M00146.AR.005767
MCAS CHERRY POINT
5090.3a

REPORT OF LIMITED SOIL ASSESSMENT RISK BASED RULES EVALUATION BUILDINGS 3907, 11696 AND TANK 1786 WITH TRANSMITTAL MCAS CHERRY POINT NC

6/2/1999

LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

LAW

LAWGIBB Group Member

REPORT OF LIMITED SOIL ASSESSMENT/ RISK BASED RULES EVALUATION

BUILDING 3907, BUILDING 1696 AND TANK 1786
MCAS CHERRY POINT
CHERRY POINT, NORTH CAROLINA

Prepared For:

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Prepared By:

Law Engineering and Environmental Services, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

June 2, 1999

LAW Project No. 30740-6-0600-57

CATLIN LAW

ENVIRONMENTAL AND
ENGINEERING CONSULTANTS

WILMINGTON, N.C.
RALEIGH, N.C.

June 2, 1999

Commander
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Attention: Mr. John G. Kresky, Code 18213

Subject: **Limited Soil Assessment/Risk Based Rules Evaluation**
Building 3907, Building 1696 and Tank 1786
MCAS Cherry Point
Cherry Point, North Carolina
LAW Job No. 30740-6-0600, Phase 57

Dear Mr. Kresky:

In accordance with your request, Law Engineering and Environmental Services, Inc. (LAW) is pleased to provide this report of Limited Soil Assessment/Risk Based Rules Evaluation for the above referenced sites. This work is being completed in accordance with Naval Facilities Engineering Command Order for Supplies and Services Contract No. N62470-95-6009, Delivery Order No. 57. Our objective was to determine if soil contamination is present at these site in excess of Residential or Commercial/Industrial Risk Based Corrective Action (RBCA) Maximum Soil Contaminant Concentration (MSCC) standards.

This report is intended for the exclusive property of the Atlantic Division Facilities Engineering Command. The contents should not be relied upon by any other parties without the consent of Atlantic Division Facilities Engineering Command. The findings are relevant to the dates of our site work and should not be relied upon to represent site conditions on other dates.

We appreciate the opportunity to provide environmental services on this project. If you have any questions, please contact us at (919) 876-0416.

Sincerely,

LAW ENGINEERING & ENVIRONMENTAL SERVICES, INC.

Jeffrey A. Mann
Project Engineer

Daniel H. Nielsen, P.E.
Principal Engineer

cc: John Myers, MCAS Cherry Point
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1.0 INTRODUCTION

In accordance with your request, Law Engineering and Environmental Services, Inc. (LAW) is pleased to provide this report of Limited Soil Assessment/Risk Based Rules Evaluation for Building 3907, Building 1696 and Tank 1786. This work is being completed in accordance with Naval Facilities Engineering Command Order for Supplies and Services Contract No. N62470-95-6009, Delivery Order No. 57.

2.0 SCOPE OF SERVICES

Our objective was to determine if soil contamination is present at these sites in excess of Residential or Commercial/Industrial Risk Based Corrective Action (RBCA) Maximum Soil Contaminant Concentration (MSCC) standards. To accomplish this we advanced three soil borings at Building 3907 and three borings at Building 1696. One soil boring was advance at Tank 1786. The soil borings were advanced in areas where previous results indicated contamination in excess of previous regulatory standards. Geoprobe technology was used to collect the soil samples. The borings were advanced to the approximate depth of the groundwater table. Soils were visually inspected for evidence of contamination and were screened in the field using the headspace method. The soil samples from each boring which indicated the highest concentration of contamination were submitted for laboratory analysis and analyzed for Volatile Organic Compounds (VOCs) EPA 8260, Polynuclear Aromatic Hydrocarbons (PAHs) EPA 8270 and Massachusetts Department of Environmental Protection (MADEP) Extractable Petroleum Hydrocarbons (EPHs) and Volatile Petroleum Hydrocarbons (VPHs).

3.0 FINDING AND CONCLUSIONS

The following sections summarize the laboratory results from soil samples collected at each site and provide conclusions based on Risk Based Corrective Action (RBCA) standards.

3.1 BUILDING 3907

Three borings (77SB01, 77SB02 and 77SB03) were installed at the site (see Figure 3.1 in Appendix A). Laboratory results are summarized in the following table. See Appendix B for laboratory test reports and chain of custody.

TABLE 3.1
BUIILDING 3907
SUMMARY OF LABORATORY RESULTS
EPA METHODS 8260 AND 8270 AND MADEP EPH AND VPH
CHERRY POINT, NORTH CAROLINA
LAW PROJECT NO. 30740-6-0600-Phase 57

Contaminant Identified	ANALYTICAL TEST RESULTS (mg/kg)			RESIDENTIAL MSCC (mg/kg)	INDUSTRIAL/ COMMERCIAL MSCC (mg/kg)
	77SB01 @ 0'-4'	77SB02 @ 0'-4'	77SB03 @ 0'-4'		
EPA Method 8260					
n-Butylbenzene	ND	ND	0.018	156	4088
1,3,5-Trimethylbenzene	ND	ND	0.0408	782	20440
4-Isopropyltoluene	ND	ND	0.0198	*	*
EPA Method 8270					
2-Methylnaphthalene	ND	ND	0.3119	63	1635
Phenanthrene	ND	ND	0.2478	469	12264
Pyrene	ND	ND	0.3483	469	12264
C5-C8 (VPH)	ND	ND	48.7	939	24528
C9-C18 (VPH/EPH) (1)	197.0	ND	407.1	9386	245280
C9-C22 (VPH/EPH) (2)	43.2	ND	292.3	469	12264
C19-C36 (EPH)	86.9	ND	110.6	93860	None (Immobile)

Shaded Cells = Concentrations exceed the residential and/or industrial/commercial MSCC.
ND = Not Detected at or above laboratory method detection limit.
MSCC = Maximum Soil Contaminant Concentration
* = No established Maximum Soil Contaminant Concentration
MADEP = Massachusetts Department of Environmental Protection
EPH = Extractable Petroleum Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons
(1) = In accordance with NCDENR memo dated March 26, 1998 C9-C18 = (C9-C12 + C9-C18)
(2) = In accordance with NCDENR memo dated March 26, 1998 C9-C22 = (C9-C10 + C11-C22)

VOCs, PAHs, EPHs and VPHs were identified in the soil sample analyzed from boring 77SB03. Additionally, EPHs and VPHs were identified in the soil sample analyzed from boring 77SB01. However, the concentrations detected are below respective Residential and Commercial/Industrial MSCCs as listed in Table 4 of section 7.3 Risk Based Soil Cleanup Requirements of 15A NCAC 2L .0115 "The Risk Based Corrective Action Rule", effective January 2, 1998. Therefore, current soil conditions, with respect to the content of petroleum related compounds, do not warrant further evaluation and do not appear to present an obstacle in pursuing No Further Action status at the site.

3.2 BUILDING 1696

Three borings (78SB01, 78SB02 and 78SB03) were installed at the site (see Figure 3.2 in Appendix A). Laboratory results are summarized in the following table. See Appendix B for laboratory test reports and chain of custody.

TABLE 3.2
BUILDING 1696
SUMMARY OF LABORATORY RESULTS
EPA METHODS 8260 AND 8270 AND MADEP EPH AND VPH
CHERRY POINT, NORTH CAROLINA
LAW PROJECT NO. 30740-6-0600-Phase 57

Contaminant Identified	ANALYTICAL TEST RESULTS (mg/kg)			RESIDENTIAL MSCC (mg/kg)	INDUSTRIAL/ COMMERCIAL MSCC (mg/kg)
	78SB01 @ 0'-2'	78SB02 @ 0'-3'	78SB03 @ 0'-4'		
EPA Method 8260	NCD	NCD	NCD		
EPA Method 8270					
Fluoranthene	ND	0.1475	ND	620	16400
Phenanthrene	ND	0.1362	ND	469	12264
Pyrene	ND	0.1248	ND	469	12264
C5-C8 (VPH)	ND	ND	ND	939	24528
C9-C18 (VPH/EPH) (1)	365.8	ND	ND	9386	245280
C9-C22 (VPH/EPH) (2)	79.3	ND	ND	469	12264
C19-C36 (EPH)	189.4	ND	ND	93860	None (Immobile)

Shaded Cells = Concentrations exceed the residential and/or industrial/commercial MSCC.
ND = Not Detected at or above laboratory method detection limit.
NCD = No Constituents Detected for this test method at or above laboratory method detection limits.
MSCC = Maximum Soil Contaminant Concentration
MADEP = Massachusetts Department of Environmental Protection
EPH = Extractable Petroleum Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons
(1) = In accordance with NCDENR memo dated March 26, 1998 C9-C18 = (C9-C12 + C9-C18)
(2) = In accordance with NCDENR memo dated March 26, 1998 C9-C22 = (C9-C10 + C11-C22)

VOCs were not detected in the soils samples analyzed. PAHs were identified in the soil sample analyzed from boring 78SB02. Additionally, EPHs and VPHs were identified in the soil sample analyzed from boring 78SB01. However, the concentrations detected are below respective Residential and Commercial/Industrial MSCCs as listed in Table 4 of section 7.3 Risk Based Soil Cleanup Requirements of 15A NCAC 2L .0115 "The Risk Based Corrective Action Rule", effective January 2, 1998. Therefore, current soil conditions, with respect to the content of petroleum related compounds, do not warrant further evaluation and do not appear to present an obstacle in pursuing No Further Action status at the site.

3.3 TANK 1786

One geoprobe boring (54SB36) was installed at the site (see Figure 3.3 in Appendix A). Laboratory results are summarized in the following table. See Appendix B for laboratory test reports and chain of custody.

TABLE 3.3
TANK 1786
SUMMARY OF LABORATORY RESULTS
EPA METHODS 8260 AND 8270 AND MADEP EPH AND VPH
CHERRY POINT, NORTH CAROLINA
LAW PROJECT NO. 30740-6-0600-Phase 57

Contaminant Identified	ANALYTICAL TEST RESULTS (mg/kg)	RESIDENTIAL MSCC (mg/kg)	INDUSTRIAL/ COMMERCIAL MSCC (mg/kg)
	54SB36 @ 4'-5'		
EPA Method 8260			
n-Butylbenzene	3.0181	156	4088
sec-Butylbenzene	1.757	156	4088
Ethylbenzene	1.5175	1560	40000
Isopropylbenzene	0.8544	1564	40880
4-Isopropyltoluene	1.6134	*	*
Naphthalene	7.0285	63	1635
n-Propylbenzene	1.6406	156**	4088**
1,2,4-Trimethylbenzene	12.577	782	20440
1,3,5-Trimethylbenzene	4.313	782	20440
m,p-Xylene	1.5026	32000	200000
EPA Method 8270			
Benzo(a)anthracene	1.4103	0.88	8
Benzo(k)fluoranthene	1.2821	9	78
Chrysene	1.6667	88	780
Fluorene	2.436	620	16400
Fluoranthene	4.1028	620	16400
Naphthalene	5.3849	63	1634
2-Methylnaphthalene	17.3085	63	1635
Phenanthrene	8.0773	469	12264
Pyrene	5.6413	469	12264
C5-C8 (VPH)	50.3	939	24528
C9-C18 (VPH/EPH) (1)	1228.1	9386	245280
C9-C22 (VPH/EPH) (2)	1328.8	469	12264
C19-C36 (EPH)	290.2	93860	None (Immobile)

Shaded Cells = Concentrations exceed the residential and/or industrial/commercial MSCC.
ND = Not Detected at or above laboratory method detection limit.
MSCC = Maximum Soil Contaminant Concentration
* = No established Maximum Soil Contaminant Concentration
MADEP = Massachusetts Department of Environmental Protection
EPH = Extractable Petroleum Hydrocarbons
VPH = Volatile Petroleum Hydrocarbons
(1) = In accordance with NCDENR memo dated March 26, 1998 C9-C18 = (C9-C12 + C9-C18)
(2) = In accordance with NCDENR memo dated March 26, 1998 C9-C22 = (C9-C10 + C11-C22)

** = Calculated Maximum Soil Contaminant Concentration derived from 15A NCAC 2L.0115(m)
n-Propylbenzene: oral chronic reference dose = 0.01

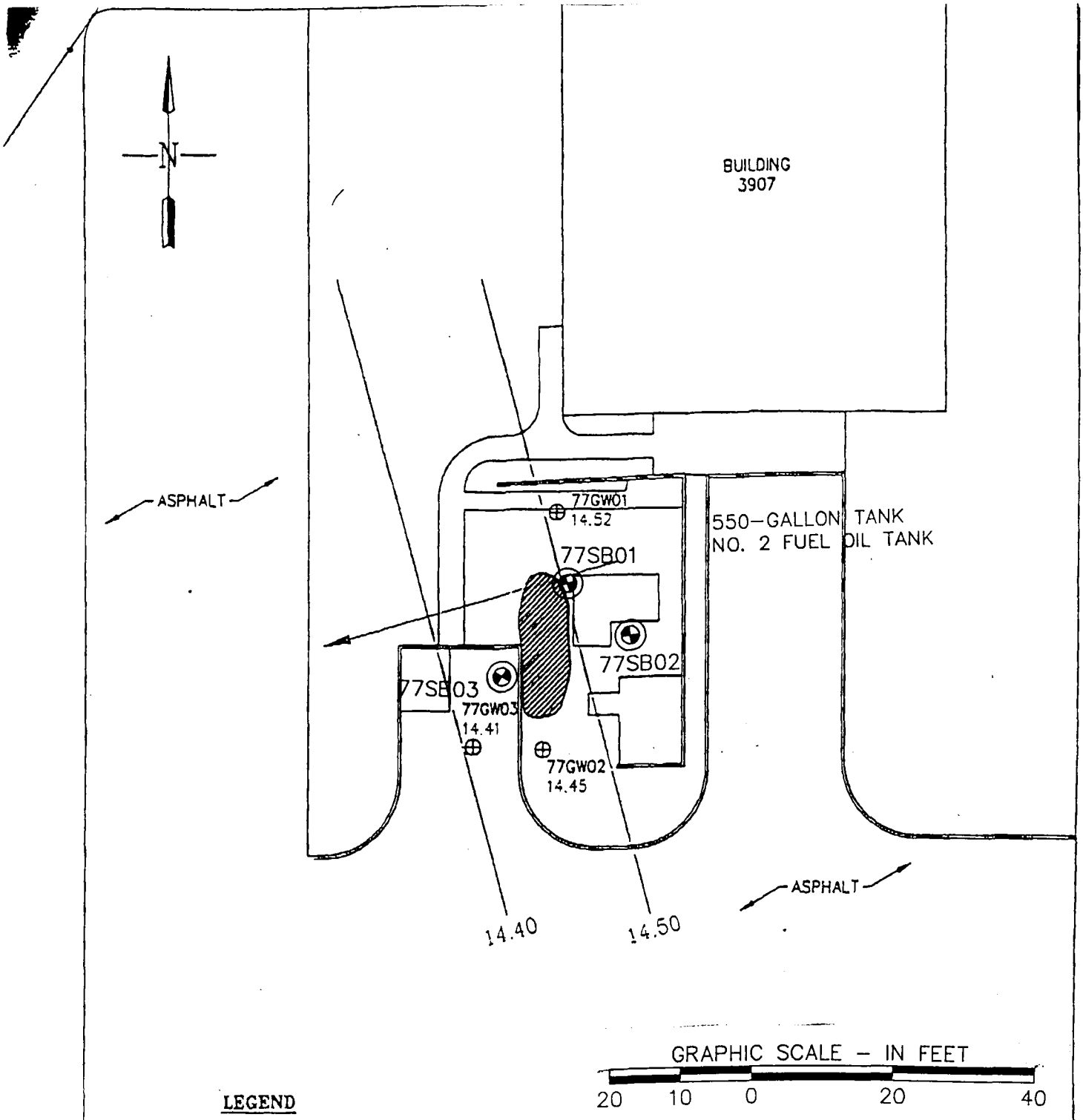
Residential MSCC = 15,642.86 x oral chronic reference dose
= 15,642.86 x 0.01
= 156

Industrial/Commercial MSCC = 408,800 x oral chronic reference dose
= 408,800 x 0.01
= 4088

VOCs, were not detected in the soil sample analyzed. PAHs, EPHs and VPHs were identified in the soil sample analyzed from boring 54SB36. Furthermore, Benzo(a)anthracene and C9-C22 EPHs/VPHs were detected at concentrations in excess of their respective Residential MSCCs as listed in Table 4 of section 7.3 Risk Based Soil Cleanup Requirements of 15A NCAC 2L .0115 "The Risk Based Corrective Action Rule", effective January 2, 1998. However, concentrations of Benzo(a)anthracene and C9-C22 EPHs/VPHs are below their respective Commercial/Industrial MSCCs.

Based on the site's location on the base relative to residential use, the site is not considered to be located in a residential area, thereby suggesting the use of Commercial/Industrial MSCC standards for this site. Therefore, current soil conditions, with respect to the content of petroleum related compounds, do not warrant further evaluation and do not appear to present an obstacle in pursuing No Further Action status at the site.

Figures



LEGEND

⊕ 77GW01 MONITORING WELL LOCATION AND REFERENCE NUMBER

—14.40— GROUNDWATER ELEVATION CONTOUR (AMSL)

APPARENT GROUNDWATER FLOW DIRECTION

APPROXIMATE AREA OF UST EXCAVATION

PROPOSED BORING LOCATIONS

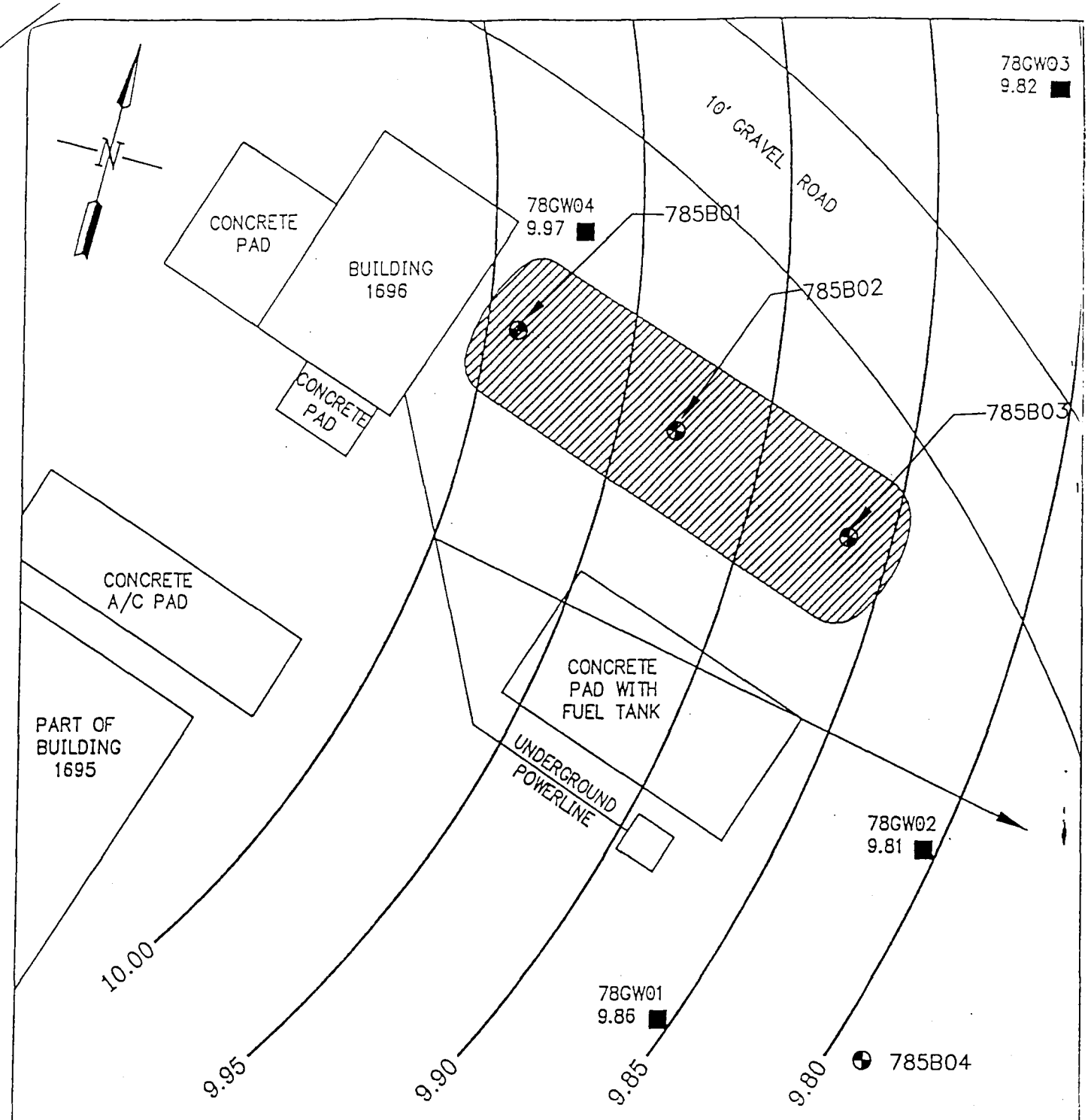
FIGURE 3.1

LANTDIV NAVFACENGCOM
MARINE CORPS AIR BASE,
CHERRY POINT, NC

BUILDING 3907
GROUNDWATER FLOW
DIRECTION MAP

drawn RDB | checked LPR | date 4/4/98 | approved HLG | drawing no. 97052-003

T.E. wright environmental, inc.
total environmental solutions
middletown, pa exton, pa westminster, md va beach, va



LEGEND

- 78GW01 — MONITORING WELL LOCATION AND REFERENCE NUMBER
- 9.80 — GROUNDWATER ELEVATION CONTOUR (AMSL)
- APPARENT GROUNDWATER FLOW DIRECTION
- APPROXIMATE AREA OF UST EXCAVATION
- PROPOSED BORING LOCATIONS

10' 0 10'

SCALE IN FEET

FIGURE 3.2

LANTDIV NAVFACENGCOM
MARINE CORPS AIR STATION,
CHERRY POINT, NC

BUILDING 1696
GROUNDWATER FLOW
DIRECTION MAP

drawn RDB	checked LPR	drawing no. 97132-003
date 6/30/96	approved HLG	

r.e. wright environmental, inc.
total environmental solutions
middletown, pa exton, pa westminster, md va beach, va

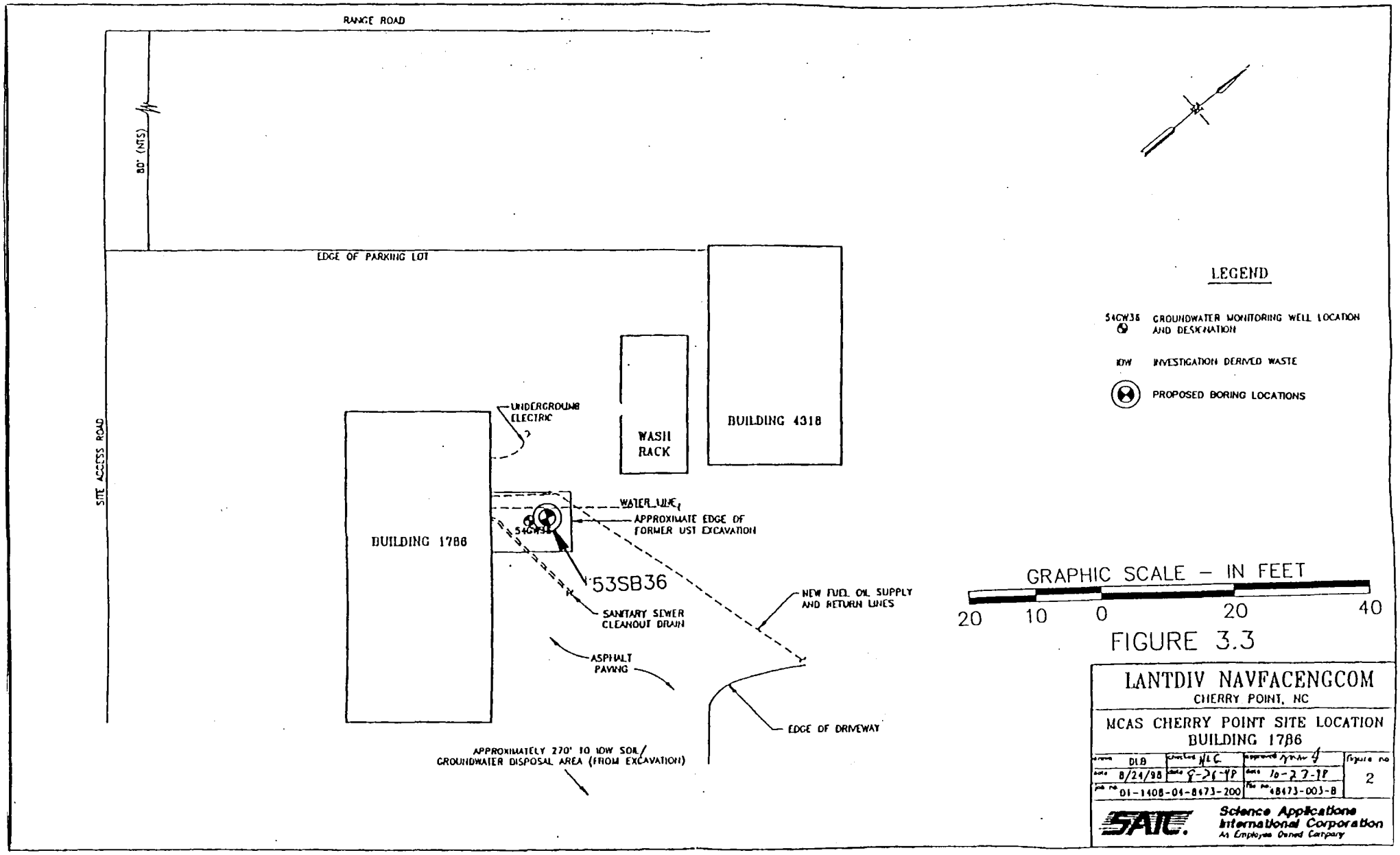

RANGE ROAD
80' (NTS)
EDGE OF PARKING LOT
SITE ACCESS ROAD
BUILDING 1786
UNDERGROUND ELECTRIC
WASH RACK
BUILDING 4318
WATER LINE
APPROXIMATE EDGE OF FORMER UST EXCAVATION
54GW36
53SB36
SANITARY SEWER CLEANOUT DRAIN
NEW FUEL OIL SUPPLY AND RETURN LINES
ASPHALT PAVING
EDGE OF DRIVEWAY
APPROXIMATELY 270' TO IDW SOIL/ GROUNDWATER DISPOSAL AREA (FROM EXCAVATION)
LEGEND
54GW36 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
IDW INVESTIGATION DERIVED WASTE
PROPOSED BORING LOCATIONS
GRAPHIC SCALE – IN FEET
20 10 0 20 40
LANTDIV NAVFACENGCOM
CHERRY POINT, NC
MCAS CHERRY POINT SITE LOCATION
BUILDING 1786
DLB
8/24/98
01-1408-04-8473-200
NLC
10-27-98
48473-003-B
2
SAIC
Science Applications International Corporation
An Employee Owned Company

FIGURE 3.3

Laboratory Results and Chain of Custody

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Jeff Tyberski
Site Name:
Cherry Point
30740-6-0600 UST 3907

Law Engineering
3301 Atlantic Avenue
Raleigh NC
27604

Report Date
Tuesday, May 18, 1999
PO #
Date Received in lab:
Thursday, May 06, 1999

GCI Project #: 9905-012

Summary of requested analytical work

Sample type code #s :	*1 = solid samples;*	*2 = liquid samples;*	*3 = Air samples;*	*4 = sludges/unknowns*
Field Number: 775B01	*Lab ID* 1210	*Sample Type:* 1	*Date Analyzed:* 5/11/99	*for 8260 soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B01	*Lab ID* 1210	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for 8270 BNA soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B01	*Lab ID* 1210	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for EPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B01	*Lab ID* 1210	*Sample Type:* 1	*Date Analyzed:* 5/10/99	*for VPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B02	*Lab ID* 1211	*Sample Type:* 1	*Date Analyzed:* 5/11/99	*for 8260 soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B02	*Lab ID* 1211	*Sample Type:* 1	*Date Analyzed:* 5/17/99	*for 8270 BNA soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B02	*Lab ID* 1211	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for EPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B02	*Lab ID* 1211	*Sample Type:* 1	*Date Analyzed:* 5/10/99	*for VPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B03	*Lab ID* 1212	*Sample Type:* 1	*Date Analyzed:* 5/11/99	*for 8260 soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes

I Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Jeff Tyberski
Site Name:
Cherry Point
30740-6-0600 UST 3907

Law Engineering
3301 Atlantic Avenue
Raleigh NC
27604

Report Date
Tuesday, May 18, 1999
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Date Received in lab:
Thursday, May 06, 1999

GCI Project #: 9905-012

Summary of requested analytical work

Sample type code #s :	*1 = solid samples;*	*2 = liquid samples;*	*3 = Air samples;*	*4 = sludges/unknowns*
Field Number: 775B03	*Lab ID* 1212	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for 8270 BNA soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B03	*Lab ID* 1212	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for EPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 775B03	*Lab ID* 1212	*Sample Type:* 1	*Date Analyzed:* 5/10/99	*for VPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes

I Kevin Bell Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

Field ID **775B01** *Date Analyzed: 5/11/99* Dry wt % 86.3
Lab ID ***1210***

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**BDL**	5.0	1.0
Dichlorodifluoromethane	**BDL**	10.0	1.0
Chloromethane	**BDL**	10.0	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	10.0	1.0
Chloroethane	**BDL**	10.0	1.0
Trichlorofluoromethane	**BDL**	10.0	1.0
Acrolein	**BDL**	100.0	1.0
Acetone	**BDL**	50.0	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	10.0	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	50.0	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	10.0	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	50.0	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	**BDL**	5.0	1.0
2-Hexanone	**BDL**	50.0	1.0
Chlorodibromomethane	**BDL**	5.0	1.0
1,2-Dibromoethane	**BDL**	5.0	1.0
Chlorobenzene	**BDL**	5.0	1.0
1,1,1,2-Tetrachloroethane	**BDL**	5.0	1.0
Ethylbenzene	**BDL**	5.0	1.0
m,p-Xylene	**BDL**	5.0	1.0
o-Xylene	**BDL**	5.0	1.0
Styrene	**BDL**	5.0	1.0
Bromoform	**BDL**	5.0	1.0
Isopropylbenzene	**BDL**	5.0	1.0
Bromobenzene	**BDL**	5.0	1.0
1,2,3-Trichloropropane	**BDL**	10.0	1.0
1,1,2,2-Tetrachloroethane	**BDL**	5.0	1.0
n-Propylbenzene	**BDL**	5.0	1.0
2-Chlorotoluene	**BDL**	5.0	1.0
1,4-Dichloro-2-butene	**BDL**	10.0	1.0
4-Chlorotoluene	**BDL**	5.0	1.0
1,3,5-Trimethylbenzene	**BDL**	5.0	1.0
tert-Butylbenzene	**BDL**	5.0	1.0
1,2,4-Trimethylbenzene	**BDL**	5.0	1.0
sec-Butylbenzene	**BDL**	5.0	1.0
1,3-Dichlorobenzene	**BDL**	5.0	1.0
1,4-Dichlorobenzene	**BDL**	5.0	1.0
4-Isopropyltoluene	**BDL**	5.0	1.0
1,2-Dichlorobenzene	**BDL**	5.0	1.0
1,2-Dibromo-3-chloropropan	**BDL**	5.0	1.0
1,2,4-Trichlorobenzene	**BDL**	5.0	1.0
Naphthalene	**BDL**	5.0	1.0
Hexachlorobutadiene	**BDL**	5.0	1.0
1,2,3-Trichlorobenzene	**BDL**	5.0	1.0

*End of **8260 soil***

8270 BNA soil

n-Nitrosodimethylamine	**BDL**	100.0	1.0
Aniline	**BDL**	100.0	1.0
Bis(2-chloroethyl)ether	**BDL**	100.0	1.0
2-Chlorophenol	**BDL**	100.0	1.0
Phenol	**BDL**	100.0	1.0
1,3-Dichlorobenzene	**BDL**	100.0	1.0
1,4-Dichlorobenzene	**BDL**	100.0	1.0
1,2-Dichlorobenzene	**BDL**	100.0	1.0
Benzyl Alcohol	**BDL**	200.0	1.0
Bis(2-chloroisopropyl)ether	**BDL**	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
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NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	BDL	100.0	1.0
Hexachloroethane	BDL	100.0	1.0
n-Nitrosodipropylamine	BDL	100.0	1.0
Nitrobenzene	BDL	100.0	1.0
4-Methylphenol (p-cresol)	BDL	100.0	1.0
Isophorone	BDL	100.0	1.0
2-Nitrophenol	BDL	100.0	1.0
2,4-Dimethylphenol	BDL	100.0	1.0
Bis(2-chloroethoxy)methane	BDL	100.0	1.0
2,4-Dichlorophenol	BDL	100.0	1.0
1,2,4-Trichlorobenzene	BDL	100.0	1.0
Naphthalene	BDL	100.0	1.0
Benzoic acid	BDL	500.0	1.0
4-Chloroaniline	BDL	100.0	1.0
Hexachlorobutadiene	BDL	100.0	1.0
2-Methylnaphthalene	BDL	100.0	1.0
4-Chloro-3-methylphenol	BDL	200.0	1.0
Hexachlorocyclopentadiene	BDL	100.0	1.0
2,4,6-Trichlorophenol	BDL	100.0	1.0
2,4,5-Trichlorophenol	BDL	100.0	1.0
2-Chloronaphthalene	BDL	100.0	1.0
2-Nitroaniline	BDL	500.0	1.0
Acenaphthylene	BDL	100.0	1.0
Dimethylphthalate	BDL	100.0	1.0
2,6-Dinitrotoluene	BDL	100.0	1.0
Acenaphthene	BDL	100.0	1.0
3-Nitroaniline	BDL	500.0	1.0
2,4-Dinitrophenol	BDL	100.0	1.0
Dibenzofuran	BDL	100.0	1.0
2,4-Dinitrotoluene	BDL	100.0	1.0
4-Nitrophenol	BDL	500.0	1.0
Fluorene	BDL	100.0	1.0
4-Chlorophenyl Phenyl Ether	BDL	100.0	1.0
Diethylphthalate	BDL	100.0	1.0
4-Nitroaniline	BDL	500.0	1.0
4,6-Dinitro-2-methylphenol	BDL	100.0	1.0
n-Nitrosodiphenylamine	BDL	100.0	1.0
4-Bromophenyl Phenyl Ether	BDL	100.0	1.0
Hexachlorobenzene	BDL	100.0	1.0
Benzidine	BDL	500.0	1.0
Pentachlorophenol	BDL	100.0	1.0
Phenanthrene	BDL	100.0	1.0
Anthracene	BDL	100.0	1.0
Di-n-butylphthalate	BDL	100.0	1.0

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Site Name:
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NC # 37745 , NC # 336, EPA ID # 155
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	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**BDL**	100.0	1.0
Pyrene	**BDL**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

Field ID **775B02** *Date Analyzed: 5/11/99* Dry wt % 81.5
Lab ID 1211

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**BDL**	5.0	1.0
Dichlorodifluoromethane	**BDL**	10.0	1.0
Chloromethane	**BDL**	10.0	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	10.0	1.0
Chloroethane	**BDL**	10.0	1.0
Trichlorofluoromethane	**BDL**	10.0	1.0
Acrolein	**BDL**	100.2	1.0
Acetone	**BDL**	50.1	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	10.0	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	50.1	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	10.0	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	50.1	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

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	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	BDL	5.0	1.0
2-Hexanone	BDL	50.1	1.0
Chlorodibromomethane	BDL	5.0	1.0
1,2-Dibromoethane	BDL	5.0	1.0
Chlorobenzene	BDL	5.0	1.0
1,1,1,2-Tetrachloroethane	BDL	5.0	1.0
Ethylbenzene	BDL	5.0	1.0
m,p-Xylene	BDL	5.0	1.0
o-Xylene	BDL	5.0	1.0
Styrene	BDL	5.0	1.0
Bromoform	BDL	5.0	1.0
Isopropylbenzene	BDL	5.0	1.0
Bromobenzene	BDL	5.0	1.0
1,2,3-Trichloropropane	BDL	10.0	1.0
1,1,2,2-Tetrachloroethane	BDL	5.0	1.0
n-Propylbenzene	BDL	5.0	1.0
2-Chlorotoluene	BDL	5.0	1.0
1,4-Dichloro-2-butene	BDL	10.0	1.0
4-Chlorotoluene	BDL	5.0	1.0
1,3,5-Trimethylbenzene	BDL	5.0	1.0
tert-Butylbenzene	BDL	5.0	1.0
1,2,4-Trimethylbenzene	BDL	5.0	1.0
sec-Butylbenzene	BDL	5.0	1.0
1,3-Dichlorobenzene	BDL	5.0	1.0
1,4-Dichlorobenzene	BDL	5.0	1.0
4-Isopropyltoluene	BDL	5.0	1.0
1,2-Dichlorobenzene	BDL	5.0	1.0
1,2-Dibromo-3-chloropropan	BDL	5.0	1.0
1,2,4-Trichlorobenzene	BDL	5.0	1.0
Naphthalene	BDL	5.0	1.0
Hexachlorobutadiene	BDL	5.0	1.0
1,2,3-Trichlorobenzene	BDL	5.0	1.0

*End of **8260 soil***

8270 BNA soil

n-Nitrosodimethylamine	BDL	100.0	1.0
Aniline	BDL	100.0	1.0
Bis(2-chloroethyl)ether	BDL	100.0	1.0
2-Chlorophenol	BDL	100.0	1.0
Phenol	BDL	100.0	1.0
1,3-Dichlorobenzene	BDL	100.0	1.0
1,4-Dichlorobenzene	BDL	100.0	1.0
1,2-Dichlorobenzene	BDL	100.0	1.0
Benzyl Alcohol	BDL	200.0	1.0
Bis(2-chloroisopropyl)ether	BDL	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
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	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	BDL	100.0	1.0
Hexachloroethane	BDL	100.0	1.0
n-Nitrosodipropylamine	BDL	100.0	1.0
Nitrobenzene	BDL	100.0	1.0
4-Methylphenol (p-cresol)	BDL	100.0	1.0
Isophorone	BDL	100.0	1.0
2-Nitrophenol	BDL	100.0	1.0
2,4-Dimethylphenol	BDL	100.0	1.0
Bis(2-chloroethoxy)methane	BDL	100.0	1.0
2,4-Dichlorophenol	BDL	100.0	1.0
1,2,4-Trichlorobenzene	BDL	100.0	1.0
Naphthalene	BDL	100.0	1.0
Benzoic acid	BDL	500.0	1.0
4-Chloroaniline	BDL	100.0	1.0
Hexachlorobutadiene	BDL	100.0	1.0
2-Methylnaphthalene	BDL	100.0	1.0
4-Chloro-3-methylphenol	BDL	200.0	1.0
Hexachlorocyclopentadiene	BDL	100.0	1.0
2,4,6-Trichlorophenol	BDL	100.0	1.0
2,4,5-Trichlorophenol	BDL	100.0	1.0
2-Chloronaphthalene	BDL	100.0	1.0
2-Nitroaniline	BDL	500.0	1.0
Acenaphthylene	BDL	100.0	1.0
Dimethylphthalate	BDL	100.0	1.0
2,6-Dinitrotoluene	BDL	100.0	1.0
Acenaphthene	BDL	100.0	1.0
3-Nitroaniline	BDL	500.0	1.0
2,4-Dinitrophenol	BDL	100.0	1.0
Dibenzofuran	BDL	100.0	1.0
2,4-Dinitrotoluene	BDL	100.0	1.0
4-Nitrophenol	BDL	500.0	1.0
Fluorene	BDL	100.0	1.0
4-Chlorophenyl Phenyl Ether	BDL	100.0	1.0
Diethylphthalate	BDL	100.0	1.0
4-Nitroaniline	BDL	500.0	1.0
4,6-Dinitro-2-methylphenol	BDL	100.0	1.0
n-Nitrosodiphenylamine	BDL	100.0	1.0
4-Bromophenyl Phenyl Ether	BDL	100.0	1.0
Hexachlorobenzene	BDL	100.0	1.0
Benzidine	BDL	500.0	1.0
Pentachlorophenol	BDL	100.0	1.0
Phenanthrene	BDL	100.0	1.0
Anthracene	BDL	100.0	1.0
Di-n-butylphthalate	BDL	100.0	1.0

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Cherry Point

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	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**BDL**	100.0	1.0
Pyrene	**BDL**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

Field ID **775B03** *Date Analyzed: 5/11/99* Dry wt % 92.1

Lab ID *1212*

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**18.0**	5.0	1.0
Dichlorodifluoromethane	**BDL**	9.9	1.0
Chloromethane	**BDL**	9.9	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	9.9	1.0
Chloroethane	**BDL**	9.9	1.0
Trichlorofluoromethane	**BDL**	9.9	1.0
Acrolein	**BDL**	99.4	1.0
Acetone	**BDL**	49.7	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	9.9	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	49.7	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	9.9	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	49.7	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

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	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	**BDL**	5.0	1.0
2-Hexanone	**BDL**	49.7	1.0
Chlorodibromomethane	**BDL**	5.0	1.0
1,2-Dibromoethane	**BDL**	5.0	1.0
Chlorobenzene	**BDL**	5.0	1.0
1,1,1,2-Tetrachloroethane	**BDL**	5.0	1.0
Ethylbenzene	**BDL**	5.0	1.0
m,p-Xylene	**BDL**	5.0	1.0
o-Xylene	**BDL**	5.0	1.0
Styrene	**BDL**	5.0	1.0
Bromoform	**BDL**	5.0	1.0
Isopropylbenzene	**BDL**	5.0	1.0
Bromobenzene	**BDL**	5.0	1.0
1,2,3-Trichloropropane	**BDL**	9.9	1.0
1,1,2,2-Tetrachloroethane	**BDL**	5.0	1.0
n-Propylbenzene	**BDL**	5.0	1.0
2-Chlorotoluene	**BDL**	5.0	1.0
1,4-Dichloro-2-butene	**BDL**	9.9	1.0
4-Chlorotoluene	**BDL**	5.0	1.0
1,3,5-Trimethylbenzene	**40.8**	5.0	1.0
tert-Butylbenzene	**BDL**	5.0	1.0
1,2,4-Trimethylbenzene	**BDL**	5.0	1.0
sec-Butylbenzene	**BDL**	5.0	1.0
1,3-Dichlorobenzene	**BDL**	5.0	1.0
1,4-Dichlorobenzene	**BDL**	5.0	1.0
4-Isopropyltoluene	**19.8**	5.0	1.0
1,2-Dichlorobenzene	**BDL**	5.0	1.0
1,2-Dibromo-3-chloropropan	**BDL**	5.0	1.0
1,2,4-Trichlorobenzene	**BDL**	5.0	1.0
Naphthalene	**BDL**	5.0	1.0
Hexachlorobutadiene	**BDL**	5.0	1.0
1,2,3-Trichlorobenzene	**BDL**	5.0	1.0

*End of **8260 soil**.*

8270 BNA soil

n-Nitrosodimethylamine	**BDL**	100.0	1.0
Aniline	**BDL**	100.0	1.0
Bis(2-chloroethyl)ether	**BDL**	100.0	1.0
2-Chlorophenol	**BDL**	100.0	1.0
Phenol	**BDL**	100.0	1.0
1,3-Dichlorobenzene	**BDL**	100.0	1.0
1,4-Dichlorobenzene	**BDL**	100.0	1.0
1,2-Dichlorobenzene	**BDL**	100.0	1.0
Benzyl Alcohol	**BDL**	200.0	1.0
Bis(2-chloroisopropyl)ether	**BDL**	100.0	1.0

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Site Name:
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GCI Project # 9905-012

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	**BDL**	100.0	1.0
Hexachloroethane	**BDL**	100.0	1.0
n-Nitrosodipropylamine	**BDL**	100.0	1.0
Nitrobenzene	**BDL**	100.0	1.0
4-Methylphenol (p-cresol)	**BDL**	100.0	1.0
Isophorone	**BDL**	100.0	1.0
2-Nitrophenol	**BDL**	100.0	1.0
2,4-Dimethylphenol	**BDL**	100.0	1.0
Bis(2-chloroethoxy)methane	**BDL**	100.0	1.0
2,4-Dichlorophenol	**BDL**	100.0	1.0
1,2,4-Trichlorobenzene	**BDL**	100.0	1.0
Naphthalene	**BDL**	100.0	1.0
Benzoic acid	**BDL**	500.0	1.0
4-Chloroaniline	**BDL**	100.0	1.0
Hexachlorobutadiene	**BDL**	100.0	1.0
2-Methylnaphthalene	**311.9**	100.0	1.0
4-Chloro-3-methylphenol	**BDL**	200.0	1.0
Hexachlorocyclopentadiene	**BDL**	100.0	1.0
2,4,6-Trichlorophenol	**BDL**	100.0	1.0
2,4,5-Trichlorophenol	**BDL**	100.0	1.0
2-Chloronaphthalene	**BDL**	100.0	1.0
2-Nitroaniline	**BDL**	500.0	1.0
Acenaphthylene	**BDL**	100.0	1.0
Dimethylphthalate	**BDL**	100.0	1.0
2,6-Dinitrotoluene	**BDL**	100.0	1.0
Acenaphthene	**BDL**	100.0	1.0
3-Nitroaniline	**BDL**	500.0	1.0
2,4-Dinitrophenol	**BDL**	100.0	1.0
Dibenzofuran	**BDL**	100.0	1.0
2,4-Dinitrotoluene	**BDL**	100.0	1.0
4-Nitrophenol	**BDL**	500.0	1.0
Fluorene	**BDL**	100.0	1.0
4-Chlorophenyl Phenyl Ether	**BDL**	100.0	1.0
Diethylphthalate	**BDL**	100.0	1.0
4-Nitroaniline	**BDL**	500.0	1.0
4,6-Dinitro-2-methylphenol	**BDL**	100.0	1.0
n-Nitrosodiphenylamine	**BDL**	100.0	1.0
4-Bromophenyl Phenyl Ether	**BDL**	100.0	1.0
Hexachlorobenzene	**BDL**	100.0	1.0
Benzidine	**BDL**	500.0	1.0
Pentachlorophenol	**BDL**	100.0	1.0
Phenanthrene	**247.8**	100.0	1.0
Anthracene	**BDL**	100.0	1.0
Di-n-butylphthalate	**BDL**	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-012

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**BDL**	100.0	1.0
Pyrene	**348.3**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

Tuesday, May 18, 1999

GCI Project *9905-012*

Site Name:

Cherry Point

		Conc. in mg/kg	PQL in mg/kg	Dilution Factor
Field ID **775B01**	*Lab ID 1210*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.86*			
	Analysis:	**EPH soil**		
	C9-C18 Aliphatics	**197.0**	11.586	1.0
	C19-C36 Aliphatics	**86.9**	11.586	1.0
	C11-C22 Aromatics	**43.2**	11.586	1.0
Field ID **775B02**	*Lab ID 1211*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.82*			
	Analysis:	**EPH soil**		
	C9-C18 Aliphatics	**BDL**	12.267	1.0
	C19-C36 Aliphatics	**BDL**	12.267	1.0
	C11-C22 Aromatics	**BDL**	12.267	1.0
Field ID **775B03**	*Lab ID 1212*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.92*			
	Analysis:	**EPH soil**		
	C9-C18 Aliphatics	**344.3**	10.853	1.0
	C19-C36 Aliphatics	**110.6**	10.853	1.0
	C11-C22 Aromatics	**262.4**	10.853	1.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

GCI Project 9905-012 *Tuesday, May 18, 1999*

Site Name:

Cherry Point

		Conc. in mg/kg	PQL in mg/kg	Dilution Factor
Field ID **775B01**	*Lab ID 1210*			
Date Analyzed: 5/10/99	*Dry Wt %: 0.86*			
	VPH soil			
	C5-C8 Aliphatics	**BQL**	11.586	1.0
	C9-C12 Aliphatics	**BQL**	11.586	1.0
	C9-C10 Aromatics	**BQL**	11.586	1.0
Field ID **775B02**	*Lab ID 1211*			
Date Analyzed: 5/10/99	*Dry Wt %: 0.82*			
	VPH soil			
	C5-C8 Aliphatics	**BQL**	12.267	1.0
	C9-C12 Aliphatics	**BQL**	12.267	1.0
	C9-C10 Aromatics	**BQL**	12.267	1.0
Field ID **775B03**	*Lab ID 1212*			
Date Analyzed: 5/10/99	*Dry Wt %: 0.78*			
	VPH soil			
	C5-C8 Aliphatics	**48.7**	12.903	1.0
	C9-C12 Aliphatics	**62.8**	12.903	1.0
	C9-C10 Aromatics	**29.9**	12.903	1.0

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

GCI Project # 9905-012

Tuesday, May 18, 1999

lowest detection @ ideal conditions

	Percent Recovery	Lab Blank:	MDL. in ug/l
8260 soil			
1,1-Dichloroethene	**88**	0	0.88
Benzene	**101**	0	0.72
Trichloroethene	**105**	0	0.71
Toluene	**102**	0	0.64
Chlorobenzene	**98**	0	0.49
	End of ***8260 soil***		
8270 BNA soil			
2-Chlorophenol	**83**	0	2.39
Phenol	**68**	0	2.44
1,4-Dichlorobenzene	**71**	0	2.96
n-Nitrosodipropylamine	**95**	0	4.77
1,2,4-Trichlorobenzene	**88**	0	2.68
4-Chloro-3-methylphenol	**82**	0	2.45
Acenaphthene	**67**	0	6.83
2,4-Dinitrotoluene	**100**	0	2.48
4-Nitrophenol	**95**	0	6.65
Pentachlorophenol	**117**	0	2.4
Pyrene	**92**	0	3.34
	End of ***8270 BNA soil***		

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

9905-012

Tuesday, May 18, 1999

VPH soil	*Percent Recovery*	*Lab Blank*	*MDL. in mg/kg*
C5-C8 Aliphatics	**86.8**	0	0.013
C9-C12 Aliphatics	**86.**	0	0.004
C9-C10 Aromatics	**115.5**	0	0.003

Report To:
JEFF Tylenski
LAW - Raleigh
3301 ATLANTIC AVE
Raleigh, NC 27604

GeoChem, Incorporated

Environmental Laboratories

2500 Gate Way Centre Blvd., Suite 300
Morrisville, NC 27560

Bill To:
SAME

Chain of Custody Record

PROJECT SITE NUMBER	PO#
SITE NAME: CHERRY POINT	
COLLECTED BY (Signature): [signature]	

GEOCHEM PROJECT #: 9905-011/9905-012/9905-013
DATE DUE:
VERBAL/FAX/HARDCOPY:

ANALYSES

FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	NO. OF CONTAINERS PER LOCATION	METALS	MADEP	EPH + VPH	8260 (AN + AE)	8270 (BN + AE)						REMARKS	LAB ID NO. (for lab use only)
30740-	6-0600	PH 56														
UST 160																
MSB05	STANDARD	Soil	5/5 1:45	2	x	x	x	x	x						[illegible] 5' - 6'	1207
[illegible]	[illegible]	Soil	5/5 [illegible]	2				x							[illegible] 4'	1208
[illegible]	STD	[illegible]	5/5 1:00	2	x			x	x						4' - 6' [illegible]	1209
															CALL [illegible]	
30740-	6-0600	PH 57													1-800-[illegible]	
UST 3907																
775B01	STD	Soil	5/5 11:00	1		x	x	x	x						0-4'	1210
775B02	STD	Soil	5/5 10:15	1		x	x	x	x						0'-4'	1211
775B03	STD	Soil	5/5 9:30	1		x	x	x	x						0'-4'	1212
545B36	STD	Soil	5/5 4:20	1		x	x	x	x						4'-4.5'	1213

REMARKS	RELINQUISHED BY:	DATE	TIME

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Federal Express	5/5/99	6:00pm				Amy L. Portig	5/6/99	11:25			

UST 1786

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Jeff Tyberski
Site Name:
3070-6-0600
1696

Law Engineering
3301 Atlantic Avenue
Raleigh NC
27604

Report Date
Tuesday, May 18, 1999
PO #
Date Received in lab:
Monday, May 10, 1999

GCI Project #: 9905-019

Summary of requested analytical work

Sample type code #s : ***1 = solid samples;*** ***2 = liquid samples;*** ***3 = Air samples;*** ***4 = sludges/unknowns***

Field Number: 785B01	*Lab ID* 1224	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for 8260 soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B01	*Lab ID* 1224	*Sample Type:* 1	*Date Analyzed:* 5/13/99	*for 8270 BNA soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B01	*Lab ID* 1224	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for EPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B01	*Lab ID* 1224	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for VPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B02	*Lab ID* 1225	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for 8260 soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B02	*Lab ID* 1225	*Sample Type:* 1	*Date Analyzed:* 5/18/99	*for 8270 BNA soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B02	*Lab ID* 1225	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for EPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B02	*Lab ID* 1225	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for VPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B03	*Lab ID* 1226	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for 8260 soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes

I Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Jeff Tyberski
Site Name:
3070-6-0600
1696

Law Engineering
3301 Atlantic Avenue
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Summary of requested analytical work

Sample type code #s :	*1 = solid samples;*	*2 = liquid samples;*	*3 = Air samples;*	*4 = sludges/unknowns*
Field Number: 785B03	*Lab ID* 1226	*Sample Type:* 1	*Date Analyzed:* 5/18/99	*for 8270 BNA soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B03	*Lab ID* 1226	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for EPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes
Field Number: 785B03	*Lab ID* 1226	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for VPH soil*
Date Sampled 5/6/99			*Proper Preservation*	Yes

I Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

Field ID **785B01** *Date Analyzed: 5/14/99* Dry wt % 80.6
Lab ID 1224

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**BDL**	5.0	1.0
Dichlorodifluoromethane	**BDL**	10.0	1.0
Chloromethane	**BDL**	10.0	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	10.0	1.0
Chloroethane	**BDL**	10.0	1.0
Trichlorofluoromethane	**BDL**	10.0	1.0
Acrolein	**BDL**	100.2	1.0
Acetone	**BDL**	50.1	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	10.0	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	50.1	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	10.0	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	50.1	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	BDL	5.0	1.0
2-Hexanone	BDL	50.1	1.0
Chlorodibromomethane	BDL	5.0	1.0
1,2-Dibromoethane	BDL	5.0	1.0
Chlorobenzene	BDL	5.0	1.0
1,1,1,2-Tetrachloroethane	BDL	5.0	1.0
Ethylbenzene	BDL	5.0	1.0
m,p-Xylene	BDL	5.0	1.0
o-Xylene	BDL	5.0	1.0
Styrene	BDL	5.0	1.0
Bromoform	BDL	5.0	1.0
Isopropylbenzene	BDL	5.0	1.0
Bromobenzene	BDL	5.0	1.0
1,2,3-Trichloropropane	BDL	10.0	1.0
1,1,2,2-Tetrachloroethane	BDL	5.0	1.0
n-Propylbenzene	BDL	5.0	1.0
2-Chlorotoluene	BDL	5.0	1.0
1,4-Dichloro-2-butene	BDL	10.0	1.0
4-Chlorotoluene	BDL	5.0	1.0
1,3,5-Trimethylbenzene	BDL	5.0	1.0
tert-Butylbenzene	BDL	5.0	1.0
1,2,4-Trimethylbenzene	BDL	5.0	1.0
sec-Butylbenzene	BDL	5.0	1.0
1,3-Dichlorobenzene	BDL	5.0	1.0
1,4-Dichlorobenzene	BDL	5.0	1.0
4-Isopropyltoluene	BDL	5.0	1.0
1,2-Dichlorobenzene	BDL	5.0	1.0
1,2-Dibromo-3-chloropropan	BDL	5.0	1.0
1,2,4-Trichlorobenzene	BDL	5.0	1.0
Naphthalene	BDL	5.0	1.0
Hexachlorobutadiene	BDL	5.0	1.0
1,2,3-Trichlorobenzene	BDL	5.0	1.0

*End of **8260 soil***

8270 BNA soil

n-Nitrosodimethylamine	BDL	100.0	1.0
Aniline	BDL	100.0	1.0
Bis(2-chloroethyl)ether	BDL	100.0	1.0
2-Chlorophenol	BDL	100.0	1.0
Phenol	BDL	100.0	1.0
1,3-Dichlorobenzene	BDL	100.0	1.0
1,4-Dichlorobenzene	BDL	100.0	1.0
1,2-Dichlorobenzene	BDL	100.0	1.0
Benzyl Alcohol	BDL	200.0	1.0
Bis(2-chloroisopropyl)ether	BDL	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	**BDL**	100.0	1.0
Hexachloroethane	**BDL**	100.0	1.0
n-Nitrosodipropylamine	**BDL**	100.0	1.0
Nitrobenzene	**BDL**	100.0	1.0
4-Methylphenol (p-cresol)	**BDL**	100.0	1.0
Isophorone	**BDL**	100.0	1.0
2-Nitrophenol	**BDL**	100.0	1.0
2,4-Dimethylphenol	**BDL**	100.0	1.0
Bis(2-chloroethoxy)methane	**BDL**	100.0	1.0
2,4-Dichlorophenol	**BDL**	100.0	1.0
1,2,4-Trichlorobenzene	**BDL**	100.0	1.0
Naphthalene	**BDL**	100.0	1.0
Benzoic acid	**BDL**	500.0	1.0
4-Chloroaniline	**BDL**	100.0	1.0
Hexachlorobutadiene	**BDL**	100.0	1.0
2-Methylnaphthalene	**BDL**	100.0	1.0
4-Chloro-3-methylphenol	**BDL**	200.0	1.0
Hexachlorocyclopentadiene	**BDL**	100.0	1.0
2,4,6-Trichlorophenol	**BDL**	100.0	1.0
2,4,5-Trichlorophenol	**BDL**	100.0	1.0
2-Chloronaphthalene	**BDL**	100.0	1.0
2-Nitroaniline	**BDL**	500.0	1.0
Acenaphthylene	**BDL**	100.0	1.0
Dimethylphthalate	**BDL**	100.0	1.0
2,6-Dinitrotoluene	**BDL**	100.0	1.0
Acenaphthene	**BDL**	100.0	1.0
3-Nitroaniline	**BDL**	500.0	1.0
2,4-Dinitrophenol	**BDL**	100.0	1.0
Dibenzofuran	**BDL**	100.0	1.0
2,4-Dinitrotoluene	**BDL**	100.0	1.0
4-Nitrophenol	**BDL**	500.0	1.0
Fluorene	**BDL**	100.0	1.0
4-Chlorophenyl Phenyl Ether	**BDL**	100.0	1.0
Diethylphthalate	**BDL**	100.0	1.0
4-Nitroaniline	**BDL**	500.0	1.0
4,6-Dinitro-2-methylphenol	**BDL**	100.0	1.0
n-Nitrosodiphenylamine	**BDL**	100.0	1.0
4-Bromophenyl Phenyl Ether	**BDL**	100.0	1.0
Hexachlorobenzene	**BDL**	100.0	1.0
Benzidine	**BDL**	500.0	1.0
Pentachlorophenol	**BDL**	100.0	1.0
Phenanthrene	**BDL**	100.0	1.0
Anthracene	**BDL**	100.0	1.0
Di-n-butylphthalate	**BDL**	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**BDL**	100.0	1.0
Pyrene	**BDL**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

Field ID **785B02** *Date Analyzed: 5/14/99* Dry wt % 88.1
Lab ID 1225

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**BDL**	5.0	1.0
Dichlorodifluoromethane	**BDL**	10.0	1.0
Chloromethane	**BDL**	10.0	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	10.0	1.0
Chloroethane	**BDL**	10.0	1.0
Trichlorofluoromethane	**BDL**	10.0	1.0
Acrolein	**BDL**	99.6	1.0
Acetone	**BDL**	49.8	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	10.0	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	49.8	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	10.0	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	49.8	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	BDL	5.0	1.0
2-Hexanone	BDL	49.8	1.0
Chlorodibromomethane	BDL	5.0	1.0
1,2-Dibromoethane	BDL	5.0	1.0
Chlorobenzene	BDL	5.0	1.0
1,1,1,2-Tetrachloroethane	BDL	5.0	1.0
Ethylbenzene	BDL	5.0	1.0
m,p-Xylene	BDL	5.0	1.0
o-Xylene	BDL	5.0	1.0
Styrene	BDL	5.0	1.0
Bromoform	BDL	5.0	1.0
Isopropylbenzene	BDL	5.0	1.0
Bromobenzene	BDL	5.0	1.0
1,2,3-Trichloropropane	BDL	10.0	1.0
1,1,2,2-Tetrachloroethane	BDL	5.0	1.0
n-Propylbenzene	BDL	5.0	1.0
2-Chlorotoluene	BDL	5.0	1.0
1,4-Dichloro-2-butene	BDL	10.0	1.0
4-Chlorotoluene	BDL	5.0	1.0
1,3,5-Trimethylbenzene	BDL	5.0	1.0
tert-Butylbenzene	BDL	5.0	1.0
1,2,4-Trimethylbenzene	BDL	5.0	1.0
sec-Butylbenzene	BDL	5.0	1.0
1,3-Dichlorobenzene	BDL	5.0	1.0
1,4-Dichlorobenzene	BDL	5.0	1.0
4-Isopropyltoluene	BDL	5.0	1.0
1,2-Dichlorobenzene	BDL	5.0	1.0
1,2-Dibromo-3-chloropropan	BDL	5.0	1.0
1,2,4-Trichlorobenzene	BDL	5.0	1.0
Naphthalene	BDL	5.0	1.0
Hexachlorobutadiene	BDL	5.0	1.0
1,2,3-Trichlorobenzene	BDL	5.0	1.0

*End of **8260 soil***

8270 BNA soil

n-Nitrosodimethylamine	BDL	100.0	1.0
Aniline	BDL	100.0	1.0
Bis(2-chloroethyl)ether	BDL	100.0	1.0
2-Chlorophenol	BDL	100.0	1.0
Phenol	BDL	100.0	1.0
1,3-Dichlorobenzene	BDL	100.0	1.0
1,4-Dichlorobenzene	BDL	100.0	1.0
1,2-Dichlorobenzene	BDL	100.0	1.0
Benzyl Alcohol	BDL	200.0	1.0
Bis(2-chloroisopropyl)ether	BDL	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	**BDL**	100.0	1.0
Hexachloroethane	**BDL**	100.0	1.0
n-Nitrosodipropylamine	**BDL**	100.0	1.0
Nitrobenzene	**BDL**	100.0	1.0
4-Methylphenol (p-cresol)	**BDL**	100.0	1.0
Isophorone	**BDL**	100.0	1.0
2-Nitrophenol	**BDL**	100.0	1.0
2,4-Dimethylphenol	**BDL**	100.0	1.0
Bis(2-chloroethoxy)methane	**BDL**	100.0	1.0
2,4-Dichlorophenol	**BDL**	100.0	1.0
1,2,4-Trichlorobenzene	**BDL**	100.0	1.0
Naphthalene	**BDL**	100.0	1.0
Benzoic acid	**BDL**	500.0	1.0
4-Chloroaniline	**BDL**	100.0	1.0
Hexachlorobutadiene	**BDL**	100.0	1.0
2-Methylnaphthalene	**BDL**	100.0	1.0
4-Chloro-3-methylphenol	**BDL**	200.0	1.0
Hexachlorocyclopentadiene	**BDL**	100.0	1.0
2,4,6-Trichlorophenol	**BDL**	100.0	1.0
2,4,5-Trichlorophenol	**BDL**	100.0	1.0
2-Chloronaphthalene	**BDL**	100.0	1.0
2-Nitroaniline	**BDL**	500.0	1.0
Acenaphthylene	**BDL**	100.0	1.0
Dimethylphthalate	**BDL**	100.0	1.0
2,6-Dinitrotoluene	**BDL**	100.0	1.0
Acenaphthene	**BDL**	100.0	1.0
3-Nitroaniline	**BDL**	500.0	1.0
2,4-Dinitrophenol	**BDL**	100.0	1.0
Dibenzofuran	**BDL**	100.0	1.0
2,4-Dinitrotoluene	**BDL**	100.0	1.0
4-Nitrophenol	**BDL**	500.0	1.0
Fluorene	**BDL**	100.0	1.0
4-Chlorophenyl Phenyl Ether	**BDL**	100.0	1.0
Diethylphthalate	**BDL**	100.0	1.0
4-Nitroaniline	**BDL**	500.0	1.0
4,6-Dinitro-2-methylphenol	**BDL**	100.0	1.0
n-Nitrosodiphenylamine	**BDL**	100.0	1.0
4-Bromophenyl Phenyl Ether	**BDL**	100.0	1.0
Hexachlorobenzene	**BDL**	100.0	1.0
Benzidine	**BDL**	500.0	1.0
Pentachlorophenol	**BDL**	100.0	1.0
Phenanthrene	**136.2**	100.0	1.0
Anthracene	**BDL**	100.0	1.0
Di-n-butylphthalate	**BDL**	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
Fluoranthene	**147.5**	100.0	1.0
Pyrene	**124.8**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

Field ID **785B03** *Date Analyzed: 5/14/99* Dry wt % 85.3
Lab ID ***1226***

8260 soil

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
MTBE	**BDL**	5.0	1.0
IPE	**BDL**	5.0	1.0
n-Butylbenzene	**BDL**	5.0	1.0
Dichlorodifluoromethane	**BDL**	10.0	1.0
Chloromethane	**BDL**	10.0	1.0
Vinyl Chloride	**BDL**	5.0	1.0
Bromomethane	**BDL**	10.0	1.0
Chloroethane	**BDL**	10.0	1.0
Trichlorofluoromethane	**BDL**	10.0	1.0
Acrolein	**BDL**	100.0	1.0
Acetone	**BDL**	50.0	1.0
1,1-Dichloroethene	**BDL**	5.0	1.0
Iodomethane	**BDL**	5.0	1.0
Carbon Disulfide	**BDL**	5.0	1.0
Methylene Chloride	**BDL**	5.0	1.0
Acrylonitrile	**BDL**	5.0	1.0
trans-1,2-Dichloroethene	**BDL**	5.0	1.0
1,1-Dichloroethane	**BDL**	5.0	1.0
Vinyl Acetate	**BDL**	10.0	1.0
2,2-Dichloropropane	**BDL**	5.0	1.0
cis-1,2-Dichloroethene	**BDL**	5.0	1.0
2-Butanone	**BDL**	50.0	1.0
Bromochloromethane	**BDL**	5.0	1.0
Chloroform	**BDL**	5.0	1.0
1,1,1-Trichloroethane	**BDL**	5.0	1.0
1,1-Dichloropropene	**BDL**	5.0	1.0
Carbon Tetrachloride	**BDL**	5.0	1.0
Benzene	**BDL**	5.0	1.0
1,2-Dichloroethane	**BDL**	5.0	1.0
Trichloroethene	**BDL**	5.0	1.0
1,2-Dichloropropane	**BDL**	5.0	1.0
Dibromomethane	**BDL**	5.0	1.0
Bromodichloromethane	**BDL**	5.0	1.0
2-Chloroethylvinylether	**BDL**	10.0	1.0
cis-1,3-Dichloropropene	**BDL**	5.0	1.0
4-Methyl-2-pentanone	**BDL**	50.0	1.0
Toluene	**BDL**	5.0	1.0
trans-1,3-Dichloropropene	**BDL**	5.0	1.0
1,1,2-Trichloroethane	**BDL**	5.0	1.0
Ethylmethacrylate	**BDL**	5.0	1.0
Tetrachloroethene	**BDL**	5.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	BDL	5.0	1.0
2-Hexanone	BDL	50.0	1.0
Chlorodibromomethane	BDL	5.0	1.0
1,2-Dibromoethane	BDL	5.0	1.0
Chlorobenzene	BDL	5.0	1.0
1,1,1,2-Tetrachloroethane	BDL	5.0	1.0
Ethylbenzene	BDL	5.0	1.0
m,p-Xylene	BDL	5.0	1.0
o-Xylene	BDL	5.0	1.0
Styrene	BDL	5.0	1.0
Bromoform	BDL	5.0	1.0
Isopropylbenzene	BDL	5.0	1.0
Bromobenzene	BDL	5.0	1.0
1,2,3-Trichloropropane	BDL	10.0	1.0
1,1,2,2-Tetrachloroethane	BDL	5.0	1.0
n-Propylbenzene	BDL	5.0	1.0
2-Chlorotoluene	BDL	5.0	1.0
1,4-Dichloro-2-butene	BDL	10.0	1.0
4-Chlorotoluene	BDL	5.0	1.0
1,3,5-Trimethylbenzene	BDL	5.0	1.0
tert-Butylbenzene	BDL	5.0	1.0
1,2,4-Trimethylbenzene	BDL	5.0	1.0
sec-Butylbenzene	BDL	5.0	1.0
1,3-Dichlorobenzene	BDL	5.0	1.0
1,4-Dichlorobenzene	BDL	5.0	1.0
4-Isopropyltoluene	BDL	5.0	1.0
1,2-Dichlorobenzene	BDL	5.0	1.0
1,2-Dibromo-3-chloropropan	BDL	5.0	1.0
1,2,4-Trichlorobenzene	BDL	5.0	1.0
Naphthalene	BDL	5.0	1.0
Hexachlorobutadiene	BDL	5.0	1.0
1,2,3-Trichlorobenzene	BDL	5.0	1.0

*End of **8260 soil***

8270 BNA soil

n-Nitrosodimethylamine	BDL	100.0	1.0
Aniline	BDL	100.0	1.0
Bis(2-chloroethyl)ether	BDL	100.0	1.0
2-Chlorophenol	BDL	100.0	1.0
Phenol	BDL	100.0	1.0
1,3-Dichlorobenzene	BDL	100.0	1.0
1,4-Dichlorobenzene	BDL	100.0	1.0
1,2-Dichlorobenzene	BDL	100.0	1.0
Benzyl Alcohol	BDL	200.0	1.0
Bis(2-chloroisopropyl)ether	BDL	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	PQL in ug/kg (lowest detection on sample)	Dilution Factor
2-Methylphenol (o-cresol)	BDL	100.0	1.0
Hexachloroethane	BDL	100.0	1.0
n-Nitrosodipropylamine	BDL	100.0	1.0
Nitrobenzene	BDL	100.0	1.0
4-Methylphenol (p-cresol)	BDL	100.0	1.0
Isophorone	BDL	100.0	1.0
2-Nitrophenol	BDL	100.0	1.0
2,4-Dimethylphenol	BDL	100.0	1.0
Bis(2-chloroethoxy)methane	BDL	100.0	1.0
2,4-Dichlorophenol	BDL	100.0	1.0
1,2,4-Trichlorobenzene	BDL	100.0	1.0
Naphthalene	BDL	100.0	1.0
Benzoic acid	BDL	500.0	1.0
4-Chloroaniline	BDL	100.0	1.0
Hexachlorobutadiene	BDL	100.0	1.0
2-Methylnaphthalene	BDL	100.0	1.0
4-Chloro-3-methylphenol	BDL	200.0	1.0
Hexachlorocyclopentadiene	BDL	100.0	1.0
2,4,6-Trichlorophenol	BDL	100.0	1.0
2,4,5-Trichlorophenol	BDL	100.0	1.0
2-Chloronaphthalene	BDL	100.0	1.0
2-Nitroaniline	BDL	500.0	1.0
Acenaphthylene	BDL	100.0	1.0
Dimethylphthalate	BDL	100.0	1.0
2,6-Dinitrotoluene	BDL	100.0	1.0
Acenaphthene	BDL	100.0	1.0
3-Nitroaniline	BDL	500.0	1.0
2,4-Dinitrophenol	BDL	100.0	1.0
Dibenzofuran	BDL	100.0	1.0
2,4-Dinitrotoluene	BDL	100.0	1.0
4-Nitrophenol	BDL	500.0	1.0
Fluorene	BDL	100.0	1.0
4-Chlorophenyl Phenyl Ether	BDL	100.0	1.0
Diethylphthalate	BDL	100.0	1.0
4-Nitroaniline	BDL	500.0	1.0
4,6-Dinitro-2-methylphenol	BDL	100.0	1.0
n-Nitrosodiphenylamine	BDL	100.0	1.0
4-Bromophenyl Phenyl Ether	BDL	100.0	1.0
Hexachlorobenzene	BDL	100.0	1.0
Benzidine	BDL	500.0	1.0
Pentachlorophenol	BDL	100.0	1.0
Phenanthrene	BDL	100.0	1.0
Anthracene	BDL	100.0	1.0
Di-n-butylphthalate	BDL	100.0	1.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
3070-6-0600

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-019

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**BDL**	100.0	1.0
Pyrene	**BDL**	100.0	1.0
Butyl Benzyl Phthalate	**BDL**	200.0	1.0
Benzo(a)anthracene	**BDL**	100.0	1.0
3,3'-Dichlorobenzidine	**BDL**	200.0	1.0
Chrysene	**BDL**	50.0	1.0
Bis(2-ethylhexyl)phthalate	**BDL**	100.0	1.0
Di-n-octylphthalate	**BDL**	100.0	1.0
Benzo(b)fluoranthene	**BDL**	100.0	1.0
Benzo(k)fluoranthene	**BDL**	100.0	1.0
Benzo(a)pyrene	**BDL**	100.0	1.0
Indeno(1,2,3-cd)pyrene	**BDL**	100.0	1.0
Dibenz(a,h)anthracene	**BDL**	100.0	1.0
Benzo(g,h,i)perylene	**BDL**	100.0	1.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

Wednesday, May 19, 1999

GCI Project 9905-019

Site Name:

3070-6-0600

	Conc. in mg/kg	PQL in mg/kg	Dilution Factor
Field ID **785B01** *Lab ID 1224*			
Date Analyzed: 5/14/99 *Dry Wt %: 0.81*			
Analysis:	EPH soil		
C9-C18 Aliphatics	365.8	12.407	1.0
C19-C36 Aliphatics	189.4	12.407	1.0
C11-C22 Aromatics	79.3	12.407	1.0
Field ID **785B02** *Lab ID 1225*			
Date Analyzed: 5/14/99 *Dry Wt %: 0.88*			
Analysis:	EPH soil		
C9-C18 Aliphatics	BDL	11.348	1.0
C19-C36 Aliphatics	BDL	11.348	1.0
C11-C22 Aromatics	BQL	11.348	1.0
Field ID **785B03** *Lab ID 1226*			
Date Analyzed: 5/14/99 *Dry Wt %: 0.85*			
Analysis:	EPH soil		
C9-C18 Aliphatics	BDL	11.723	1.0
C19-C36 Aliphatics	BDL	11.723	1.0
C11-C22 Aromatics	BDL	11.723	1.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

GCI Project 9905-019 *Tuesday, May 18, 1999*

Site Name:

3070-6-0600

		Conc. in mg/kg	PQL in mg/kg	Dilution Factor
Field ID **785B01**	*Lab ID 1224*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.81*			
	VPH soil			
	C5-C8 Aliphatics	**BQL**	12.407	1.0
	C9-C12 Aliphatics	**BQL**	12.407	1.0
	C9-C10 Aromatics	**BQL**	12.407	1.0
Field ID **785B02**	*Lab ID 1225*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.88*			
	VPH soil			
	C5-C8 Aliphatics	**BQL**	11.348	1.0
	C9-C12 Aliphatics	**BQL**	11.348	1.0
	C9-C10 Aromatics	**BQL**	11.348	1.0
Field ID **785B03**	*Lab ID 1226*			
Date Analyzed: 5/12/99	*Dry Wt %: 0.85*			
	VPH soil			
	C5-C8 Aliphatics	**BQL**	11.723	1.0
	C9-C12 Aliphatics	**BQL**	11.723	1.0
	C9-C10 Aromatics	**BQL**	11.723	1.0

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

GCI Project # **9905-019**

Tuesday, May 18, 1999

lowest detection @ ideal conditions

	Percent Recovery	Lab Blank:	MDL. in ug/l
8260 soil			
1,1-Dichloroethene	**95**	0	0.88
Benzene	**100**	0	0.72
Trichloroethene	**99**	0	0.71
Toluene	**94**	0	0.64
Chlorobenzene	**98**	0	0.49
	End of ***8260 soil***		
8270 BNA soil			
2-Chlorophenol	**83**	0	2.39
Phenol	**68**	0	2.44
1,4-Dichlorobenzene	**71**	0	2.96
n-Nitrosodipropylamine	**95**	0	4.77
1,2,4-Trichlorobenzene	**88**	0	2.68
4-Chloro-3-methylphenol	**82**	0	2.45
Acenaphthene	**67**	0	6.83
2,4-Dinitrotoluene	**100**	0	2.48
4-Nitroaniline	**95**	0	50
Pentachlorophenol	**117**	0	2.4
Pyrene	**92**	0	3.34
	End of ***8270 BNA soil***		

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

9905-019

Tuesday, May 18, 1999

VPH soil	*Percent Recovery*	*Lab Blank*	*MDL. in mg/kg*
C5-C8 Aliphatics	**113.8**	0	0.013
C9-C12 Aliphatics	**106.9**	0	0.004
C9-C10 Aromatics	**122.8**	0	0.003

Report To:
JEFF Tyberski
LAW Raleigh
3301 ATLANTIC AVE
Raleigh, NC 27604

GeoChem, Incorporated

Environmental Laboratories

2500 Gate Way Centre Blvd., Suite 300
Morrisville, NC 27560

Bill To:
SAME

Chain of Custody Record

PROJECT SITE NUMBER: 1696
PO#:
SITE NAME:
COLLECTED BY (Signature): [signature]
GEOCHEM PROJECT #: 9905-020 19
DATE DUE:
VERBAL/FAX/HARDCOPY:

ANALYSES: MADEP; EPH & VPH; 8260 (BN & AE); 8270 (BN & AE)

FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	NO. OF CONTAINERS PER LOCATION	MADEP	EPH & VPH	8260 (BN & AE)	8270 (BN & AE)						REMARKS	LAB ID NO. (for lab use only)
785B01	STD	Soil	5/6 8:30 0'-2'	1	1	1	1	1							1224
785B02	STD	Soil	5/6 9:15 0'-3'	1	1	1	1	1							1225
785B03	STD	Soil	5/6 10:30 0'-4'	1	1	1	1	1							1226
30740-6-0600		PH 57													
SITE: 1696															

REMARKS:

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
FEDERAL EXPRESS	5/6/99	5:00				[signature]	5/7	1230			

RELINQUISHED BY: [signature] DATE 5/6 TIME 4:45

This Chain of Custody is considered a written contract to perform the services requested in the analyses section of this document.

GeoChem, Incorporated

Environmental Laboratories

Certified Analytical Laboratory

NC # 37745 ,NC # 336, NC # 461, EPA ID # 155

Client Project Manager
Jeff Tyberski
Site Name:
Cherry Point
30740-6-0600 UST 1786

Law Engineering
3301 Atlantic Avenue
Raleigh NC
27604

Report Date
Tuesday, May 18, 1999
PO #
Date Received in lab:
Thursday, May 06, 1999

GCI Project #: 9905-013

Summary of requested analytical work

Sample type code #s :	*1 = solid samples;*	*2 = liquid samples;*	*3 = Air samples;*	*4 = sludges/unknowns*
Field Number: 545B36	*Lab ID* 1213	*Sample Type:* 1	*Date Analyzed:* 5/14/99	*for 8260 soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 545B36	*Lab ID* 1213	*Sample Type:* 1	*Date Analyzed:* 5/13/99	*for 8270 BNA soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 545B36	*Lab ID* 1213	*Sample Type:* 1	*Date Analyzed:* 5/12/99	*for EPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes
Field Number: 545B36	*Lab ID* 1213	*Sample Type:* 1	*Date Analyzed:* 5/10/99	*for VPH soil*
Date Sampled 5/5/99			*Proper Preservation*	Yes

I Kevin Bell Here by certify that I have Reviewed and approve this data set

2500 Gate Way Centre Blvd., Suite 300 • Morrisville, NC 27560
Telephone: 919-460-8093 • FAX: 919-460-0167

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Wednesday, May 19, 1999

GCI Project # 9905-013

Field ID **545B36** *Date Analyzed: 5/14/99* Dry wt % 78.0

Lab ID ***1213***

8260 soil

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
MTBE	**BQL**	200.0	40.0
IPE	**BQL**	200.0	40.0
n-Butylbenzene	**3,018.1**	200.0	40.0
Dichlorodifluoromethane	**BQL**	400.0	40.0
Chloromethane	**BQL**	400.0	40.0
Vinyl Chloride	**BQL**	200.0	40.0
Bromomethane	**BQL**	400.0	40.0
Chloroethane	**BQL**	400.0	40.0
Trichlorofluoromethane	**BQL**	400.0	40.0
Acrolein	**BQL**	4000.0	40.0
Acetone	**BQL**	2000.0	40.0
1,1-Dichloroethene	**BQL**	200.0	40.0
Iodomethane	**BQL**	200.0	40.0
Carbon Disulfide	**BQL**	200.0	40.0
Methylene Chloride	**BQL**	200.0	40.0
Acrylonitrile	**BQL**	200.0	40.0
trans-1,2-Dichloroethene	**BQL**	200.0	40.0
1,1-Dichloroethane	**BQL**	200.0	40.0
Vinyl Acetate	**BQL**	400.0	40.0
2,2-Dichloropropane	**BQL**	200.0	40.0
cis-1,2-Dichloroethene	**BQL**	200.0	40.0
2-Butanone	**BQL**	2000.0	40.0
Bromochloromethane	**BQL**	200.0	40.0
Chloroform	**BQL**	200.0	40.0
1,1,1-Trichloroethane	**BQL**	200.0	40.0
1,1-Dichloropropene	**BQL**	200.0	40.0
Carbon Tetrachloride	**BQL**	200.0	40.0
Benzene	**BQL**	200.0	40.0
1,2-Dichloroethane	**BQL**	200.0	40.0
Trichloroethene	**BQL**	200.0	40.0
1,2-Dichloropropane	**BQL**	200.0	40.0
Dibromomethane	**BQL**	200.0	40.0
Bromodichloromethane	**BQL**	200.0	40.0
2-Chloroethylvinylether	**BQL**	400.0	40.0
cis-1,3-Dichloropropene	**BQL**	200.0	40.0
4-Methyl-2-pentanone	**BQL**	2000.0	40.0
Toluene	**BQL**	200.0	40.0
trans-1,3-Dichloropropene	**BQL**	200.0	40.0
1,1,2-Trichloroethane	**BQL**	200.0	40.0
Ethylmethacrylate	**BQL**	200.0	40.0
Tetrachloroethene	**BQL**	200.0	40.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-013

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
1,3-Dichloropropane	**BQL**	200.0	40.0
2-Hexanone	**BQL**	2000.0	40.0
Chlorodibromomethane	**BQL**	200.0	40.0
1,2-Dibromoethane	**BQL**	200.0	40.0
Chlorobenzene	**BQL**	200.0	40.0
1,1,1,2-Tetrachloroethane	**BQL**	200.0	40.0
Ethylbenzene	**1,517.5**	200.0	40.0
m,p-Xylene	**1,502.6**	200.0	40.0
o-Xylene	**BQL**	200.0	40.0
Styrene	**BQL**	200.0	40.0
Bromoform	**BQL**	200.0	40.0
Isopropylbenzene	**854.4**	200.0	40.0
Bromobenzene	**BQL**	200.0	40.0
1,2,3-Trichloropropane	**BQL**	400.0	40.0
1,1,2,2-Tetrachloroethane	**BQL**	200.0	40.0
n-Propylbenzene	**1,640.6**	200.0	40.0
2-Chlorotoluene	**BQL**	200.0	40.0
1,4-Dichloro-2-butene	**BQL**	400.0	40.0
4-Chlorotoluene	**BQL**	200.0	40.0
1,3,5-Trimethylbenzene	**4,313.0**	200.0	40.0
tert-Butylbenzene	**BQL**	200.0	40.0
1,2,4-Trimethylbenzene	**12,577.0**	200.0	40.0
sec-Butylbenzene	**1,757.0**	200.0	40.0
1,3-Dichlorobenzene	**BQL**	200.0	40.0
1,4-Dichlorobenzene	**BQL**	200.0	40.0
4-Isopropyltoluene	**1,613.4**	200.0	40.0
1,2-Dichlorobenzene	**BQL**	200.0	40.0
1,2-Dibromo-3-chloropropan	**BQL**	200.0	40.0
1,2,4-Trichlorobenzene	**BQL**	200.0	40.0
Naphthalene	**7,028.5**	200.0	40.0
Hexachlorobutadiene	**BQL**	200.0	40.0
1,2,3-Trichlorobenzene	**BQL**	200.0	40.0
	End of ***8260 soil***		

8270 BNA soil

n-Nitrosodimethylamine	**BQL**	1000.0	10.0
Aniline	**BQL**	1000.0	10.0
Bis(2-chloroethyl)ether	**BQL**	1000.0	10.0
2-Chlorophenol	**BQL**	1000.0	10.0
Phenol	**BQL**	1000.0	10.0
1,3-Dichlorobenzene	**BQL**	1000.0	10.0
1,4-Dichlorobenzene	**BQL**	1000.0	10.0
1,2-Dichlorobenzene	**BQL**	1000.0	10.0
Benzyl Alcohol	**BQL**	2000.0	10.0
Bis(2-chloroisopropyl)ether	**BQL**	1000.0	10.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-013

	Conc. in ug/kg	*lowest detection on sample* PQL in ug/kg	Dilution Factor
2-Methylphenol (o-cresol)	**BQL**	1000.0	10.0
Hexachloroethane	**BQL**	1000.0	10.0
n-Nitrosodipropylamine	**BQL**	1000.0	10.0
Nitrobenzene	**BQL**	1000.0	10.0
4-Methylphenol (p-cresol)	**BQL**	1000.0	10.0
Isophorone	**BQL**	1000.0	10.0
2-Nitrophenol	**BQL**	1000.0	10.0
2,4-Dimethylphenol	**BQL**	1000.0	10.0
Bis(2-chloroethoxy)methane	**BQL**	1000.0	10.0
2,4-Dichlorophenol	**BQL**	1000.0	10.0
1,2,4-Trichlorobenzene	**BQL**	1000.0	10.0
Naphthalene	**5,384.9**	1000.0	10.0
Benzoic acid	**BQL**	5000.0	10.0
4-Chloroaniline	**BQL**	1000.0	10.0
Hexachlorobutadiene	**BQL**	1000.0	10.0
2-Methylnaphthalene	**17,308.5**	1000.0	10.0
4-Chloro-3-methylphenol	**BQL**	2000.0	10.0
Hexachlorocyclopentadiene	**BQL**	1000.0	10.0
2,4,6-Trichlorophenol	**BQL**	1000.0	10.0
2,4,5-Trichlorophenol	**BQL**	1000.0	10.0
2-Chloronaphthalene	**BQL**	1000.0	10.0
2-Nitroaniline	**BQL**	5000.0	10.0
Acenaphthylene	**BQL**	1000.0	10.0
Dimethylphthalate	**BQL**	1000.0	10.0
2,6-Dinitrotoluene	**BQL**	1000.0	10.0
Acenaphthene	**BQL**	1000.0	10.0
3-Nitroaniline	**BQL**	5000.0	10.0
2,4-Dinitrophenol	**BQL**	1000.0	10.0
Dibenzofuran	**BQL**	1000.0	10.0
2,4-Dinitrotoluene	**BQL**	1000.0	10.0
4-Nitrophenol	**BQL**	5000.0	10.0
Fluorene	**2,436.0**	1000.0	10.0
4-Chlorophenyl Phenyl Ether	**BQL**	1000.0	10.0
Diethylphthalate	**BQL**	1000.0	10.0
4-Nitroaniline	**BQL**	5000.0	10.0
4,6-Dinitro-2-methylphenol	**BQL**	1000.0	10.0
n-Nitrosodiphenylamine	**BQL**	1000.0	10.0
4-Bromophenyl Phenyl Ether	**BQL**	1000.0	10.0
Hexachlorobenzene	**BQL**	1000.0	10.0
Benzidine	**BQL**	5000.0	10.0
Pentachlorophenol	**BQL**	1000.0	10.0
Phenanthrene	**8,077.3**	1000.0	10.0
Anthracene	**BQL**	1000.0	10.0
Di-n-butylphthalate	**BQL**	1000.0	10.0

GeoChem Incorporated Certified Analytical Laboratory

Site Name:
Cherry Point

NC # 37745 , NC # 336, EPA ID # 155
Tuesday, May 18, 1999

GCI Project # 9905-013

	Conc. in ug/kg	lowest detection on sample PQL in ug/kg	Dilution Factor
Fluoranthene	**4,102.8**	1000.0	10.0
Pyrene	**5,641.3**	1000.0	10.0
Butyl Benzyl Phthalate	**BQL**	2000.0	10.0
Benzo(a)anthracene	**1,410.3**	1000.0	10.0
3,3'-Dichlorobenzidine	**BQL**	2000.0	10.0
Chrysene	**1,666.7**	500.0	10.0
Bis(2-ethylhexyl)phthalate	**BQL**	1000.0	10.0
Di-n-octylphthalate	**BQL**	1000.0	10.0
Benzo(b)fluoranthene	**BQL**	1000.0	10.0
Benzo(k)fluoranthene	**1,282.1**	1000.0	10.0
Benzo(a)pyrene	**BQL**	1000.0	10.0
Indeno(1,2,3-cd)pyrene	**BQL**	1000.0	10.0
Dibenz(a,h)anthracene	**BQL**	1000.0	10.0
Benzo(g,h,i)perylene	**BQL**	1000.0	10.0

*End of **8270 BNA soil***

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

Tuesday, May 18, 1999

GCI Project *9905-013*

Site Name:

Cherry Point

Field ID **545B36** *Lab ID 1213*

Date Analyzed: 5/12/99 *Dry Wt %: 0.78*

Analysis:	EPH soil	Conc. in mg/kg	PQL in mg/kg	Dilution Factor
C9-C18 Aliphatics		1,144.1	12.88	1.0
C19-C36 Aliphatics		290.2	12.88	1.0
C11-C22 Aromatics		1,258.9	12.88	1.0

GeoChem Incorporated Certified Analytical Laboratory

NC # 37745 , NC # 336, EPA ID # 155

GCI Project 9905-013 ***Wednesday, May 19, 1999***

Site Name:

Cherry Point

Field ID **545B36** *Lab ID 1213*

Date Analyzed: 5/10/99 *Dry Wt %: 0.78*

VPH soil	Conc. in mg/kg	PQL in mg/kg	Dilution Factor
C5-C8 Aliphatics	**50.3**	12.88	1.0
C9-C12 Aliphatics	**84.0**	12.88	1.0
C9-C10 Aromatics	**69.9**	12.88	1.0

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

GCI Project # **9905-013**

Tuesday, May 18, 1999

lowest detection @ ideal conditions

	Percent Recovery	Lab Blank:	MDL. in ug/l
8260 soil			
1,1-Dichloroethene	**95**	0	0.88
Benzene	**100**	0	0.72
Trichloroethene	**99**	0	0.71
Toluene	**94**	0	0.64
Chlorobenzene	**98**	0	0.49
	End of ***8260 soil***		
8270 BNA soil			
2-Chlorophenol	**83**	0	2.39
Phenol	**68**	0	2.44
1,4-Dichlorobenzene	**71**	0	2.96
n-Nitrosodipropylamine	**95**	0	4.77
1,2,4-Trichlorobenzene	**88**	0	2.68
4-Chloro-3-methylphenol	**82**	0	2.45
Acenaphthylene	**67**	0	3.41
2,4-Dinitrotoluene	**100**	0	2.48
Pentachlorophenol	**117**	0	2.4
Pyrene	**92**	0	3.34
	End of ***8270 BNA soil***		

GeoChem Incorporated Quality Control Results

NC # 37745 , NC # 336, EPA ID # 155

9905-013

Tuesday, May 18, 1999

VPH soil	*Percent Recovery*	*Lab Blank*	*MDL. in mg/kg*
C5-C8 Aliphatics	**89.4**	0	0.013
C9-C12 Aliphatics	**98.6**	0	0.004
C9-C10 Aromatics	**123.5**	0	0.003

Report To:
JEFF Tyberski
CAU - Raleigh
3321 ATLANTIC AVE
Raleigh, NC 27604

GeoChem, Incorporated

Environmental Laboratories

2500 Gate Way Centre Blvd., Suite 300
Morrisville, NC 27560

Bill To:
SAME

Chain of Custody Record

PROJECT SITE NUMBER:
PO#:
SITE NAME: CHERRY POINT
COLLECTED BY (Signature):
GEOCHEM PROJECT #: 9905-011/9905-012/9905-013
DATE DUE:
VERBAL/FAX/HARDCOPY:

FIELD SAMPLE ID	TURNAROUND IN DAYS	SAMPLE MATRIX	DATE AND TIME COLLECTED	NO. OF CONTAINERS PER LOCATION	MEMILS	MADEP	EPH + VPH	8260 (BN + AF)	8270 (BN + AF)						REMARKS	LAB ID NO. (for lab use only)
30740-	6-0600	PH 56														
USF 160																
NSB05	STANDARD	Soil	5/5 1:45	2	x	x	-	x	x						[illegible] 5' - 4'	1207
[illegible]	STD	Soil	5/5 [illegible]	2	x	x	-	x	x						[illegible] 4'	1208
[illegible]	STD	Soil	5/5 1:05	2	x	x	x	x	x						4'-6' [illegible]	1209
															[illegible]	
[illegible]	6-0600	PH 57													1-800 [illegible]	
USF 3107																
775B01	STD	Soil	5/5 11:00	1		x	x	x	x						0'-4'	1210
775B02	STD	Soil	5/5 10:15	1		x	x	x	x						0'-4'	1211
775B03	STD	Soil	5/5 9:30	1		x	x	x	x						0'-4'	1212
545B36	STD	Soil	5/5 4:20	1		x	x	x	x						4'-4.5'	1213

REMARKS:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Federal Express	5/5/99	6:00 pm				Amy L. Portelg	5/6/99	11:25			

USF 1786