA	<	0.1	<	0.1	NA
2,4-Dinitrotoluene	-	0/7	< 0.233	< 0.26	<	0.26	NA	<	0.064	<	0.397	NA	<	0.1	<	0.1	NA
2,6-Dinitrotoluene	-	0/7	< 0.2	< 0.26	<	0.26	NA	<	0.074	<	0.6	NA	<	0.1	<	0.1	NA
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	<	0.244	NA	<	0.158	<	0.8	NA	<	0.1	<	0.1	NA
2-Nitrotoluene	-	0/1	< 0.319	NA	<	NA	NA	<	NA	<	NA	NA	<	NA	<	NA	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	<	NA	NA	<	NA	<	NA	NA	<	NA	<	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	<	NA	NA	<	NA	<	NA	NA	<	NA	<	NA	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	<	NA	NA	<	NA	<	NA	NA	<	NA	<	NA	NA
HMX	-	0/6	< 0.16	< 0.563	<	0.563	NA	<	1.21	<	5.3	NA	<	NA	<	NA	NA
Nitrobenzene	-	0/6	< 0.231	< 0.817	<	0.817	NA	<	0.645	<	0.682	NA	<	NA	<	NA	NA
RDX	1.96	3/8	< 0.558	< 0.412	<	0.412	NA	<	1.17	<	1.37	NA	<	8.61	<	1.8	NA
Tetryl	-	0/5	< 0.253	< 1.18	<	1.18	NA	<	NA	<	0.631	NA	<	NA	<	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USABC Method UW51

TABLE C-11

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW051

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW051		NW051		NW051		NW051		NW051			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
	1,3,5-Trinitrobenzene		-	0/7	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.21
	1,3-Dinitrobenzene		-	0/7	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.458
	2,4,6-Trinitrotoluene		-	0/7	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.426
	2,4-Dinitrotoluene		-	0/7	<	0.233	<	0.26	<	0.26	<	0.26	<	0.0637	<	0.397
	2,6-Dinitrotoluene		-	0/7	<	0.2	<	0.26	<	0.26	<	0.26	<	0.0738	<	0.6
	2-Amino-4,6-Dinitrotoluene		-	0/5	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.8
	2-Nitrotoluene		-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
	3-Nitrotoluene		-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
	4-Amino-2,6-Dinitrotoluene		-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
	4-Nitrotoluene		-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
	HMX		5.53	4/5	1.9	0.16	2.49	2.85	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.3
	Nitrobenzene		-	0/5	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.682
	RDX		42.2	9/9	4.12	0.558	3.49	3.59	2.48	2.48	2.48	2.48	2.48	2.48	2.48	0.618
	Tetryl		-	0/4	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	0.631

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-11

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW051

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW051		NW051		NW051		NW051		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<	0.1	<	0.1
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<	0.1	<	0.1
2,4,6-Trinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<	0.1	<	0.1
2,4-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<	0.1	<	0.1
2,6-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	<	0.1	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	5.53	4/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	42.2	9/9	42.2	36	20	29	NA	NA	NA	NA	NA	NA	NA
Tetryl	-	0/4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-12

**CORNHUSKER ARMY AMMUNITION PLANT
WELL NW052**

FIELD ID	NW052		NW052		NW052		NW052		NW052		NW052		NW052			
	UW51	UW33	UW33	UW33	UW32	UW32	UW25	3S	UW32	UW32	UW32	3S	UW32	UW32		
METHOD	12/9/96	7/16/94	6/11/94	8/31/92	6/3/91	9/10/85	11/29/84	RL	Qual	Result	RL	Qual	Result	RL	Qual	
COLLECT DATE	Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	0.289	1/7	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21	NA	<	0.1	NA
1,3-Dinitrobenzene	0.33	1/6	<	0.989	<	0.549	<	0.549	<	NA	<	0.458	NA	<	0.1	NA
2,4,6-Trinitrotoluene	1.48	1/7	<	0.29	<	0.451	<	0.451	<	0.635	1.48	<	NA	<	0.1	NA
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	NA	<	0.1	NA
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	NA	<	0.1	NA
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	NA	<	NA	NA
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	NA	<	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	NA	<	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	NA	<	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	NA	<	NA	NA
HMX	-	0/6	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3	NA	<	NA	NA
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	NA	<	NA	NA
RDX	-	0/8	<	0.558	<	0.412	<	0.412	<	1.17	<	0.416	NA	<	0.1	NA
Tetryl	-	0/5	<	0.253	<	1.18	<	1.18	<	NA	<	1.33	NA	<	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-13

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW060

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW060		NW060		NW060		NW060		NW060		NW060	
			UW51 12/9/96	UW33 7/15/94	UW33 6/12/94	UW32 8/22/92	UW25 5/30/91	UW25 5/30/91	UW32 8/22/92	UW32 8/22/92	UW32 8/22/92	UW32 8/22/92	UW32 8/22/92	UW32 8/22/92
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/6	< 0.125	< 0.425	<	< 0.425	<	<	< 0.449	<	<	< 0.21	<	< 0.1
1,3-Dinitrobenzene	-	0/6	< 0.989	< 0.549	<	< 0.549	<	<	< 0.611	<	<	< 0.458	<	< 0.1
2,4,6-Trinitrotoluene	-	0/6	< 0.29	< 0.451	<	< 0.451	<	<	< 0.635	<	<	< 0.426	<	< 0.1
2,4-Dinitrotoluene	-	0/6	< 0.233	< 0.26	<	< 0.26	<	<	< 0.0637	<	<	< 0.397	<	< 0.1
2,6-Dinitrotoluene	-	0/6	< 0.2	< 0.26	<	< 0.26	<	<	< 0.0738	<	<	< 0.6	<	< 0.1
2-Amino-4,6-Dinitrotoluene	-	0/5	< 0.173	< 0.244	<	< 0.244	<	<	< 0.158	<	<	< 0.8	<	NA
2-Nitrotoluene	-	0/1	< 0.319	NA	<	NA	<	NA	NA	<	NA	NA	<	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	<	NA	<	NA	NA	<	NA	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	<	NA	<	NA	NA	<	NA	NA	<	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	<	NA	<	NA	NA	<	NA	NA	<	NA
HMX	-	0/5	< 0.16	< 0.563	<	< 0.563	<	<	< 1.21	<	<	< 0.533	<	NA
Nitrobenzene	-	0/5	< 0.231	< 0.817	<	< 0.817	<	<	< 0.645	<	<	< 0.682	<	NA
RDX	-	0/6	< 0.558	< 0.412	<	< 0.412	<	<	< 1.17	<	<	< 0.416	<	0.1
Tetryl	-	0/4	< 0.253	< 1.18	<	< 1.18	<	<	NA	<	<	< 0.631	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-14

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW061

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW061		NW061		NW061		NW061		NW061	
			UW51 12/9/96	UW33 7/15/94	UW33 6/12/94	UW32 8/22/92	UW25 5/30/91	UW32 8/22/92	UW25 5/30/91	UW32 8/22/92	UW25 5/30/91	UW32 8/22/92
EXPLOSIVES (µg/L)	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
1,3,5-Trinitrobenzene	<	0.125	<	0.425	<	0.425	<	0.425	<	0.21	<	0.1
1,3-Dinitrobenzene	<	0.989	<	0.549	<	0.753	<	0.611	<	0.458	<	0.1
2,4,6-Trinitrotoluene	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.1
2,4-Dinitrotoluene	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<	0.1
2,6-Dinitrotoluene	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<	0.1
2-Amino-4,6-Dinitrotoluene	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	NA
2-Nitrotoluene	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3	<	NA
Nitrobenzene	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	<	NA
RDX	0.4	0.558	<	0.412	<	0.412	<	1.17	<	4.2	<	0.4
Tetryl	<	0.253	<	1.18	<	1.18	<	NA	<	0.631	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-15

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW062

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW062		NW062		NW062		NW062		NW062			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene			-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	2.1	<	0.1
1,3-Dinitrobenzene			0.564	1/6	<	0.989	0.564	<	<	0.549	<	0.611	<	4.6	<	0.1
2,4,6-Trinitrotoluene			-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.1
2,4-Dinitrotoluene			-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<	0.1
2,6-Dinitrotoluene			-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<	0.1
2-Amino-4,6-Dinitrotoluene			-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	NA
2-Nitrotoluene			-	0/1	<	0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene			-	0/1	<	0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene			-	0/1	<	0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX			-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	5.3	<	NA
Nitrobenzene			-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	6.8	<	NA
RDX			-	0/6	<	0.558	<	0.412	<	0.412	<	1.17	<	4.2	<	0.1
Tetryl			1.34	1/4	<	0.253	<	1.18	<	1.18	<	NA	1.34	4.2	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-16

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW070

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW070		NW070		NW070		NW070		NW070	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene			-	0/8	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	< 0.21	< 0.626			
1,3-Dinitrobenzene			-	0/8	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458	< 0.519				
2,4,6-Trinitrotoluene			-	0/8	< 0.29	< 0.451	< 0.451	< 0.635	< 0.426	< 0.588				
2,4-Dinitrotoluene			-	0/8	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397	< 0.612				
2,6-Dinitrotoluene			-	0/8	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6	< 1.15				
2-Amino-4,6-Dinitrotoluene			-	0/4	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8	< NA				
2-Nitrotoluene			-	0/1	< 0.319	NA	NA	NA	NA	NA				
3-Nitrotoluene			-	0/1	< 0.514	NA	NA	NA	NA	NA				
4-Amino-2,6-Dinitrotoluene			-	0/1	< 0.309	NA	NA	NA	NA	NA				
4-Nitrotoluene			-	0/1	< 0.368	NA	NA	NA	NA	NA				
HMX			-	0/7	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3	< 1.65				
Nitrobenzene			-	0/7	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682	< 1.07				
RDX			1.4	1/8	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416	< 2.11				
Tetryl			-	0/5	< 0.253	< 1.18	< 1.18	NA	< 0.631	< 0.556				

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-16

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW070

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW070		NW070		NW070		
					UW14	UW01	UW14	UW01	UW14	UW01	
					4/24/90	5/15/89	11/29/84	RL	Qual	RL	Qual
EXPLOSIVES (µg/L)											
1,3,5-Trinitrobenzene	-	0/8	<	0.626	<	0.56	<	0.1	<	0.1	<
1,3-Dinitrobenzene	-	0/8	<	0.519	<	0.61	<	0.1	<	0.1	<
2,4,6-Trinitrotoluene	-	0/8	<	0.588	<	0.78	<	0.1	<	0.1	<
2,4-Dinitrotoluene	-	0/8	<	0.612	<	0.6	<	0.1	<	0.1	<
2,6-Dinitrotoluene	-	0/8	<	1.15	<	0.55	<	0.1	<	0.1	<
2-Amino-4,6-Dinitrotoluene	-	0/4	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/7	<	1.65	<	1.3	<	NA	<	1.3	<
Nitrobenzene	-	0/7	<	1.07	<	1.13	<	NA	<	1.13	<
RDX	1.4	1/8	<	2.11	1.4		<	0.1	<	0.1	<
Tetryl	-	0/5	<	0.556	NA		<	NA	<	NA	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-17

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW071

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW071		NW071		NW071		NW071		NW071		NW071	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	-	0/10	<	0.125	<	0.425	<	0.425	<	0.449	<	0.425	<	0.425	<	0.21
1,3-Dinitrobenzene	-	0/10	<	0.989	<	0.549	<	0.549	<	0.611	<	0.549	<	0.549	<	0.46
2,4,6-Trinitrotoluene	-	0/10	<	0.29	<	0.451	<	0.451	<	0.635	<	0.451	<	0.451	<	0.43
2,4-Dinitrotoluene	-	0/10	<	0.233	<	0.26	<	0.26	<	0.064	<	0.26	<	0.26	<	0.4
2,6-Dinitrotoluene	2.28	1/10	<	0.2	<	0.26	<	0.26	<	0.074	<	0.26	<	0.26	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.244	<	0.5	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/8	<	0.16	<	0.563	<	0.563	<	1.21	<	0.563	<	0.563	<	5.3
Nitrobenzene	-	0/8	<	0.231	<	0.817	<	0.817	<	0.645	<	0.817	<	0.817	<	0.68
RDX	2.6	3/9	<	0.558	<	0.412	<	0.412	<	1.17	<	0.412	<	0.412	<	NA
Tetryl	0.849	1/6	<	0.253	<	1.18	<	1.18	<	NA	<	1.18	<	1.18	<	0.85

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-17

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW071

FIELD ID	NW071		NW071		NW071		NW071		NW071		NW071		
	METHOD	Frequency	Maximum Hit	UW14	UW14	UW01	UW01	UW01	UW01	UW01	UW01	UW01	
COLLECT DATE	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	<	0.626	<	0.63	<	0.56	<	0.1	<	<	0.1	<	0.1
1,3-Dinitrobenzene	<	0.519	<	0.52	<	0.61	<	0.1	<	<	0.1	<	0.1
2,4,6-Trinitrotoluene	<	0.588	<	0.59	<	0.78	<	0.1	<	<	0.1	<	0.1
2,4-Dinitrotoluene	<	0.612	<	0.61	<	0.6	<	0.1	<	<	0.1	<	0.1
2,6-Dinitrotoluene	<	1.15	<	1.15	2.28	<	0.1	<	<	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	<	1.65	<	1.65	<	1.3	<	1.3	<	1.3	<	1.3
Nitrobenzene	-	<	1.07	<	1.07	<	1.13	<	1.13	<	1.13	<	1.13
RDX	2.6	<	2.11	<	2.11	1.43	<	1	<	2.6	<	2.6	<
Tetryl	0.849	<	0.556	<	0.56	NA	<	NA	<	NA	<	NA	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-18

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW080

FIELD ID	NW080		NW080		NW080		NW080		NW080			
	METHOD	Frequency	Maximum Hit	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
COLLECT DATE				12/10/96	7/16/94	6/11/94	9/1/92	5/31/91	10/16/90			
				UW51	UW33	UW33	UW32	UW25	UW14			
				Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	0/10	-	<	0.125	<	0.425	<	0.425	<	0.449	<	0.626
1,3-Dinitrobenzene	0/10	-	<	0.989	<	0.549	<	0.549	<	0.611	<	0.519
2,4,6-Trinitrotoluene	0/10	-	<	0.29	<	0.451	<	0.451	<	0.635	<	0.588
2,4-Dinitrotoluene	0/10	-	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.612
2,6-Dinitrotoluene	1/10	0.7	<	0.2	<	0.26	<	0.26	<	0.0738	<	1.15
2-Amino-4,6-Dinitrotoluene	0/6	-	<	0.173	<	0.244	<	0.244	<	0.158	<	NA
2-Nitrotoluene	0/1	-	<	0.319	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0/1	-	<	0.514	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	-	<	0.309	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	0/1	-	<	0.368	NA	NA	NA	NA	NA	NA	NA	NA
HMX	6/9	3.38	<	0.16	0.732	0.987	3.38	1.15	<	1.15	<	1.65
Nitrobenzene	0/9	-	<	0.231	<	0.817	<	0.817	<	0.645	<	1.07
RDX	9/10	12.4	<	0.558	1.88	2.36	3.99	5.31	3.85	<	<	<
Tetryl	0/7	-	<	0.253	<	1.18	<	1.18	<	NA	<	0.556

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-18

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW080

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW080 UW14		NW080 UW01		NW080 3S		NW080 99	
					Result	RL	Result	RL	Result	RL	Result	RL
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene			-	0/10	< 0.626	<	0.56	<	NA	<	0.1	
1,3-Dinitrobenzene			-	0/10	< 0.519	<	0.61	<	NA	<	0.1	
2,4,6-Trinitroto luene			-	0/10	< 0.588	<	0.78	<	NA	<	0.1	
2,4-Dinitroto luene			-	0/10	< 0.612	<	0.6	<	NA	<	0.1	
2,6-Dinitroto luene			0.7	1/10	< 1.15	0.7			NA	<	0.1	
2-Amino-4,6-Dinitroto luene			-	0/6	NA		NA		NA		NA	
2-Nitroto luene			-	0/1	NA		NA		NA		NA	
3-Nitroto luene			-	0/1	NA		NA		NA		NA	
4-Amino-2,6-Dinitroto luene			-	0/1	NA		NA		NA		NA	
4-Nitroto luene			-	0/1	NA		NA		NA		NA	
HMX			3.38	6/9	< 1.65	1.72			NA		NA	
Nitrobenzene			-	0/9	< 1.07	<	1.13		NA		NA	
RDX			12.4	9/10	5.46	3.58		12.4	NA		NA	
Tetryl			-	0/7	< 0.556		NA		NA		NA	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-19

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW081

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW081		NW081		NW081		NW081		NW081		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene			0.928	2/11	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21	0.928
1,3-Dinitrobenzene			-	0/11	<	0.989	<	0.549	<	0.549	<	0.611	<	0.458	<
2,4,6-Trinitrotoluene			-	0/11	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<
2,4-Dinitrotoluene			-	0/11	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<
2,6-Dinitrotoluene			1.51	1/11	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<
2-Amino-4,6-Dinitrotoluene			-	0/8	<	0.173	<	0.954	<	0.244	<	0.158	<	0.8	NA
2-Nitrotoluene			-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	NA
3-Nitrotoluene			-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	NA
4-Amino-2,6-Dinitrotoluene			-	0/5	<	0.309	<	0.704	<	0.704	<	NA	<	NA	NA
4-Nitrotoluene			-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	NA
HMX			6.87	9/9	4.9	0.16	6.62	6.87	6.38	4.34	5.65	4.34	5.65	5.65	5.65
Nitrobenzene			-	0/9	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	<
RDX			70.7	13/13	9.4	0.558	17	17	18.8	20.7	17	18.8	20.7	17	17
Tetryl			-	0/7	<	0.253	<	1.18	<	1.18	<	NA	<	0.77	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-19

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW081

FIELD ID METHOD COLLECT DATE	NW081		NW081		NW081		NW081		NW081		NW081			
	Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	0.928	2/11	0.863	NA	<	0.56	NA	<	0.1	<	0.1	<	0.1	NA
1,3-Dinitrobenzene	-	0/11	<	0.519	<	0.61	NA	<	0.1	<	0.1	<	0.1	NA
2,4,6-Trinitrobenzene	-	0/11	<	0.588	<	0.78	NA	<	0.1	<	0.1	<	0.1	NA
2,4-Dinitrobenzene	-	0/11	<	0.612	<	0.6	NA	<	0.1	<	0.1	<	0.1	NA
2,6-Dinitrobenzene	1.51	1/11	<	1.15	1.51		NA	<	0.1	<	0.1	<	0.1	NA
2-Amino-4,6-Dinitrobenzene	-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrobenzene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	6.87	9/9	5.71	NA	4.34		NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	-	0/9	<	1.07	<	1.13	NA	NA	NA	NA	NA	NA	NA	NA
RDX	70.7	13/13	17.7	NA	5.37		NA	70.7	53	48	54	NA	NA	NA
Tetryl	-	0/7	<	0.556	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-20

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW082

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW082		NW082		NW082		NW082		NW082			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
	1,3,5-Trinitrobenzene		1.31	2/11	<	0.125	<	0.425	<	0.425	<	0.449	<	0.425	<	0.21
	1,3-Dinitrobenzene		0.547	1/11	<	0.989	<	0.547	<	0.549	<	0.611	<	0.549	<	0.458
	2,4,6-Trinitrotoluene		-	0/11	<	0.29	<	0.451	<	0.451	<	0.635	<	0.451	<	0.426
	2,4-Dinitrotoluene		-	0/11	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.26	<	0.397
	2,6-Dinitrotoluene		1.1	1/11	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.26	<	0.6
	2-Amino-4,6-Dinitrotoluene		-	0/6	<	0.173	<	0.244	<	0.244	<	0.158	<	0.5	<	0.8
	2-Nitrotoluene		-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
	3-Nitrotoluene		-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
	4-Amino-2,6-Dinitrotoluene		-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
	4-Nitrotoluene		-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
	HMX		2.27	7/9	1.7	0.16	2.14	1.81	1.59	1.81	1.59	1.59	<	0.563	1.79	<
	Nitrobenzene		-	0/9	<	0.231	<	0.817	<	0.817	<	0.645	<	0.817	<	0.682
	RDX		20	9/11	<	0.558	3.79	2.48	2.86	2.48	2.86	4.99	<	0.817	<	NA
	Tetryl		0.949	1/7	<	0.253	<	1.18	<	1.18	<	NA	<	1.18	<	0.949

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-20

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW082

FIELD ID	NW082		NW082		NW082		NW082		NW082		NW082	
	METHOD	Frequency	Maximum Hit	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	2/11	1.31	0.984	<	0.56	<	0.1	<	0.1	<	0.1	<
1,3-Dinitrobenzene	1/11	<	0.519	<	0.61	<	0.1	<	0.1	<	0.1	<
2,4,6-Trinitrotoluene	0/11	<	0.588	<	0.78	<	0.1	<	0.1	<	0.1	<
2,4-Dinitrotoluene	0/11	<	0.612	<	0.6	<	0.1	<	0.1	<	0.1	<
2,6-Dinitrotoluene	1/11	<	1.15	<	1.1	<	0.1	<	0.1	<	0.1	<
2-Amino-4,6-Dinitrotoluene	0/6	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	0/1	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	7/9	2.27	<	1.65	1.86	<	NA	NA	NA	NA	NA	NA
Nitrobenzene	0/9	-	<	1.07	<	1.13	<	NA	NA	NA	NA	NA
RDX	9/11	20	<	2.11	7.81	<	15.4	9	20	NA	NA	NA
Tetryl	1/7	0.949	<	0.556	NA	<	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-21

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW100

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW100		NW100		NW100		NW100		NW100		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.425	J	<	0.449	<	0.425	<	0.425
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.549	<	0.611	<	0.549	<	0.549	
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.451	J	<	0.635	<	0.451	<	0.451
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.26	<	0.26	
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.26	<	0.26	
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.158	<	0.158	<	1	
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	NA	<	NA	<	NA	NA	
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	NA	<	NA	<	NA	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	NA	<	NA	<	NA	NA	
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	NA	<	NA	<	NA	NA	
HMX	-	0/9	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	<	0.563	
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645	<	0.817	
RDX	0.9	1/9	<	0.558	<	0.412	<	0.412	<	1.17	<	1.17	<	0.412	
Tetryl	-	0/5	<	0.253	<	1.18	<	1.18	<	NA	<	NA	<	1.18	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-21

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW100

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW100		NW100		NW100		NW100		NW100		
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	-	0/7	<	0.21	NA	NA	NA	NA	NA	NA	NA	<	0.1
1,3-Dinitrobenzene	-	0/7	<	0.458	NA	NA	NA	NA	NA	NA	NA	<	0.1
2,4,6-Trinitrotoluene	-	0/7	<	0.426	NA	NA	NA	NA	NA	NA	NA	<	0.1
2,4-Dinitrotoluene	-	0/7	<	0.397	NA	NA	NA	NA	NA	NA	NA	<	0.1
2,6-Dinitrotoluene	-	0/7	<	0.6	NA	NA	NA	NA	NA	NA	NA	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.8	NA	NA	NA	NA	NA	NA	NA	<	0.1
2-Nitrotoluene	-	0/1		NA	NA	NA	NA	NA	NA	NA	NA		NA
3-Nitrotoluene	-	0/1		NA	NA	NA	NA	NA	NA	NA	NA		NA
4-Amino-2,6-Dinitrotoluene	-	0/1		NA	NA	NA	NA	NA	NA	NA	NA		NA
4-Nitrotoluene	-	0/1		NA	NA	NA	NA	NA	NA	NA	NA		NA
HMX	-	0/9	<	5.3	<	1.65	<	1.65	<	1.3	<	<	0.1
Nitrobenzene	-	0/6	<	0.682	NA	NA	NA	NA	NA	NA	NA	<	0.1
RDX	0.9	1/9	<	NA	<	2.11	<	2.11	<	0.9	<	<	0.1
Tetryl	-	0/5	<	0.631	NA	NA	NA	NA	NA	NA	NA	<	0.1

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-22

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW101

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW101		NW101		NW101		NW101		NW101		NW101	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/7	< 0.125	< 0.425	< 0.425	J	< 0.449	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.21
1,3-Dinitrobenzene	-	0/7	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.458
2,4,6-Trinitrotoluene	-	0/7	< 0.29	< 0.451	< 0.451	J	< 0.635	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.426	
2,4-Dinitrotoluene	-	0/7	< 0.233	< 0.26	< 0.26	< 0.064	< 0.064	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.397	
2,6-Dinitrotoluene	-	0/7	< 0.2	< 0.26	< 0.26	< 0.074	< 0.074	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.6	
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.8	
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HMX	3.15	1/9	< 0.16	< 0.563	< 0.563	< 1.21	< 1.21	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 5.3	
Nitrobenzene	-	0/6	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.682	
RDX	2	2/9	< 0.558	< 0.412	< 0.412	< 1.17	< 1.17	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	NA	
Tetryl	-	0/5	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 0.631	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-22

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW101

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW101		NW101		NW101		NW101			
					UW14	UW14	UW14	UW01	UW14	UW01	UW14	UW01		
					10/17/90	4/30/90	5/17/89	11/29/84	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	NA	NA	NA	<	0.1		<	0.1	
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	NA	NA	NA	<	0.1		<	0.1	
2,4,6-Trinitrotoluene	-	0/7	NA	NA	NA	NA	NA	NA	<	0.1		<	0.1	
2,4-Dinitrotoluene	-	0/7	NA	NA	NA	NA	NA	NA	<	0.1		<	0.1	
2,6-Dinitrotoluene	-	0/6	NA	NA	NA	NA	NA	NA	<	0.1		<	0.1	
2-Amino-4,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA		NA			NA	
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA		NA			NA	
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA		NA			NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA		NA			NA	
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA		NA			NA	
HMX	3.15	1/9	<	1.65	<	1.65	3.15	NA		NA			NA	
Nitrobenzene	-	0/6	NA	NA	NA	NA	NA	NA		NA			NA	
RDX	2	2/9	<	2.11	<	2.11	1.29	2		2			NA	
Tetryl	-	0/5	NA	NA	NA	NA	NA	NA		NA			NA	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-23

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW102

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW102		NW102		NW102		NW102		NW102	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/7	< 0.125	< 0.425	< 0.425	< 0.425	J	< 0.449	< 0.21					
1,3-Dinitrobenzene	-	0/7	< 0.989	< 0.549	< 0.549	< 0.611	< 0.458							
2,4,6-Trinitrotoluene	-	0/7	< 0.29	< 0.451	< 0.451	J	< 0.426							
2,4-Dinitrotoluene	-	0/7	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.397							
2,6-Dinitrotoluene	-	0/7	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.6							
2-Amino-4,6-Dinitrotoluene	-	0/6	< 0.173	< 0.244	< 0.244	< 0.158	< 0.8							
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA							
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA							
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA							
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA							
HMX	-	0/9	< 0.16	< 0.563	< 0.563	< 1.21	< 5.3							
Nitrobenzene	-	0/6	< 0.231	< 0.817	< 0.817	< 0.645	< 0.682							
RDX	1.77	2/10	< 0.558	< 0.412	< 0.412	< 1.17	< 0.416							
Tetryl	-	0/5	< 0.253	< 1.18	< 1.18	NA	< 1.24							

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-23

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW102

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW102		NW102		NW102		
					UW14	UW14	UW14	UW01	UW01		
					10/17/90	4/30/90	5/17/89	11/29/84	99		
					Result	Qual	Result	Qual	Result	Qual	
EXPLOSIVES (µg/L)											
1,3,5-Trinitrobenzene	-	0/7	NA	NA	NA	<	0.1	NA	NA	<	0.1
1,3-Dinitrobenzene	-	0/7	NA	NA	NA	<	0.1	NA	NA	<	0.1
2,4,6-Trinitrotoluene	-	0/7	NA	NA	NA	<	0.1	NA	NA	<	0.1
2,4-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	NA	NA	<	0.1
2,6-Dinitrotoluene	-	0/7	NA	NA	NA	<	0.1	NA	NA	<	0.1
2-Amino-4,6-Dinitrotoluene	-	0/6	NA	NA	NA	<	0.1	NA	NA	<	0.1
2-Nitrotoluene	-	0/1	NA	NA	NA	<	0.1	NA	NA	<	0.1
3-Nitrotoluene	-	0/1	NA	NA	NA	<	0.1	NA	NA	<	0.1
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	<	0.1	NA	NA	<	0.1
4-Nitrotoluene	-	0/1	NA	NA	NA	<	0.1	NA	NA	<	0.1
HMX	-	0/9	<	1.65	<	1.65	<	1.3	<	1.3	NA
Nitrobenzene	-	0/6	NA	NA	NA	<	1.77	NA	NA	<	1.77
RDX	1.77	2/10	<	2.11	<	2.11	<	0.2	<	0.2	NA
Tetryl	-	0/5	NA	NA	NA	<	0.2	NA	NA	<	0.2

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-24

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW120

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW120		NW120		NW120		NW120		NW120		NW120	
					Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
					2/18/97	7/13/94	6/11/94	9/2/92	6/3/91	10/18/90						
					UW51	UW33	UW33	UW32	UW25	UW14						
					Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.21	<	0.425	<	0.458
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.549	<	0.611	<	0.458	<	0.549	<	0.458
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.426	<	0.451	<	0.426
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.397	<	0.26	<	0.397
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.6	<	0.26	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.8	<	0.244	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	0.404	1/8	<	0.404	<	0.563	<	0.563	<	1.21	<	0.533	<	0.563	<	1.65
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.682	<	0.817	<	0.682
RDX	2.88	4/10	<	2.88	<	1.69	<	2.29	<	1.17	<	0.828	<	2.29	<	0.828
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	NA	<	0.631	<	1.18	<	0.631

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-24

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW120

FIELD ID	NW120	NW120	NW120	NW120	NW120	NW120
METHOD	UW14	UW01	3S	99	99	99
COLLECT DATE	5/1/90	5/24/89	9/10/85	11/29/84	11/29/84	11/29/84
	Qual Result	RL	Qual Result	RL	Qual Result	RL
EXPLOSIVES (µg/L)	Qual Result	RL	Qual Result	RL	Qual Result	RL
1,3,5-Trinitrobenzene	NA	NA	NA	NA	<	0.1
1,3-Dinitrobenzene	NA	NA	NA	NA	<	0.1
2,4,6-Trinitrotoluene	NA	NA	NA	NA	<	0.1
2,4-Dinitrotoluene	NA	NA	NA	NA	<	0.1
2,6-Dinitrotoluene	NA	NA	NA	NA	<	0.1
2-Amino-4,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA
HMX	<	1.65	<	1.3	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA
RDX	<	2.11	<	0.63	<	8.61
Tetryl	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-25

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW121

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW121 12/12/96		NW121 7/13/94		NW121 6/11/94		NW121 9/2/92		NW121 7/23/91		NW121 6/2/91	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/8	<	0.125	<	0.425	<	0.425	<	0.449	<	0.425	<	0.21
1,3-Dinitrobenzene	-	0/8	<	0.989	<	0.549	<	0.549	<	0.611	<	0.549	<	0.458
2,4,6-Trinitrotoluene	-	0/8	<	0.29	<	0.451	<	0.451	<	0.635	<	0.451	<	0.426
2,4-Dinitrotoluene	-	0/8	<	0.233	<	0.26	<	0.26	<	0.064	<	0.26	<	0.397
2,6-Dinitrotoluene	-	0/8	<	0.2	<	0.26	<	0.26	<	0.074	<	0.26	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/7	<	0.173	<	0.244	<	0.244	<	0.158	<	1	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	0.7	1/10	0.7	0.16	<	0.563	<	0.563	<	1.21	<	0.563	<	0.533
Nitrobenzene	-	0/7	<	0.231	<	0.817	<	0.817	<	0.645	<	0.817	<	0.682
RDX	0.954	0/11	<	0.558	<	0.412	<	0.412	<	1.17	<	0.412	<	NA
Tetryl	-	1/5	<	0.253	<	1.18	<	1.18	<	NA	<	1.18	<	0.954

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-25

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW121

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW121		NW121		NW121		NW121		NW121	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
	1,3,5-Trinitrobenzene		-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,3-Dinitrobenzene		-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,6-Trinitrotoluene		-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dinitrotoluene		-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,6-Dinitrotoluene		-	0/8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Amino-4,6-Dinitrotoluene		-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Nitrotoluene		-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	HMX		0.7	1/10	< 1.65	<	1.65	<	1.3	<	1.3	<	1.3	<
	Nitrobenzene		-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	RDX		0.954	0/11	< 2.11	<	2.11	<	0.63	<	0.63	<	8.61	< 0.1
	Tetryl		-	1/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-26

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW122

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW122		NW122		NW122		NW122		NW122		NW122			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)																		
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.425	<	0.425	<	0.21
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.549	<	0.549	<	0.458
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.451	<	0.451	<	0.426
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.26	<	0.064	<	0.26	<	0.26	<	0.397
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.26	<	0.074	<	0.26	<	0.26	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.244	<	1	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/9	<	0.16	<	0.563	<	0.563	<	0.563	<	1.21	<	0.563	<	0.563	<	0.533
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.817	<	0.817	<	0.682
RDX	1.9	2/10	<	0.558	<	0.412	<	0.412	<	0.412	<	1.17	<	0.412	<	0.412	<	NA
Tetryl	0.756	1/5	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	1.18	<	1.18	<	0.756

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-26

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW122

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW122		NW122		NW122		NW122		NW122			
					UW14	UW14	UW14	UW01	UW01	UW01	UW01	UW01	UW01	UW01	UW01	UW01
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene			-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene			-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene			-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene			-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene			-	0/7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-Dinitrotoluene			-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene			-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX			-	0/9	< 1.65	<	<	<	1.65	<	<	<	1.3	<	<	<
Nitrobenzene			-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX			1.9	2/10	< 2.11	<	<	<	2.11	<	1.9	<	8.61	<	0.2	<
Tetryl			0.756	1/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-27

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW130

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW130		NW130		NW130		NW130		NW130			
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)																
1,3,5-Trinitrobenzene			-	0/6	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.21
1,3-Dinitrobenzene			-	0/6	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.458
2,4,6-Trinitrotoluene			-	0/6	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene			-	0/6	<	0.233	<	0.26	<	0.26	<	0.26	<	0.064	<	0.397
2,6-Dinitrotoluene			-	0/6	<	0.2	<	0.26	<	0.26	<	0.26	<	0.074	<	0.6
2-Amino-4,6-Dinitrotoluene			-	0/5	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.8
2-Nitrotoluene			-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene			-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene			-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX			-	0/8	<	0.16	<	0.563	<	0.563	<	0.563	<	1.21	<	5.3
Nitrobenzene			-	0/5	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.682
RDX			1.05	2/9	<	0.558	<	0.412	<	0.412	<	0.412	<	1.17	<	0.416
Tetryl			-	0/4	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	0.631

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-27

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW130

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW130		NW130		NW130		NW130	
					Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trinitrotoluene	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	-	0/6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Amino-4,6-Dinitrotoluene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/8	<	1.65	<	1.65	<	1.3	<	1.05	<	0.4
Nitrobenzene	-	0/5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	1.05	2/9	<	2.11	<	2.11	<	2.11	<	2.11	<	2.11
Tetryl	-	0/4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-28

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW131

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW131		NW131		NW131		NW131		NW131	
					Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.425
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.549
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.451
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.26	<	0.0637	<	0.26
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.26	<	0.0738	<	0.26
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.5
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/9	<	0.16	<	0.563	<	0.563	<	0.563	<	1.21	<	0.563
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.817
RDX	0.4	1/9	<	0.558	<	0.412	<	0.412	<	0.412	<	1.17	<	0.412
Tetryl	-	0/5	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-28

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW131

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	NW131		NW131		NW131		NW131		NW131		
					UW25	UW14	UW14	UW14	UW01	UW01	UW14	UW01			
					6/2/91	10/17/90	4/30/90	5/24/89	11/29/84	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	-	-	0/7	<	0.21	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
1,3-Dinitrobenzene	-	-	0/7	<	0.458	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
2,4,6-Trinitrotoluene	-	-	0/7	<	0.426	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
2,4-Dinitrotoluene	-	-	0/7	<	0.397	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
2,6-Dinitrotoluene	-	-	0/7	<	0.6	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
2-Amino-4,6-Dinitrotoluene	-	-	0/6	<	0.8	NA	NA	NA	<	0.1	NA	<	0.1	NA	<
2-Nitrotoluene	-	-	0/1		NA	NA	NA	NA		NA	NA		NA	NA	
3-Nitrotoluene	-	-	0/1		NA	NA	NA	NA		NA	NA		NA	NA	
4-Amino-2,6-Dinitrotoluene	-	-	0/1		NA	NA	NA	NA		NA	NA		NA	NA	
4-Nitrotoluene	-	-	0/1		NA	NA	NA	NA		NA	NA		NA	NA	
HMX	-	-	0/9	<	5.3	<	1.65	<	1.3	<	1.65	<	1.3	<	1.3
Nitrobenzene	-	-	0/6	<	0.682	NA	NA	NA	<	0.4	NA	<	0.4	NA	<
RDX	0.4	-	1/9	<	NA	<	2.11	<	0.63	<	2.11	<	0.63	<	0.4
Tetryl	-	-	0/5	<	0.631	NA	NA	NA	<	0.4	NA	<	0.4	NA	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-29

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW132

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	NW132		NW132		NW132		NW132		NW132			
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene	-	0/8	<	0.125	<	0.425	<	0.425	<	0.425	<	0.425	<	0.21
1,3-Dinitrobenzene	-	0/8	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.458
2,4,6-Trinitrotoluene	-	0/8	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.426
2,4-Dinitrotoluene	-	0/8	<	0.233	<	0.26	<	0.26	<	0.26	<	0.0637	<	0.397
2,6-Dinitrotoluene	-	0/8	<	0.2	<	0.26	<	0.26	<	0.26	<	0.0738	<	0.6
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.8
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	0/9	<	0.16	<	0.563	<	0.563	<	0.563	<	1.21	<	5.3
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.682
RDX	2.4	2/11	<	0.558	<	0.412	<	0.412	<	0.412	<	1.17	<	0.416
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	0.874

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-29

CORNHUSKER ARMY AMMUNITION PLANT
WELL NW132

FIELD ID	NW132	NW132	NW132	NW132	NW132	NW132	NW132		
METHOD	UW14	UW14	UW01	UW14	UW01	UW14	UW01		
COLLECT DATE	10/17/90	4/30/90	5/24/89	4/30/90	5/24/89	3/15/85	11/29/84		
	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)									
1,3,5-Trinitrobenzene	NA	NA	NA	NA	NA	<	0.1	<	0.1
1,3-Dinitrobenzene	NA	NA	NA	NA	NA	<	0.1	<	0.1
2,4,6-Trinitrotoluene	NA	NA	NA	NA	NA	<	0.1	<	0.1
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	<	0.1	<	0.1
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	<	0.1	<	0.1
2-Amino-4,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	<	1.65	<	<	1.3	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
RDX	<	2.11	<	<	0.63	1.4	2.4	NA	NA
Tetryl	NA	NA	NA	NA	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-30

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA210

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA210		CA210		CA210		CA210	
					Result	RL	Result	RL	Result	RL	Result	RL
					12/10/96	7/16/94	6/13/94	10/8/92	9/1/92			
					Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)												
	1,3,5-Trinitrobenzene		-	0/5	< 0.125	< 0.425	< 0.425	< 0.449	< 0.449	< 0.449	< 0.449	< 0.449
	1,3-Dinitrobenzene		-	0/5	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611	< 0.611	< 0.611	< 0.611
	2,4,6-Trinitrotoluene		-	0/5	< 0.29	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635	< 0.635	< 0.635
	2,4-Dinitrotoluene		-	0/5	< 0.233	< 0.26	< 0.26	< 0.064	< 0.064	< 0.064	< 0.064	< 0.0637
	2,6-Dinitrotoluene		-	0/5	< 0.2	< 0.26	< 0.26	< 0.074	< 0.074	< 0.074	< 0.074	< 0.0738
	2-Amino-4,6-Dinitrotoluene		-	0/5	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158	< 0.158	< 0.158
	2-Nitrotoluene		-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA
	3-Nitrotoluene		-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		-	0/3	< 0.309	NA	< 0.414	NA	NA	NA	NA	NA
	4-Nitrotoluene		-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA
	HMX		2.74	3/5	0.41	0.16	< 0.563	1.48	< 1.21	< 1.21	2.74	< 0.645
	Nitrobenzene		-	0/5	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645	< 0.645	< 0.645
	RDX		2.64	4/5	< 0.558	0.903	1.6	1.6	1.6	1.6	2.64	< 0.645
	Tetryl		-	0/3	< 0.253	< 1.18	< 1.18	NA	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-31

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA211

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA211		CA211		CA211		CA211		CA211	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene			-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.449
1,3-Dinitrobenzene			1.03	2/6	<	0.989	<	0.549	1.03	<	0.611	<	0.611	
2,4,6-Trinitrotoluene			-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.635
2,4-Dinitrotoluene			-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.0637
2,6-Dinitrotoluene			-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.0738
2-Amino-4,6-Dinitrotoluene			-	0/6	<	0.173	<	0.244	<	0.244	<	0.158	<	0.158
2-Nitrotoluene			-	0/1	<	0.319	<	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene			-	0/1	<	0.514	<	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	0.309	<	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene			-	0/1	<	0.368	<	NA	NA	NA	NA	NA	NA	NA
HMX			2.78	6/6	1.8	0.16	2.38	2.47	2.78	2.45	2.45	2.45	2.45	
Nitrobenzene			-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645
RDX			5.12	5/6	<	0.558	2.88	3.9	5.12	4.21	4.21	4.21	4.21	
Tetryl			-	0/4	<	0.253	<	1.18	<	1.18	NA	NA	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-35

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA251

FIELD ID	CA251		CA251		CA251		CA251		CA251	
	UW51	UW33	UW33	UW33	UW32	UW32	UW32	UW32	UW32	UW32
METHOD	Maximum Hit	Frequency	Result	RL	Qual	Result	RL	Qual	Result	RL
COLLECT DATE	12/15/96	7/15/94	7/15/94	6/10/94	10/8/92	10/8/92	9/4/92			
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	0.31	1/6	0.31	0.125	<	0.425	<	0.425	<	0.449
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.549	<	0.611
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738
2-Amino-4,6-Dinitrotoluene	-	0/6	<	0.173	<	0.244	<	0.244	<	0.158
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA	NA
HMX	6.27	6/6	3.65	0.16	5.8	6.27	2.95	4.49	4.49	0.645
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.645
RDX	28	6/6	13.6	0.558	28	25	19.7	21	21	0.645
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-36

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA252

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	CA252		CA252		CA252		CA252		CA252	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/6	<	0.125	<	0.425	<	0.425	<	0.449	<	0.449
1,3-Dinitrobenzene	-	0/6	<	0.989	<	0.549	<	0.549	<	0.611	<	0.611
2,4,6-Trinitrotoluene	-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.635
2,4-Dinitrotoluene	-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.0637
2,6-Dinitrotoluene	-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.0738
2-Amino-4,6-Dinitrotoluene	-	0/7	<	0.173	<	0.954	<	0.244	<	0.158	<	0.158
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/3	<	0.309	<	0.704	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA
HMX	5.59	6/6	4.6	0.16	4.81	2.92	5.59	5.42	5.42	5.42	5.42	5.42
Nitrobenzene	-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645
RDX	19.4	6/6	7.2	0.558 U	6.44	4.55	19.4	17.1	17.1	17.1	17.1	17.1
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	NA	<	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-37

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA253

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	CA253		CA253		CA253		CA253		CA253	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/5	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425
1,3-Dinitrobenzene	-	0/5	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549
2,4,6-Trinitrotoluene	-	0/5	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451
2,4-Dinitrotoluene	-	0/5	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2,6-Dinitrotoluene	-	0/5	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
2-Amino-4,6-Dinitrotoluene	-	0/5	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244
2-Nitrotoluene	-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/5	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563
Nitrobenzene	-	0/5	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817
RDX	-	0/5	< 0.558	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412
Tetryl	-	0/3	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-38

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA270

FIELD ID	CA270		CA270		CA270		CA270		CA270			
	Method	Frequency	Maximum Hit	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
COLLECT DATE				2/18/97	7/14/94	6/21/94	10/6/92	9/4/92				
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene		0/5	-	< 0.125	< 0.425	< 0.425	< 0.449	< 0.449	< 0.425	< 0.449	< 0.449	< 0.449
1,3-Dinitrobenzene		0/5	-	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611	< 0.549	< 0.611	< 0.611	< 0.611
2,4,6-Trinitroto luene		0/5	-	< 0.29	< 0.451	< 0.451	< 0.635	< 0.635	< 0.451	< 0.635	< 0.635	< 0.635
2,4-Dinitroto luene		0/5	-	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.0637	< 0.26	< 0.0637	< 0.0637	< 0.0637
2,6-Dinitroto luene		0/5	-	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.0738	< 0.26	< 0.0738	< 0.0738	< 0.0738
2-Amino-4,6-Dinitroto luene		0/5	-	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	< 0.244	< 0.158	< 0.158	< 0.158
2-Nitroto luene		0/1	-	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroto luene		0/1	-	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitroto luene		0/1	-	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroto luene		0/1	-	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA
HMX		0/5	-	< 0.16	< 0.563	< 0.563	< 1.21	< 1.21	< 0.563	< 1.21	< 1.21	< 1.21
Nitrobenzene		0/5	-	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645	< 0.817	< 0.645	< 0.645	< 0.645
RDX		2/5	2.79	< 0.558	2.62	2.79	< 1.17	< 1.17	< 2.79	< 1.17	< 1.17	< 1.17
Tetryl		0/3	-	< 0.253	< 1.18	< 1.18	NA	NA	< 1.18	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-39

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA271

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA271		CA271		CA271		CA271		CA271		
					UW51	UW33	UW33	UW33	UW32	UW32	UW32	UW32			
					2/18/97	7/14/94	6/21/94	10/6/92	9/4/92	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)															
	1,3,5-Trinitrobenzene		-	0/5	< 0.125	< 0.425	< 0.425	< 0.425	< 0.449	<	0.425	<	< 0.449	<	0.449
	1,3-Dinitrobenzene		-	0/5	< 0.989	< 0.549	< 0.549	< 0.611	< 0.611	<	0.549	<	< 0.611	<	0.611
	2,4,6-Trinitrotoluene		-	0/5	< 0.29	< 0.451	< 0.451	< 0.635	< 0.635	<	0.451	<	< 0.635	<	0.635
	2,4-Dinitrotoluene		-	0/5	< 0.233	< 0.26	< 0.26	< 0.0637	< 0.0637	<	0.26	<	< 0.0637	<	0.0637
	2,6-Dinitrotoluene		-	0/5	< 0.2	< 0.26	< 0.26	< 0.0738	< 0.0738	<	0.26	<	< 0.0738	<	0.0738
	2-Amino-4,6-Dinitrotoluene		-	0/5	< 0.173	< 0.244	< 0.244	< 0.158	< 0.158	<	0.244	<	< 0.158	<	0.158
	2-Nitrotoluene		-	0/1	< 0.319	NA	NA	NA	NA	<	NA	<	NA	NA	NA
	3-Nitrotoluene		-	0/1	< 0.514	NA	NA	NA	NA	<	NA	<	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		-	0/1	< 0.309	NA	NA	NA	NA	<	NA	<	NA	NA	NA
	4-Nitrotoluene		-	0/1	< 0.368	NA	NA	NA	NA	<	NA	<	NA	NA	NA
	HMX		1.32	1/5	1.32	0.16	< 0.563	< 0.563	< 1.21	<	0.563	<	< 1.21	<	1.21
	Nitrobenzene		-	0/5	< 0.231	< 0.817	< 0.817	< 0.645	< 0.645	<	0.817	<	< 0.645	<	0.645
	RDX		8.12	5/5	8.12	0.558	3.44	3.02	1.94	<	3.02	<	2.29	<	2.29
	Tetryl		-	0/3	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	<	1.18	<	NA	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-40

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA272

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA272		CA272		CA272		CA272		CA272	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
	1,3,5-Trinitrobenzene		-	0/6	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.449	< 0.449
	1,3-Dinitrobenzene		-	0/6	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611
	2,4,6-Trinitrotoluene		-	0/6	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635	< 0.635
	2,4-Dinitrotoluene		-	0/6	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.064	< 0.064	< 0.064
	2,6-Dinitrotoluene		-	0/6	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.074	< 0.074	< 0.074
	2-Amino-4,6-Dinitrotoluene		-	0/7	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158	< 0.158
	2-Nitrotoluene		-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Nitrotoluene		-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Amino-2,6-Dinitrotoluene		-	0/3	< 0.309	< 0.704	< 0.704	< 0.704	< 0.704	< 0.704	< 0.704	< 0.704	< 0.704	< 0.704
	4-Nitrotoluene		-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA
	HMX		2.1	3/6	1.57	0.16	0.791	0.72	0.72	0.72	0.72	< 1.21	< 1.21	< 1.21
	Nitrobenzene		-	0/6	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645	< 0.645
	RDX		15	6/6	6.29	0.558	15	13	13	13	13	7.41	7.41	6.95
	Tetryl		-	0/3	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	NA	NA	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-41

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA273

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	CA273		CA273		CA273		CA273		CA273	
			Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)												
1,3,5-Trinitrobenzene	-	0/5	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.425	< 0.449
1,3-Dinitrobenzene	-	0/5	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.549	< 0.611	< 0.611
2,4,6-Trinitroto luene	-	0/5	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.451	< 0.635	< 0.635
2,4-Dinitroto luene	-	0/5	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.064	< 0.064
2,6-Dinitroto luene	-	0/5	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.074	< 0.074
2-Amino-4,6-Dinitroto luene	-	0/5	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.244	< 0.158	< 0.158
2-Nitroto luene	-	0/1	< 0.319	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroto luene	-	0/1	< 0.514	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitroto luene	-	0/1	< 0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroto luene	-	0/1	< 0.368	NA	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/5	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 0.563	< 1.21	< 1.21
Nitrobenzene	-	0/5	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.817	< 0.645	< 0.645
RDX	-	0/5	< 0.558	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 0.412	< 1.17	< 1.17
Tetryl	-	0/3	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	< 1.18	NA	NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAE Method UW51

TABLE C-42

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA290

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA290 UW51		CA290 UW33		CA290 UW32		CA290 UW32		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)													
1,3,5-Trinitrobenzene	-	0/5	<	0.125	<	0.425	<	0.425	<	0.449	<	0.449	
1,3-Dinitrobenzene	-	0/5	<	0.989	<	0.549	<	0.549	<	0.611	<	0.611	
2,4,6-Trinitrotoluene	-	0/5	<	0.29	<	0.451	<	0.451	<	0.635	<	0.635	
2,4-Dinitrotoluene	-	0/5	<	0.233	<	0.26	<	0.26	<	0.064	<	0.064	
2,6-Dinitrotoluene	-	0/5	<	0.2	<	0.26	<	0.26	<	0.074	<	0.074	
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.158	
2-Nitrotoluene	-	0/1	<	0.319	NA	NA	NA	NA	NA	NA	NA	NA	
3-Nitrotoluene	-	0/1	<	0.514	NA	NA	NA	NA	NA	NA	NA	NA	
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	NA	NA	NA	NA	NA	NA	NA	NA	
4-Nitrotoluene	-	0/1	<	0.368	NA	NA	NA	NA	NA	NA	NA	NA	
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645	
RDX	-	0/5	<	0.558	<	0.412	<	0.412	<	1.17	<	1.17	
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	NA	<	NA	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-43

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA291

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA291		CA291		CA291		CA291		CA291				
					UW51	UW33	UW33	UW33	UW32	UW32	UW32	UW32					
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	
EXPLOSIVES (µg/L)																	
1,3,5-Trinitrobenzene	-	0/5	<	0.125	<	0.425	<	0.425	J	<	0.449	<	0.449	<	0.449	<	0.449
1,3-Dinitrobenzene	-	0/5	<	0.989	<	0.549	<	0.549	<	0.611	<	0.611	<	0.611	<	0.611	<
2,4,6-Trinitrotoluene	-	0/5	<	0.29	<	0.451	<	0.451	J	<	0.635	<	0.635	<	0.635	<	0.635
2,4-Dinitrotoluene	-	0/5	<	0.233	<	0.26	<	0.26	<	0.064	<	0.064	<	0.064	<	0.064	<
2,6-Dinitrotoluene	-	0/5	<	0.2	<	0.26	<	0.26	<	0.074	<	0.074	<	0.074	<	0.074	<
2-Amino-4,6-Dinitrotoluene	-	0/5	<	0.173	<	0.244	<	0.244	<	0.158	<	0.158	<	0.158	<	0.158	<
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	NA	NA	<	NA	<	NA	<	NA	<
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	NA	NA	<	NA	<	NA	<	NA	<
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	NA	NA	<	NA	<	NA	<	NA	<
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	NA	NA	<	NA	<	NA	<	NA	<
HMX	-	0/5	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	<	1.21	<	1.21	<
Nitrobenzene	-	0/5	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645	<	0.645	<	0.645	<
RDX	0.737	1/5	<	0.558	0.737	<	0.412	<	0.412	<	1.17	<	1.17	<	1.17	<	1.17
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	1.18	<	1.18	<	1.18	<	1.18	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-44

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA292

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA292		CA292		CA292		CA292		CA292		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	-	0/7	<	0.125	<	0.425	<	0.425	J	<	0.449	<	0.449	<	0.449
1,3-Dinitrobenzene	-	0/7	<	0.989	<	0.549	<	0.549	<	0.611	<	0.611	<	0.611	<
2,4,6-Trinitrotoluene	-	0/7	<	0.29	<	0.451	<	0.451	J	<	0.635	<	0.635	<	0.635
2,4-Dinitrotoluene	-	0/7	<	0.233	<	0.26	<	0.26	<	0.064	<	0.064	<	0.064	<
2,6-Dinitrotoluene	-	0/7	<	0.2	<	0.26	<	0.26	<	0.074	<	0.074	<	0.074	<
2-Amino-4,6-Dinitrotoluene	-	0/7	<	0.173	<	0.244	<	0.244	<	0.158	<	0.158	<	0.158	<
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	NA	NA	NA	NA	NA	NA	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	NA	NA	NA	NA	NA	NA	NA
HMX	-	0/7	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	<	1.21	<
Nitrobenzene	-	0/7	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645	<	0.645	<
RDX	5.85	3/7	<	0.558	<	5.85	<	5.48	<	1.17	<	1.17	<	1.17	<
Tetryl	-	0/4	<	0.253	<	1.18	<	1.18	<	1.18	<	1.18	<	1.18	<

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-45

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA310

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA310		CA310		CA310		CA310				
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
	1,3,5-Trinitrobenzene		-	0/5	<	0.125	<	0.425	<	0.425	J	<	0.449	<	0.449
	1,3-Dinitrobenzene		-	0/5	<	0.989	<	0.549	<	0.549		<	0.611	<	0.611
	2,4,6-Trinitroloene		-	0/5	<	0.29	<	0.451	<	0.451	J	<	0.635	<	0.635
	2,4-Dinitroloene		-	0/5	<	0.233	<	0.26	<	0.26		<	0.0637	<	0.064
	2,6-Dinitroloene		-	0/5	<	0.2	<	0.26	<	0.26		<	0.0738	<	0.074
	2-Amino-4,6-Dinitroloene		-	0/5	<	0.173	<	0.244	<	0.244		<	0.158	<	0.158
	2-Nitroloene		-	0/1	<	0.319		NA		NA			NA		NA
	3-Nitroloene		-	0/1	<	0.514		NA		NA			NA		NA
	4-Amino-2,6-Dinitroloene		-	0/1	<	0.309		NA		NA			NA		NA
	4-Nitroloene		-	0/1	<	0.368		NA		NA			NA		NA
	HMX		-	0/5	<	0.16	<	0.563	<	0.563		<	1.21	<	1.21
	Nitrobenzene		-	0/5	<	0.231	<	0.817	<	0.817		<	0.645	<	0.645
	RDX		1.1	1/5	<	0.558	<	0.412	1.1	1.1		<	1.17	<	1.17
	Tetryl		-	0/3	<	0.253	<	1.18	<	1.18		<	NA		NA

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-46

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA311

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA311		CA311		CA311		CA311		CA311	
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result
EXPLOSIVES (µg/L)														
1,3,5-Trinitrobenzene			-	0/5	< 0.125	< 0.425	< 0.425	< 0.425	< 0.425	J	< 0.449	< 0.449	< 0.449	CA311 UW32 9/7/92
1,3-Dinitrobenzene			-	0/5	< 0.989	< 0.549	< 0.549	< 0.549	< 0.549		< 0.611	< 0.611	< 0.611	CA311 UW32 10/9/92
2,4,6-Trinitrotoluene			-	0/5	< 0.29	< 0.451	< 0.451	< 0.451	< 0.451	J	< 0.635	< 0.635	< 0.635	CA311 UW32 6/8/94
2,4-Dinitrotoluene			-	0/5	< 0.233	< 0.26	< 0.26	< 0.26	< 0.26		< 0.0637	< 0.0637	< 0.064	CA311 UW32 9/7/92
2,6-Dinitrotoluene			-	0/5	< 0.2	< 0.26	< 0.26	< 0.26	< 0.26		< 0.0738	< 0.0738	< 0.074	CA311 UW32 9/7/92
2-Amino-4,6-Dinitrotoluene			-	0/5	< 0.173	< 0.244	< 0.244	< 0.244	< 0.244		< 0.158	< 0.158	< 0.158	CA311 UW32 9/7/92
2-Nitrotoluene			-	0/1	< 0.319	NA	NA	NA	NA		NA	NA	NA	CA311 UW32 9/7/92
3-Nitrotoluene			-	0/1	< 0.514	NA	NA	NA	NA		NA	NA	NA	CA311 UW32 9/7/92
4-Amino-2,6-Dinitrotoluene			-	0/1	< 0.309	NA	NA	NA	NA		NA	NA	NA	CA311 UW32 9/7/92
4-Nitrotoluene			-	0/1	< 0.368	NA	NA	NA	NA		NA	NA	NA	CA311 UW32 9/7/92
HMX			-	0/5	< 0.16	< 0.563	< 0.563	< 0.563	< 0.563		< 1.21	< 1.21	< 1.21	CA311 UW32 9/7/92
Nitrobenzene			-	0/5	< 0.231	< 0.817	< 0.817	< 0.817	< 0.817		< 0.645	< 0.645	< 0.645	CA311 UW32 9/7/92
RDX			1.14	2/5	< 0.558	1.14	1.14	1.14	1.14		< 1.17	< 1.17	< 1.17	CA311 UW32 9/7/92
Tetryl			-	0/3	< 0.253	< 1.18	< 1.18	< 1.18	< 1.18		NA	NA	NA	CA311 UW32 9/7/92

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-47

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA312

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA312 UW51		CA312 UW33		CA312 UW33		CA312 UW32				
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene			0.127	0/6	0.127	<	0.425	<	0.425	<	0.449	<	0.449	<	0.449
1,3-Dinitrobenzene			-	0/6	<	0.989	<	0.549	<	0.549	<	0.611	<	0.611	
2,4,6-Trinitrotoluene			-	0/6	<	0.29	<	0.451	<	0.451	<	0.635	<	0.635	
2,4-Dinitrotoluene			-	0/6	<	0.233	<	0.26	<	0.26	<	0.0637	<	0.064	
2,6-Dinitrotoluene			-	0/6	<	0.2	<	0.26	<	0.26	<	0.0738	<	0.074	
2-Amino-4,6-Dinitrotoluene			-	0/8	<	0.173	<	0.244	<	0.954	<	0.158	<	0.158	
2-Nitrotoluene			-	0/1	<	0.319		NA		NA		NA		NA	
3-Nitrotoluene			-	0/1	<	0.514		NA		NA		NA		NA	
4-Amino-2,6-Dinitrotoluene			-	0/5	<	0.309	<	0.414	<	0.704		NA		NA	
4-Nitrotoluene			-	0/1	<	0.368		NA		NA		NA		NA	
HMX			-	0/6	<	0.16	<	0.563	<	0.563	<	1.21	<	1.21	
Nitrobenzene			-	0/6	<	0.231	<	0.817	<	0.817	<	0.645	<	0.645	
RDX			4.41	6/6	4.09	0.558	4.41	3.76	2.06	2.06	2.06	2.06	2.06	2.06	
Tetryl			-	0/3	<	0.253	<	1.18	<	1.18		NA		NA	

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAFEC Method UW51

TABLE C-48

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA313

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA313		CA313		CA313		CA313		CA313		
					Result	RL	Qual	Result	RL	Qual	Result	RL	Qual	Result	RL
EXPLOSIVES (µg/L)															
1,3,5-Trinitrobenzene	-	-	0/5	<	0.125	<	0.425	<	0.425	<	0.425	<	0.449	<	0.449
1,3-Dinitrobenzene	-	-	0/5	<	0.989	<	0.549	<	0.549	<	0.549	<	0.611	<	0.611
2,4,6-Trinitrotoluene	-	-	0/5	<	0.29	<	0.451	<	0.451	<	0.451	<	0.635	<	0.635
2,4-Dinitrotoluene	-	-	0/5	<	0.233	<	0.26	<	0.26	<	0.26	<	0.0637	<	0.0637
2,6-Dinitrotoluene	-	-	0/5	<	0.2	<	0.26	<	0.26	<	0.26	<	0.0738	<	0.0738
2-Amino-4,6-Dinitrotoluene	-	-	0/5	<	0.173	<	0.244	<	0.244	<	0.244	<	0.158	<	0.158
2-Nitrotoluene	-	-	0/1	<	0.319	<	NA	<	NA	<	NA	<	NA	<	NA
3-Nitrotoluene	-	-	0/1	<	0.514	<	NA	<	NA	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	-	0/1	<	0.309	<	NA	<	NA	<	NA	<	NA	<	NA
4-Nitrotoluene	-	-	0/1	<	0.368	<	NA	<	NA	<	NA	<	NA	<	NA
HMX	-	-	0/5	<	0.16	<	0.563	<	0.563	<	0.563	<	1.21	<	1.21
Nitrobenzene	-	-	0/5	<	0.231	<	0.817	<	0.817	<	0.817	<	0.645	<	0.645
RDX	-	-	0/5	<	0.558	<	0.412	<	0.412	<	0.412	<	1.17	<	1.17
Tetryl	-	-	0/3	<	0.253	<	1.18	<	1.18	<	1.18	<	NA	<	NA

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-49

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA322

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA322		CA322		CA322	
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/3	<	0.125	<	0.425	<	0.425	<	0.425
1,3-Dinitrobenzene	-	0/3	<	0.989	<	0.549	<	0.549	<	0.549
2,4,6-Trinitrotoluene	-	0/3	<	0.29	<	0.451	<	0.451	<	0.451
2,4-Dinitrotoluene	-	0/3	<	0.233	<	0.26	<	0.26	<	0.26
2,6-Dinitrotoluene	-	0/3	<	0.2	<	0.26	<	0.26	<	0.26
2-Amino-4,6-Dinitrotoluene	-	0/3	<	0.173	<	0.244	<	0.244	<	0.244
2-Nitrotoluene	-	0/1	<	0.319	<	NA	<	NA	<	NA
3-Nitrotoluene	-	0/1	<	0.514	<	NA	<	NA	<	NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309	<	NA	<	NA	<	NA
4-Nitrotoluene	-	0/1	<	0.368	<	NA	<	NA	<	NA
HMX	-	0/3	<	0.16	<	0.563	<	0.563	<	0.563
Nitrobenzene	-	0/3	<	0.231	<	0.817	<	0.817	<	0.817
RDX	-	0/3	<	0.558	<	0.412	<	0.412	<	0.412
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	1.18

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-50

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA332

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA332		CA332		CA332	
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene			-	0/3	<	0.125	<	0.425	<	0.425
1,3-Dinitrobenzene			-	0/3	<	0.989	<	0.549	<	0.549
2,4,6-Trinitrotoluene			-	0/3	<	0.29	<	0.451	<	0.451
2,4-Dinitrotoluene			-	0/3	<	0.233	<	0.26	<	0.26
2,6-Dinitrotoluene			-	0/3	<	0.2	<	0.26	<	0.26
2-Amino-4,6-Dinitrotoluene			-	0/3	<	0.173	<	0.244	<	0.244
2-Nitrotoluene			-	0/1	<	0.319		NA		NA
3-Nitrotoluene			-	0/1	<	0.514		NA		NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	0.309		NA		NA
4-Nitrotoluene			-	0/1	<	0.368		NA		NA
HMX			-	0/3	<	0.16	<	0.563	<	0.563
Nitrobenzene			-	0/3	<	0.231	<	0.817	<	0.817
RDX			-	0/3	<	0.558	<	0.412	<	0.412
Tetryl			-	0/3	<	0.253	<	1.18	<	1.18

RL - Reporting Limit (historical reporting limits were not available)

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-51

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA342

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA342		CA342		CA342	
					UW51	UW33	UW33	UW33	UW33	UW33
					12/12/96	7/15/94	7/15/94	6/24/94	6/24/94	6/24/94
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene			-	0/3	<	0.125	<	0.425	<	0.425
1,3-Dinitrobenzene			-	0/3	<	0.989	<	0.549	<	0.549
2,4,6-Trinitrotoluene			-	0/3	<	0.29	<	0.451	<	0.451
2,4-Dinitrotoluene			-	0/3	<	0.233	<	0.26	<	0.26
2,6-Dinitrotoluene			-	0/3	<	0.2	<	0.26	<	0.26
2-Amino-4,6-Dinitrotoluene			-	0/3	<	0.173	<	0.244	<	0.244
2-Nitrotoluene			-	0/1	<	0.319		NA		NA
3-Nitrotoluene			-	0/1	<	0.514		NA		NA
4-Amino-2,6-Dinitrotoluene			-	0/1	<	0.309		NA		NA
4-Nitrotoluene			-	0/1	<	0.368		NA		NA
HMX			-	0/3	<	0.16	<	0.563	<	0.563
Nitrobenzene			-	0/3	<	0.231	<	0.817	<	0.817
RDX			1.07	2/3	<	0.558	1.07	0.603		0.603
Tetryl			-	0/3	<	0.253	<	1.18	<	1.18

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51

TABLE C-52

CORNHUSKER ARMY AMMUNITION PLANT
WELL CA343

FIELD ID	METHOD	COLLECT DATE	Maximum Hit	Frequency	CA343		CA343		CA343	
					UW51	UW33	UW33	UW33	UW33	UW33
					12/12/96	8/24/94	8/24/94	7/15/94	7/15/94	
					Result	RL	Qual	Result	RL	Qual
EXPLOSIVES (µg/L)										
1,3,5-Trinitrobenzene	-	0/3	<	0.125	<	0.425	<	0.425	<	0.425
1,3-Dinitrobenzene	-	0/3	<	0.989	<	0.549	<	0.549	<	0.549
2,4,6-Trinitrotoluene	-	0/3	<	0.29	<	0.451	<	0.451	<	0.451
2,4-Dinitrotoluene	-	0/3	<	0.233	<	0.26	<	0.26	<	0.26
2,6-Dinitrotoluene	-	0/3	<	0.2	<	0.26	<	0.26	<	0.26
2-Amino-4,6-Dinitrotoluene	-	0/3	<	0.173	<	0.244	<	0.244	<	0.244
2-Nitrotoluene	-	0/1	<	0.319		NA		NA		NA
3-Nitrotoluene	-	0/1	<	0.514		NA		NA		NA
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.309		NA		NA		NA
4-Nitrotoluene	-	0/1	<	0.368		NA		NA		NA
HMX	-	0/3	<	0.16	<	0.563	<	0.563	<	0.563
Nitrobenzene	-	0/3	<	0.231	<	0.817	<	0.817	<	0.817
RDX	-	0/3	<	0.558	<	0.412	<	0.412	<	0.412
Tetryl	-	0/3	<	0.253	<	1.18	<	1.18	<	1.18

U - Unconfirmed Result

NA - Not Analyzed

Qual - Qualification

RL - Reporting Limit

Historical reporting limits were not available

USAEC Method UW51

TABLE C-53

CORNHUSKER ARMY AMMUNITION PLANT
WELL WB1 AND WB2

FIELD ID METHOD COLLECT DATE	Maximum Hit	Frequency	WB1 11/18/96		WB2 11/18/96	
			Result	RL	Qual	Result
EXPLOSIVES (UG/L)						
1,3,5-Trinitrobenzene	-	0/1	<	0.13	<	0.13
1,3-Dinitrobenzene	-	0/1	<	0.99	<	0.99
2,4,6-Trinitrotoluene	-	0/1	<	0.29	<	0.29
2,4-Dinitrotoluene	-	0/1	<	0.23	<	0.23
2,6-Dinitrotoluene	-	0/1	<	0.2	<	0.2
2-Amino-4,6-Dinitrotoluene	-	0/1	<	0.17	<	0.17
2-Nitrotoluene	-	0/1	<	0.32	<	0.32
3-Nitrotoluene	-	0/1	<	0.51	<	0.51
4-Amino-2,6-Dinitrotoluene	-	0/1	<	0.31	<	0.31
4-Nitrotoluene	-	0/1	<	0.37	<	0.37
HMX	-	0/1	<	0.16	<	0.16
Nitrobenzene	-	0/1	<	0.23	<	0.23
RDX	-	0/1	<	0.56	<	0.56
Tetryl	-	0/1	<	0.25	<	0.25

U - Unconfirmed Result
 NA - Not Analyzed
 Qual - Qualification
 RL - Reporting Limit
 Historical reporting limits were not available
 USAEC Method UW51