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NAS CORPUS CHRISTI
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FINAL SITE INVESTIGATION REPORT NORTH GATE DISPOSAL AREA SOLID WASTE
MANAGEMENT UNIT 9 (WMU9) WITH TRANSMITTAL NAS CORPUS CHRISTI TX
9/16/2005
TETRA TECH



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September 16, 2005

Project Number 7301

Commander, Southern Division
NAVFAC EFD SOUTH
ATTN: Helen Lockard, EIT
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**Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0340**

**Subject: Final Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi**

Dear Ms. Lockard:

Enclosed please find two (2) copies of replacement pages for the Final Site Investigation Report, North Gate Disposal Area – SWMU 9 at Naval Air Station (NAS) Corpus Christi. The replacement pages consist of a Cover Page, a Title Page (with signatures), and Table 3-2 (page 3-4). The draft copy of this report was accepted as final by the Texas Commission on Environmental Quality (TCEQ) in a letter, dated August 24, 2005, from Ken Davis (TCEQ) to Helen Lockard (NAVFAC). Additional, two CD's containing the electronic version (Adobe Acrobat™) of the final report are enclosed.

Tetra Tech NUS, Inc. (TtNUS) conducted an investigation at the North Gate Disposal Area - SWMU 9 to characterize the groundwater contamination. Groundwater samples were collected from newly installed and existing on-site SWMU 9 monitoring wells and analyzed for volatile organic compounds (VOCs) and metals. Concurrent with the SWMU 9 investigation, TtNUS also conducted a groundwater background sampling program for arsenic. The results of the groundwater background investigation for arsenic are presented in a separate report, Final Groundwater Background Report Update, dated July 2005.

If you have any questions or require clarification, please contact me at (832) 251-6019.

Sincerely,

Diane R. Lindsay, P.E.
Task Order Manager

DRL:llg

Enclosures

c: Mr. M. Hilger, NAS Corpus Christi (2 hard copies plus 1 CD)
Mr. C. Siegel, TCEQ (2 hard copies plus 1 CD)
Mr. Bob Sturdivant, EPA (1 hard copy plus 1 CD)
Ms. D. Humbert (1 hard copy plus 1 CD) File 7301 (6.1) (w/o enclosures)

Comprehensive Long-term Environmental Action Navy

CONTRACT NUMBER N62467-94-D-0888



Rev. 1
09/16/05

Site Investigation Report

North Gate Disposal Area – SWMU 9

Naval Air Station Corpus Christi
Corpus Christi, Texas

Contract Task Order 0340

September 2005



Southern Division

Naval Facilities Engineering Command

2155 Eagle Drive

North Charleston, South Carolina 29406

SITE INVESTIGATION REPORT
NORTH GATE DISPOSAL AREA – SWMU 9
NAVAL AIR STATION CORPUS CHRISTI
CORPUS CHRISTI, TEXAS
COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

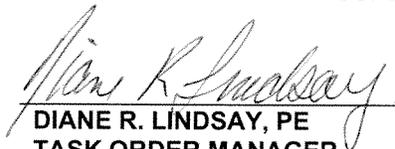
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CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0340

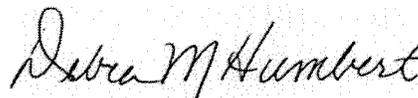
September 2005

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ACRONYMS

bgs	Below Ground Surface
CCAD	Corpus Christi Army Depot
CLEAN	Comprehensive Long-term Environmental Action Navy
CNATRA	Chief of Naval Training
CTO	Contract Task Order
DOT	Department of Transportation
EPA	U.S. Environmental Protection Agency
HSA	Hollow Stem Auger
ID	Inside Diameter
IDW	Investigation Derived Waste
IR	Installation Restoration
ml/min	Milliliters Per Minute
MQL	Method Quantitation Limit
NAS	Naval Air Station
NSF	National Sanitation Foundation
NTU	Nephelometric Turbidity Unit
PCL	Protective Concentration Level
PID	Photoionization Detector
PPE	Personal Protection Equipment
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
SI	Site Investigation
SQL	Sample Quantitation Limit
SVOC	Semivolatile Organic Compounds
SWMU	Solid Waste Management Unit
TRRP	Texas Risk Reduction Program
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Recoverable Petroleum Hydrocarbons
TiNUS	Tetra Tech NUS, Inc.
ug/L	Micrograms per Liter
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This Site Investigation (SI) Report presents the results of the investigation conducted by Tetra Tech NUS, Inc. (TtNUS) in January 2005 to characterize the groundwater contamination at the North Gate Disposal Area – Solid Waste Management Unit (SWMU) 9 at the Naval Air Station (NAS) Corpus Christi, Texas. The objective of the groundwater investigation at SWMU 9 was to determine if impact to groundwater has occurred as a result of past practices. The presence and extent of impacts to groundwater was determined from fixed-based laboratory analyses of groundwater samples for volatile organic compounds (VOCs) and metals. The results of the investigation are summarized below.

- One VOC was detected in one groundwater sample but at a concentration less than the Texas Risk Reduction Program (TRRP) Tier 1 Residential Protective Concentration Level (PCL).
- Four metals were detected above the reporting limits but at concentrations less than their respective TRRP Tier 1 Residential PCLs.

Based on the results of the SI, there is no impact to groundwater in excess of regulatory limits; therefore, no further action is recommended.

1.0 INTRODUCTION

This Site Investigation (SI) Report describes the site investigation work performed by Tetra Tech NUS, Inc. (TtNUS) to characterize the groundwater impacts at the North Gate Disposal Area – Solid Waste Management Unit (SWMU) 9 at Naval Air Station (NAS) Corpus Christi, Texas. Additional project documents that describe field and evaluation activities include the Work Plan (TtNUS, 2004), which includes the Quality Assurance Project Plan and the Health and Safety Plan. These documents for this project are maintained under separate cover.

Authorization for TtNUS to complete the SI work tasks was provided through Contract Task Order (CTO) No. 0340, under the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

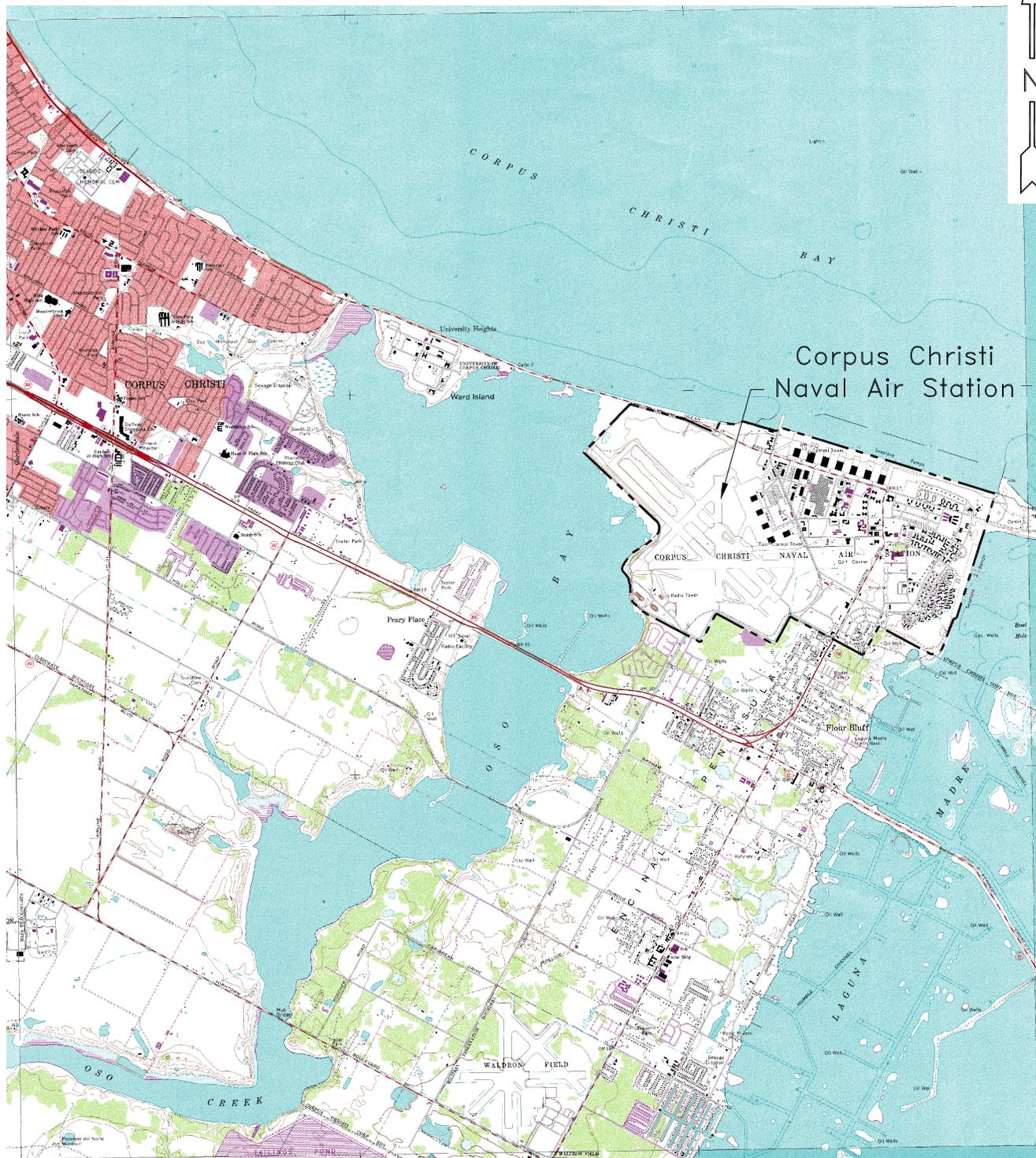
1.1 SITE BACKGROUND

NAS Corpus Christi is located approximately 3 miles south of Corpus Christi, Texas, within the Encinal Peninsula. An area vicinity map is included as Figure 1-1. The facility occupies approximately 2,340 acres. The peninsula is bounded on the southeast by Laguna Madre, the northwest by Cayo del Oso and the north by Corpus Christi Bay. The topography is generally flat (low relief) with an approximate mean elevation of 15 feet. The facility is located with the Western Gulf Coastal Plain Province and is underlain by the Beaumont Formation. Beaumont Formation facies are characterized by barrier island and beach deposits consisting of mostly fine-grained sands and shells.

The mission of NAS Corpus Christi, Texas, is to maintain and operate facilities and provide service and material to support operations of aviation facilities and units of the Naval Air Training Command and other tenant activities and units. The general command assignment is pilot training. The first flight training started on May 5, 1941. The Chief of Naval Air Training (CNATRA), headquartered here, oversees the entire training operation. Under CNATRA's command are five training air wings, 16 training squadrons, over 14,000 Navy and civilian personnel, the Blue Angels Flight Demonstration Squadron, the Naval Aviation Schools Command and the National Museum of Naval Aviation. Established in August 1971, the Naval Air Training Command moved to its present headquarters in July 1972.

SWMU 9

SWMU 9, the North Gate Disposal Area, is located approximately 1,600 feet west of the North Gate and 600 feet south of the Patrol Road (refer to Figure 1-2). Reportedly pits were dug in this area during the late



Corpus Christi
Naval Air Station

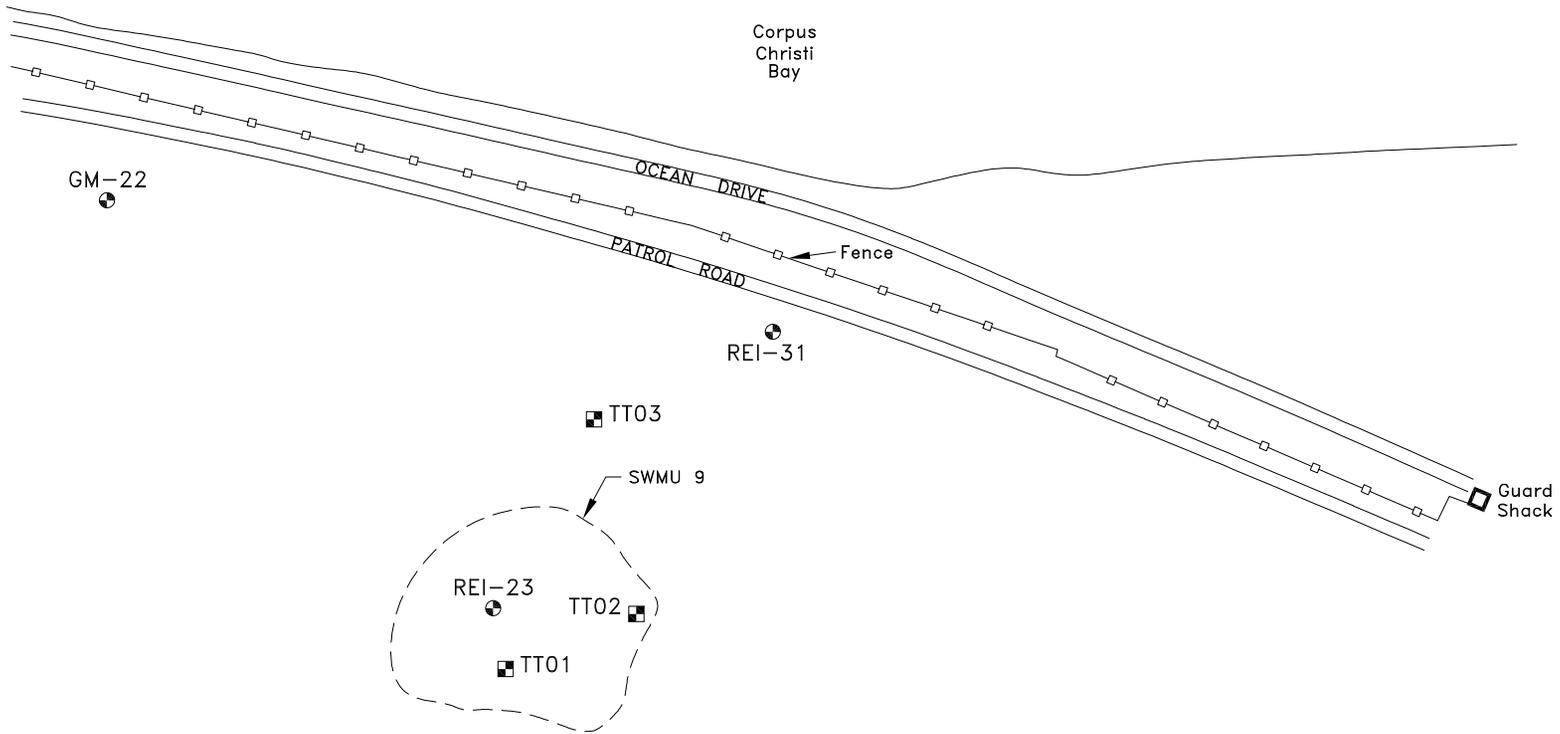
SOURCE U.S.G.S. QUADRANGLE:
OSO CREEK NE, TEXAS (1989)



SITE MANAGER: D. LINDSAY	
CHECKED BY: L. BASILIO	
DRAWN BY: J. FLESCH	
DATE: 03-17-04	SCALE: 1"=6000'
DWG. NO.: 7301SV	PROJ. NO.: N7301



FIGURE 1-1
AREA VICINITY MAP
NAS CORPUS CHRISTI, TEXAS



LEGEND

- 2004 Monitoring Well Locations
- Existing Monitoring Well Locations



SITE MANAGER: D. LINDSAY	
CHECKED BY: L. BASILIO	
DRAWN BY: J. FLESCH	
DATE: 02-02-05	SCALE: 1"=400'
DWG. NO.: 7301PWL	PROJ. NO.: N7301



FIGURE 1-2
MONITORING WELL LOCATIONS
SWMU 9
NAS CORPUS CHRISTI, TEXAS

1960's and 1970's for disposal of liquid wastes generated at Corpus Christi Army Depot (CCAD). Disposal of liquid at the site was reportedly not on a consistent basis.

Three groundwater monitoring wells were previously installed at and near SWMU 9 (GM-22, REI-23, and REI-31). The locations of the monitoring wells are shown on Figure 1-2. The previously existing monitoring wells were installed in the mid-1980's by Navy subcontractors (Geraghty & Miller and Resource Engineering, 1986). Groundwater samples collected from the most recent sampling event in October 2001 exhibited positive detections for metals and semi-volatile organic compounds (SVOCs). One sample from monitoring well REI-23 contained an arsenic concentration of 12 microgram per liter (ug/L). This concentration exceeded the Texas Risk Reduction Program (TRRP) Tier I Residential Protective Concentration Level (PCL) for arsenic of 10 ug/L.

1.2 OBJECTIVE OF SITE INVESTIGATION

The objective of the groundwater investigation for SWMU 9 was to determine if impact to groundwater has occurred as a result of past practices. The presence and extent of impacts to groundwater was determined from fixed-based laboratory analyses of groundwater samples for volatile organic compounds (VOCs) and metals.

1.3 REPORT ORGANIZATION

The remainder of this SI Report is organized in the following sections:

Section 2 presents a description of the SI field activities including soil boring and sampling, Investigation Derived Waste (IDW) management, and surveying.

Section 3 presents the findings of the SI including site geology and analytical results.

Section 4 presents the conclusions and recommendations of the SI.

Section 5 lists references for this SI report.

Appendix A presents the field logs.

Appendix B presents the analytical summary.

Appendix C presents the data usability summary.

2.0 SCOPE OF INVESTIGATION ACTIVITIES

2.1 GENERAL DESCRIPTION AND INFORMATION

The scope of the site investigation was to characterize the groundwater contamination at the North Gate Disposal Area – SWMU 9. Additionally, a base-wide groundwater background study for arsenic was conducted. The results of the background study are presented under separate cover (TtNUS, 2005). The installation of warning signs at Installation Restoration (IR) Sites 1, 3 and 4 was also performed as part of the field mobilization. To meet the objective of determining the presence of groundwater impacts at SWMU 9, the tasks described in the following sections were completed.

2.2 SOIL BORING/MONITORING WELL INSTALLATION

A soil boring program was conducted at SWMU 9 using hollow stem auger (HSA) drilling methods. Three (3) soil borings were drilled to a depth of approximately 15 feet below ground surface (bgs). Table 2-1 summarizes the soil boring program. Continuous soil sampling for lithologic description was conducted at the three borings. Each boring was logged by the project geologist while drilling. Completed field boring log forms for each soil boring are included in Appendix A. All recovered core samples were field-scanned with a Photoionization Detector (PID) at approximate one-foot intervals and at changes in stratigraphy or lithology and the readings were recorded on the boring logs. Soil cuttings generated during installation of the borings were containerized and stored on-site for subsequent disposal at an approved waste disposal facility.

The borings were installed using a Mobile B-61 buggy drilling rig capable of continuous split-spoon sampling. The borings were drilled to a depth sufficient to encounter the first water-bearing zone (between 5 and 9 feet bgs) and to install a groundwater monitoring well. Soil samples were collected for lithologic description only and were not submitted for laboratory analysis.

Upon reaching the total depth of the boring, the soil borings were converted into permanent groundwater monitoring wells. The groundwater monitoring wells were constructed of Schedule 40, flush-jointed, 2-inch inside diameter (ID) National Sanitation Foundation (NSF) polyvinyl chloride (PVC) well screen and PVC riser pipe. The well screens were 10-feet long with a slot size of 0.01 inch and supplied with an end cap. A summary of screened intervals is included in Table 2-1. After the screen and the riser pipe were installed, the annulus of the boring was backfilled with clean silica sand (Nos. 20/40 U.S. Standard Sieve size) filter pack from the bottom of the boring to 1 to 2 feet above the top of the well screen. A bentonite pellet seal was installed above the filter pack and hydrated using potable water. The monitoring wells

TABLE 2-1

**SOIL BORING SUMMARY
SITE INVESTIGATION REPORT
NORTH GATE DISPOSAL AREA - SWMU 9
NAS CORPUS CHRISTI, TEXAS**

Soil Boring Number	Site Location Area	Total Depth (feet bgs)	Screened Interval (feet bgs)	Date Completed
TT01	SWMU 9	14.5	4.5 – 14.5	12/31/2005
TT02	SWMU 9	14	4.0 – 14.0	12/31/2005
TT03	SWMU 9	15	5.0 – 15.0	12/31/2005

were grouted to surface and finished with a stick-up cover and concrete surface pad with four bollards surrounding the pad, painted with high visibility yellow paint. Well Construction Diagrams are presented in Appendix A.

The monitoring wells were developed after installation to remove fine materials from around the well screen. Wells were developed by surging and pumping with an electric submersible pump until the water was clear to the eye. Measurements of pH, temperature, and specific conductance were collected after a well casing volume was removed. Monitoring Well Development Sheets are presented in Appendix A.

2.3 MONITORING WELL SAMPLING

Groundwater samples were collected from the monitoring wells using a low-flow purge sampling method. Low-flow sampling procedures are used in an effort to obtain a turbidity level of less than 10 nephelometric units (NTUs) and achieve a water level drawdown of less than 0.3 feet during purging and sampling. In all wells the NTU value at the time of sampling was less than 10 NTUs. However, in some wells the drawdown was greater than 0.3 feet. A peristaltic pump with 1/4-inch Teflon® tubing was used for well purging and groundwater sample collection. Copies of the Low-Flow Purge Data Sheets and Groundwater Sample Log Sheets are included in Appendix A.

The following steps were used during groundwater sampling:

1. A PID was used to measure headspace gases while opening the monitoring well. There were no PID readings above the instrument detection level. The water level and total depth of the well was measured and recorded.

2. The sample tubing was slowly lowered into the well so that the pump intake was within the saturated screen length of the well and at least two feet above the bottom of the well.
3. The initial pump rate was set at approximately 100 milliliters per minute (ml/min). The flow rate was maintained at 100 ml/min or less in all wells during purging and sampling protocols. The groundwater level drawdown did exceed 0.3 feet in some of the wells.
4. Water level and water quality parameters (pH, specific conductance, temperature, turbidity, oxidation-reduction potential and dissolved oxygen) were measured and recorded during purging activities. The data was recorded on the Low-Flow Purge Data Sheets which are presented in Appendix A.
5. After stabilization was achieved, sampling began when a minimum of two saturated screen volumes had been removed and three consecutive readings were within the following limits:
 - pH ± 0.2 standard units
 - Specific conductance $\pm 10\%$
 - Temperature $\pm 10\%$
 - Turbidity less than 10 NTUs
 - Dissolved oxygen $\pm 10\%$
6. Final well stabilization parameters were recorded on the Groundwater Sample Log Sheets presented in Appendix A.

Groundwater samples were collected into pre-preserved sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence. The groundwater samples to be submitted for laboratory analyses were immediately labeled and placed on ice in an insulated cooler awaiting packing and shipment.

2.4 INVESTIGATION DERIVED WASTE

Investigation derived wastes generated as a result of the investigation were drill cuttings, decontamination/purge water, and personal protective equipment (PPE). All drill cuttings and PPE were collected at the individual boring locations and loaded into Department of Transportation (DOT)-approved 55-gallon drums. All waste water was also collected and loaded into DOT-approved 55-gallon drums. All drums used to containerize waste were clearly identified and labeled "PENDING ANALYSIS". The drums

were properly labeled and the lids securely fastened closed. Drums were stored onsite at Building 40 awaiting disposal by NAS Corpus Christi.

One composite water sample was collected from all drums containing liquid IDW. One composite soil sample was collected from the drums containing IDW soils. The IDW samples were submitted to the laboratory for chemical analysis for waste profile characterization. Copies of the IDW analytical results were provided to NAS Corpus Christi personnel responsible for the IDW disposal.

2.5 LAND SURVEYING

Land surveying was conducted by LopezGarcia Group, an independent professional surveyor, to determine the horizontal and vertical (X, Y, and Z) location of all soil borings. Table 2-2 summarizes the horizontal and vertical locations of all monitoring wells referenced to an existing site datum (Texas State Plane Coordinates – Texas South Zone 4205, North American Datum 1983, and North American Vertical Datum 1988, respectively).

TABLE 2-2
MONITORING WELL SURVEY COORDINATES
SITE INVESTIGATION
NORTH GATE DISPOSAL AREA - SWMU 9
NAS CORPUS CHRISTI, TEXAS

Boring Number	Area	Northing (feet)	Easting (feet)	Ground Elevation (feet)	Top of Casing Elevation (feet)
TT01	SWMU 9	17146659.3	1375021.1	6.1	8.59
TT02	SWMU 9	17146774.2	4125884.5	5.0	7.68
TT03	SWMU 9	17147181.4	1375206.9	7.2	10.45

3.0 SITE INVESTIGATION RESULTS

3.1 SITE STRATIGRAPHY AND HYDROGEOLOGY

The site-specific geological setting was determined by examining drill cuttings and recovered core samples from the three soil borings advanced to install permanent monitoring wells at the North Gate Disposal Area – SWMU 9. The borings were drilled to a depth of approximately 15 feet bgs. In general, the geologic section consisted of a fine-grained unit, consisting of gray, gray-brown, gray-black, low to moderate plasticity, lean clays with varying amounts of silt, sand, and shell fragments. The degree of saturation was mixed, with some sections of the boring being saturated and other sections wet to moist. More detailed lithologic information is contained in the boring logs found in Appendix A.

Average depth to groundwater was approximately 6 feet bgs. Collection of groundwater elevation data was used to determine groundwater flow direction across the site. Figure 3-1 is a potentiometric surface map depicting flow across the site. Groundwater flow trends to the south away from Corpus Christi Bay. This southerly flow direction is consistent with previous studies at the site and may be tidally influenced.

3.2 ANALYTICAL PARAMETERS AND METHODS

Table 3-1 presents a summary of the samples collected, analytical parameters, and analytical methods.

3.2.1 Groundwater Samples

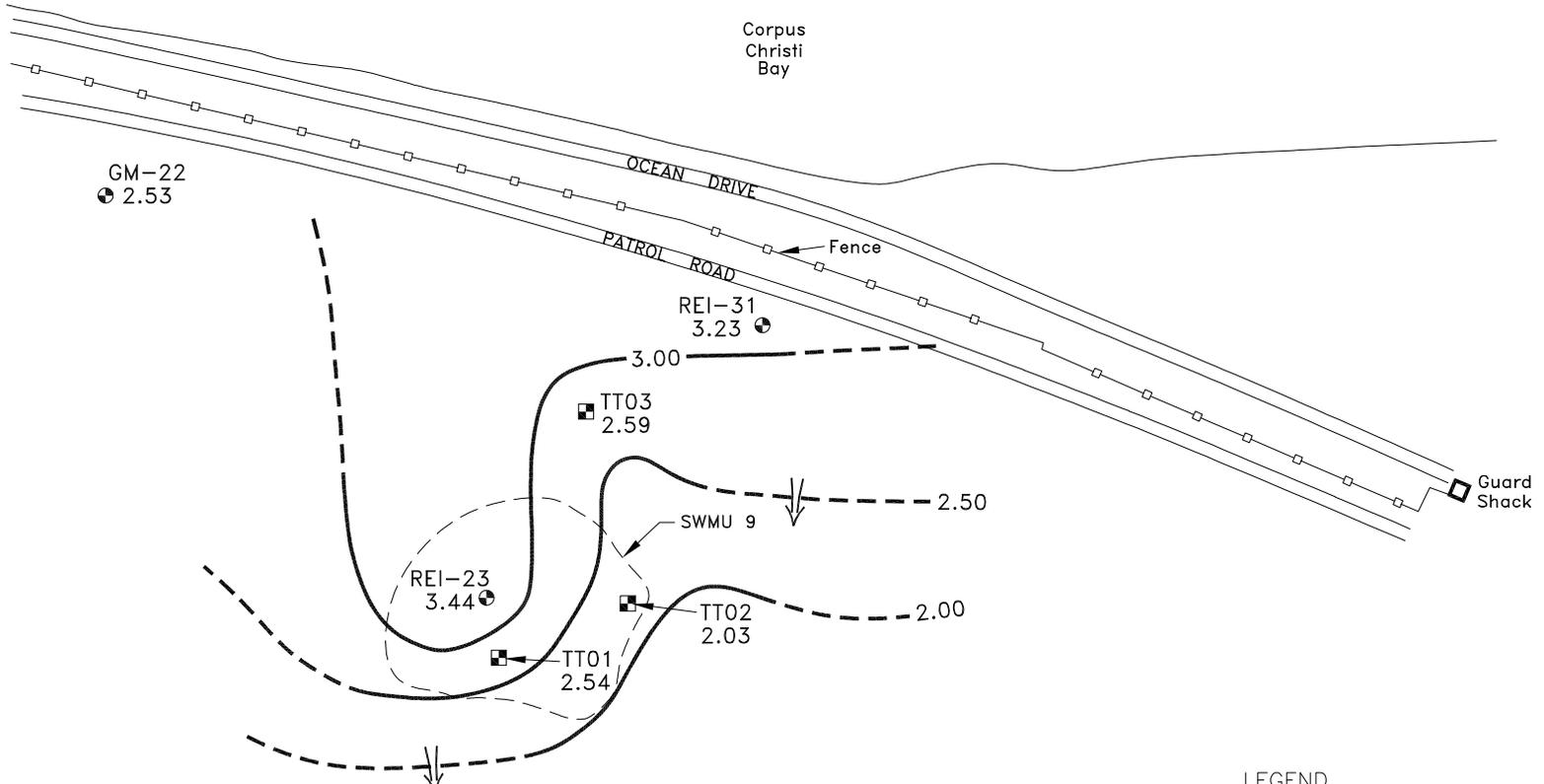
The groundwater samples collected at SWMU 9 were analyzed for VOCs by U.S. Environmental Protection Agency (EPA) Method 8260B and for metals (arsenic, barium, cadmium, chromium, hexavalent chromium, copper, lead, nickel, selenium, silver and zinc) by EPA Methods 6010/7000/7196.

3.2.2 IDW Samples

The soil and liquid IDW samples collected were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCs by EPA Method 1311/8260B, TCLP SVOCs by EPA Method 1311/8270C, TCLP Metals by EPA Method 1311/6000/7000 Series, Reactivity by SW-846 Chapter 7, Corrosivity by EPA Method 1110, Ignitability by EPA Method 1020, and total petroleum hydrocarbons (TPH) by Method TX1005.

3.3 DISCUSSION OF RESULTS

Analytical results are compared to TRRP Tier 1 Residential PCLs. Only positive detections are discussed and summarized in the associated tables included in this section, however a summary of the analytical data, including laboratory qualifiers and TtNUS validation qualifiers, is provided in Appendix B.



LEGEND

- 2004 Monitoring Well Locations
- Existing Monitoring Well Locations
- 3.23 Groundwater Elevation, m.s.l.
- 3.00- Groundwater Elevation Contour, m.s.l.
Contour Interval=0.50'
- Groundwater Flow Direction 01-13-05



SITE MANAGER: D. LINDSAY	
CHECKED BY: L. BASILIO	
DRAWN BY: J. FLESCH	
DATE: 03-31-05	SCALE: 1"=400'
DWG. NO.: 7301GW1	PROJ. NO.: N7301



FIGURE 3-1

POTENTIOMETRIC SURFACE MAP
SWMU 9

NAS CORPUS CHRISTI, TEXAS

TABLE 3-1

**SUMMARY OF ANALYTICAL PARAMETERS AND METHODS
SITE INVESTIGATION REPORT
NORTH GATE DISPOSAL AREA - SWMU 9
NAS CORPUS CHRISTI, TEXAS**

Field ID	Sampling Date	Matrix	VOCs⁽¹⁾	Metals ⁽²⁾	Hexavalent Chromium⁽³⁾
S09-GW-TT01	1/13/2005	Water	X	X	X
S09-QC-TT01	1/13/2005	Water	X	X	X
S09-GW-REI23	1/13/2005	Water	X	X	X
S09-GW-TT02	1/13/2005	Water	X	X	X
S09-GW-TT03	1/13/2005	Water	X	X	X
S09-GW-FB001	1/13/2005	Water	X	X	X

Notes:

1. Method 8260 for Target Compound List volatile organics.
2. Method 6010 for arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver and zinc and Method 7470 for mercury.
3. Method 7196 for Hexavalent chromium (Cr ⁺⁶).

3.3.1 Groundwater Sampling Results

Analytical results discussed in this section are contained in Table 3-2. There were no exceedances above TRRP Tier 1 Residential PCL regulatory criteria.

Volatile Organic Compounds

One VOC (carbon disulfide) was detected at a concentration above the reporting limit in one groundwater sample collected in monitoring well TT03 at SWMU 9. The concentration detected is less than the corresponding TRRP Tier 1 Residential PCL.

Metals

Arsenic, barium, lead and nickel were detected at concentrations above the reporting limits in groundwater samples collected at SWMU 9. The concentrations detected are less than the corresponding TRRP Tier 1 Residential PCLs or in the case of arsenic are less than the site-specific background arsenic concentration.

3.3.2 IDW Profile Characterization Results

Results from IDW sampling and profiling are included in Appendix B. No exceedances of regulatory criteria were reported. The results of the IDW samples were provided to NAS Corpus Christi personnel who were responsible for the disposal of the IDW.

TABLE 3-2

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
NORTH GATE DISPOSAL AREA - SWMU 9
NAS CORPUS CHRISTI, TEXAS**

Monitoring Well ID	Sample ID	Parameter	Analytical Results ⁽¹⁾	Data Qualifier ⁽²⁾	Units	Tier 1 Residential ⁽³⁾	Tier 1 Residential ⁽⁴⁾
REI-23	S09-GW-REI-23	Barium	56.1	B	ug/L	2000	--
REI-23	S09-GW-REI-23	Arsenic	9.5	B	ug/L	10	28.4
REI-23	S09-GW-REI-23	Nickel	5.5	B	ug/L	490	--
TT01	S09-GW-TT01	Barium	82.1	B	ug/L	2000	--
TT01	S09-GW-TT01	Arsenic	9.5	B	ug/L	10	28.4
TT01	S09-GW-TT01	Nickel	7.6	B	ug/L	490	--
TT01	S09-GW-TT01	Lead	2.1	B	ug/L	15	--
TT01	S09-QC-TT01	Arsenic	10.7		ug/L	10	28.4
TT01	S09-QC-TT01	Barium	80.6	B	ug/L	2000	--
TT01	S09-QC-TT01	Nickel	6.3	B	ug/L	490	--
TT02	S09-GW-TT02	Barium	71.3	B	ug/L	2000	--
TT02	S09-GW-TT02	Arsenic	11.1		ug/L	10	28.4
TT02	S09-GW-TT02	Nickel	7.3	B	ug/L	490	--
TT02	S09-GW-TT02	Lead	2.1	B	ug/L	15	--
TT03	S09-GW-TT03	Barium	95.3	B	ug/L	2000	--
TT03	S09-GW-TT03	Arsenic	10.5		ug/L	10	28.4
TT03	S09-GW-TT03	Nickel	6.4	B	ug/L	490	--
TT03	S09-GW-TT03	Lead	3.1		ug/L	15	--
TT03	S09-GW-TT03	Carbon Disulfide	0.42	J	ug/L	2400	--
GM-22	S09-GW-GM-22	Barium	59.6	B	ug/L	2000	--
GM-22	S09-GW-GM-22	Nickel	2.9	B	ug/L	10	--
REI-31	S09-GW-REI-31	Barium	151	B	ug/L	490	--
REI-31	S09-GW-REI-31	Arsenic	6.2	B	ug/L	10	28.4
REI-31	S09-GW-REI-31	Nickel	2.8	B	ug/L	10	--

Notes:

1. Data qualifier B or J - The reported value is less than the method quantitation limit (MQL) but is greater than or equal to the sample quantitation limit (SQL).
2. ug/L= microgram per Liter
3. Criteria from Texas Risk Reduction Program, 30 TAC 350.
4. Site-specific background value for arsenic in groundwater.

3.4 DATA VALIDATION

Analytical data obtained as part of this SI, were subjected to data validation. The objective of TtNUS data validation was to review laboratory analytical procedures and quality control results to verify the usability of data toward meeting project objectives. Data collected were used to determine if impacts to groundwater had occurred at SWMU 9 area.

The environmental samples collected were analyzed by E-Lab of Tennessee in accordance with state and federal guidance documents that establish definitive analytical/technical elements, i.e., EPA SW-846 Methods.

The analytical test results (including laboratory quality control [QC] data) for groundwater and blank samples received from E-Lab were reviewed in accordance with the EPA's "Laboratory Data Validation Functional Guidelines for Inorganic Analyses" and "National Functional Guidelines for Organic Data Review." The validation was conducted based on the EPA Functional Guidelines for Level III data package deliverables. Data quality was assessed for accuracy, precision, representativeness, and sensitivity parameters that measure the reproducibility of analytical results, the representativeness of site environmental conditions, and the consistency in the performance of the analytical methods.

Overall, the data meet the general requirements of the project objectives and therefore should be considered valid and acceptable. A summary of the analytical data with laboratory qualifiers and TtNUS validation qualifiers is provided in Appendix B. A complete copy of the Data Validation Report is provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The SI field work and analytical results indicated that one VOC was detected in one groundwater sample but at a concentration less than the TRRP Tier 1 Residential PCL and four metals were detected above the reporting limits but at concentrations less than their respective TRRP Tier 1 Residential PCLs.

Based on the information presented in this report it appears that impacts to groundwater from past operational activities are minimal.

4.2 RECOMMENDATIONS

Based on the results of the SI, there is no impact to groundwater in excess of regulatory limits; therefore, no further action is recommended.

5.0 REFERENCES

Resource Engineering 1986. Site Characterization Investigation Study and Recommendations for Remedial Actions, Naval Air Station Corpus Christi, Texas. Resource Engineering Inc., Houston, Texas. August 1986.

TtNUS (Tetra Tech NUS, Inc.) 2004. Work Plan for Soil Investigation at North Gate Disposal Area (SWMU 9), Naval Air Station Corpus Christi. Tetra Tech NUS, Pittsburgh, Pennsylvania. September 2004.

TtNUS (Tetra Tech NUS, Inc.) 2005. Groundwater Background Report Update, Naval Air Station Corpus Christi. Tetra Tech NUS, Pittsburgh, Pennsylvania. July 2005.

APPENDIX A
FIELD LOGS

SOIL BORING LOGS



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NAS Corpus Christi	DRILLING CO.:	Lewis Environmental Drilling
SITE LOCATION:	Corpus Christi, Texas	DRILLER:	Zane Ruffin
JOB NO.:	N7301	RIG TYPE:	B-57 Mobile
LOGGED BY:	John Robertson	METHOD OF DRILLING:	Hollow Stem Auger
PROJECT MANAGER:	Diane Lindsay	SAMPLING METHODS:	Split Spoon
DATE DRILLED:	12/31/04	TOTAL DEPTH:	14.5 feet bgs
NOTES: Flat ground with mild underbrush		☼	Initial Water Level
		☹	Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		SAND: tan and beige laminae, plant material, slightly clayey, soft, moderately plastic, shell fragments (5-10%), 2-4 mm in size, damp, fine grained, well sorted	No sample collected	6/24	0		TOC Elev: 8.59 ft 4' X 4' concrete pad
		SAND: gray, slightly clayey, stiff, not plastic, shell fragments (15%), 2-4 mm in size, wet, fine to medium grained, moderately sorted		12/24	0		Grouted annulus Bentonite Seal
		SAND: gray and brown, slightly clayey, stiff, low plasticity, shell fragments (<5%), wet to saturated, fine to medium grained, moderately sorted		8/24	0		2" PVC riser
-5		SAND: gray, shell fragments (50%), 2-6 mm in size, non plastic, fine to medium grained, saturated	Water sample collected	6/24	0		
		SAND: gray and beige, shell fragments (5-10%), 2-4 mm in size, slightly clayey at bottom, low plasticity, medium grained, moderately sorted, saturated		12/24	0		Borehole diameter 7 1/2" to 14.5 ft using hollow stem augers
-10		CLAY & SILTY: dark gray, wet-saturated, very soft, very plastic		10/24	0		0.010" slot 2" diameter PVC screen
		CLAY & SILTY: dark gray, 15% fine grained sand, well sorted, very soft, very plastic, shell fragments (5-10%), wet	No sample collected	24/24	0		Sand Pack
					0		Bottom cap

Total Depth = 14.5 feet below ground surface



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NAS Corpus Christi	DRILLING CO.:	Lewis Environmental Drilling
SITE LOCATION:	Corpus Christi, Texas	DRILLER:	Zane Ruffin
JOB NO.:	N7301	RIG TYPE:	B-57 Mobile
LOGGED BY:	John Robertson	METHOD OF DRILLING:	Hollow Stem Auger
PROJECT MANAGER:	Diane Lindsay	SAMPLING METHODS:	Split Spoon
DATE DRILLED:	12/31/04	TOTAL DEPTH:	14 feet bgs
NOTES: Flat ground with dense underbrush		☼	Initial Water Level
		▼	Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		SAND: tan and beige laminae, plant material, slightly clayey, soft, moderately plastic, damp to moist, fine grained, well sorted	No sample collected	5/24	0		TOC Elev: 7.68 ft 4' X 4' concrete pad
		SAND: no recovery, cuttings show same as above		0/24	0		Grouted annulus
		SAND: gray, fine to medium grained, moderately sorted, shell fragments (<5%), 2 mm in size, slightly loose, not plastic, plant material, wet			0		Bentonite Seal
-5		SAND: gray, clayey at top, shell fragments (10-15%), 2-4 mm in size, soft, plastic, medium grained, well sorted, saturated	Water sample collected	4/24	0		2" PVC riser
		CLAY/SAND/SILT: dark gray, very soft, very plastic, very fine grained, wet to saturated, shell fragments (<5%)		15/24	0		Borehole diameter 7 1/2" to 14 ft using hollow stem augers
-10		CLAY/SAND/SILT: dark gray, as above, more clayey with depth, wet		12/24	0		
		CLAY & SILTY: dark gray, very soft, very plastic, wet, shell fragments (<5%)	No sample collected	24/24	0		0.010" slot 2" diameter PVC screen
				24/24	0		Sand Pack
							Bottom cap

Total Depth = 14 feet below ground surface



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NAS Corpus Christi	DRILLING CO.:	Lewis Environmental Drilling
SITE LOCATION:	Corpus Christi, Texas	DRILLER:	Zane Ruffin
JOB NO.:	N7301	RIG TYPE:	B-57 Mobile
LOGGED BY:	John Robertson	METHOD OF DRILLING:	Hollow Stem Auger
PROJECT MANAGER:	Diane Lindsay	SAMPLING METHODS:	Split Spoon
DATE DRILLED:	12/31/04	TOTAL DEPTH:	15 feet bgs

NOTES: Flat ground with mild underbrush

☼ Initial Water Level
▼ Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		SAND: tan and beige laminated, abundant plant material, fine grained, well sorted, slightly clayey, firm, plastic, moist to damp	No sample collected	8/24	0		TOC Elev: 10.45 ft 4' X 4' concrete pad
							Grouted annulus
		SAND: tan and beige, slightly clayey, firm, low plasticity, damp, shell fragments (<5%), medium grained, medium sorted		5/24	0		Bentonite Seal
							2" PVC riser
-5		SAND: tan, slightly clayey near top, medium grained, medium sorted, wet at bottom, soft, plastic		12/24	0		
							Borehole diameter 7 1/2" to 15 ft using hollow stem augers
		SAND: tan and beige, medium grained, medium sorted, shell fragments (5-10%), saturated, loose	Water sample collected	10/24	0		
		CLAY/SAND/SILT: dark gray, soft, plastic, wet, sand fine to medium grained		12/24	0		
-10		CLAY/SAND/SILT: dark gray, shell fragments (40-45%), 2-6 mm in size, very soft, plastic, saturated		5/24	0		0.010" slot 2" diameter PVC screen
			No sample collected	10/24	0		Sand Pack
		CLAY/SAND/SILT: dark gray blue, shell fragments (40-50%), 2-6 mm in size, poorly sorted, slightly plastic, slightly loose, saturated					
		CLAY & SILTY: dark gray blue, shell fragments (25%), 2-4 mm in size, more clayey with depth, soft, very plastic, wet,			0		Bottom cap

Total Depth = 15 feet below ground surface

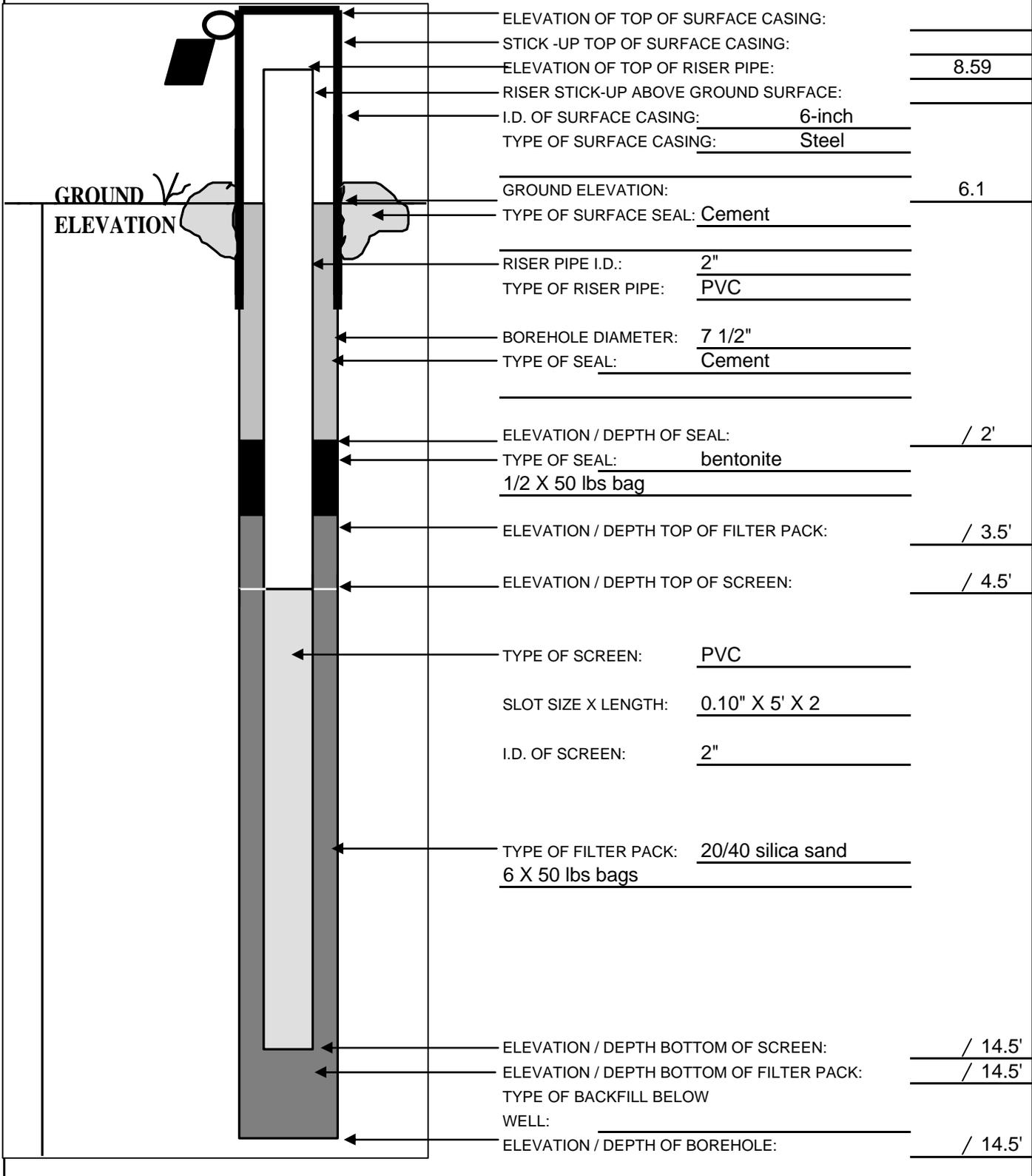
WELL CONSTRUCTION DIAGRAMS



Tetra Tech NUS, Inc. **OVERBURDEN MONITORING WELL SHEET**
Houston, Texas

BORING NO.: TT01

PROJECT:	<u>NAS Corpus Christi</u>	DRILLING Co.:	<u>Lewis Env.</u>	BORING No.:	<u>TT01</u>
PROJECT No.:	<u>N7301</u>	DRILLER:	<u>Z. Ruffin</u>	DATE COMPLETED:	<u>12/31/04</u>
SITE:	<u>SWMU 9</u>	DRILLING METHOD:	<u>H.S.A</u>	NORTHING:	<u>17146659.1</u>
GEOLOGIST:	<u>J. Robertson</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>1375021.2</u>

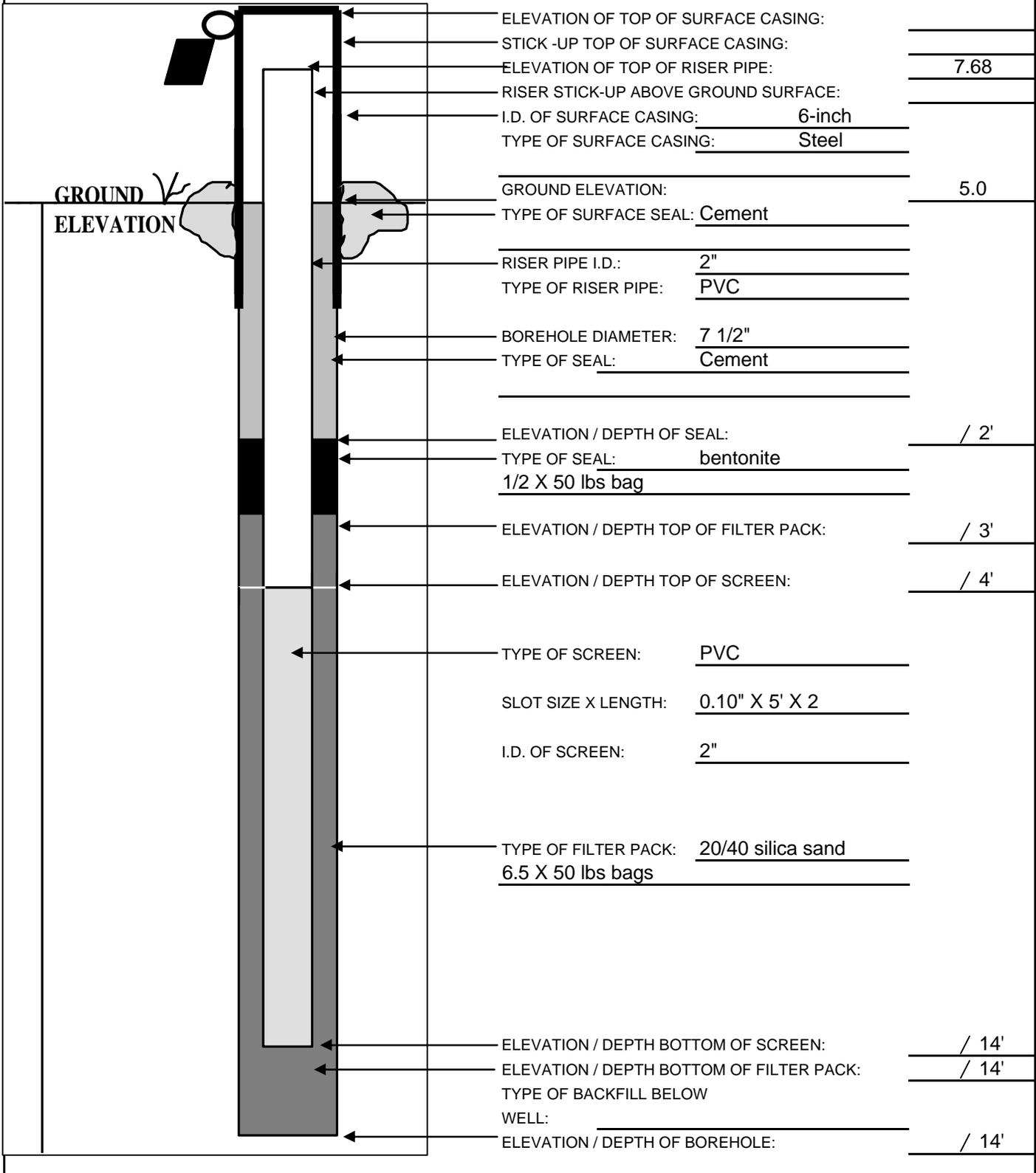




Tetra Tech NUS, Inc. **OVERBURDEN MONITORING WELL SHEET**
Houston, Texas

BORING NO.: TT02

PROJECT:	<u>NAS Corpus Christi</u>	DRILLING Co.:	<u>Lewis Env.</u>	BORING No.:	<u>TT02</u>
PROJECT No.:	<u>N7301</u>	DRILLER:	<u>Z. Ruffin</u>	DATE COMPLETED:	<u>12/31/04</u>
SITE:	<u>SWMU 9</u>	DRILLING METHOD:	<u>H.S.A</u>	NORTHING:	<u>17146774.2</u>
GEOLOGIST:	<u>J. Robertson</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>1375295.1</u>

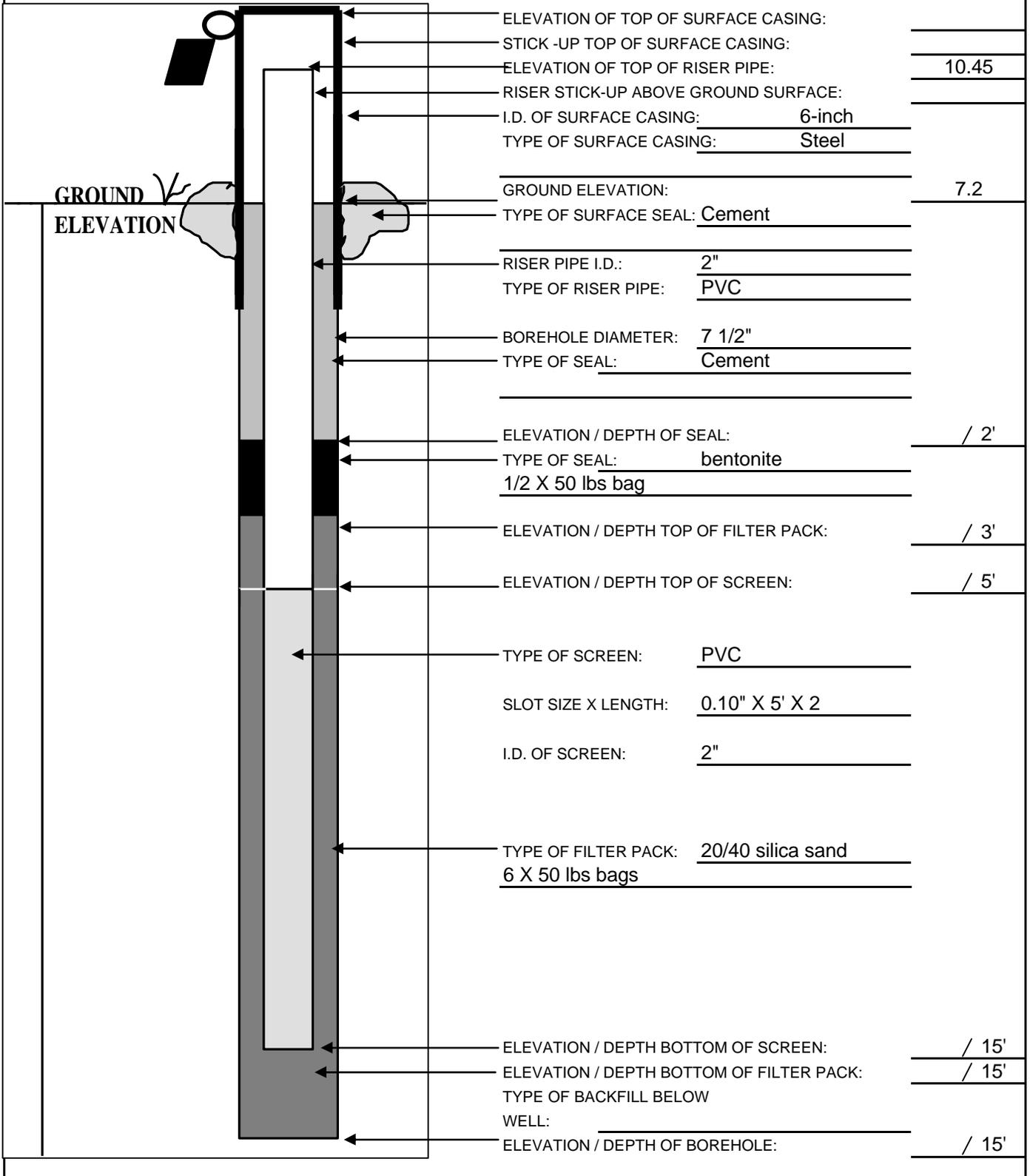




Tetra Tech NUS, Inc. **OVERBURDEN MONITORING WELL SHEET**
Houston, Texas

BORING NO.: TT03

PROJECT:	<u>NAS Corpus Christi</u>	DRILLING Co.:	<u>Lewis Env.</u>	BORING No.:	<u>TT03</u>
PROJECT No.:	<u>N7301</u>	DRILLER:	<u>Z. Ruffin</u>	DATE COMPLETED:	<u>12/31/04</u>
SITE:	<u>SWMU 9</u>	DRILLING METHOD:	<u>H.S.A</u>	NORTHING:	<u>17147181.4</u>
GEOLOGIST:	<u>J. Robertson</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>1375206.7</u>



MONITORING WELL DEVELOPMENT RECORDS

LOW FLOW PURGE DATA SHEETS
AND
GROUNDWATER SAMPLE LOG SHEETS



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-TT01
Project No.:	N7301	Sample Location:	TT01
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/13/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1040	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	7.02	80.4	21.52	0	1.47	-44	

PURGE DATA:

Date: 1/13/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material Type:2" PVC								
Total Well Depth (TD): 17.35								
Static Water Level (WL): 6.05								
One Casing Volume(gal): 1.6								
Start (hrs): 0830								
End (hrs): 1040								
Total Time (min): 130								
Total Vol. (gal): 3.4								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 14 feet bgs.

Collect duplicate sample.

Circle if Applicable:	Signature(s):		
<table style="width:100%;"> <tr> <td style="width:15%;"><input type="checkbox"/> MS/MSD</td> <td>Duplicate ID No.: S09-QC-TT01</td> </tr> </table>	<input type="checkbox"/> MS/MSD	Duplicate ID No.: S09-QC-TT01	
<input type="checkbox"/> MS/MSD	Duplicate ID No.: S09-QC-TT01		

TBD: To Be Determined



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-TT02
Project No.:	N7301	Sample Location:	TT02
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/13/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1330	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	6.86	84	23.4	2	2.11	117	

PURGE DATA:

Date: 1/13/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material Type:2" PVC								
Total Well Depth (TD): 17.03								
Static Water Level (WL): 5.65								
One Casing Volume(gal): 1.6								
Start (hrs): 1111								
End (hrs): 1330								
Total Time (min): 139								
Total Vol. (gal): 3.7								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 12 feet bgs.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

TBD: To Be Determined



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-TT03
Project No.:	N7301	Sample Location:	TT03
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/13/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1425	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	7.01	80.7	22.7	8.5	0.75	-152	

PURGE DATA:

Date: 1/13/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material Type:2" PVC								
Total Well Depth (TD): 17.96								
Static Water Level (WL): 7.86								
One Casing Volume(gal): 1.6								
Start (hrs): 1235								
End (hrs): 1425								
Total Time (min): 110								
Total Vol. (gal): 3.2								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 12 feet bgs.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

TBD: To Be Determined



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-REI23
Project No.:	N7301	Sample Location:	REI-23
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/13/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1135	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	7.18	44.9	19.3	9.9	1.43	-66	

PURGE DATA:

Date: 1/13/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material								
Type: 4" PVC								
Total Well Depth (TD): 13.35								
Static Water Level (WL): 5.80								
One Casing Volume(gal): 3.2								
Start (hrs): 0835								
End (hrs): 1135								
Total Time (min): 180								
Total Vol. (gal): 7								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 8 feet bgs.

Collect MS/MSD samples - S09-GW-REI23-MS
S09-GW-REI23-MSD

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

TBD: To Be Determined



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-REI31
Project No.:	N7301	Sample Location:	REI-31
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/14/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1520	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	7.16	22.5	22.4	5.8	0.57	-287	

PURGE DATA:

Date: 1/14/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material								
Type: 4" PVC								
Total Well Depth (TD): 13.83								
Static Water Level (WL): 5.10								
One Casing Volume(gal): 4.9								
Start (hrs): 1120								
End (hrs): 1520								
Total Time (min): 240								
Total Vol. (gal): 10								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 10 feet bgs.

Rotten egg odor associated with water.

Circle if Applicable:	Signature(s):		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%; text-align:center;">MS/MSD</td> <td>Duplicate ID No.:</td> </tr> </table>	MS/MSD	Duplicate ID No.:	
MS/MSD	Duplicate ID No.:		

TBD: To Be Determined



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	NAS Corpus Christi, SWMU 9	Sample ID No.:	S09-GW-GM22
Project No.:	N7301	Sample Location:	GM-22
<input type="checkbox"/> Domestic Well Data		Sampled By:	LB/JR
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	
<input type="checkbox"/> QA Sample Type:		<input checked="" type="checkbox"/> Low Concentration	
		<input type="checkbox"/> High Concentration	

SAMPLING DATA:

Date: 1/14/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time: 1210	Visual	Standard	mS/cm	°C	NTU	mg/l	mV	
Method: Peristaltic Pump	clear	6.6	99.9	24.24	4.5	0.72	-312	

PURGE DATA:

Date: 1/14/05	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method: Peristaltic Pump	SEE LOW FLOW PURGE DATA SHEET FOR DETAILS							
Monitor Reading (ppm):0								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD): 14.80								
Static Water Level (WL): 4.15								
One Casing Volume(gal): 1.6								
Start (hrs): 1110								
End (hrs): 1210								
Total Time (min): 60								
Total Vol. (gal): 1.6								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC 8260B			X
Metals 6010/7470			X
Hex Chromium 6000			X

OBSERVATIONS / NOTES:

Inlet tubing set at 12 feet bgs.

Rotten egg odor associated with water.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

TBD: To Be Determined

APPENDIX B
SUMMARY OF ANALYTICAL RESULTS

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-FB001	Arsenic	7440-38-2	3	µg/L	U	U	3	3
S09-FB001	Barium	7440-39-3	5	µg/L	U	U	5	5
S09-FB001	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-FB001	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-FB001	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-FB001	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4
S09-FB001	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-FB001	Nickel	7440-02-0	2	µg/L	U	U	2	2
S09-FB001	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-FB001	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-FB001	Zinc	7440-66-9	5	µg/L	U	U	5	5
S09-FB001	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-FB001	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-FB001	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-FB001	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-FB001	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-FB001	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-FB001	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-FB001	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-FB001	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-FB001	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-FB001	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-FB001	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-FB001	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Cis-1,3-Dichloropropane	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-FB001	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-FB001	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-FB001	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-FB001	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-FB001	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	Arsenic	7440-38-2	3	µg/L	U	U	3	3
S09-GW-GM22	Barium	7440-39-3	59.6	µg/L	B	U	5	5
S09-GW-GM22	Cadmium	7440-43-9	1	µg/L	U	U	1	1

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
 Site Investigation Report
 North Gate Disposal Area - SWMU 9
 Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-GM22	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-GW-GM22	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-GW-GM22	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4
S09-GW-GM22	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-GW-GM22	Nickel	7440-02-0	2.9	µg/L	B		2	2
S09-GW-GM22	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-GW-GM22	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-GW-GM22	Zinc	7440-66-6	50	µg/L	U	U	50	50
S09-GW-GM22	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-GW-GM22	1,1,1-Trichloroethane	71-55-6	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	1,1,1,2-Tetrachloroethane	79-34-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	1,1,2-Trichloroethane	79-00-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	1,1,2-Trichlorotrifluoroethane	76-13-1	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	1,1-Dichloroethane	75-34-3	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	1,1-Dichloroethene	75-35-4	0.6	µg/L	U	U	0.6	0.6
S09-GW-GM22	1,2,4-Trichlorobenzene	120-82-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	1,2-Dibromo-3-Chloropropane	96-12-8	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	1,2-Dibromoethane	106-93-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	1,2-Dichloroethane	107-06-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	1,2-Dichloropropane	78-87-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	1,3-Dichlorobenzene	541-73-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	1,4-Dichlorobenzene	106-46-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	2-Butanone	78-93-3	1	µg/L	U	U	1	1
S09-GW-GM22	2-Hexanone	591-78-6	2	µg/L	U	U	2	2
S09-GW-GM22	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-GM22	Acetone	67-64-1	4	µg/L	U	U	4	4
S09-GW-GM22	Benzene	71-43-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Bromodichloromethane	75-27-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Bromoform	75-25-2	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Bromomethane	74-83-9	0.8	µg/L	U	U	0.8	0.8
S09-GW-GM22	Carbon disulfide	75-15-0	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	Carbon Tetrachloride	56-23-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	Chlorodibromomethane	124-48-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Chloroethane	75-00-3	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	Chloroform	67-66-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Chloromethane	74-87-3	0.5	µg/L	U	UJ	0.5	0.5
S09-GW-GM22	Cis-1,2-Dichloroethene	156-59-2	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Cis-1,3-Dichloropropene	10061-01-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Cyclohexane	110-82-7	1	µg/L	U	U	1	1
S09-GW-GM22	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	Isopropylbenzene	98-82-8	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Methyl acetate	79-20-9	2	µg/L	U	U	2	2
S09-GW-GM22	Methyl Cyclohexane	108-87-2	1	µg/L	U	U	1	1
S09-GW-GM22	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	Methylene Chloride	75-09-2	0.9	µg/L	U	U	0.9	0.9
S09-GW-GM22	Styrene	100-42-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Toluene	108-88-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Total Xylenes	1330-20-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-GM22	Trans-1,2-Dichloroethene	156-60-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-GM22	Trichloroethene	79-01-6	0.4	µg/L	U	U	0.4	0.4
S09-GW-GM22	Trichlorofluoromethane	75-69-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-GM22	Vinyl Chloride	75-01-4	0.4	µg/L	U	UJ	0.4	0.4
S09-GW-REI23	Arsenic	7440-38-2	9.5	µg/L	B		3	3
S09-GW-REI23	Barium	7440-39-3	56.1	µg/L	B		5	5
S09-GW-REI23	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-GW-REI23	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-GW-REI23	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-GW-REI23	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-REI23	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-GW-REI23	Nickel	7440-02-0	5.5	µg/L	B		2	2
S09-GW-REI23	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-GW-REI23	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-GW-REI23	Zinc	7440-66-6	18	µg/L	U	U	18	18
S09-GW-REI23	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-GW-REI23	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-GW-REI23	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-GW-REI23	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-REI23	ACETONE	67-64-1	2	µg/L	U	U	2	2
S09-GW-REI23	BENZENE	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI23	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI23	Cis-1,2-Dichloroethene	156-59-2	0.2	µg/L	U	U	0.3	0.3
S09-GW-REI23	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI23	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-GW-REI23	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-GW-REI23	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI23	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI23	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	Arsenic	7440-38-2	6.2	µg/L	B		3	3
S09-GW-REI31	Barium	7440-39-3	151	µg/L	B		5	5
S09-GW-REI31	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-GW-REI31	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-GW-REI31	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-GW-REI31	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4
S09-GW-REI31	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-GW-REI31	Nickel	7440-02-0	2.8	µg/L	B		2	2
S09-GW-REI31	Selenium	7782-49-2	4	µg/L	U	U	4	4

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-REI31	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-GW-REI31	Zinc	7440-66-6	10	µg/L	U	U	10	10
S09-GW-REI31	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-GW-REI31	1,1,1-Trichloroethane	71-55-6	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	1,1,2,2-Tetrachloroethane	79-34-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	1,1,2-Trichloroethane	79-00-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	1,1,2-Trichlorotrifluoroethane	76-13-1	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	1,1-Dichloroethane	75-34-3	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	1,1-Dichloroethene	75-35-4	0.6	µg/L	U	U	0.6	0.6
S09-GW-REI31	1,2,4-Trichlorobenzene	120-82-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	1,2-Dibromo-3-Chloropropane	96-12-8	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	1,2-Dibromoethane	106-93-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	1,2-Dichloroethane	107-06-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	1,2-Dichloropropane	78-87-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	1,3-Dichlorobenzene	541-73-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	1,4-Dichlorobenzene	106-46-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	2-Butanone	78-93-3	1	µg/L	U	U	1	1
S09-GW-REI31	2-Hexanone	591-78-6	2	µg/L	U	U	2	2
S09-GW-REI31	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-REI31	Acetone	67-64-1	4	µg/L	U	U	4	4
S09-GW-REI31	Benzene	71-43-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Bromodichloromethane	75-27-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Bromoform	75-25-2	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Bromomethane	74-83-9	0.8	µg/L	U	U	0.8	0.8
S09-GW-REI31	Carbon Disulfide	75-15-0	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	Carbon Tetrachloride	56-23-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	Chlorodibromomethane	124-48-1	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Chloroethane	75-00-3	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	Chloroform	67-66-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Chloromethane	74-87-3	0.5	µg/L	U	UJ	0.5	0.5
S09-GW-REI31	Cis-1,2-Dichloroethene	156-59-2	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Cis-1,3-Dichloropropene	10061-01-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Cyclohexane	110-82-7	1	µg/L	U	U	1	1
S09-GW-REI31	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	Isopropylbenzene	98-82-8	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Methyl acetate	79-20-9	2	µg/L	U	U	2	2
S09-GW-REI31	Methyl Cyclohexane	108-87-2	1	µg/L	U	U	1	1
S09-GW-REI31	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	Methylene Chloride	75-09-2	0.9	µg/L	U	U	0.9	0.9
S09-GW-REI31	Styrene	100-42-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Toluene	108-88-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Total Xylenes	1330-20-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-REI31	Trans-1,2-Dichloroethene	156-60-5	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-REI31	Trichloroethene	79-01-6	0.4	µg/L	U	U	0.4	0.4
S09-GW-REI31	Trichlorofluoromethane	75-69-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-REI31	Vinyl Chloride	75-01-4	0.4	µg/L	U	UJ	0.4	0.4
S09-GW-TT01	Arsenic	7440-38-2	9.5	µg/L	B		3	3
S09-GW-TT01	Barium	7440-39-3	82.1	µg/L	B		5	5
S09-GW-TT01	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-GW-TT01	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-GW-TT01	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-GW-TT01	Lead	7439-92-1	2.1	µg/L	B		1.4	1.4
S09-GW-TT01	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-GW-TT01	Nickel	7440-02-0	7.6	µg/L	B		2	2
S09-GW-TT01	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-GW-TT01	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-GW-TT01	Zinc	7440-66-6	26	µg/L	U	U	26	26
S09-GW-TT01	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-TT01	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-GW-TT01	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-GW-TT01	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-TT01	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-GW-TT01	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT01	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-ID-SOIL	Cynide	57-12-5	0.098	mg/kg	B	JL	0.097	0.097
S09-ID-SOIL	Ignitability	TTNUS025	158	F				
S09-ID-SOIL	pH	TTNUS002	8.6	S.U.				
S09-ID-SOIL	Reactive Sulfide	TTNUS027	19	mg/kg	U	U	19	19
S09-ID-SOIL	2,4,5-Trichlorophenol	95-95-4	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	2,4,6-Trichlorophenol	88-06-2	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	2,4-Dinitrotoluene	121-14-2	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	2-Methylphenol	95-48-7	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	3-Methylphenol	108-39-4	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	4-Methylphenol	106-44-5	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	Hexachlorobenzene	118-74-1	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	Hexachlorobutadiene	87-68-3	0.05	mg/L	U	UJ	0.01	0.01
S09-ID-SOIL	Hexachloroethane	67-72-1	0.05	mg/L	U	UJ	0.01	0.01
S09-ID-SOIL	Nitorbenzene	98-95-3	0.05	mg/L	U	U	0.01	0.01
S09-ID-SOIL	Pentachlorophenol	87-86-5	0.2	mg/L	U	U	0.01	0.01
S09-ID-SOIL	Pyridine	110-86-1	0.2	mg/L	U	UJ	0.01	0.01
S09-ID-SOIL	1,1-Dichloroethene	75-35-4	0.01	mg/L	U	U	0.003	0.003
S09-ID-SOIL	1,2-Dichloroethane	107-06-2	0.01	mg/L	U	U	0.002	0.002
S09-ID-SOIL	1,4-Dichlorobenzene	106-46-7	0.01	mg/L	U	U	0.002	0.002
S09-ID-SOIL	2-Butanone	78-93-3	0.1	mg/L	U	U	0.04	0.04
S09-ID-SOIL	Benzene	71-43-2	0.01	mg/L	U	U	0.002	0.002
S09-ID-SOIL	Carbon Tetrachloride	56-23-5	0.01	mg/L	U	U	0.003	0.003
S09-ID-SOIL	Chlorobenzene	108-90-7	0.01	mg/L	U	U	0.002	0.002
S09-ID-SOIL	Chloroform	67-66-3	0.01	mg/L	U	U	0.003	0.003
S09-ID-SOIL	Tetrachloroethene	127-18-4	0.01	mg/L	U	U	0.003	0.003
S09-ID-SOIL	Trichloroethene	79-01-6	0.01	mg/L	U	U	0.002	0.002
S09-ID-SOIL	Vinyl Chloride	75-01-4	0.02	mg/L	U	U	0.005	0.005
S09-ID-SOIL	Chlorodane	57-74-9	0.0005	mg/L	U	UJ	0.00025	0.00025
S09-ID-SOIL	Endrin	72-20-8	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-SOIL	Gamma-BHC (Lindane)	58-89-9	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-SOIL	Heptachlor	76-44-8	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-SOIL	Heptachlor Epoxide	1024-57-3	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-SOIL	Methoxychlor	72-43-5	0.0005	mg/L	U	U	0.00025	0.00025
S09-ID-SOIL	Toxaphene	8001-35-2	0.01	mg/L	U	UJ	0.005	0.005
S09-ID-SOIL	Petroleum Hydrocarbons (C12 - C28)	TTNUS544	12	mg/kg	U	U	12	12
S09-ID-SOIL	Petroleum Hydrocarbons (C28 - C35)	TTNUS546	12	mg/kg	U	U	12	12
S09-ID-SOIL	Petroleum Hydrocarbons (C6 - C12)	TTNUS545	13	mg/kg	U	U	13	13

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-ID-SOIL	Petroleum Hydrocarbons (C6 - C35)	TTNUS547	13	mg/kg	U	U	13	13
S09-ID-SOIL TCLP	Arsenic	7440-38-2	30	µg/L	U	U	30	30
S09-ID-SOIL TCLP	Barium	7440-39-3	694	µg/L	B		50	50
S09-ID-SOIL TCLP	Cadmium	7440-43-9	10	µg/L	U	U	10	10
S09-ID-SOIL TCLP	Chromium	7440-47-3	20	µg/L	U	U	20	20
S09-ID-SOIL TCLP	Lead	7439-92-1	14	µg/L	U	U	14	14
S09-ID-SOIL TCLP	Mercury	7439-97-6	0.55	µg/L	U	U	0.55	0.55
S09-ID-SOIL TCLP	Selenium	7782-49-2	30	µg/L	U	U	30	30
S09-ID-SOIL TCLP	Silver	7440-22-4	10	µg/L	U	U	10	10
S09-ID-WATER	2,4,5-TP (Silvex)	93-72-1	0.0005	mg/L	U	U	0.00025	0.00025
S09-ID-WATER	2,4-D	94-75-7	0.005	mg/L	U	U	0.0025	0.0025
S09-ID-WATER	Cynide	57-12-5	4	µg/L	U	U	4	4
S09-ID-WATER	Flashpoint	TTNUS198	158	F				
S09-ID-WATER	pH	TTNUS002	12.7	S.U.				
S09-ID-WATER	Reactive Sulfide	TTNUS027	19	mg/L	U	U	19	19
S09-ID-WATER	2,4,5-Trichlorophenol	95-95-4	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	2,4,6-Trichlorophenol	88-06-2	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	2,4-Dinitrotoluene	121-14-2	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	2-Methylphenol	95-48-7	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	3-Methylphenol	108-39-4	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	4-Methylphenol	106-44-5	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	Hexachlorobenzene	118-74-1	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	Hexachlorobutadiene	87-68-3	0.05	mg/L	U	UJ	0.01	0.01
S09-ID-WATER	Hexachloroethane	67-72-1	0.05	mg/L	U	UJ	0.01	0.01
S09-ID-WATER	Nitrobenzene	98-95-3	0.05	mg/L	U	U	0.01	0.01
S09-ID-WATER	Pentachlorophenol.	87-86-5	0.2	mg/L	U	U	0.01	0.01
S09-ID-WATER	Pyridine	110-86-1	0.2	mg/L	U	UJ	0.01	0.01
S09-ID-WATER	1,1-Dichloroethene	75-35-4	0.01	mg/L	U	U	0.003	0.003
S09-ID-WATER	1,2-Dichloroethane	107-06-2	0.01	mg/L	U	U	0.002	0.002
S09-ID-WATER	1,4-Dichlorobenzene	106-46-7	0.01	mg/L	U	U	0.002	0.002
S09-ID-WATER	2-Butanone	78-93-3	0.1	mg/L	U	U	0.04	0.04
S09-ID-WATER	Benzene	71-43-2	0.01	mg/L	U	U	0.002	0.002
S09-ID-WATER	Carbon Tetrachloride	56-23-5	0.01	mg/L	U	U	0.003	0.003
S09-ID-WATER	Chlorobenzene	108-90-7	0.01	mg/L	U	U	0.002	0.002
S09-ID-WATER	Chloroform	67-66-3	0.01	mg/L	U	U	0.003	0.003
S09-ID-WATER	Tetrachloroethene	127-18-4	0.01	mg/L	U	U	0.003	0.003
S09-ID-WATER	Trichloroethene	79-01-6	0.01	mg/L	U	U	0.002	0.002
S09-ID-WATER	Vinyl Chloride	75-01-4	0.02	mg/L	U	U	0.005	0.005
S09-ID-WATER	Chlorodane	57-74-9	0.0005	mg/L	U	UJ	0.00025	0.00025
S09-ID-WATER	Endrin	72-20-8	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-WATER	Gamma-BHC (Lindane)	58-89-9	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-WATER	Heptachlor	76-44-8	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-WATER	Heptachlor Epoxide	1024-57-3	0.0001	mg/L	U	U	0.00005	0.00005
S09-ID-WATER	Methoxychlor	72-43-5	0.0005	mg/L	U	U	0.00025	0.00025
S09-ID-WATER	Toxaphene	8001-35-2	0.01	mg/L	U	UJ	0.005	0.005
S09-ID-WATER	Petroleum Hydrocarbons (C12 - C28)	TTNUS544	0.48	mg/L	U	U	0.48	0.48
S09-ID-WATER	Petroleum Hydrocarbons (C28 - C35)	TTNUS546	0.48	mg/L	U	U	0.48	0.48
S09-ID-WATER	Petroleum Hydrocarbons (C6 - C12)	TTNUS545	0.4	mg/L	U	U	0.4	0.4
S09-ID-WATER	Petroleum Hydrocarbons (C6 - C35)	TTNUS547	0.48	mg/L	U	U	0.48	0.48
S09-ID-WATER TCLP	Arsenic	7440-38-2	41.6	µg/L	B	B	30	30
S09-ID-WATER TCLP	Barium	7440-39-3	180	µg/L	B	B	50	50
S09-ID-WATER TCLP	Cadmium	7440-43-9	10	µg/L	U	U	10	10
S09-ID-WATER TCLP	Chromium	7440-47-3	20	µg/L	B	B	20	20
S09-ID-WATER TCLP	Lead	7439-92-1	14	µg/L	U	U	14	14
S09-ID-WATER TCLP	Mercury	7439-97-6	0.55	µg/L	U	U	0.55	0.55
S09-ID-WATER TCLP	Selenium	7782-49-2	30	µg/L	U	U	30	30
S09-ID-WATER TCLP	Silver	7440-22-4	10	µg/L	U	U	10	10
S09-QC-TT01	Arsenic	7440-38-2	10.7	µg/L			3	3
S09-QC-TT01	Barium	7440-39-3	80.6	µg/L	B		5	5
S09-QC-TT01	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-QC-TT01	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-QC-TT01	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-QC-TT01	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-QC-TT01	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-QC-TT01	Nickel	7440-02-0	6.3	µg/L	B		2	2
S09-QC-TT01	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-QC-TT01	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-QC-TT01	Zinc	7440-66-6	30	µg/L	U	U	30	30
S09-QC-TT01	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-QC-TT01	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-QC-TT01	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-QC-TT01	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-QC-TT01	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-QC-TT01	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-QC-TT01	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-QC-TT01	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-QC-TT01	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-QC-TT01	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT01	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT01	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-GW-TT01	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-GW-TT01	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT01	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-TT01	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT01	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-TT02	Arsenic	7440-38-2	11.1	µg/L			30	30
S09-GW-TT02	Barium	7440-39-3	71.3	µg/L	B		50	50
S09-GW-TT02	Cadmium	7440-43-9	1	µg/L	U	U	10	10
S09-GW-TT02	Chromium	7440-47-3	2	µg/L	U	U	20	20
S09-GW-TT02	Copper	7440-50-8	3	µg/L	U	U	14	14
S09-GW-TT02	Lead	7439-92-1	2.1	µg/L	B		0.55	0.55
S09-GW-TT02	Mercury	7439-97-6	0.055	µg/L	U	U	30	30
S09-GW-TT02	Nickel	7440-02-0	7.3	µg/L	B		10	10
S09-GW-TT02	Selenium	7782-49-2	4.3	µg/L	U	U	3	3
S09-GW-TT02	Silver	7440-22-4	1	µg/L	U	U	5	5
S09-GW-TT02	Zinc	7440-66-6	29	µg/L	U	U	1	1
S09-GW-TT02	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	2	2
S09-GW-TT02	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	3	3
S09-GW-TT02	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	1.4	1.4
S09-GW-TT02	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.055	0.055
S09-GW-TT02	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	2	2
S09-GW-TT02	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	4	4
S09-GW-TT02	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	1	1
S09-GW-TT02	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	30	30
S09-GW-TT02	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.01	0.01
S09-GW-TT02	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-GW-TT02	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-GW-TT02	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-TT02	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-GW-TT02	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT02	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT02	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT02	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-GW-TT02	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-GW-TT02	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT02	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT02	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-GW-TT03	Arsenic	7440-38-2	10.5	µg/L			3	3

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-GW-TT03	Barium	7440-39-3	95.3	µg/L	B		5	5
S09-GW-TT03	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-GW-TT03	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-GW-TT03	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-GW-TT03	Lead	7439-92-1	3.1	µg/L			1.4	1.4
S09-GW-TT03	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-GW-TT03	Nickel	7440-02-0	6.4	µg/L	B		2	2
S09-GW-TT03	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-GW-TT03	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-GW-TT03	Zinc	7440-66-6	50	µg/L	U	U	50	50
S09-GW-TT03	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-GW-TT03	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-GW-TT03	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-GW-TT03	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-GW-TT03	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-GW-TT03	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT03	Carbon Disulfide	75-15-0	0.42	µg/L	J	J	0.3	0.3
S09-GW-TT03	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT03	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-GW-TT03	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-GW-TT03	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-GW-TT03	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-GW-TT03	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-GW-TT03	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-ID-SOIL	2,4,5-TP (SILVEX)	93-72-1	0.0005	mg/L	U	UJ	0.00025	0.00025
S09-ID-SOIL	2,4-D	94-75-7	0.005	mg/L	U	U	0.0025	0.0025
S09-QC-TT01	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-QC-TT01	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-QC-TT01	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-QC-TT01	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-RB001	Arsenic	7440-38-2	3	µg/L	U	U	3	3
S09-RB001	Barium	7440-39-3	5	µg/L	U	U	5	5
S09-RB001	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-RB001	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-RB001	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-RB001	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4
S09-RB001	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-RB001	Nickel	7440-02-0	2	µg/L	U	U	2	2
S09-RB001	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-RB001	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-RB001	Zinc	7440-66-6	5	µg/L	U	U	5	5
S09-RB001	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-RB001	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
S09-RB001	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
S09-RB001	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
S09-RB001	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
S09-RB001	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
S09-RB001	2-Butanone	78-93-3	4	µg/L	U	U	4	4
S09-RB001	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
S09-RB001	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-RB001	Acetone	67-64-1	2	µg/L	U	U	2	2
S09-RB001	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
S09-RB001	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Chloromethane	74-87-3	0.4	µg/L	U	U	0.4	0.4
S09-RB001	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-RB001	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
S09-RB001	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
S09-RB001	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-RB001	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
S09-RB001	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
S09-RB001	Vinyl Chloride	75-01-4	0.5	µg/L	U	U	0.5	0.5
S09-RB002	Arsenic	7440-38-2	3	µg/L	U	U	3	3
S09-RB002	Barium	7440-39-3	5	µg/L	U	U	5	5
S09-RB002	Cadmium	7440-43-9	1	µg/L	U	U	1	1
S09-RB002	Chromium	7440-47-3	2	µg/L	U	U	2	2
S09-RB002	Copper	7440-50-8	3	µg/L	U	U	3	3
S09-RB002	Lead	7439-92-1	1.4	µg/L	U	U	1.4	1.4
S09-RB002	Mercury	7439-97-6	0.055	µg/L	U	U	0.055	0.055
S09-RB002	Nickel	7440-02-0	2	µg/L	U	U	2	2
S09-RB002	Selenium	7782-49-2	4	µg/L	U	U	4	4
S09-RB002	Silver	7440-22-4	1	µg/L	U	U	1	1
S09-RB002	Zinc	7440-66-6	5	µg/L	U	U	5	5
S09-RB002	Hexavalent Chromium	18540-29-9	0.01	µg/L	U	U	0.01	0.01
S09-RB002	1,1,1-Trichloroethane	71-55-6	0.4	µg/L	U	U	0.4	0.4
S09-RB002	1,1,2,2-Tetrachloroethane	79-34-5	0.4	µg/L	U	U	0.4	0.4
S09-RB002	1,1,2-Trichloroethane	79-00-5	0.4	µg/L	U	U	0.4	0.4
S09-RB002	1,1,2-Trichlorotrifluoroethane	76-13-1	0.5	µg/L	U	U	0.5	0.5
S09-RB002	1,1-Dichloroethane	75-34-3	0.5	µg/L	U	U	0.5	0.5
S09-RB002	1,1-Dichloroethene	75-35-4	0.6	µg/L	U	U	0.6	0.6
S09-RB002	1,2,4-Trichlorobenzene	120-82-1	0.3	µg/L	U	U	0.3	0.3
S09-RB002	1,2-Dibromo-3-Chloropropane	96-12-8	0.5	µg/L	U	U	0.5	0.5
S09-RB002	1,2-Dibromoethane	106-93-4	0.5	µg/L	U	U	0.5	0.5
S09-RB002	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
S09-RB002	1,2-Dichloroethane	107-06-2	0.3	µg/L	U	U	0.3	0.3
S09-RB002	1,2-Dichloropropane	78-87-5	0.4	µg/L	U	U	0.4	0.4
S09-RB002	1,3-Dichlorobenzene	541-73-1	0.3	µg/L	U	U	0.3	0.3
S09-RB002	1,4-Dichlorobenzene	106-46-7	0.3	µg/L	U	U	0.3	0.3
S09-RB002	2-Butanone	78-93-3	1	µg/L	U	U	1	1
S09-RB002	2-Hexanone	591-78-6	2	µg/L	U	U	2	2
S09-RB002	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
S09-RB002	Acetone	67-64-1	4	µg/L	U	U	4	4
S09-RB002	Benzene	71-43-2	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Bromodichloromethane	75-27-4	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Bromoform	75-25-2	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Bromomethane	74-83-9	0.8	µg/L	U	U	0.8	0.8
S09-RB002	Carbon Disulfide	75-15-0	0.2	µg/L	U	U	0.2	0.2
S09-RB002	Carbon Tetrachloride	56-23-5	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
S09-RB002	Chlorodibromomethane	124-48-1	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Chloroethane	75-00-3	0.5	µg/L	U	U	0.5	0.5
S09-RB002	Chloroform	67-66-3	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Chloromethane	74-87-3	0.5	µg/L	U	UJ	0.5	0.5
S09-RB002	Cis-1,2-Dichloroethene	156-59-2	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Cis-1,3-Dichloropropene	10061-01-5	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Cyclohexane	110-82-7	1	µg/L	U	U	1	1
S09-RB002	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
S09-RB002	Isopropylbenzene	98-82-8	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Methyl acetate	79-20-9	2	µg/L	U	U	2	2
S09-RB002	Methyl Cyclohexane	108-87-2	1	µg/L	U	U	1	1
S09-RB002	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
S09-RB002	Methylene Chloride	75-09-2	0.9	µg/L	U	U	0.9	0.9
S09-RB002	Styrene	100-42-5	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Toluene	108-88-3	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Total Xylenes	1330-20-7	0.3	µg/L	U	U	0.3	0.3
S09-RB002	Trans-1,2-Dichloroethene	156-60-5	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
 Site Investigation Report
 North Gate Disposal Area - SWMU 9
 Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
S09-RB002	Trichloroethene	79-01-6	0.4	µg/L	U	U	0.4	0.4
S09-RB002	Trichlorofluoromethane	75-69-4	0.5	µg/L	U	U	0.5	0.5
S09-RB002	Vinyl Chloride	75-01-4	0.4	µg/L	U	UJ	0.4	0.4
Trip Blank #3038	1,1,1-Trichloroethane	71-55-6	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,1,2-Trichloroethane	79-00-5	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,1,2-Trichlorotrifluoroethane	76-13-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,1-Dichloroethane	75-34-3	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,1-Dichloroethene	75-35-4	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,2,4-Trichlorobenzene	120-82-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dibromo-3-Chloropropane	96-12-8	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dibromoethane	106-93-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dichloroethane	107-06-2	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dichloropropane	78-87-5	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,3-Dichlorobenzene	541-73-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,4-Dichlorobenzene	106-46-7	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	2-Butanone	78-93-3	4	µg/L	U	U	4	4
Trip Blank #3038	2-Hexanone	591-78-6	1	µg/L	U	U	1	1
Trip Blank #3038	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
Trip Blank #3038	Acetone	67-64-1	2	µg/L	U	U	2	2
Trip Blank #3038	Benzene	71-43-2	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Bromodichloromethane	75-27-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Bromoform	75-25-2	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Bromomethane	74-83-9	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Carbon Disulfide	75-15-0	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Carbon Tetrachloride	56-23-5	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Chlorodibromomethane	124-48-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Chloroethane	75-00-3	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Chloroform	67-66-3	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Chloromethane	74-87-3	0.4	µg/L	U	UJ	0.4	0.4
Trip Blank #3038	Cis-1,2-Dichloroethene	156-59-2	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Cis-1,3-Dichloropropene	10061-01-5	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Cyclohexane	110-82-7	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Isopropylbenzene	98-82-8	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Methyl acetate	79-20-9	1	µg/L	U	U	1	1
Trip Blank #3038	Methyl Cyclohexane	108-87-2	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Methylene Chloride	75-09-2	1	µg/L	U	U	1	1
Trip Blank #3038	Styrene	100-42-5	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Toluene	108-88-3	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Total Xylenes	1330-20-7	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Trans-1,2-Dichloroethene	156-60-5	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Trichloroethene	79-01-6	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Trichlorofluoromethane	75-69-4	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Vinyl Chloride	75-01-4	0.5	µg/L	U	UJ	0.5	0.5
Trip Blank #3038	1,1,1-Trichloroethane	71-55-6	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	1,1,2,2-Tetrachloroethane	79-34-5	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	1,1,2-Trichloroethane	79-00-5	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	1,1,2-Trichlorotrifluoroethane	76-13-1	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	1,1-Dichloroethane	75-34-3	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	1,1-Dichloroethene	75-35-4	0.6	µg/L	U	U	0.6	0.6
Trip Blank #3038	1,2,4-Trichlorobenzene	120-82-1	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,2-Dibromo-3-Chloropropane	96-12-8	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	1,2-Dibromoethane	106-93-4	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	1,2-Dichlorobenzene	95-50-1	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	1,2-Dichloroethane	107-06-2	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,2-Dichloropropane	78-87-5	0.4	µg/L	U	U	0.4	0.4

APPENDIX B

SUMMARY OF ANALYTICAL RESULTS
Site Investigation Report
North Gate Disposal Area - SWMU 9
Naval Air Station Corpus Christi, Texas

Sample ID	Parameter	CAS No.	Result	Units	Lab Flag	DV Flag	MDL	SQL
Trip Blank #3038	1,3-Dichlorobenzene	541-73-1	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	1,4-Dichlorobenzene	106-46-7	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	2-Butanone	78-93-3	1	µg/L	U	U	1	1
Trip Blank #3038	2-Hexanone	591-78-6	2	µg/L	U	U	2	2
Trip Blank #3038	4-Methyl-2-Pentanone	108-10-1	1	µg/L	U	U	1	1
Trip Blank #3038	Acetone	67-64-1	4	µg/L	U	U	4	4
Trip Blank #3038	Benzene	71-43-2	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Bromodichloromethane	75-27-4	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Bromoform	75-25-2	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Bromomethane	74-83-9	0.8	µg/L	U	U	0.8	0.8
Trip Blank #3038	Carbon Disulfide	75-15-0	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Carbon Tetrachloride	56-23-5	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Chlorobenzene	108-90-7	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Chlorodibromomethane	124-48-1	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Chloroethane	75-00-3	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	Chloroform	67-66-3	0.48	µg/L	J	J	0.4	0.4
Trip Blank #3038	Chloromethane	74-87-3	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	Cis-1,2-Dichloroethene	156-59-2	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Cis-1,3-Dichloropropene	10061-01-5	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Cyclohexane	110-82-7	1	µg/L	U	U	1	1
Trip Blank #3038	Dichlorodifluoromethane	75-71-8	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Ethylbenzene	100-41-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Isopropylbenzene	98-82-8	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Methyl acetate	79-20-9	2	µg/L	U	U	2	2
Trip Blank #3038	Methyl Cyclohexane	108-87-2	1	µg/L	U	U	1	1
Trip Blank #3038	Methyl Tert-Butyl Ether	1634-04-4	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Methylene Chloride	75-09-2	0.9	µg/L	U	U	0.9	0.9
Trip Blank #3038	Styrene	100-42-5	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Tetrachloroethene	127-18-4	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Toluene	108-88-3	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Total Xylenes	1330-20-7	0.3	µg/L	U	U	0.3	0.3
Trip Blank #3038	Trans-1,2-Dichloroethene	156-60-5	0.4	µg/L	U	U	0.4	0.4
Trip Blank #3038	Trans-1,3-Dichloropropene	10061-02-6	0.2	µg/L	U	U	0.2	0.2
Trip Blank #3038	Trichloroethene	79-01-6	1.4	µg/L	J	J	0.4	0.4
Trip Blank #3038	Trichlorofluoromethane	75-69-4	0.5	µg/L	U	U	0.5	0.5
Trip Blank #3038	Vinyl Chloride	75-01-4	0.4	µg/L	U	U	0.4	0.4

Note:

ug/L - micrograms per liter

mg/L - milligrams per liter

J - estimated value

U - not detected above the reporting limit

APPENDIX C
DATA USABILITY SUMMARY

DATA USABILITY SUMMARY

**Site Investigation
North Gate Disposal Area – SWMU 9
NAS Corpus Christi, Texas**

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DATA USABILITY SUMMARY

**Site Investigation
North Gate Disposal Area – SWMU 9
NAS Corpus Christi, Texas**

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1.0 EXECUTIVE SUMMARY

Two data packages (SDGs NASCC001 and 501095) for the analysis of groundwater and investigation-derived waste samples collected at Naval Air Station (NAS) Corpus Christi, Corpus Christi, Texas, were received by Tetra Tech NUS, Inc (TtNUS). Data were reviewed for conformance to the requirements of the TRRP-13 Guidance Document, *Review and Reporting of COC Concentration Data*, and adherence to project objectives.

The analytical results and the associated quality control (QC) data were reviewed in accordance with "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review" and "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review". Overall, the data meet the general requirements of the approved work plan (September 2004) and should be considered valid and acceptable. It should be noted that some sample results were noncompliant or outside the quality control (QC) limits. As discussed in this report, they did not impact the results of the samples.

2.0 INTENDED USE OF DATA

Data collected will be used to determine the presence and concentration of chemicals of concern (COCs) in the groundwater at the site.

3.0 INTRODUCTION

This Data Usability Report represents a comprehensive data quality assessment of analytical data generated by TtNUS as part of the site investigation.

A total of 23 water samples (15 groundwater samples, one quality control (duplicate) sample, two field blanks, two trip blanks and three rinsate blanks), one investigation-derived (ID) waste soil sample (ID-Soil), and one waste water sample (ID-Water), were collected from January 13 to January 15, 2005, at the site and sent to the laboratory for analyses.

Table 1 lists the field sample identifications cross-referenced to laboratory identifications.

Analyses requested included:

- Method 6010 Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) for target metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver and zinc),
- Method 7196 for hexavalent chromium,
- Method 7470/7471 cold vapor for mercury,
- Method 8260 for target compound list (TCL) of volatile organics,

- Method 8260 for Toxicity Characteristic Leaching Procedure (TCLP) volatile organics,
- Method 8270 for TCLP semi-volatile organics,
- Method 8151 for TCLP herbicides, and,
- Method 8081 for TCLP pesticides.

The TCLP was performed for ID waste samples before analysis, and EPA 1010 (Ignitability); Chap.7.3.4.2 (Reactivity); 9040B (pH) were also determined for these waste samples.

The following laboratory submittals and field data were examined:

- reportable data;
- laboratory review checklists and associated exception reports;
- supportive data; and
- field notes with respect to field instrument calibrations, and sampling procedures.

The results of supporting quality control (QC) analyses were summarized on the Laboratory Review Checklists (LRCs), Exception Reports (ERs) and the case narratives, all of which were included in this review.

Data were reviewed and validated as described in the TRRP-13 Guidance Document and the results of the review/validation are discussed in this Data Usability Summary (DUS).

4.0 DATA REVIEW/VALIDATION RESULTS

4.1 Analytical Results

Samples were sent to ELAB of Tennessee, LLC, Nashville, TN 37228 and its subcontract laboratory, STL at Austin, Austin, Texas, for analyses.

It should be noted that only sample results with noncompliance or outside the quality control (QC) limits are mentioned in this section.

Non-detected (ND) results are reported at the sample quantitation limit (SQL) or method detection limit (MDL). For SDG 501095, non-detected (ND) results were reported at the method quantitation limits (MQLs), because the MQLs are much lower than the SQLs and the regulatory limits for this case. Soil samples were reported on a dry weight basis.

Two sample delivery groups (SDGs) are discussed in this section: SDG NASCC001 and SDG 501095.

The qualified analytical data with the rationale for each finding are provided for each fraction from the affected SDG in Table 2.

4.2 Preservation and Holding Times

Samples were evaluated for agreement with the chain-of-custody (C-O-C). All samples were received in the appropriate containers and in good condition with the paperwork filled out properly. Sample receipt temperatures were within the acceptance criteria of 4 ± 2 °C and samples were prepared and analyzed within holding times specified in SW-846. One field blank sample (S09-FB001) was received one hour after the holding time of 24 hours for hexavalent chromium analysis. This should not affect the result of the sample.

4.3 Calibrations

According to the LRCs and this data validation, initial calibration and continuing calibration data met SW-846 method requirements. All initial and continuing calibration blanks associated with each analytical batch were below the reporting limits for the requested analytes. The percent difference (%D) values of analytes in the continuing calibration results were acceptable with one exception in TCLP Pesticide sample. No qualification was required for all nondetected results.

4.4 Blanks

The purpose of laboratory or field blank analysis is to determine the existence and magnitude of contamination resulting from laboratory or field activities. The criteria for evaluation of blanks apply to any blank associated with the sample (e.g., method blanks, field blanks and rinsate blanks).

A method blank (MB) consisted of analyte-free reagent water or clean sand that was carried through the analytical scheme like the environmental sample. A method blank was prepared and analyzed for each batch of samples. A method blank was used to evaluate the analytical system to establish background level (if any) of common laboratory contaminants or natural inorganic analytes.

A trip blank was prepared at the analytical laboratory by pouring analyte-free reagent water into a 40-ml Teflon-lined septum vial. The trip blank was accompanied the sample containers into the field, but was unopened until analyzed in the laboratory after being returned from the field. A trip blank thus served to identify contamination of the samples that might occur during transport of sample containers from the laboratory to the field and from the field to the laboratory.

A rinsate or equipment blank was a vial of rinsate collected in the field following the cleaning of the sampling equipment and analyzed to determine any contaminant carry-over from the previous sampling event.

A field blank (FB) was a vial of decon water collected in the field and analyzed to determine any contaminant in the decon water.

The method blank, trip blank, field blank and rinsate blank were free of contamination, and all blank analyses were acceptable, with the following exception:

- **SDG NASCC001**

A trip blank (0501100-09) contained chloroform and trichloroethene, however, they were not detected in the associated samples, no qualification was required.

4.5 Surrogate Recoveries

The surrogate recoveries were within acceptance limits for all requested analyses with the following exception:

- **SDG NASCC001**

SW-846 8260 Volatile Organics – The percent recoveries (%Rs) of 1, 2-dichloroethane-d4 and toluene-d8 in sample S09-GW-REI31 were above the QC limits. No qualification was required for all non-detected results.

4.6 Laboratory Control Samples

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries met the laboratory QC limits for all required analyses, with the following exceptions:

- **SDG NASCC001**

SW-846 8260 Volatile Organics – The percent recovery (%R) of methylene chloride was greater than the QC limit in V3BLK0118LCS. No qualification was required for the nondetected results of the affected samples.

The percent recoveries (%Rs) of chloromethane and vinyl chloride were below the QC limits in V4BLK0119LCSD. However, the recoveries in LCS were acceptable, no qualification was required.

The RPD values of bromomethane and chloromethane for V4BLK0119LCS/LCSD were greater than the QC limits. No qualification was required.

- **SDG 501095**

SW-846 8270 Semivolatile Organics – The percent recoveries (%Rs) of hexachlorobutadiene, hexachloroethane and pyridine in the water and soil LCS were below the QC limits. The non-detected results of hexachlorobutadiene, hexachloroethane and pyridine were qualified as estimated, “UJ” in the affected samples (S09-ID-Soil and S09-ID-Water).

SW-846 8081 Pesticides – The %Rs of chlordane and toxaphene in the soil and water LCS were below the QC limits. The non-detected results of chlordane and toxaphene were qualified as estimated, “UJ” in the affected samples (S09-ID-Soil and S09-ID-Water).

4.7 Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) precision and accuracy results were within laboratory QC acceptance criteria for all required analyses, with the following exceptions:

- **SDG NASCC001**

SW-846 8260 Volatile Organics – The %R of 1,2,4-trichlorobenzene in S09-REI23MSD was slightly below the QC limits. However, the %R of 1,2,4-trichlorobenzene in the REI23MS was acceptable, therefore, no qualification was required.

- **SDG 501095**

SW-846 8270 Semivolatile Organics – The %R of pyridine was below the QC limits in the soil and water MS samples. The non-detected result of pyridine was qualified as estimated, “UJ” in the affected samples (S09-ID-Soil and S09-ID-Water).

SW-846 8081 Pesticides – The %R of toxaphene in soil and water MS were below the QC limits. The non-detected result of toxaphene was qualified as estimated, “UJ” in the affected samples (S09-ID-Soil and S09-ID-Water).

SW-846 8151 Herbicides – The %R of Silvex in the soil MS was below the QC limit. The non-detected result of Silvex was qualified as estimated, “UJ” in the affected sample (S09-ID-Soil).

SW-846 9012 Cyanide – The %R of cyanide in the soil MS was below the QC limit. The positive result of cyanide was qualified as biased low, “JL” in the affected sample (S09-ID-Soil).

4.8 Laboratory Duplicates

The duplicate results were within the acceptable limits for all required analyses.

4.9 Serial Dilution

SW-846 6010 Inorganic – The percent difference (%D) in the serial dilution analysis was above the QC limit for arsenic and nickel due to low sample concentrations. No qualification was required.

4.10 Field Precision

The field duplicate results were within the acceptable limits for all required analyses (Table 3).

4.11 Field Procedures

Samples were collected using the approved Work Plan, dated September 2004.

**TABLE 1
CROSS-REFERENCE FOR SAMPLE IDENTIFICATIONS**

**Site Investigation
NAS Corpus Christi
Corpus Christi, Texas**

Field ID	Lab. ID	Sampling Date	Matrix	6010 /7000⁽¹⁾	8260⁽²⁾	8270⁽³⁾	8081⁽⁴⁾	8151⁽⁵⁾	TX 1005⁽⁶⁾
S09-ID-Soil	501095-01	1/13/2005	Soil	X	X	X	X	X	X
S09-ID-Water	501095-02	1/13/2005	Water	X	X	X	X	X	X

- (1) Method 6010 for TCLP metal analytes and Method 7470/7471 for mercury
- (2) Method 8260 for TCLP volatile organics
- (3) Method 8270 for TCLP semivolatile organics
- (4) Method 8081 for TCLP pesticides
- (5) Method 8151 for TCLP herbicides
- (6) TX1005 for Total Petroleum Hydrocarbons

**TABLE 1
CROSS-REFERENCE FOR SAMPLE IDENTIFICATIONS**

**Site Investigation
NAS Corpus Christi
Corpus Christi, Texas**

Field ID	Lab. ID	Sampling Date	Matrix	8260 ⁽¹⁾	6010/ 7470 ⁽²⁾	Cr ⁺⁶ / 7196 ⁽³⁾	Arsenic/ 6010 ⁽⁴⁾
S09-GW-TT01	0501089-01	1/13/2005	Water	X	X	X	
S09-QC-TT01	0501089-02	1/13/2005	Water	X	X	X	
S09-GW-REI23	0501089-03	1/13/2005	Water	MS/MSD	MS/MSD	MS/MSD	
S09-GW-TT02	0501089-04	1/13/2005	Water	X	X	X	
S09-GW-TT03	0501089-05	1/13/2005	Water	X	X	X	
S09-GW-FB001	0501089-06	1/13/2005	Water	X	X	X	
S09-GW-RB001	0501089-07	1/13/2005	Water	X	X	X	
Trip Blank #3038	0501089-08	1/13/2005	Water	X			
BGW-GW-BG112	0501100-01	1/14/2005	Water				MS/MSD
BGW-GW-BG114	0501100-02	1/14/2005	Water				X
BGW-QC-BG114	0501100-03	1/14/2005	Water				X
S09-GW-GM22	0501100-04	1/14/2005	Water	X	X	X	
S09-GW-REI31	0501100-05	1/14/2005	Water	X	X	X	
BGW-GW-BG110	0501100-06	1/14/2005	Water				X
BGW-FB001	0501100-07	1/14/2005	Water				X
S09-RB002	0501100-08	1/14/2005	Water	X	X	X	
Trip Blank #3038	0501100-09	1/14/2005	Water	X			
BGW-GW-BG108	0501107-01	1/15/2005	Water				X
BGW-GW-BG106	0501107-02	1/15/2005	Water				X
BGW-GW-BG104	0501107-03	1/15/2005	Water				X
BGW-RB001	0501107-04	1/15/2005	Water				X
BGW-GW-BG101	0501107-05	1/15/2005	Water				X
BGW-GW-BG3	0501107-06	1/15/2005	Water				X

(1) Method 8260 for target volatile organics

(2) Method 6010 for target metal analytes and Method 7470 for mercury

(3) Hexavalent chromium (Cr ⁺⁶) was analyzed by Method 7196.

(4) Background groundwater was analyzed for arsenic only.

**TABLE 2
QUALIFIED ANALYTICAL DATA**

**Site Investigation
NAS Corpus Christi
Corpus Christi, Texas**

SDG Number	Field Identification	Analyte	Qualification	Reason for Qualification															
501095 (SVOC)	S09-ID-Soil, and S09-ID-Water	Hexachlorobutadien, hexachloroethanne and pyridine	“UJ” for ND.	%Rs in soil and water LCS<QC limits															
501095 (SVOC)	S09-ID-Soil, and S09-ID-Water	pyridine	“UJ” for ND.	%Rs in soil and water MS<QC limits															
501095 (Pesticide)	S09-ID-Soil, and S09-ID-Water	Chlordane and toxaphene.	“UJ” for ND.	%Rs in soil and water LCS<QC limits															
501095 (Pesticide)	S09-ID-Soil, and S09-ID-Water	toxaphene.	“UJ” for ND.	%Rs in soil and water MS<QC limits															
501095 (Herbicide)	S09-ID-Soil	Silvex	“UJ” for ND.	%Rs in soil MS<QC limits															
501095 (Inorganic)	S09-ID-Soil	Cyanide	“JL” for detected result	%R in MS<QC limit															
<p>NOTE:</p> <table border="0"> <tr> <td>JH – Estimated biased high.</td> <td>JL – Estimated biased low</td> <td>%D – percent difference</td> </tr> <tr> <td>QC limit – Quality control limit</td> <td>< – less than > – greater than</td> <td>% R – percent recovery</td> </tr> <tr> <td>UJ – Estimated nondetected</td> <td>RPD – Relative percent difference</td> <td></td> </tr> <tr> <td>ND – Nondetected</td> <td>MS/MSD – matrix spike/ matrix spike duplicate</td> <td></td> </tr> <tr> <td>VOC –Volatile Organic Compound</td> <td>SVOC – Semivolatile organic Compounds</td> <td></td> </tr> </table>					JH – Estimated biased high.	JL – Estimated biased low	%D – percent difference	QC limit – Quality control limit	< – less than > – greater than	% R – percent recovery	UJ – Estimated nondetected	RPD – Relative percent difference		ND – Nondetected	MS/MSD – matrix spike/ matrix spike duplicate		VOC –Volatile Organic Compound	SVOC – Semivolatile organic Compounds	
JH – Estimated biased high.	JL – Estimated biased low	%D – percent difference																	
QC limit – Quality control limit	< – less than > – greater than	% R – percent recovery																	
UJ – Estimated nondetected	RPD – Relative percent difference																		
ND – Nondetected	MS/MSD – matrix spike/ matrix spike duplicate																		
VOC –Volatile Organic Compound	SVOC – Semivolatile organic Compounds																		

**TABLE 3
FIELD PRECISION**

**Site Investigation
NAS Corpus Christi
Corpus Christi, Texas**

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ⁽¹⁾	Qualified ⁽²⁾
S09-GW-TT01 and S09-QC-TT01	6010/7470 Metals				
	Arsenic	0.0095	0.0107	12	A
	Barium	0.0821	0.0806	2	A
	Cadmium	ND	ND	NC	A
	Chromium	ND	ND	NC	A
	Copper	ND	ND	NC	A
	Lead	0.0021B	ND	<MQL	A
	Mercury	ND	ND	NC	A
	Nickel	0.0076B	0.0063B	<MQL	A
	Selenium	ND	ND	NC	A
	Silver	ND	ND	NC	A
	Zinc	ND	ND	NC	A
	8260 VOCs				
	VOCs	All NDs	All NDs	NC	A

(1) RPD (Relative Percent Difference) = $((SR - DR) * 200) / (SR + DR)$
(2) Acceptable (A) if RPD <20% or <MQL for water.
(3) ND – Not detected at method detection limit or sample quantitation limit
(4) NC – not calculated for nondetects

5.0 REFERENCES

1. TCEQ Regulatory Guidance Document, RG-366/TRRP-13, December 2002, Review and Reporting of COC Concentration data.
2. USEPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition, 1986.
3. USEPA, Test Methods for Evaluating Solid Waste, SW-846, 3rd Edition, Final Update IVB, 2000.
4. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999.
5. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 2004.
6. Work Plan for Site Investigation at North Gate Disposal Area (SWMU 9), NAS Corpus Christi, Corpus Christi, Texas, September 2004, Prepared by Tetra Tech NUS, Inc., Houston, Texas.

APPENDIX A

DETERMINATION OF DATA USABILITY QUALIFIER (SDG NASCC001)

A-1: Determination of Data Usability Qualifiers for Inorganics

Client Name: NAS		Project Number: N7301	Analytical Method: EPA SW846: EPA 6010//7470 for metals, 7196A for Hexavalent Chromium.
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: NASCC001	Number Of Samples: <u>Soil 0 water 23</u> (including 2TB, 2 FB, 3RB).
Reviewer: Cheryle C. Lu		Date Checked: Feb. 22, 2005	
Step 1: Review QC Parameter & Document Finding^{1,2}	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code³
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable, except for S09-FB001 having one hour after holding time of 24 hours for hexavalent chromium analysis.			None
Method Blanks (R5)			
Acceptable			None
Field Blanks (FB) (R5)			
Acceptable (ND for RB, FB)			None
Laboratory Control Sample (LCS) (R6)			
Acceptable			None
Matrix Spike (MS) (R7)			
Acceptable			None
Duplicate Sample Analysis (including MSD) (R7, R8)			
Acceptable			None
Field Duplicate Analysis			
Acceptable			None
Initial Calibration (S1)			
Acceptable			None
Continuing Calibration Blank (CCB) (S2)			
Acceptable			None
Calibration Verification, Initial and/or Continuing (ICV/CCV) (S2)			
Acceptable			None
Internal Standards (S4)			
Interference Check Standard (ICS) (S8)			
Acceptable			None
Serial Dilution Analysis (S9)			
Acceptable; arsenic and nickel, %D were 100%, due to low concentrations.			None
Post Digestion Spike Analysis (S9)			
Method of Standard Additions (MSA) (S9)			
Anion / Cation Balance			
Total/Dissolved Metals			
General Analytical Relationships			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R = percent recovery	RPD = relative percent difference
J = Estimated Value	H = Biased High	UJ = Estimated nondetected	

A-2: Determination of Data Usability Qualifiers for Organics

Client Name: NAS		Project Number: N7301	Analytical Method: EPA SW846: EPA 8260 VOCs
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: NASCC001	Number Of Samples: <u>Soil 0 water 12 (including 2TB, 1FB, 2RB).</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb. 22, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
%R of 4-1,2-dichloroethane-d4 and toluene-d8 > QC limits.	S09-GW-REI31	ND	None
Laboratory Blanks (R5)			
Field Blanks and Trip Blanks (FB)			
TB (0501100-09) contained chloroform and Trichloroethene	Associated samples	ND	None
Laboratory Control Sample (LCS) (R6)			
%R of methylene chloride > QC limit in V3BLK0118LCS; %R of chloromethane and vinyl chloride < QC limits in V4BLK0119LCSD; however, %Rs in LCS were acceptable.		Non-detected results	None
			None
Matrix Spike (MS) (R7)			
%R of 1,2,4-trichlorobenzene in MSD < QC limit, but %R was acceptable in MS.			None
Duplicate Sample Analysis (including MSD) (R7, R8)			
RPD of bromomethane and chloromethane for V4BLK0119LCS/LCSD > QC limits.			None
Field Duplicate Analysis			
Acceptable			None
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
Acceptable			None
Internal Standard Area Counts (S4)			
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R = percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of concentration

APPENDIX B

DETERMINATION OF DATA USABILITY QUALIFIER (SDG 501095)

B-1: Determination of Data Usability Qualifiers for Inorganics

Client Name: NAS Corpus Christi		Project Number: N7301	Analytical Method: EPA SW846: EPA 6010/7470/7471, RCI, Cyanide (TCLP)
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: 501095	Number Of Samples: <u>Soil 1 (ID-Soil)</u> <u>water 1 (ID-Water)</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb. 16, 2005	
Step 1: Review QC Parameter & Document Finding^{1,2}	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code³
Preservation (R1)			
Acceptable.			None
Holding Times (R2)			
Acceptable			None
Method Blanks (R5)			
Acceptable			None
Field Blanks (FB) (R5)			
Laboratory Control Sample (LCS) (R6)			
Acceptable			None
Matrix Spike (MS) (R7)			
%R Cyanide <QC limit	S09-ID-Soil	Detected result	JL
Duplicate Sample Analysis (including MSD) (R7, R8)			
Acceptable			None
Field Duplicate Analysis			
Initial Calibration (S1)			
Acceptable			None
Continuing Calibration Blank (CCB) (S2)			
Acceptable			None
Calibration Verification, Initial and/or Continuing (ICV/CCV) (S2)			
Acceptable			None
Internal Standards (S4)			
Interference Check Standard (ICS) (S8)			
Acceptable			None
Serial Dilution Analysis (S9)			
%D >10 for arsenic and nickel due to low concentration.			None
Post Digestion Spike Analysis (S9)			
Method of Standard Additions (MSA) (S9)			
Anion / Cation Balance			
Total/Dissolved Metals			
General Analytical Relationships			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R =percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	

B-2: Determination of Data Usability Qualifiers for Organics

Client Name: NAS Corpus Christi		Project Number: N7301	Analytical Method: EPA SW846: EPA 8260 VOCs (TCLP)
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC		Laboratory Job No: 501095	Number Of Samples: <u>Soil 1 (ID-Soil)</u> , <u>Water 1 (ID-Water)</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb.16, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
Acceptable			None
Laboratory Blanks (R5)			
Acceptable			None
Field Blanks and Trip Blanks (FB)			
Laboratory Control Sample (LCS) (R6)			
Acceptable			None
Matrix Spike (MS) (R7)			
Acceptable			None
Duplicate Sample Analysis (including MSD) (R7, R8)			
Field Duplicate Analysis			
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
Acceptable			None
Internal Standard Area Counts (S4)			
Acceptable			None
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R = percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of concentration

B-3: Determination of Data Usability Qualifiers for Organics

Client Name: NAS Corpus Christi		Project Number: N7301	Analytical Method: EPA SW846: EPA 8270 SVOCs. (TCLP)
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: 501095	Number Of Samples: <u>Soil 1 (ID-Soil)</u> <u>water 1 (ID-Water).</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb.16, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
Acceptable			None
Laboratory Blanks (R5)			
Acceptable			None
Field Blanks and Trip Blanks (FB)			
Laboratory Control Sample (LCS) (R6)			
%R hexachlorobutadiene, hexachloroethane and pyridine<QC limits.	S09-ID-Soil and S09-ID-Water	ND	UJ
Matrix Spike (MS) (R7)			
%R pyridine<QC limit for soil and water samples.	S09-ID-Soil and S09-ID-Water	ND	UJ
Duplicate Sample Analysis (including MSD) (R7, R8)			
Field Duplicate Analysis			
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
Acceptable			None
Internal Standard Area Counts (S4)			
Acceptable			None
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R =percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of cencentration

B-4: Determination of Data Usability Qualifiers for Organics

Client Name: NAS		Project Number: N7301	Analytical Method: EPA SW846: EPA 8081 Pesticides (TCLP)
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: 501095	Number Of Samples: <u>Soil 1 (ID-Soil)</u> <u>water 1 (ID-Water).</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb.16, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
Acceptable			None
Laboratory Blanks (R5)			
Acceptable			None
Field Blanks and Trip Blanks (FB)			
Laboratory Control Sample (LCS) (R6)			
%R chlordane and toxaphene < QC limits for soil and water LCS.	S09-ID-Soil and S09-ID-Water	ND	UJ
Matrix Spike (MS) (R7)			
%R toxaphene < QC limits in soil and water samples.	S09-ID-Soil and S09-ID-Water	ND	UJ
Duplicate Sample Analysis (including MSD) (R7, R8)			
Field Duplicate Analysis			
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
%D > QC limits for several analyses, but all NDs.			None
Internal Standard Area Counts (S4)			
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R = percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of concentration

B-5: Determination of Data Usability Qualifiers for Organics

Client Name: NAS Corpus Christi		Project Number: N7301	Analytical Method: EPA SW846: EPA 8151 Herbicides
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: ELAB of Tennessee, LLC.		Laboratory Job No: 501095	Number Of Samples: <u>Soil 1 (ID-Soil)</u> <u>water 1 (ID-Water).</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb.16, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
Acceptable			None
Laboratory Blanks (R5)			
Acceptable			None
Field Blanks and Trip Blanks (FB)			
Laboratory Control Sample (LCS) (R6)			
Acceptable			None
Matrix Spike (MS) (R7)			
%R Silvex <QC limit in soil.	S09-ID-Soil	ND	UJ
Duplicate Sample Analysis (including MSD) (R7, R8)			
Field Duplicate Analysis			
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
Acceptable			None
Internal Standard Area Counts (S4)			
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R = percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of concentration

B-6: Determination of Data Usability Qualifiers for Organics

Client Name: NAS Corpus Christi		Project Number: N7301	Analytical Method: TX 1005 TPH
Affected Property Location: NAS Corpus Christi, Texas		Project Manager: Diane Lindsay	
Laboratory: STL, Austin, Texas.		Laboratory Job No: I5A180179	Number Of Samples: <u>Soil 1 (ID-Soil)</u> <u>water 1 (ID-Water).</u>
Reviewer: Cheryle C. Lu		Date Checked: Feb.16, 2005	
Step 1: Review QC Parameter & Document Finding¹	Step 2: Determine Which Samples to Qualify	Step 3: Determine Which Results to Qualify	Step 4: Apply Qualifier & Bias Code²
Preservation (R1)			
Acceptable.			None
Holding Times (R2)			
Acceptable			None
Surrogate Spikes (R5)			
Acceptable			None
Laboratory Blanks (R5)			
Acceptable			None
Field Blanks and Trip Blanks (FB)			
Laboratory Control Sample (LCS) (R6)			
Acceptable for LCS/LCSD			None
Matrix Spike (MS) (R7)			
Acceptable			None
Duplicate Sample Analysis (including MSD) (R7, R8)			
			None
Field Duplicate Analysis			
			None
Initial Calibration (S1)			
Acceptable			None
Initial and/or Continuing Calibration Verification (ICV/CCV) (S2)			
Acceptable			None
Internal Standard Area Counts (S4)			
Tentatively Identified Compounds (S7)			

Definitions:

U = Not Detected	R = Rejected	N = Presumed present	JL = Biased Low
ND = non-detected	QC = quality control	%R =percent recovery	RPD = relative percent difference
J = Estimated Value	JH = Biased High	UJ = Estimated nondetected	10X = ten times of concentration