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INITIAL GROUNDWATER ASSESSMENT REPORT FOR SITE 24 BUILDING NS1346 ZONE F CNC CHARLESTON SC

2/1/2000

TETRA TECH

Rev.1
02/03/00

Initial Ground-Water Assessment Report for Site 24, Building NS1346

Zone F
Charleston Naval Complex
North Charleston, South Carolina

Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888
Contract Task Order 0097

February, 2000

Rev.1
02/03/00

INITIAL GROUND-WATER ASSESSMENT REPORT FOR SITE 24, BUILDING NS1346

ZONE F, CHARLESTON NAVAL COMPLEX NORTH CHARLESTON, SOUTH CAROLINA

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:
Tetra Tech NUS
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0097

FEBRUARY 2000

PREPARED UNDER THE SUPERVISION OF:

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CERTIFICATION PAGE

I certify that the information contained in this report and on any attachments is true, accurate, and complete to the best of my knowledge, information, and belief.

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 17132
GREGORY D. SWANSON

Approved By: 1/27/00

Gregory D. Swanson, P.E.
South Carolina Registration No. 17132
SCDHEC UST Site Rehabilitation Contractor Class I & II No. 24

EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has completed a Rapid Assessment (RA) for Site 24 which formerly contained an underground storage tank (UST) system for Building NS1346 at Charleston Naval Complex (CNC) Zone F, in North Charleston, South Carolina. The UST (UST-NS1346), a 560-gallon tank, was used to store waste oil as part of the automobile service station and mini-market formerly located at this site. The RA was performed under the direction of the South Carolina Department of Health and Environmental Control's (SCDHEC's) Rapid Assessment Plan and approval letter dated November 4, 1998. After determining all laboratory analytical results were below the SCDHEC risk-based screening levels (RBSLs), the reporting format was reduced from a Rapid Assessment Report (RAR) to an Initial Ground-Water Assessment (IGWA) Report. The IGWA reporting format is also being used to provide SCDHEC the assessment data in a more simplified format.

TtNUS performed the following actions during this assessment:

- Reviewed available Navy documents to identify potential sources and receptors for petroleum hydrocarbons in the vicinity, to evaluate public and private potable wells, to locate utilities line areas, to locate nearby surface water bodies, and to determine surface hydrology and drainage;
- Reviewed the previously prepared Underground Storage Tank Assessment Report for UST NS1346 to determine boring locations and monitoring well placements;
- Conducted site survey to identify utilities and to construct a site plan;
- Performed direct push technology investigation; collected soil and groundwater samples for field screening of petroleum hydrocarbon constituents using an organic vapor analyzer (OVA);
- Collected groundwater samples from direct push borings for mobile lab screening analysis for benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, and diesel range organics (DRO);
- Installed three temporary piezometers at selected soil borings;
- Installed four shallow permanent monitoring wells to depths of approximately 12.5 feet below land surface (bls) and one deep, vertical delineation monitoring well to a depth of approximately 30 feet bls;
- Collected groundwater samples from the five newly installed permanent monitoring wells for fixed-base laboratory analysis for BTEX, methyl tert-butyl ether (MTBE), ethylene dibromide (EDB), and naphthalene using U.S. Environmental Protection Agency (USEPA) Method 8260, polynuclear aromatic hydrocarbons (PAHs) using USEPA Method 8270, eight heavy metals using USEPA Method 3050B and 7470A ;

- Collected six soil samples for fixed-base laboratory analysis for BTEX and naphthalene using USEPA Method 8260, PAHs using USEPA Method 8270,
- Collected one soil sample for fixed-base laboratory analysis for total organic carbon (TOC) using USEPA Method 9060, total recoverable petroleum hydrocarbon (TRPH) using USEPA Method 9071A, and grain size analysis using American Society of Testing and Materials (ASTM) Method D-422; and
- Surveyed monitoring well and piezometer top of casing elevations and collected depth to groundwater measurements to evaluate the groundwater flow direction.

Conclusion

On September 8, 1999, depth to groundwater measurements were obtained from each permanent monitoring well. Based on the groundwater elevation data, the localized groundwater flow direction at the site is towards the west-northwest. No free product was detected in any temporary or permanent monitoring well at the site.

On August 13, 16 and September 8, 1999, groundwater samples were collected from five monitoring wells. Barium was detected above the RBSL for metals in four of the five wells sampled. Since the elevated levels of barium are not associated with any metals it is not believed to be associated with past petroleum products or waste oil storage at this site.

On August 19 and 23, 1999, soil samples were collected from confirmation soil borings and analyzed for BTEX and PAHs by a fixed-base laboratory. Toluene was the only CoC detected in the soil sampled.

Other than barium, no soil or groundwater RBSLs were exceeded based on laboratory analysis of samples collected during the RA field effort. Because it is believed that barium is an isolated contaminant and no RBSLs were exceeded, a site conceptual model or a Tier 2 evaluation was not required, thereby greatly reducing the reporting requirements. As a result, the IGWA report was chosen as the method for reporting the findings of the RA field effort. This report format allows the necessary presentation of assessment data for a site with no CoC concentrations in soil and groundwater exceeding the RBSLs.

Recommendation

No further action (NFA) is requested for Site 24, Building NS1346, of Zone F, CNC because no CoCs were detected in the soil and only barium was detected in groundwater samples analyzed by a fixed-base laboratory. The results of the Rapid Assessment are reported in the following IGWA report.

INITIAL GROUND-WATER ASSESSMENT REPORT

Facility Name: Charleston Naval Base, Zone F, Site 24, UST NS1346, Building NS1346

Site ID Number: 01782

UST Owner or Operator's Name: U.S. Navy Southern Division (SouthDiv) Naval Facilities Engineering Command (NAVFAC)

Address: 2155 Eagle Drive, North Charleston, South Carolina 29406

Phone Number: 843-820-7307

Contractor: Tetra Tech NUS, Inc., Mark W. Darrington, P.G. Cert. # 25

Address: 900 Trail Ridge Road, Aiken, South Carolina 29803

Phone Number: (803) 649-7963

Well Driller: Rod Fuller, Custom Drilling - Hollow Stem Auger. Cert. # 1240
R. Brand and B. Lewis, Columbia Technologies - Direct Push. Cert. # 1485

Receptor and Site Data
Please place a check in the appropriate answer block for each question:

Receptor Survey Questions	No	Yes*
Is there a drinking water supply well (public or private) or surface water supply intake within 1,000 feet of the UST?	X	
Are irrigation or other non-drinking water wells located within 1,000 feet of the UST?		X
Are there other potential receptors (i.e., utilities, surface waters, wetlands) less than 500 feet from the UST?		X

* If "yes" provide additional information:

There are groundwater monitoring wells at additional sites within 1,000 feet of the former UST location

Initial Ground-Water Assessment Report SCDHEC Site ID # 01782

Underground utilities within 250 feet of the site can be seen on the Site Vicinity Map provided in Appendix D. Water, electricity, natural gas, storm drain, and sanitary sewer lines are the utilities adjacent to the site. The compressed air and steam lines are aboveground. Utility lines are located on all sides of the site. The Cooper River is approximately 1,750 feet northeast from the site.

Were any water wells within 250 feet radius sampled? _____ Yes **X** No

Is the current use of the site and surrounding properties commercial, residential, Agricultural, or industrial?

Site: Commercial & Industrial Adjacent Properties: Commercial & Industrial

Soil and Monitoring Well Data

Primary Soil Type: Sand with gravel, medium sand, silty sand, sandy clay, clayey sand

Well Installation Method and Date: Hollow-stem auger (HSA); August 6-7, 1999
HSA and mud-rotary; August 9 &10, 1999

Development Method: Surge and pump

Soil Samples Obtained at 1-2, 2-3, 3-4, 4-5 feet (for fixed lab analysis)

NOTE: ***Six soil samples were collected from five soil borings. A duplicate sample was collected from one of the borings. Two samples from separate borings were collected from the same depth interval (1-2 ft.). The laboratory report for the borings is provided in Appendix B.***

Initial Ground-Water Assessment Report SCDHEC Site ID # 01782

SOIL ANALYTICAL DATA

Sample	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-benzene (µg/kg)	Xylenes (total) (µg/kg)	Naphthalene (µg/kg)
CNC24-B02/ 24SLB020203	<8	<8	<8	<8	<8
CNC24-B04/ 24SLB040304	<5	<5	<5	<5	<5
CNC24-B04/ 24SLB040304D*	<5	3 (J)	<5	<5	<5
CNC24-B07/ 24SLB070405	<6	<6	<6	<6	<6
CNC24-B11/ 24SLB120102	<7	3 (J)	<7	<7	<7
CNC24-B12/ 24SLB120102	<5	4 (J)	<5	<5	<5

Sample	Benzo(a)-anthracene (µg/kg)	Benzo(b)-fluoranthene (µg/kg)	Benzo(k)-fluoranthene (µg/kg)	Chrysene (µg/kg)	Dibenzo(a,h-anthracene (µg/kg)
CNC24-B02/ 24SLB020203	<500	<500	<500	<500	<500
CNC24-B04/ 24SLB040304	<400	<400	<400	<400	<400
CNC24-B04/ 24SLB040304D*	<400	<400	<400	<400	<400
CNC24-B07/ 24SLB070405	<430	<430	<430	<430	<430
CNC24-B11/ 24SLB120102	<500	<500	<500	<500	<500
CNC24-B12/ 24SLB120102	<430	<430	<430	<430	<430

NOTES
* Duplicate sample
(J) = Estimated value (analyte detected at a concentration less than the reporting limit but greater than the detection limit).

Ground-Water Data

Depth to Ground Water: 3.91 feet to 4.88 feet below land surface

Well Purging/Sampling Method: Peristaltic pump/low flow purge and sample method

Date Sampled: August 13, 1999 and September 8, 1999

Initial Ground-Water Assessment Report SCDHEC Site ID # 01782

Free Product Thickness: None

Soil/Water Disposal Method: All soil cuttings and purge water were containerized, labeled, and moved to a staging area for final disposal by Charleston Naval Complex.

GROUND-WATER ANALYTICAL DATA

Sample	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (total) (µg/L)	Naphthalene (µg/L)
CNC24M-01/ 24GLM0101	<5	<5	<5	<5	<5
CNC24M-02/ 24GLM0201	<5	<5	<5	<5	<5
CNC24M-03/ 24GLM0301	<5	<5	<5	<5	<5
CNC24M-03/ 24GLM0301D*	<5	<5	<5	<5	<5
CNC24M-04/ 20GLM0101	<5	<5	<5	<5	<5
CNC24M-05/ 20GLM0101	<5	<5	<5	<5	<5
CNC24TL/ 20GLM0101	<5	<5	<5	<5	<5

Sample	Benzo(a)-anthracene (µg/L)	Benzo(b)-fluoranthene (µg/L)	Benzo(k)-fluoranthene (µg/L)	Chrysene (µg/L)	Dibenzo(a,h)-anthracene (µg/L)
CNC24M-01/ 24GLM0101	<10	<10	<10	<10	<10
CNC24M-02/ 24GLM0201	<10	<10	<10	<10	<10
CNC24M-03/ 24GLM0301	<10	<10	<10	<10	<10
CNC24M-03/ 24GLM0301D*	<10	<10	<10	<10	<10
CNC24M-04/ 20GLM0101	<10	<10	<10	<10	<10
CNC24M-05/ 20GLM0101	<10	<10	<10	<10	<10
CNC24TL**/ 20GLM0101	NA	NA	NA	NA	NA

NOTES
* Duplicate sample
** Trip Blank
NA = Not Analyzed

GROUND-WATER ANALYTICAL DATA (continued)

Sample	Arsenic (µg/L)	Barium (µg/L)	Cadmium (µg/L)	Total Chromium (µg/L)	Mercury (µg/L)
CNC24M-01/ 24GLM0101	<2.07	<4.1	<1.94	<4.31	<0.02
CNC24M-02/ 24GLM0201	<2.07	31.4	<1.94	<4.31	<0.04
CNC24M-03/ 24GLM0301	<2.07	17.8	<1.94	<4.31	<0.02
CNC24M-04/ 20GLM0101	<2.07	9.8	<1.94	<4.31	<0.02
CNC24M-05/ 20GLM0101	<7.1	71.8	<0.26	<1.6	<0.02

Sample	Selenium (µg/L)	Silver (µg/L)	Lead (µg/L)	EDB (µg/L)	MTBE (µg/L)
CNC24M-01/ 24GLM0101	<3.0	<2.54	<1.09	<5	<5
CNC24M-02/ 24GLM0201	<2.57	<2.54	<1.09	<5	<5
CNC24M-03/ 24GLM0301	<2.57	<2.54	<1.6	<5	<5
CNC24M-04/ 20GLM0101	<2.57	<2.54	<1.7	<5	<5
CNC24M-05/ 20GLM0101	<2.57	<2.5	<1.09	<5	<5

NOTES
* Duplicate sample
** Trip Blank
NA = Not Analyzed
EDB =Ethylene dibromide or 1,2-dibromoethane
MTBE = Methyl tertiary butyl ether

Appendices

The appendices required for this report are as follows:

Appendix A. Well Construction and Soil Boring Logs

Appendix B. Laboratory Data

Appendix C. Topographic Map With Site Location

Appendix D. Site Base Map

NOTE: ***Because they are not needed, Appendices E, F, and G are not included.***

Report Completed By: _____ (signature) Cert. # 25

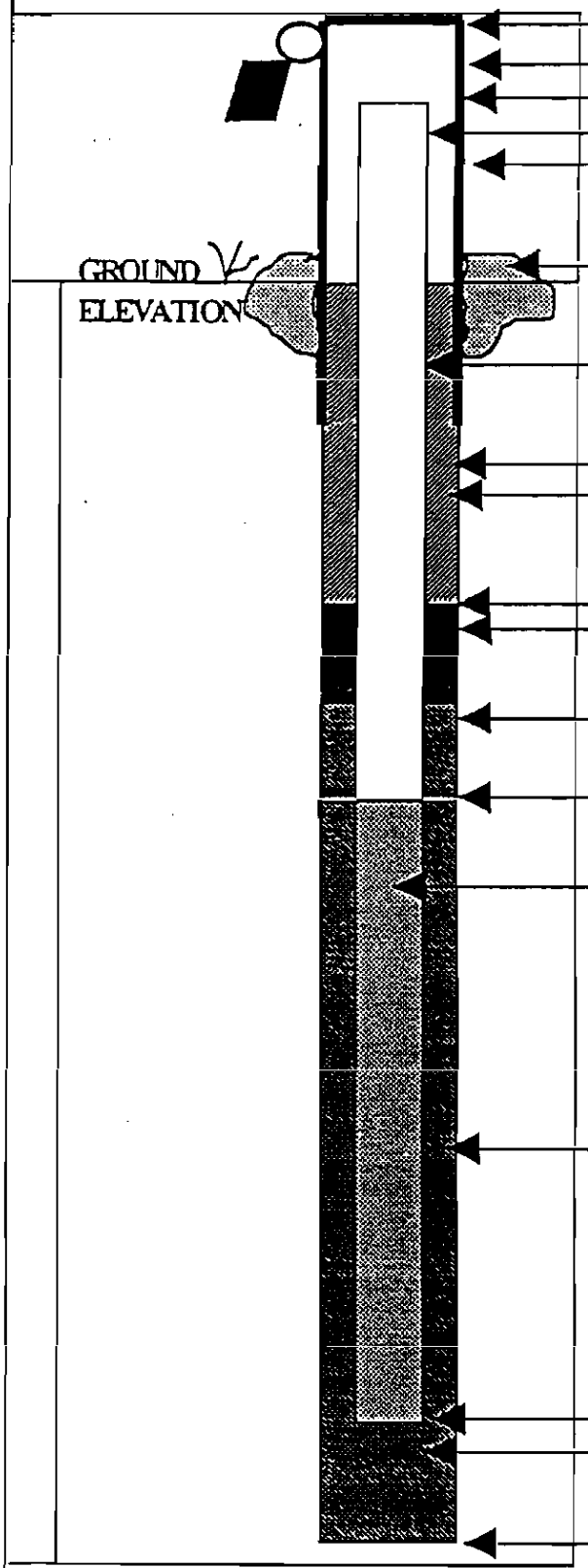
Date: 11/1/99

APPENDIX A

WELL CONSTRUCTION AND SOIL BORING LOGS

OVERBURDEN MONITORING WELL SHEET

PROJECT	CNC24 ~~MW01~~	LOCATION:	CNC24-MW01	DRILLER	Rod
PROJECT NO.	CNC24	BORING	CNC24-MW01	METHOD:	~~DPT~~ HSA
ELEVATION		DATE	8/6/99	DRILLING	Custom Drilling
FIELD GEOLOGIST	Marty Ray			DEVELOPMENT: NA	



ELEVATION OF TOP OF SURFACE CASING: Flush

ELEVATION OF TOP OF RISER PIPE:

STICK-UP TOP OF SURFACE CASING:

STICK-UP RISER PIPE:

I.D. OF SURFACE CASING: 8"

TYPE OF SURFACE CASING: Steel man-hole w/cover

TYPE OF SURFACE SEAL: concrete pad 2'x2'x6"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 4.25"

TYPE OF SEAL: grout to 6"

ELEVATION / DEPTH OF SEAL: 1'0"

TYPE OS SEAL: 30/65 sand

DEPTH TOP OF SAND PACK: 1'6"

ELEVATION / DEPTH TOP OF SCREEN: 2'10"

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 10 slot

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: 20/30 sand

ELEVATION / DEPTHBOTTOM OF SCREEN: 12'0

ELEVATION / DEPTH BOTTOM OF SAND PACK: 12'6"

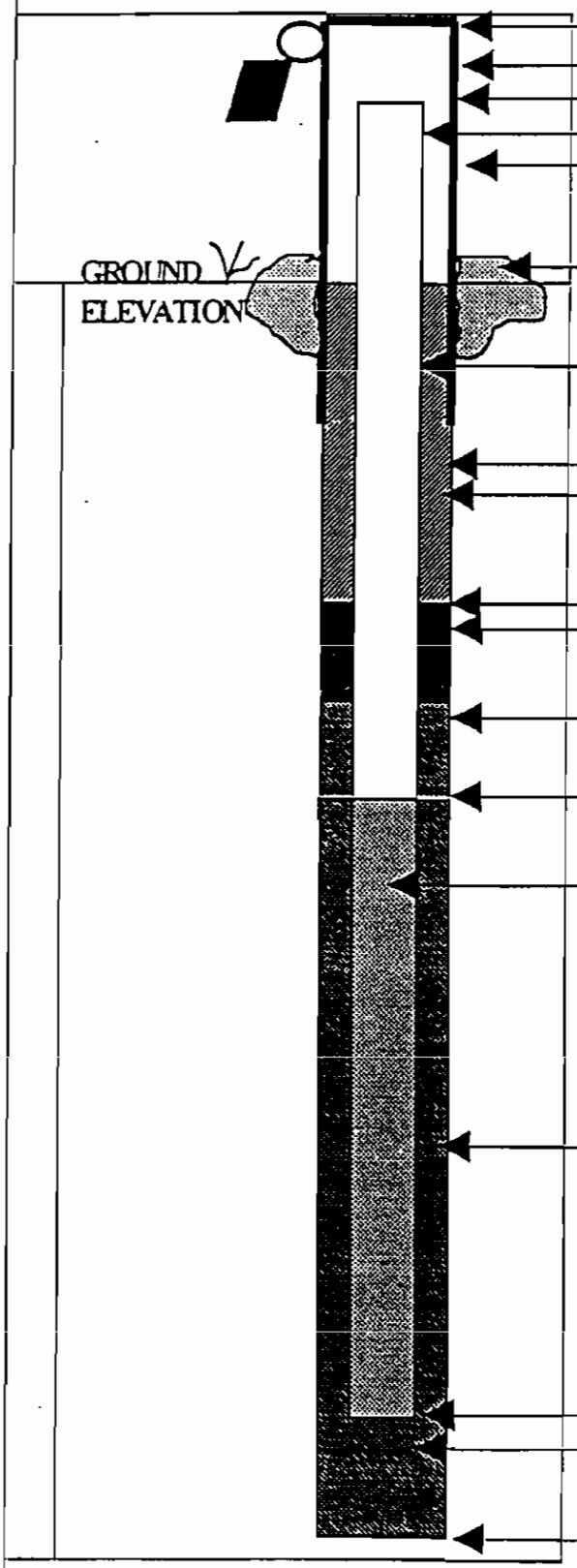
TYPE OF BACKFILL BELOW OBSERVATION WELL: 20/30 sand

ELEVATION / DEPTH OF HOLE: 12'6"

BORING NO.: _____

OVERBURDEN MONITORING WELL SHEET

PROJECT CNC	LOCATION: CNC24-MW02	DRILLER Rod
PROJECT NO. CNC24	BORING CNC24-MW02	METHOD: ~~BPT~~ HSA
ELEVATION	DATE 8/6/99	DRILLING Custom Drilling
FIELD GEOLOGIST Marty Kay		DEVELOPMENT: NA



ELEVATION OF TOP OF SURFACE CASING: Flush

ELEVATION OF TOP OF RISER PIPE:

STICK-UP TOP OF SURFACE CASING:

STICK-UP RISER PIPE:

I.D. OF SURFACE CASING: 8"

TYPE OF SURFACE CASING: Steel manhole w/cover

TYPE OF SURFACE SEAL: concrete Pad 2'X2'X6"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: Sch40 PVC

BOREHOLE DIAMETER: 4.25"

TYPE OF SEAL: grout to 6" bls

ELEVATION / DEPTH OF SEAL: 1'0"

TYPE OS SEAL: 30/65 sand

DEPTH TOP OF SAND PACK: 1'6"

ELEVATION / DEPTH TOP OF SCREEN: 2'0"

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 10 slot

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: 20/30 sand

ELEVATION / DEPTHBOTTOM OF SCREEN: 12'0"

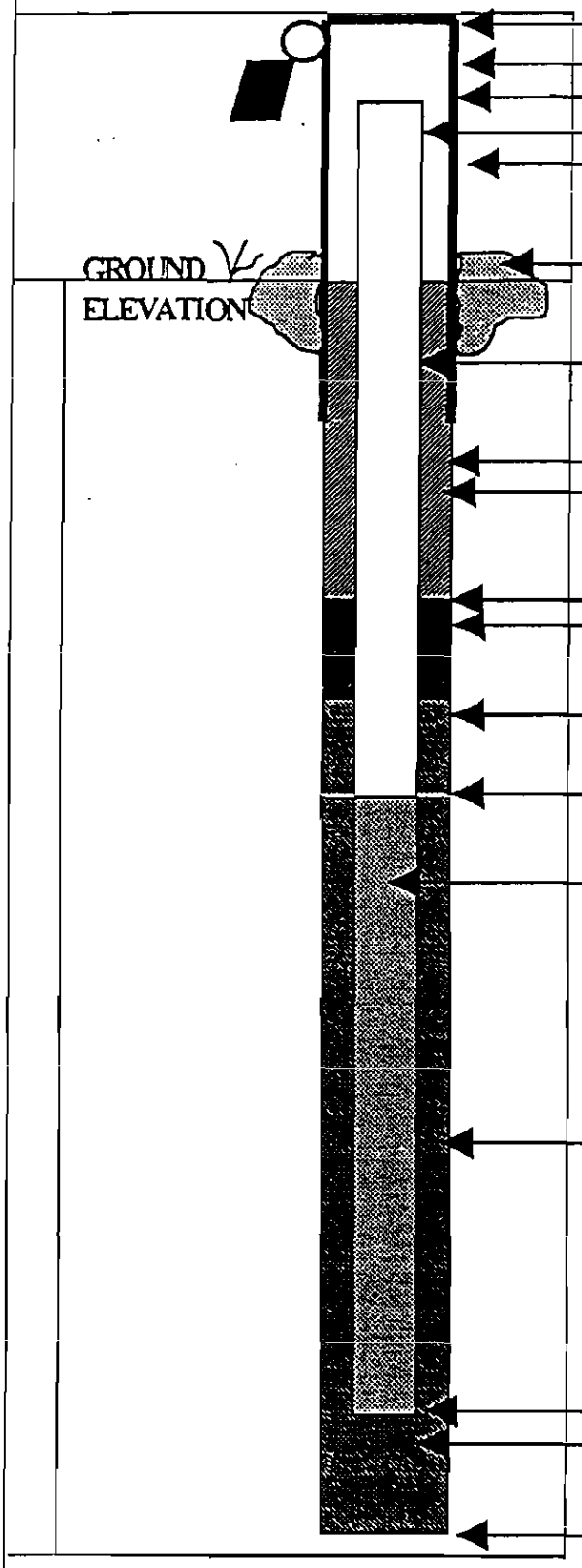
ELEVATION / DEPTH BOTTOM OF SAND PACK: 12'6"

TYPE OF BACKFILL BELOW OBSERVATION WELL: 20/30 sand

ELEVATION / DEPTH OF HOLE: 12'6"

OVERBURDEN MONITORING WELL SHEET

PROJECT	CNC	LOCATION:	CNC24-MW03	DRILLER	Rod
PROJECT NO.	CNC24	BORING	CNC24-MW03	METHOD:	~~DPT~~ HSA
ELEVATION		DATE	8/7/99	DRILLING	Custom Drillin
FIELD GEOLOGIST	Marty Ray			DEVELOPMENT: NA	



ELEVATION OF TOP OF SURFACE CASING: Flush

ELEVATION OF TOP OF RISER PIPE:

STICK-UP TOP OF SURFACE CASING:

STICK-UP RISER PIPE:

I.D. OF SURFACE CASING: 8"

TYPE OF SURFACE CASING: Steel man-hole with cover

TYPE OF SURFACE SEAL: concrete pad 2'x2'x6"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: 4.25"

TYPE OF SEAL: grout to 6" bls

ELEVATION / DEPTH OF SEAL: 1'10"

TYPE OS SEAL: 30/65 sand

DEPTH TOP OF SAND PACK: 1'6"

ELEVATION / DEPTH TOP OF SCREEN: 2'10"

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 10 slot

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: 20/30 sand

ELEVATION / DEPTHBOTTOM OF SCREEN: 12'10"

ELEVATION / DEPTH BOTTOM OF SAND PACK: 12'6"

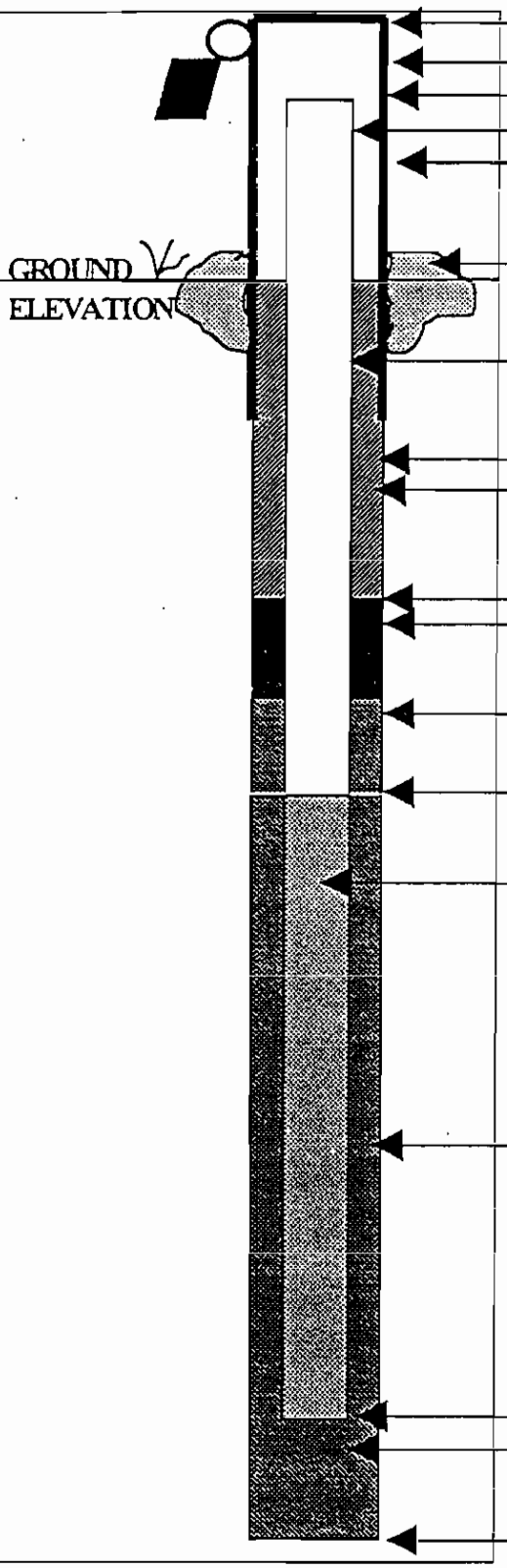
TYPE OF BACKFILL BELOW OBSERVATION WELL: 20/30 sand

ELEVATION / DEPTH OF HOLE: 12'6"

BORING NO.: _____

OVERBURDEN MONITORING WELL SHEET

PROJECT	CNC 24	LOCATION:	CNC24-MW04	DRILLER	Rod Fuller
PROJECT NO.	CNC 24	BORING	CNC24-MW04	METHOD: ~~DPT~~	HSA
ELEVATION		DATE	8/6/99	DRILLING	Custom Drilling
FIELD GEOLOGIST	Nearly Ray			DEVELOPMENT: NA	



ELEVATION OF TOP OF SURFACE CASING: Flush

ELEVATION OF TOP OF RISER PIPE:

STICK-UP TOP OF SURFACE CASING:

STICK-UP RISER PIPE:

I.D. OF SURFACE CASING: 8"

TYPE OF SURFACE CASING: steel man-hole w/cover

TYPE OF SURFACE SEAL: concrete pad 2'x2'x 6"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: Sch.40 PVC

BOREHOLE DIAMETER: 4.25"

TYPE OF SEAL: grout to 6"

ELEVATION / DEPTH OF SEAL: 1'10"

TYPE OS SEAL: 30/65 sand

DEPTH TOP OF SAND PACK: 1' 6"

ELEVATION / DEPTH TOP OF SCREEN: 2'10"

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 10 slot

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: 20/30 sand

ELEVATION / DEPTHBOTTOM OF SCREEN: 12'10"

ELEVATION / DEPTH BOTTOM OF SAND PACK: 12'6"

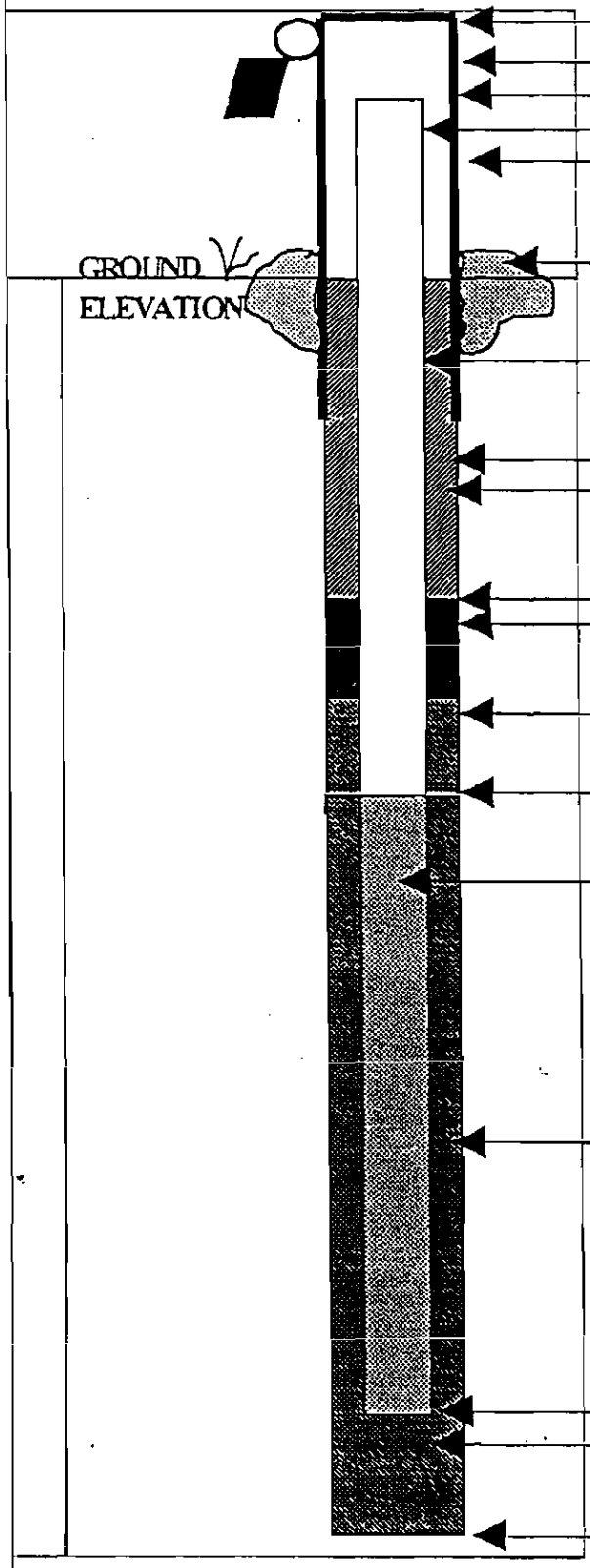
TYPE OF BACKFILL BELOW OBSERVATION WELL: 20/30 sand

ELEVATION / DEPTH OF HOLE: 12'6"

BORING NO.: MW-5D

OVERBURDEN MONITORING WELL SHEET

PROJECT Zone F	LOCATION: Site 24	DRILLER Rod
PROJECT NO.	BORING MW-5D	METHOD: DPT
ELEVATION	DATE 8-10-99	DRILLING Custom Drilling
FIELD ~~GEOLOGIST~~ Tech. R. Hill		DEVELOPMENT: NA



ELEVATION OF TOP OF SURFACE CASING:

ELEVATION OF TOP OF RISER PIPE:

STICK-UP TOP OF SURFACE CASING:

STICK-UP RISER PIPE:

I.D. OF SURFACE CASING: ~~8"~~ 8"

TYPE OF SURFACE CASING: 8" Manhole

TYPE OF SURFACE SEAL: Concrete

RISER PIPE I.D.: ~~8"~~ 2"

TYPE OF RISER PIPE: PVC

Outer casing ~~8"~~ PVC

BOREHOLE DIAMETER: 10 1/4

TYPE OF SEAL: Grout

ELEVATION / DEPTH OF SEAL: 20.0'

TYPE OS SEAL: Bentonite

DEPTH TOP OF SAND PACK: 22.0'

ELEVATION / DEPTH TOP OF SCREEN: 25.0'

TYPE OF SCREEN: PVC

SLOT SIZE X LENGTH: .010 x 10'

I.D. OF SCREEN: 2"

TYPE OF SAND PACK: 20/30 Silica Sand.

ELEVATION / DEPTHBOTTOM OF SCREEN: 30'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 30'

TYPE OF BACKFILL BELOW OBSERVATION WELL:

ELEVATION / DEPTH OF HOLE: /

BORING LOG

PROJECT NAME: Site 24 Zone F
PROJECT NUMBER:
DRILLING COMPANY: Custom Drilling
DRILLING RIG:

BORING NUMBER: MW-5D
DATE: 8-9-99
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							Blind Drill						
							down to 15.0'						
	5												
	10												
	15						Gray & orange silt,						
	16	3/5					clay Tr. f. sand.		Set casing				
	17	6/9							@ 20.0'				
	18	3/4											
	19	6/7					Gray & Tan sandy						
	20						clay						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

BORING LOG

PROJECT NAME: Site 24 Zone F
PROJECT NUMBER:
DRILLING COMPANY: Custom Drilling
DRILLING RIG:

BORING NUMBER: MW-5D
DATE: 9-10-99
GEOLOGIST:
DRILLER: Rod.

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole BZ	Driller BZ
	21												
	22												
	23	3/3					Dark green f. sandy						
	24	4/5					clay w/f. sand lens						
	25	2/4											
	26	6/8					Dark green f. sand						
	27	0/0					& clay						
	28	10/8					Dark green f. clayey						
	29	9/10					sand						
	30												
				B.T.					Set screen from 25.0'-30.0'				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

BORING LOG

Page ___ of ___

PROJECT NAME: site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B01
DATE: 6-5-99
GEOLOGIST:
DRILLER: B Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
	1			.3			Asphalt .3		Sampled Soil				
	2						Green silty f. to med		from 2.0'-3.0'				
	3						sand. ~~Trafo~~ Tr. of clay		# 24SFB01020 3				
	4		2.0						Time: 1134				
	5												
	6						Moist						
	7			7.0									
	8		3.7				Red or Gray sandy clay						
							Tr. of Silt.						
									Set Screen				
				12.0			w/L = 6.0'		from 6.0-12.0'				
									Sampled Water				
									# 24GFB01012				
									Time: 1317				

2'-3'
H.S.W/o f.i = ~~300~~ 3 ppm
H.S.W/f.i = ~~320~~ 22 ppm

4-8
H.S.W/o f.i = 60 ppm
H.S.W/f.i = 60 ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
RILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B02
DATE: 6-5-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
				.9			Asphalt .3'		Sampled Soil					
							Lime Rock		from 4.0'-5.0'					
							Brown f. to med Sand		# 24GFB02040					
19	4		2.8	4.0			Tr. of gravel		Time @ 1300		0		0	HS W/o fil = 0 ppm
							Red & Gray Sandy clay							HS W/fil = 0 ppm
12	8		0.8								0		0	HS W/o fil = 0 ppm
														HS W/fil = 0 ppm
							Wet							
				11.0			W/L = 8.0'		Set Screen					
				B.T=					From 8.0-11.0					
									Pulled Screen					
									up to 6.0'-9.0'					
									Sampled Water					
									# 24GFB02060					
									Time @ 1400					

* When rock coring, enter rock brokeness.

Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B03
DATE: 6-5-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							Asphalt		Sampled Soil				
							Brown sand & gravel		from 2.0'-3.0'				
							w/layers of clay & asphalt		#24SFB03020003				
0	4		3.0						Time: 1400				
				6.0			Brown fr. to med						
				Δ			sand wet						
2	8			8.0									
				B.T.			w/L2 6-8		Set Screen				
									from 5.0'-8.0'				
									Sampled Water				
									#24GFB03050008				
									Time: 1710				

H.S. % fil = 2 ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNIC 24 B04
DATE: 6-5-97
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							Asphalt = 3'		Sampled Soil				
							Br. f. to coarse sand		from 3.0'-4.0'				
							w/some gravel & clay layers		# 24SFB04030A				
	4								Time 1427				
				5.5			wet sand						
	8								Set Screen				
									from 4.0'-7.0'				
									No water				
	12			12.0 B.T.			W/L = 10.0'		Set Screen				
									from 9.0-12.0				
									Sampled Water				
									# 24GFB04091B				
									Time 1409				

3.0'-4.0'
H.S. = 3ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B05
DATE: 6-5-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
				.3			Asphalt .3		Sampled Soil				
							Tan f. to med Sand		from 1.0'-2.0'				
							Tr. of silt		# 24SFB050102				
0	4		2.2						Time: 1520		0		0
							Moist @ 4.0'						
							Tan/gray sandy Clay						
							wet Loose Sand.						
3	8		2.0				Red & Grey sandy Clay				0		0
									Set Screen				
									from 8.0'-12.0				
				12.0 B.T									
									Sampled Water				
									# 24GFB050912				
									Time: 1652				

1.0'-2.0' H.S. % fil = 0 ppm

5.0'-6.0' H.S. % fil = 0 ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B06
DATE: 6-5-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**
				.3			Asphalt .3'						
							Br. f. to med Sand		Sampled Soil				
									from 3.0'-4.0'				
1	4			4.0					# 24SFB06030404				
	5			Moist					Time 1559				
	6			Wet			Tan f. to med Sand						
	7						Tr. silt. Wet						
2	8		3.8				Orange & Gray silt						
	9						Sandy clay						
	10												
	11								set Screen				
	12			12.0					from 9.0'-12.0'				
							W/L = 10.4						
									Sampled Water				
									# 24GFB06040912				
									Time 1622				

7.0' ↓ H.S. 4/0 fil = 7 ppm

8.0'-12.0' ↓ H.S. 4/0 fil = 6 ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B07
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
							Asphalt .2'							
							Sub Base .3'							
							Tan to Br. silty f. to							3.0-4.0'
2	4		2.5				med. sand Tr. of clay		Sampled Soil		0		0	H.S 4% fil = 0 pp
				4.5			Tan & Gray sandy		from 4.0'-5.0'					
							clay		# 24SFB07040S					
				6.0										
				7.0			Gray Clayey f. to med		Time: 0905					4.0'-5.0'
3	8						sand Tr. silt				0		0	HS w/ fil = 0 ppm
							Br. & Gray sandy							
							clay Tr. silt							
									Set Screen					
	12			12.0			W/L = 6.7'		from 9.0'-12.0'					
				B.T										
									Sampled Water					
									# 24GFB07091 2					
									Time: 0930					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe

BORING NUMBER: CNC 24B08
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm) Sample	Sampler BZ	Borehole**	Driller BZ**	
							Asphalt <3							
							Tan f. to med Sand							
				3.5			Br. clayey f. to med. Sand.							2'-3'
#1	4		3.1						Sampled Soil		0		0	HS. w/ Fil = 0ppm
				4.5			Red & Gray Sandy Clay		from 4.0'-5.0'					
				6.6			Tan f. to med Clayey		# 24SFB08408					
							Sand Very Moist		Time: 0944					
#4	8			8.0			Red & Gray Sandy Clay				0		0	4'-5' w/ Fil. = 0ppm
				12.0			W/L = 8.2		Set Screen					
				B.T					from 9.0-12.0'					
									Sampled Water					
									# 24GFB08912					
									Time: 0955					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B09
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
				.6			Asphalt		Sampled Soil					
				2.0			Sub Base		from 1.0'-2.0'					
							Tan f. to med. Sand		# 24GP3B09B052					1.0'-2.0'
4		4		1.8	4.0		Brown f. to med clayey		Time: 1004		0		0	H.S. w/ Fil = 0ppm
				5.0			Sand Moist							
							Red & Gray sandy clay							
				7.0			Tan clay med. To coarse							4.0'-5.0'
7		8		1.0			sand wet							H.S. w/ Fil = 0ppm
							Red & Gray sandy							
							clay Moist							
				12.0			W/L = 6.4		Set Screen					
									from 9.0'-12.0'					
									Sampled Water					
									# 24GP3B09B12					
									Time: 1026					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: CNC24B1Ø
DATE: 6-6-99
GEOLOGIST:
DRILLER: ~~R. Hatt~~ B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
				.8			Asphalt .2'		Sampled Soil					
							Sub Base		# 24SFB1ØØ1ØØ2					
				3.0			Tan f. to Med. sand		Time: 1033					1.0'-2.0'
	4		2.5	4.0			Brown f. to med				0		0	H.S. = 0ppm with out filter
							sand Tr. Clay Wet							
							Brown Coarse Sand Wet							
									Set Screen					7.0'-8.0'
	8			8.0			W/L = 5.9		from 5.0'-8.0'		0		0	4.5% Fil = 0ppm
				B.T.										
									Sampled Water					
									# 24GFB1ØØ5ØØ8					
									Time: 1138					

* When rock coring, enter rock brokeness.

**Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe

BORING NUMBER: CNC24B11
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
				1.0			Asphalt .2'		Sampled Soil					
							Brn f. to med sand		from 1.0-2.0'					1.0'-2.0'
				3.0			Dark Gray silty clay		#24SFB11Ø1Ø2					H.S W/ Fil = 0ppm
0	4		2.5				Tr. of sand.		Time 0/100					
				4.0			Gray clayey f. to med							
							sand. wet							1110
							Red & Gray sandy							
2	8		3.0				clay							7.0'-8.0' H.S W/ Fil = 0
									Set Screen					
									from 9.0'-12.0'					
	12			12.0			W/L = 10.5'		Sampled Water					
				B.T.					#24SFB11Ø912					
									Time 1110					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe

BORING NUMBER: CNC24B12
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**	
							Asphalt .2'		Sampled Soil					
							Brown Sand & clay		from 1.0'-2.0'					
							w/ some gravel fill		#24SFB12B102					1.0'-2.0'
6	4			3.5			Moist		Time @		0		0	H.S. w/o Fil = 0 ppm
							Brown clayey							
							sand & Tr. silt. Wet							
				6.5			Red & Gray sandy							4.0'-8.0'
4	8						clay - Moist							H.S. w/o Fil = 0 ppm
									Set Screen					
									from 9.0-12.0					
	12			12.0			W/L = 10.2							
									Sampled water					
									#24GFB12B912					
									Time @ 1143					

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: _____

Converted to Well: Yes ____ No ____ Well I.D. #: _____

BORING LOG

Page ___ of ___

PROJECT NAME: Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Geoprobe 5400

BORING NUMBER: GNC24B13
DATE: 6-6-99
GEOLOGIST:
DRILLER: B. Lewis

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
							Asphalt .2'		Sampled Soil				
							Brown fine to med		from 1.0-2.0'				
				3.0			Sand Tr. clay		# 24SFB13Ø1Ø2				
3	4		2.0				Tan f. to med Sand		Time: 1155				
							Moist						
				4.5			Brown fine to med						
							Sand Wet						
7	8		2.0										
									Set Screen				
				12.0			W/L = 10.1		from 9.0'-12.0'				
				B.T.					# 24GFB13Ø9Ø2				
									Time: 1210				

1.0'-2.0' H.S % Fil = 0 ppm

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area

Remarks:

Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

BORING LOG

PROJECT NAME: CLC, Site 24
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Stratoprobe

BORING NUMBER: 24B14
DATE: 7/8/99
GEOLOGIST:
DRILLER: L. Brown

Sample No. and Type or RQD	Depth (Ft.) or Run No	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sample Tip	Breathing Zone	Background
	1			Hand Auger			Asphalt w/base						
	2					DK Green	Silty Clay Stiff		Dry				
	3								Moist	80	0	100	0
	4												
	5								Wet				
	6					Brn	Sandy Clay						
	7/8								Saturated				
	8/9												
	9/10		2/4										
	10												

* When rock coring, enter rock lithologies

** Include monitor reading in 5 foot intervals @ boreholes. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes Temp No Well I.D. #:

BORING LOG

PROJECT NAME: CAC, Site 24
PROJECT NUMBER:
DRILLING COMPANY: Colum Sta
DRILLING RIG: Stratigraphic

BORING NUMBER: 24B15
DATE: 7/8/99
GEOLOGIST:
DRILLER: R. Brand

Sample No. and Type or RQD	Depth (Ft.) or Run No	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sample air	Borehole	Drill Stem
	1						Asphalt w/base						
	2					Dk Gray	Stiff Silty Clay		Moist				
X	3			Hand Auger						70	0	248**	
	4												
	5												
	6								Wet				
	7					Lt. Brn.	Sandy Clay		Saturated				
	8												
	9		3.0/4										

* When rock coring, enter rock hardness

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes Temp No Well I.D. #:

BORING LOG

PROJECT NAME: CLC
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: Stratoprobe

BORING NUMBER: 2 4 B16
DATE: 7/8/99
GEOLOGIST:
DRILLER: L. Brand

Sample No. and Type or RQD	Depth (Ft.) or Run No	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID Reading (ppm)			
	1			Hand Auger		blk	silt w/ gravel		dry				
	2						↓		moist				
	3					br.	silty clay		moist	8	0	110	0
	4												
	5									13	0	110	0
X	6												
	7					olive gray	Sandy Clay		Saturated				
	8		3/3										

* When rock coring, enter rock hardness

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated readings read

Remarks:

Drilling Area Background (ppm): 0

Converted to Well. Yes Temp No _____ Well I.D. #.

BORING LOG

PROJECT NAME: CKC
PROJECT NUMBER:
DRILLING COMPANY: Columbia
DRILLING RIG: DPT

BORING NUMBER: Z4B17
DATE: 8/5/99
GEOLOGIST:
DRILLER: A-Brand

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1						Asphalt w/ fill		Dry				
	2					OK Gray	Clayey Sand						
X	3									85	0	0	0
	4		3.5/4										
	5								Moist				
	6					Gray			Saturated				
	7												
	8		3.5/4			Olive Green							

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes Temp No _____ Well I.D. #:

BORING LOG

PROJECT NAME: CUC
PROJECT NUMBER:
DRILLING COMPANY: Colcom Sir
DRILLING RIG: DPT
BORING NUMBER: 24318
DATE: 8/5/99
GEOLOGIST:
DRILLER: R. Bland

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1						Concrete w/hose						
	2					Brn	Silty Sand		Dry				
X	3									39	0	0	0
	4		3/4						Moist				
	5												
	6												
	7												
	8		4/4	No Recovery									

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes Temp No _____ Well I.D. #: _____

APPENDIX B

LABORATORY DATA

APPENDIX B

SOIL LABORATORY ANALYTICAL DATA

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

lient: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-25
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 66
Method: SW8260
Date Analyzed: 8/30/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB020203	SL	8/23/99	8/24/99	8/30/99	DJP	5030	DJP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<8	ug/Kg	1.6	8	5
TOLUENE	<6	ug/Kg	1.6	8	5
1,2-DIBROMOETHANE	<8	ug/Kg	1.6	8	5
ETHYLBENZENE	<6	ug/Kg	1.6	8	5
NAPHTHALENE	<8	ug/Kg	1.6	8	5
MTBE	<8	ug/Kg	1.6	8	5
TOTAL XYLENES	<8	ug/Kg	1.6	8	5
DIBROMOFLUOROMETHANE	106	%	1.6		
,2-DICHLOROETHANE-D4	108	%	1.6		
TOLUENE-D8	96	%	1.6		
P-BROMOFLUOROBENZENE	80	%	1.6		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-25
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 66
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB020203	SL	8/23/99	8/24/99	8/25/99	DPD	EPA 3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<500	ug/Kg	1.5	500	330
2-METHYLNAPHTHALENE	<500	ug/Kg	1.5	500	330
ACENAPHTHYLENE	<500	ug/Kg	1.5	500	330
ACENAPHTHENE	<500	ug/Kg	1.5	500	330
FLUORENE	<500	ug/Kg	1.5	500	330
PHENANTHRENE	<500	ug/Kg	1.5	500	330
ANTHRACENE	<500	ug/Kg	1.5	500	330
FLUORANTHENE	<500	ug/Kg	1.5	500	330
PYRENE	<500	ug/Kg	1.5	500	330
BENZO[A]ANTHRACENE	<500	ug/Kg	1.5	500	330
CHRYSENE	<500	ug/Kg	1.5	500	330
BENZO[B]FLUORANTHENE	<500	ug/Kg	1.5	500	330
BENZO[K]FLUORANTHENE	<500	ug/Kg	1.5	500	330
BENZO[A]PYRENE	<500	ug/Kg	1.5	500	330
INDENO[1,2,3-CD]PYRENE	<500	ug/Kg	1.5	500	330
DIBENZ[A,H]ANTHRACENE	<500	ug/Kg	1.5	500	330
BENZO[G,H,I]PERYLENE	<500	ug/Kg	1.5	500	330
NITROBENZENE-D5	73	%	1.5		
2-FLUOROBIPHENYL	74	%	1.5		
TERPHENYL-D14	83	%	1.5		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24SLB020203

Matrix: SOIL **SDG Name:** WP3703

Percent Solids: 65.9 **Lab Sample ID:** WP3703-025

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	33900			P	1
7440-36-0	ANTIMONY	0.22	U		P	1
7440-38-2	ARSENIC	12.3			P	1
7440-39-3	BARIUM	45.4			P	1
7440-41-7	BERYLLIUM	1.3			P	1
7440-43-9	CADMIUM	0.18	U		P	1
7440-70-2	CALCIUM	3400			P	1
7440-47-3	CHROMIUM	42.4			P	1
7440-48-4	COBALT	8.6			P	1
7440-50-8	COPPER	30.3			P	1
7439-89-6	IRON	21200			P	1
7439-92-1	LEAD	46.0			P	1
7439-95-4	MAGNESIUM	3500			P	1
7439-96-5	MANGANESE	277			P	1
7439-97-6	MERCURY	0.48			CV	1
7440-02-0	NICKEL	15.1			P	1
7440-09-7	POTASSIUM	1920			P	1
7782-49-2	SELENIUM	0.31	U		P	1
7440-22-4	SILVER	0.23	U		P	1
7440-23-5	SODIUM	149			P	1
7440-28-0	THALLIUM	0.56	B		P	1
7440-62-2	VANADIUM	66.3			P	1
7440-66-6	ZINC	138			P	1

Color Before: N/A Texture: N/A

Color After: N/A Clarity After: N/A

Comments:

Katahdin
ANALYTICAL SERVICES

Lab Number : WP-3703-25
Report Date: 10/01/99
PO No. : N7912-P99264
Project : CTO #68

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB020203	Solid	CLIENT	08/23/99	08/24/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	66.	wt %	1.0	0.10	CLP/CIP SOW	08/26/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 08/25/99 by JF

10/01/99

LJO/baeajc(dw)/msm
PH25TSS1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-24
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 82
Method: SW8260
Date Analyzed: 8/28/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB040304	SL	8/23/99	8/24/99	8/28/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	133	%	1.0		
1,2-DICHLOROETHANE-D4	145	%	1.0		
TOLUENE-D8	113	%	1.0		
P-BROMOFLUOROBENZENE	86	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-24
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 82
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB040304	SL	8/23/99	8/24/99	8/25/99	DPD	EPA 3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<400	ug/Kg	1.2	400	330
2-METHYLNAPHTHALENE	<400	ug/Kg	1.2	400	330
ACENAPHTHYLENE	<400	ug/Kg	1.2	400	330
ACENAPHTHENE	<400	ug/Kg	1.2	400	330
FLUORENE	<400	ug/Kg	1.2	400	330
PHENANTHRENE	<400	ug/Kg	1.2	400	330
ANTHRACENE	<400	ug/Kg	1.2	400	330
FLUORANTHENE	<400	ug/Kg	1.2	400	330
PYRENE	<400	ug/Kg	1.2	400	330
BENZO[A]ANTHRACENE	<400	ug/Kg	1.2	400	330
CHRYSENE	<400	ug/Kg	1.2	400	330
BENZO[B]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[K]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[A]PYRENE	<400	ug/Kg	1.2	400	330
INDENO[1,2,3-CD]PYRENE	<400	ug/Kg	1.2	400	330
DIBENZ[A,H]ANTHRACENE	<400	ug/Kg	1.2	400	330
BENZO[G,H,I]PERYLENE	<400	ug/Kg	1.2	400	330
NITROBENZENE-D5	78	%	1.2		
2-FLUOROBIPHENYL	80	%	1.2		
TERPHENYL-D14	90	%	1.2		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services | **Client Field ID: 24SLB040304**

Matrix: SOIL | **SDG Name: WP3703**

Percent Solids: 81.7 | **Lab Sample ID: WP3703-024**

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	11700			P	1
7440-36-0	ANTIMONY	0.16	U		P	1
7440-38-2	ARSENIC	4.8			P	1
7440-39-3	BARIUM	27.8			P	1
7440-41-7	BERYLLIUM	0.58			P	1
7440-43-9	CADMIUM	0.17	U		P	1
7440-70-2	CALCIUM	1160			P	1
7440-47-3	CHROMIUM	13.0			P	1
7440-48-4	COBALT	2.2	B		P	1
7440-50-8	COPPER	6.1			P	1
7439-89-6	IRON	6930			P	1
7439-92-1	LEAD	17.0			P	1
7439-95-4	MAGNESIUM	788			P	1
7439-96-5	MANGANESE	96.9			P	1
7439-97-6	MERCURY	0.06			CV	1
7440-02-0	NICKEL	4.6			P	1
7440-09-7	POTASSIUM	519			P	1
7782-49-2	SELENIUM	0.22	U		P	1
7440-22-4	SILVER	0.22	U		P	1
7440-23-5	SODIUM	63.5			P	1
7440-28-0	THALLIUM	0.85	B		P	1
7440-62-2	VANADIUM	17.2			P	1
7440-66-6	ZINC	14.6			P	1

Comments:

Client:	Katahdin Analytical 340 County Road Westbrook, Maine 04092
Contact:	Ms. Andrea Colby
Project Description:	Former Naval Complex

cc: KATA00199 Report Date: September 18, 1999

Sample ID	: 24SLB040304
Lab ID	: 9908879-01
Matrix	: Soil
Date Collected	: 08/23/99
Date Received	: 08/24/99
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Total Rec. Petro. Hydrocarbons	U	-32.0	128	256	mg/kg	1.0	AAT	08/30/99	1030	157244	1
Evaporative Loss @ 105 C		22.0	1.00	1.00	wt%	1.0	GJ	08/26/99	1650	156926	2
Total Organic Carbon		5760	43.1	100	mg/kg	1.0	LS	09/17/99	1428	158289	3

M = Method	Method-Description
M 1	SW846 9071A
M 2	EPA 3550
M 3	SW846 9060 Modified

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

Data reported in mass/mass units is reported as 'dry weight'.

Katahdin
ANALYTICAL SERVICES

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

Lab Number : WP-3703-24
Report Date: 10/01/99
PO No. : N7912-P99264
Project : CTO #68

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB040304	Solid	CLIENT	08/23/99	08/24/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	82.	wt %	1.0	0.10	CLP/CIP SOW	08/30/99	JF	1
Total Combustible Organics	2.6	wt %	1.0	0.1	ASTM D2974-8	08/30/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 08/27/99 by JF

10/01/99

LJO/baeajc(dw)/msm
PH27TSS1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-26
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 84
Method: SW8260
Date Analyzed: 8/30/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB040304D	SL	8/23/99	8/24/99	8/30/99	DJP	5030	DJP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	0.97	5	5
TOLUENE	J3	ug/Kg	0.97	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	0.97	5	5
ETHYLBENZENE	<5	ug/Kg	0.97	5	5
NAPHTHALENE	<5	ug/Kg	0.97	5	5
MTBE	<5	ug/Kg	0.97	5	5
TOTAL XYLENES	<5	ug/Kg	0.97	5	5
DIBROMOFLUOROMETHANE	114	%	0.97		
1,2-DICHLOROETHANE-D4	128	%	0.97		
TOLUENE-D8	99	%	0.97		
P-BROMOFLUOROBENZENE	83	%	0.97		

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-26
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 84
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB040304D	SL	8/23/99	8/24/99	8/25/99	DPD	EPA 3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<400	ug/Kg	1.2	400	330
2-METHYLNAPHTHALENE	<400	ug/Kg	1.2	400	330
ACENAPHTHYLENE	<400	ug/Kg	1.2	400	330
ACENAPHTHENE	<400	ug/Kg	1.2	400	330
FLUORENE	<400	ug/Kg	1.2	400	330
PHENANTHRENE	<400	ug/Kg	1.2	400	330
ANTHRACENE	<400	ug/Kg	1.2	400	330
FLUORANTHENE	<400	ug/Kg	1.2	400	330
PYRENE	<400	ug/Kg	1.2	400	330
BENZO[A]ANTHRACENE	<400	ug/Kg	1.2	400	330
CHRYSENE	<400	ug/Kg	1.2	400	330
BENZO[B]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[K]FLUORANTHENE	<400	ug/Kg	1.2	400	330
BENZO[A]PYRENE	<400	ug/Kg	1.2	400	330
INDENO[1,2,3-CD]PYRENE	<400	ug/Kg	1.2	400	330
DIBENZ[A,H]ANTHRACENE	<400	ug/Kg	1.2	400	330
BENZO[G,H,I]PERYLENE	<400	ug/Kg	1.2	400	330
NITROBENZENE-D5	78	%	1.2		
2-FLUOROBIPHENYL	81	%	1.2		
TERPHENYL-D14	93	%	1.2		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID: 24SLB040304D**

Matrix: SOIL **SDG Name:** WP3703

Percent Solids: 84.4 **Lab Sample ID:** WP3703-026

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	8190			P	1
7440-36-0	ANTIMONY	0.15	U		P	1
7440-38-2	ARSENIC	3.9			P	1
7440-39-3	BARIUM	23.0			P	1
7440-41-7	BERYLLIUM	0.45			P	1
7440-43-9	CADMIUM	0.17	U		P	1
7440-70-2	CALCIUM	950			P	1
7440-47-3	CHROMIUM	9.0			P	1
7440-48-4	COBALT	1.4	B		P	1
7440-50-8	COPPER	4.4			P	1
7439-89-6	IRON	5100			P	1
7439-92-1	LEAD	14.2			P	1
7439-95-4	MAGNESIUM	537			P	1
7439-96-5	MANGANESE	74.2			P	1
7439-97-6	MERCURY	0.05			CV	1
7440-02-0	NICKEL	2.4	B		P	1
7440-09-7	POTASSIUM	334			P	1
7782-49-2	SELENIUM	0.22	U		P	1
7440-22-4	SILVER	0.22	U		P	1
7440-23-5	SODIUM	54.5			P	1
7440-28-0	THALLIUM	0.38	U		P	1
7440-62-2	VANADIUM	11.8			P	1
7440-66-6	ZINC	21.7			P	1

Comments:

Katahdin
ANALYTICAL SERVICES

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

Lab Number : WP-3703-26
Report Date: 10/01/99
PO No. : N7912-P99264
Project : CTO #68

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB040304D	Solid	CLIENT	08/23/99	08/24/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	84.	wt %	1.0	0.10	CLP/CIP SOW	08/30/99	JF	1
Total Combustible Organics	2.1	wt %	1.0	0.1	ASTM D2974-8	08/30/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sampl-
specific reporting limits. Sample-specific limits are indicated by results annotated with '<' val
(1) Sample Preparation on 08/27/99 by JF

10/01/99

LJO/baeajc(dw)/msm
PH27TSS1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-23
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 78
Method: SW8260
Date Analyzed: 8/28/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB070405	SL	8/23/99	8/24/99	8/28/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<6	ug/Kg	1.1	6	5
TOLUENE	<6	ug/Kg	1.1	6	5
1,2-DIBROMOETHANE	<6	ug/Kg	1.1	6	5
ETHYLBENZENE	<6	ug/Kg	1.1	6	5
NAPHTHALENE	<6	ug/Kg	1.1	6	5
MTBE	<6	ug/Kg	1.1	6	5
TOTAL XYLENES	<6	ug/Kg	1.1	6	5
DIBROMOFLUOROMETHANE	112	%	1.1		
1,2-DICHLOROETHANE-D4	118	%	1.1		
TOLUENE-D8	102	%	1.1		
P-BROMOFLUOROBENZENE	89	%	1.1		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3703-23
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 78
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB070405	SL	8/23/99	8/24/99	8/25/99	DPD	EPA 3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<430	ug/Kg	1.3	430	330
2-METHYLNAPHTHALENE	<430	ug/Kg	1.3	430	330
ACENAPHTHYLENE	<430	ug/Kg	1.3	430	330
ACENAPHTHENE	<430	ug/Kg	1.3	430	330
FLUORENE	<430	ug/Kg	1.3	430	330
PHENANTHRENE	<430	ug/Kg	1.3	430	330
ANTHRACENE	<430	ug/Kg	1.3	430	330
FLUORANTHENE	<430	ug/Kg	1.3	430	330
PYRENE	<430	ug/Kg	1.3	430	330
BENZO[A]ANTHRACENE	<430	ug/Kg	1.3	430	330
CHRYSENE	<430	ug/Kg	1.3	430	330
BENZO[B]FLUORANTHENE	<430	ug/Kg	1.3	430	330
BENZO[K]FLUORANTHENE	<430	ug/Kg	1.3	430	330
BENZO[A]PYRENE	<430	ug/Kg	1.3	430	330
INDENO[1,2,3-CD]PYRENE	<430	ug/Kg	1.3	430	330
DIBENZ[A,H]ANTHRACENE	<430	ug/Kg	1.3	430	330
BENZO[G,H,I]PERYLENE	<430	ug/Kg	1.3	430	330
NITROBENZENE-D5	70	%	1.3		
2-FLUOROBIPHENYL	72	%	1.3		
TERPHENYL-D14	88	%	1.3		

Report Notes:

Katahdin
ANALYTICAL SERVICES

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

Lab Number : WP-3703-23
Report Date: 10/01/99
PO No. : N7912-P99264
Project : CTO #68

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB070405	Solid	CLIENT	08/23/99	08/24/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	79.	wt %	1.0	0.10	CLP/CIP SOW	08/26/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 08/25/99 by JF

10/01/99

LJO/baeajc(dw)/msm
PH25TSS1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3683-9
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 81
Method: SW8260
Date Analyzed: 8/27/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB120102	SL	8/19/99	8/20/99	8/27/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	J3	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	119	%	1.0		
1,2-DICHLOROETHANE-D4	120	%	1.0		
TOLUENE-D8	111	%	1.0		
P-BROMOFLUOROBENZENE	99	%	1.0		

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3683-9
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 81
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB120102	SL	8/19/99	8/20/99	8/23/99	LAP	SW3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<430	ug/Kg	1.3	430	330
2-METHYLNAPHTHALENE	<430	ug/Kg	1.3	430	330
ACENAPHTHYLENE	<430	ug/Kg	1.3	430	330
ACENAPHTHENE	<430	ug/Kg	1.3	430	330
FLUORENE	<430	ug/Kg	1.3	430	330
PHENANTHRENE	<430	ug/Kg	1.3	430	330
ANTHRACENE	<430	ug/Kg	1.3	430	330
FLUORANTHENE	<430	ug/Kg	1.3	430	330
PYRENE	<430	ug/Kg	1.3	430	330
BENZO[A]ANTHRACENE	<430	ug/Kg	1.3	430	330
CHRYSENE	<430	ug/Kg	1.3	430	330
BENZO[B]FLUORANTHENE	<430	ug/Kg	1.3	430	330
BENZO[K]FLUORANTHENE	<430	ug/Kg	1.3	430	330
BENZO[A]PYRENE	<430	ug/Kg	1.3	430	330
INDENO[1,2,3-CD]PYRENE	<430	ug/Kg	1.3	430	330
DIBENZ[A,H]ANTHRACENE	<430	ug/Kg	1.3	430	330
BENZO[G,H,I]PERYLENE	<430	ug/Kg	1.3	430	330
NITROBENZENE-D5	57	%	1.3		
2-FLUOROBIPHENYL	75	%	1.3		
TERPHENYL-D14	90	%	1.3		

Report Notes:

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Katahdin
ANALYTICAL SERVICES

Lab Number : WP-3683-9
Report Date: 09/27/99
PO No. : N7912-P99264
Project : CTO #68

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB120102	Solid	CLIENT	08/19/99	08/20/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	81.	wt %	1.0	0.10	CLP/CIP SOW	08/25/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 08/24/99 by JF

09/27/99

LJO/msmajc(dw)
PH24TSS8
CC: MS LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3683-10RA
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 66
Method: SW8260
Date Analyzed: 8/28/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB110102	SL	8/19/99	8/20/99	8/28/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<7	ug/Kg	1.5	7	5
TOLUENE	<7	ug/Kg	1.5	7	5
1,2-DIBROMOETHANE	<7	ug/Kg	1.5	7	5
ETHYLBENZENE	<7	ug/Kg	1.5	7	5
NAPHTHALENE	<7	ug/Kg	1.5	7	5
MTBE	<7	ug/Kg	1.5	7	5
TOTAL XYLENES	<7	ug/Kg	1.5	7	5
DIBROMOFLUOROMETHANE	72	%	1.5		
1,2-DICHLOROETHANE-D4	79	%	1.5		
TOLUENE-D8	$58	%	1.5		
P-BROMOFLUOROBENZENE	$36	%	1.5		

Report Notes: $, O-13

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3683-10
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 66
Method: SW8260
Date Analyzed: 8/27/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB110102	SL	8/19/99	8/20/99	8/27/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<7	ug/Kg	1.5	7	5
TOLUENE	J4	ug/Kg	1.5	7	5
1,2-DIBROMOETHANE	<7	ug/Kg	1.5	7	5
ETHYLBENZENE	<7	ug/Kg	1.5	7	5
NAPHTHALENE	<7	ug/Kg	1.5	7	5
MTBE	<7	ug/Kg	1.5	7	5
TOTAL XYLENES	<7	ug/Kg	1.5	7	5
DIBROMOFLUOROMETHANE	79	%	1.5		
1,2-DICHLOROETHANE-D4	81	%	1.5		
TOLUENE-D8	$64	%	1.5		
P-BROMOFLUOROBENZENE	$36	%	1.5		

Report Notes: J, $

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client:	PAUL CALLIGAN Tetra Tech NUS 1401 Oven Park Dr. Suite 102 Tallahassee, FL 32308	Lab Number:	WP3683-10
		SDG:	WP3683
		Report Date:	9/23/99
		PO No. :	N7912-P99264
		Project:	CTO #68
Proj. ID:	CNC CHARLESTON	% Solids:	66
		Method:	EPA 8270
		Date Analyzed:	9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24SLB110102	SL	8/19/99	8/20/99	8/23/99	LAP	SW3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<500	ug/Kg	1.5	500	330
2-METHYLNAPHTHALENE	<500	ug/Kg	1.5	500	330
ACENAPHTHYLENE	<500	ug/Kg	1.5	500	330
ACENAPHTHENE	<500	ug/Kg	1.5	500	330
FLUORENE	<500	ug/Kg	1.5	500	330
PHENANTHRENE	<500	ug/Kg	1.5	500	330
ANTHRACENE	<500	ug/Kg	1.5	500	330
FLUORANTHENE	<500	ug/Kg	1.5	500	330
PYRENE	<500	ug/Kg	1.5	500	330
BENZO[A]ANTHRACENE	<500	ug/Kg	1.5	500	330
CHRYSENE	<500	ug/Kg	1.5	500	330
BENZO[B]FLUORANTHENE	<500	ug/Kg	1.5	500	330
BENZO[K]FLUORANTHENE	<500	ug/Kg	1.5	500	330
BENZO[A]PYRENE	<500	ug/Kg	1.5	500	330
INDENO[1,2,3-CD]PYRENE	<500	ug/Kg	1.5	500	330
DIBENZ[A,H]ANTHRACENE	<500	ug/Kg	1.5	500	330
BENZO[G,H,I]PERYLENE	<500	ug/Kg	1.5	500	330
NITROBENZENE-D5	42	%	1.5		
2-FLUOROBIPHENYL	60	%	1.5		
TERPHENYL-D14	76	%	1.5		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24SLB110102

Matrix: SOIL **SDG Name:** WP3683

Percent Solids: 66.5 **Lab Sample ID:** WP3683-010

Concentration Units (ug/L or mg/Kg dry weight): mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	33200			P	1
7440-36-0	ANTIMONY	0.26	U	N	P	1
7440-38-2	ARSENIC	24.7			P	1
7440-39-3	BARIUM	74.2			P	1
7440-41-7	BERYLLIUM	1.5			P	1
7440-43-9	CADMIUM	0.28	U		P	1
7440-70-2	CALCIUM	7100			P	1
7440-47-3	CHROMIUM	48.1			P	1
7440-48-4	COBALT	8.8			P	1
7440-50-8	COPPER	36.0		N*	P	1
7439-89-6	IRON	43200		*	P	5
7439-92-1	LEAD	60.3		N	P	1
7439-95-4	MAGNESIUM	4380		N	P	1
7439-96-5	MANGANESE	544		N*	P	1
7439-97-6	MERCURY	0.38			CV	1
7440-02-0	NICKEL	16.5			P	1
7440-09-7	POTASSIUM	2300			P	1
7782-49-2	SELENIUM	0.75	B		P	1
7440-22-4	SILVER	0.37	U		P	1
7440-23-5	SODIUM	320			P	1
7440-28-0	THALLIUM	0.93	B		P	1
7440-62-2	VANADIUM	81.7			P	1
7440-66-6	ZINC	154		*	P	1

Comments:

Katahdin
ANALYTICAL SERVICES

CLIENT: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

Lab Number : WP-3683-10
Report Date: 09/27/99
PO No. : N7912-P99264
Project : CTO #68

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24SLB110102	Solid	CLIENT	08/19/99	08/20/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Solids-Total Residue (TS)	67.	wt %	1.0	0.10	CLP/CIP SOW	08/25/99	JF	1

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.
(1) Sample Preparation on 08/24/99 by JF

09/27/99

LJO/msmajc(dw)
PH24TSS8
CC: MS LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: VBLKM26B
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 100
Method: SW8260
Date Analyzed: 8/26/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKM26B	SL	-	-	8/26/99	DJP	5030	DJP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	J3	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	104	%	1.0		
1,2-DICHLOROETHANE-D4	95	%	1.0		
TOLUENE-D8	116	%	1.0		
P-BROMOFLUOROBENZENE	114	%	1.0		

Report Notes: J

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: VBLKU28A
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 100
Method: SW8260
Date Analyzed: 8/28/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKU28A	SL	-	-	8/28/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	107	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		
TOLUENE-D8	101	%	1.0		
4-BROMOFLUOROBENZENE	94	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: SBLK;082399B
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 100
Method: EPA 8270
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;082399B	SL	-	-	8/23/99	LAP	SW3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<330	ug/Kg	1.0	330	330
2-METHYLNAPHTHALENE	<330	ug/Kg	1.0	330	330
ACENAPHTHYLENE	<330	ug/Kg	1.0	330	330
ACENAPHTHENE	<330	ug/Kg	1.0	330	330
FLUORENE	<330	ug/Kg	1.0	330	330
PHENANTHRENE	<330	ug/Kg	1.0	330	330
ANTHRACENE	<330	ug/Kg	1.0	330	330
FLUORANTHENE	<330	ug/Kg	1.0	330	330
PYRENE	<330	ug/Kg	1.0	330	330
BENZO[A]ANTHRACENE	<330	ug/Kg	1.0	330	330
CHRYSENE	<330	ug/Kg	1.0	330	330
BENZO[B]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[K]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[A]PYRENE	<330	ug/Kg	1.0	330	330
INDENO[1,2,3-CD]PYRENE	<330	ug/Kg	1.0	330	330
DIBENZ[A,H]ANTHRACENE	<330	ug/Kg	1.0	330	330
BENZO[G,H,I]PERYLENE	<330	ug/Kg	1.0	330	330
NITROBENZENE-D5	86	%	1.0		
2-FLUOROBIPHENYL	88	%	1.0		
TERPHENYL-D14	109	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: VBLKU27A
SDG: WP3683
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 100
Method: SW8260
Date Analyzed: 8/27/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKU27A	SL	-	-	8/27/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	104	%	1.0		
1,2-DICHLOROETHANE-D4	107	%	1.0		
TOLUENE-D8	93	%	1.0		
P-BROMOFLUOROBENZENE	89	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: VBLKU28A
SDG: WP3703
Report Date: 9/24/99
PO No.: N7912-P99264
Project: CTO #68
% Solids: 100
Method: SW8260
Date Analyzed: 8/28/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKU28A	SL	-	-	8/28/99	JSS	5030	JSS

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	107	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		
TOLUENE-D8	101	%	1.0		
P-BROMOFLUOROBENZENE	94	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: SBLK;082599
SDG: WP3703
Report Date: 9/24/99
PO No.: N7912-P99264
Project: CTO #68
% Solids: 100
Method: EPA 8270
Date Analyzed: 9/1/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
SBLK;082599	SL	-	-	8/25/99	DPD	EPA 3550	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<330	ug/Kg	1.0	330	330
2-METHYLNAPHTHALENE	<330	ug/Kg	1.0	330	330
ACENAPHTHYLENE	<330	ug/Kg	1.0	330	330
ACENAPHTHENE	<330	ug/Kg	1.0	330	330
FLUORENE	<330	ug/Kg	1.0	330	330
PHENANTHRENE	<330	ug/Kg	1.0	330	330
ANTHRACENE	<330	ug/Kg	1.0	330	330
FLUORANTHENE	<330	ug/Kg	1.0	330	330
PYRENE	<330	ug/Kg	1.0	330	330
BENZO[A]ANTHRACENE	<330	ug/Kg	1.0	330	330
CHRYSENE	<330	ug/Kg	1.0	330	330
BENZO[B]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[K]FLUORANTHENE	<330	ug/Kg	1.0	330	330
BENZO[A]PYRENE	<330	ug/Kg	1.0	330	330
INDENO[1,2,3-CD]PYRENE	<330	ug/Kg	1.0	330	330
DIBENZ[A,H]ANTHRACENE	<330	ug/Kg	1.0	330	330
BENZO[G,H,I]PERYLENE	<330	ug/Kg	1.0	330	330
NITROBENZENE-D5	76	%	1.0		
2-FLUOROBIPHENYL	75	%	1.0		
TERPHENYL-D14	87	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: PAUL CALLIGAN
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: VBLKU30A
SDG: WP3703
Report Date: 9/24/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: 100
Method: SW8260
Date Analyzed: 8/30/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
VBLKU30A	SL	-	-	8/30/99	DJP	5030	DJP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/Kg	1.0	5	5
TOLUENE	<5	ug/Kg	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/Kg	1.0	5	5
ETHYLBENZENE	<5	ug/Kg	1.0	5	5
NAPHTHALENE	<5	ug/Kg	1.0	5	5
MTBE	<5	ug/Kg	1.0	5	5
TOTAL XYLENES	<5	ug/Kg	1.0	5	5
DIBROMOFLUOROMETHANE	108	%	1.0		
1,2-DICHLOROETHANE-D4	110	%	1.0		
TOLUENE-D8	101	%	1.0		
P-BROMOFLUOROBENZENE	94	%	1.0		

Report Notes:

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Client: Tetra Tech NUS
Contact: Bryn Howze
Phone #: (843) 554-4925
Fax #: ( )
Address: NH-21 Ave. H
City: N. Charleston
State: SC
Zip Code:
Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign):
Copies To:

LAB USE ONLY
WORK ORDER #: WP3703
KATAHDIN PROJECT MANAGER:
REMARKS:
SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C: ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Filt. ☐Y☐N BTEX, MTBE, EDB, Naph	Filt. ☐Y☐N PAH	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N
	26GLMØ8Ø1	8/21/99/1513	aq	5	3	2								
	26GLM1ØDØ1M	8/21/99/1240	aq	5	3	2				←		MS/MSD		
	26GLM1ØDØ1	8/21/99/1240	aq	5	3	2								
	GLMØ4Ø1	8/21/99/0945	aq	5	3	2								
	26GLMØ6Ø1	8/21/99/1005	aq	5	3	2								
	26GLMØ5Ø1	8/21/99/0945	aq	5	3	2								
	26GLMØ7Ø1	8/21/99/1155	aq	5	3	2								
	26GLMØ7Ø1D	8/21/99/	aq	5	3	2								
	13GLMØ6Ø1	8/21/99/1140	aq	5	3	2								
	32GLMØ6Ø1	8/21/99/1557	aq	5	3	2								
	21GLMØ3Ø1	8/22/99/1152	aq	5	3	2								
	21GLMØ2Ø1	8/22/99/0955	aq	5	3	2								
	21GLMØ2Ø1D	8/22/99	aq	5	3	2								
	21GLMØ7DØ1	8/22/99/1430	aq	5	3	2								
	21GLMØ8Ø1	8/22/99/1500	aq	5	3	2								
	24SLBØ7Ø4Ø5	8/23/99/0915	soil	5	4	1							4ppm	

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[illegible]	8/23/99 1830	8134Ø268172 7		8-24-99 0830	[illegible]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Client: Tetra Tech NUS
Contact: Bryn Howze
Phone #: (843) 554-4925
Fax #: ( )
Address: NH-21 Ave. H
City: N. Charleston
State: SC
Zip Code:
Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign):
Copies To:

LAB USE ONLY
WORK ORDER #: WP3703 -
KATAHDIN PROJECT MANAGER:

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO:
TEMP°C: ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	BTEX, MTBE, EDB, MAPH	PAH	TAL Metals	Grain Size	Dissolved methane	Anions				FID Rdgs
					Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N
*	24SLB02023	8/23/99 1045	soil	5	4	1	1							60ppm
*	24SLB04030 4	8/23/99 0950	soil	6	4	1	1	+ X Run Foc from PAH jar						50pp
*	24SLB04030 4D	8/23/99	soil	5	4	1	1	X Run Foc from PAH jar						50pp
	26GLM09D01	8/23/99 1645	aq	5	3	2								
	26GLM03 01	8/23/99 1515	aq	5	3	2								
	26GLM02 01	8/23/99 1520	aq	5	3	2								
	30GLM01 01	8/22/99 1810	aq	9	3	2			3	1				
	30GLM03 01	8/22/99 1610	aq	5	3	2								
	30GLM05 01	8/22/99 1225	aq	9	3	2			3	1				
	30GLM07 01	8/22/99 1515	aq	5	3	2								
	42SLP200304	8/23/99 1400	soil	5	4	1	← 48 hour turn around							3.2 pp
	42SLP210304	8/23/99 1415	soil	5	4	1	← 48 hour turn around							2.6ppm
	26TL00101	8/23/99	aq	2	2									
		/												
		/												
		/												

COMMENTS
* Do TAL metals analysis from PAH jar.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
	8-24-99 0850				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Page_____ of _____ 99088799

Client Name/Facility Name: Katahdin

Collected by/Company: Tetra Tech NUS

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrate/Nitrate	VOC - Specify Method Required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	TPH	Remarks
24SLB04030	8/23/99	0950		X		X	2		1														1	
24SLB04030D	8/23/99			X		X	2		1														1	
ZFRL0001	8/24/99	1330					2																2	Rinsate blank
ZFFL0001	8/24/99	1630					2																2	Field blank
ZFFL0021	8/24/99	1745					2																2	Field blank (HZ)

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	8/24/99	1835	[signature]				

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
			[signature]	8/24/99	1835	

White = sample collector Yellow = file Pink = with report

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Client: Tetra Tech NUS
Contact: Bryn Howze
Phone #: (843) 554-4925
Fax #: ( )
Address: N1121 Ave. H
City: N. Charleston
State: SC
Zip Code:
Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign):
Copies To:

LAB USE ONLY
WORK ORDER #: WP 3683 - *
KATAHDIN PROJECT MANAGER:
REMARKS:
SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO: 813402904473
TEMP°C: ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	BTEX, EDB, Naph (Filt. ☐Y☐N)	PAH (Filt. ☐Y☐N)	Grain size (Filt. ☐Y☐N)	FOC (Filt. ☐Y☐N)	TAL metals (Filt. ☐Y☐N)	(Filt. ☐Y☐N)	(Filt. ☐Y☐N)	(Filt. ☐Y☐N)	(Filt. ☐Y☐N)	(Filt. ☐Y☐N)
	30SLB330506	8/19/99/0915	soil	5	4	1						408 ppm		
	30SLB210708	8/19/99/1000	soil	5	4	1						1270 ppm		
	30SLB200607	8/19/99/1025	soil	5	4	1						3 ppm		
	28SLB020102	8/19/99/1325	soil	5	4	1						0 pp		
*	28SLB030102	8/19/99/1410	soil	6	4	1	1	✓				0 ppm		
*	28SLB030102D	8/19/99/	soil	5	4	1		✓				0 ppm		
*	28SLB030102M	8/19/99/1410	soil	5	4	1		✓	-MS/MSD			0 ppm		
	24SLB120102	8/19/99/1545	soil	5	4	1			✓			0 ppm		
	24SLB110102	8/19/99/1600	soil	5	4	1			✓			0 ppm		
	30TL00101	8/19/99/	aq	2	2									
	31GLM0601	8/19/99/1740	aq	5	3	2								
	28SLB050203	8/19/99/1545	soil	5	4	1								
		/												
		/												
		/												
		/												

COMMENTS
* These samples also need to be tested for FOC from the 4oz PAH jar.

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Sig)
		813402904473		8-20-99 0845	
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
#	'#' flag denotes surrogate compound recovery is out of criteria.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
DL	'DL' flag denotes inability to calculate surrogate recovery due to sample dilution.
E	'E' flag indicates an estimated value. The analyte was detected in the sample at a concentration greater than the standard calibration range.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
O-1	Sample dilution required due to matrix interference, sample viscosity or other matrix-related problem; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
O-2	Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
$	'$' flag denotes surrogate compound recovery is out of criteria. Re-extraction or re-analysis confirmed matrix interference.
E	'E' flag indicates an estimated value. The analyte was detected in the sample at a concentration greater than the standard calibration range.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
O-1	Sample dilution required due to matrix interference, sample viscosity or other matrix-related problem; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
O-13	Internal standard area(s) are out of criteria. Reanalysis confirmedmatrix interference.
O-2	Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

S.W.COLE
ENGINEERING, INC.

RR 3, Box 7230, China Road, Winslow, ME 04901 TEL (207) 873-4283 FAX (207) 873-4977
Six Liberty Drive, Bangor, ME 04401 TEL (207) 848-5714 FAX (207) 848-240
Gray Plaza, P. O. Box 378, Gray, ME 04039 TEL (207) 657-2866 FAX (207) 657-2840
91 Water St., P. O. Box 220, Caribou, ME 04736 TEL (207) 496-1511 FAX (207) 496-1501
33 Londonderry Rd., #6, Londonderry, NH 03053 TEL (603) 437-9600 FAX (603) 437-9656

LAB REPORT

September 15,1999
99-812 M

Andrea Colby
Katahdin Analytical Services
P.O. Box 720
Westbrook, Maine 04098

Reference: Laboratory Testing

SWC Sample No.	Material Type	Material Source	Date Received	Date Tested
S-1	Silty Sand	WP-3819-1	9-08-99	9-13-99
S-2	Silty Clay	WP-3703-24	9-08-99	9-13-99

TEST RESULTS

Gradation

The sample was tested in accordance with ASTM C-136, "Sieve Analysis of Fine and Coarse Aggregates".

Sieve Size	Percent Passing Sieve By Weight S-1
1/2"	100
1/4"	99.8
No. 4	99.6
No. 10	98.9
No. 20	95.7
No. 40	91.2
No. 60	82.3
No. 100	55.2
No. 200	16.6

Grain -Size Analysis

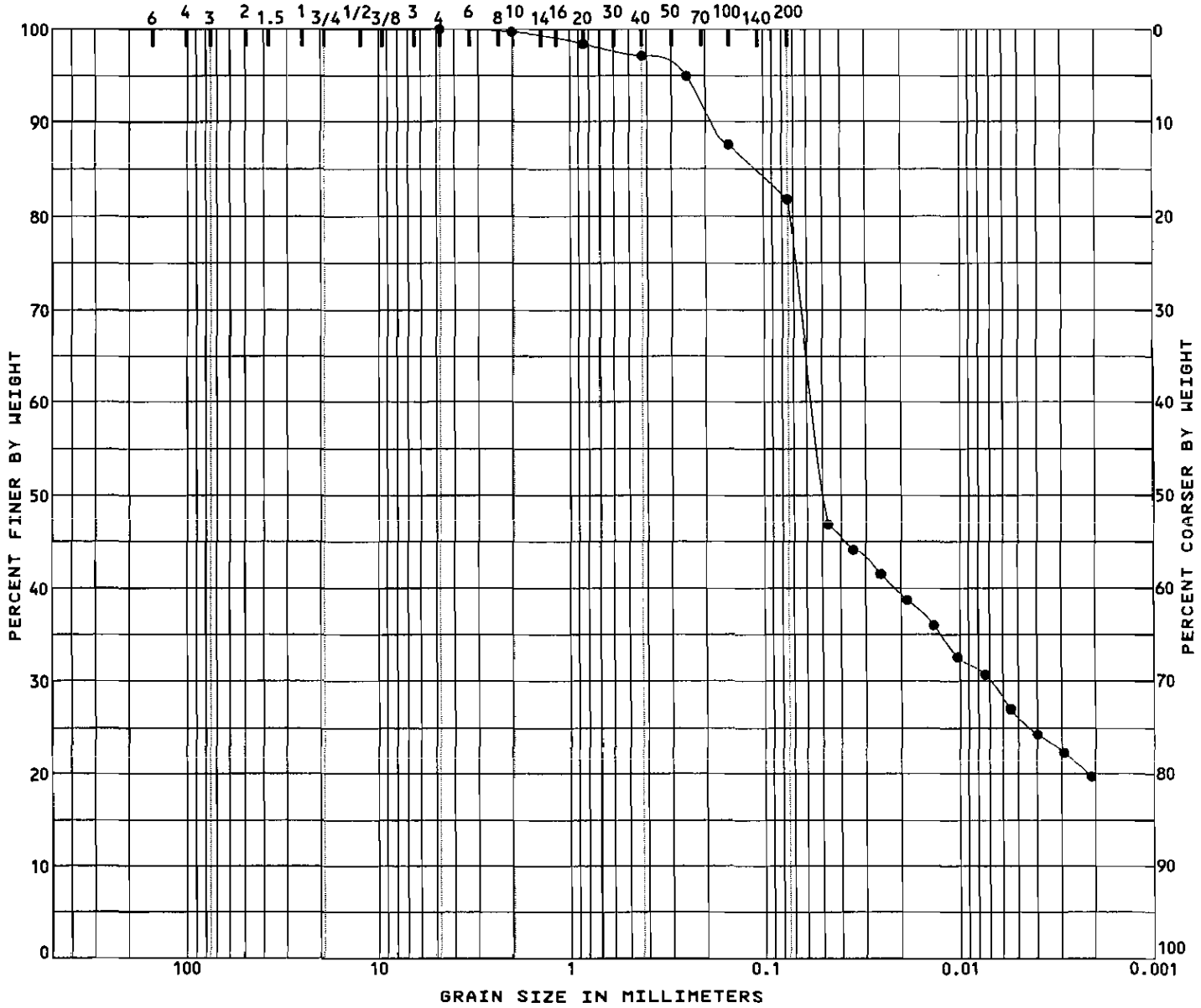
The samples were tested in accordance with ASTM D-422, "Particle-Size Analysis of Soils". After soaking for at least 16 hours, stirring apparatus A (a blender) was used to stir the samples for one minute.

	Percent of Material			
Sample Number	Gravel, 3" to No. 4	Sand, No. 4 to No. 200	Silt 0.074 to 0.005 mm	Clay, Smaller Than 0.005 mm
S-2	0.0	18.2	55.6	26.2

Robert E. Chapuit, Jr., P.E.
Geotechnical Engineer

REC:rac
Checked By: CBM

P:\Swc-99\99-812\99-812lr.doc



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Classification	WC %	LL	PL	PI	Cc	Cu
●	S-2 WP-3703-24							

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	S-2 WP-3703-24	4.75	0.06	0.007	0.0013	0.0	18.2	55.6	26.2

S.W.COLE ENGINEERING, INC.	Project **Katahdin Analytical Services**	Location **Westbrook, Maine**
	SWC Job No. **99-812**	Sheet No. **2**
	Date **September 15, 1999**	**GRADATION CURVES**

APPENDIX B

GROUNDWATER LABORATORY ANALYTICAL DATA

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

ient: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-15
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0101	AQ	9/8/99	9/9/99	9/10/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	99	%	1.0		
2-DICHLOROETHANE-D4	93	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	89	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-15
SDG: WP3850
Report Date: 10/5/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/16/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0101	AQ	9/8/99	9/9/99	9/10/99	DPD	EPA 3510	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	56	%	1.0		
2-FLUOROBIPHENYL	57	%	1.0		
TERPHENYL-D14	51	%	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24GLM0101

Matrix: WATER **SDG Name:** WP3647

Percent Solids: 0.00 **Lab Sample ID:** WP3647-001

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	63.3	B		P	1
7440-36-0	ANTIMONY	1.81	U		P	1
7440-38-2	ARSENIC	2.07	U		P	1
7440-39-3	BARIUM	4.1	B		P	1
7440-41-7	BERYLLIUM	0.33	U		P	1
7440-43-9	CADMIUM	1.94	U		P	1
7440-70-2	CALCIUM	1820			P	1
7440-47-3	CHROMIUM	4.31	U		P	1
7440-48-4	COBALT	4.45	U		P	1
7440-50-8	COPPER	2.8	B		P	1
7439-89-6	IRON	173			P	1
7439-92-1	LEAD	1.09	U		P	1
7439-95-4	MAGNESIUM	509			P	1
7439-96-5	MANGANESE	29.4			P	1
7439-97-6	MERCURY	0.02	U		CV	1
7440-02-0	NICKEL	13.21	U		P	1
7440-09-7	POTASSIUM	1660			P	1
7782-49-2	SELENIUM	3.0	B		P	1
7440-22-4	SILVER	2.54	U		P	1
7440-23-5	SODIUM	42900			P	1
7440-28-0	THALLIUM	4.49	U		P	1
7440-62-2	VANADIUM	4.8	B		P	1
7440-66-6	ZINC	6.7	B		P	1

Comments:

Client:	Katahdin Analytical 340 County Road Westbrook, Maine 04092
Contact:	Ms. Andrea Colby
Project Description:	Former Naval Complex

cc: KATA00199 Report Date: September 01, 1999

Sample ID	: 24GLM0101
Lab ID	: 9908507-01
Matrix	: Water
Date Collected	: 08/13/99
Date Received	: 08/13/99
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Total Rec. Petro. Hydrocarbons	J	2.32	1.22	5.00	mg/l	1.0	AAT	08/31/99	1030	157243	1

M = Method	Method-Description
M 1	SW846 9070

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Valerie Davis at (843) 769-7391.

Reviewed By

Katahdin
ANALYTICAL SERVICES

CLIENT: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

Lab Number : WP-3850-15
Report Date: 10/06/99
PO No. : N7912-P99264
Project : CTO #68

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24GLM0101	Aqueous	P.HALVERSON,JR HEBL,J.KRIEGER,T .THOMPSON	09/08/99	09/09/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Nitrate as N	0.063	mg/L	1.0	0.050	353.2	09/10/99	KW	
Sulfate	61.	mg/L	4.0	1.0	375.4	09/18/99	VN	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

10/06/99

LJO/baeajc(dw)/msm
PI10NOW1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3647-8
SDG: WP3647
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 8/21/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24TL00201	AQ	8/16/99	8/17/99	8/21/99	HMP	5030	HMP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	100	%	1.0		
1,2-DICHLOROETHANE-D4	94	%	1.0		
TOLUENE-D8	99	%	1.0		
P-BROMOFLUOROBENZENE	104	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

'ent: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-16
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0201	AQ	9/8/99	9/9/99	9/10/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	98	%	1.0		
2-DICHLOROETHANE-D4	93	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	88	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-16
SDG: WP3850
Report Date: 10/5/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/16/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0201	AQ	9/8/99	9/9/99	9/10/99	DPD	EPA 3510	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	52	%	1.0		
2-FLUOROBIPHENYL	52	%	1.0		
TERPHENYL-D14	42	%	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24GLM0201

Matrix: WATER **SDG Name:** WP3647

Percent Solids: 0.00 **Lab Sample ID:** WP3647-002

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	31.8	B		P	1
7440-36-0	ANTIMONY	2.8	B		P	1
7440-38-2	ARSENIC	2.07	U		P	1
7440-39-3	BARIUM	31.4			P	1
7440-41-7	BERYLLIUM	0.33	U		P	1
7440-43-9	CADMIUM	1.94	U		P	1
7440-70-2	CALCIUM	62300			P	1
7440-47-3	CHROMIUM	4.31	U		P	1
7440-48-4	COBALT	4.45	U		P	1
7440-50-8	COPPER	3.4	B		P	1
7439-89-6	IRON	14800			P	1
7439-92-1	LEAD	1.09	U		P	1
7439-95-4	MAGNESIUM	22800			P	1
7439-96-5	MANGANESE	1060			P	1
7439-97-6	MERCURY	0.04	B		CV	1
7440-02-0	NICKEL	13.21	U		P	1
7440-09-7	POTASSIUM	12100			P	1
7782-49-2	SELENIUM	2.57	U		P	1
7440-22-4	SILVER	2.54	U		P	1
7440-23-5	SODIUM	58600			P	1
7440-28-0	THALLIUM	4.49	U		P	1
7440-62-2	VANADIUM	3.58	U		P	1
7440-66-6	ZINC	3.7	B		P	1

Comments:

Client:	Katahdin Analytical 340 County Road Westbrook, Maine 04092
Contact:	Ms. Andrea Colby
Project Description:	Former Naval Complex

cc: KATA00199 Report Date: September 01, 1999

Sample ID	: 24GLM0201
Lab ID	: 9908507-02
Matrix	: Water
Date Collected	: 08/13/99
Date Received	: 08/13/99
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Total Rec. Petro. Hydrocarbons		6.57	1.22	5.00	mg/l	1.0	AAT	08/31/99	1030	157243	1

M = Method	Method-Description
M 1	SW846 9070

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Valerie Davis at (843) 769-7391.

Reviewed By

Katahdin
ANALYTICAL SERVICES

Lab Number : WP-3850-16
Report Date: 10/06/99
PO No. : N7912-P99264
Project : CTO #68

CLIENT: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24GLM0201	Aqueous	P.HALVERSON,JR HEBL,J.KRIEGER,T .THOMPSON	09/08/99	09/09/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Nitrate as N	0.058	mg/L	1.0	0.050	353.2	09/10/99	KW	
Sulfate	80.	mg/L	4.0	1.0	375.4	09/18/99	VN	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' values.

10/06/99

LJO/baeajc(dw)/msm
PI10NOW1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-11
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0301	AQ	9/8/99	9/9/99	9/10/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	99	%	1.0		
1,2-DICHLOROETHANE-D4	93	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	88	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-11
SDG: WP3850
Report Date: 10/5/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/16/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0301	AQ	9/8/99	9/9/99	9/10/99	DPD	EPA 3510	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	50	%	1.0		
2-FLUOROBIPHENYL	52	%	1.0		
TERPHENYL-D14	46	%	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24GLM0301

Matrix: WATER **SDG Name:** WP3647

Percent Solids: 0.00 **Lab Sample ID:** WP3647-003

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	56.0	B		P	1
7440-36-0	ANTIMONY	3.0	B		P	1
7440-38-2	ARSENIC	2.07	U		P	1
7440-39-3	BARIUM	17.8			P	1
7440-41-7	BERYLLIUM	0.33	U		P	1
7440-43-9	CADMIUM	1.94	U		P	1
7440-70-2	CALCIUM	32000			P	1
7440-47-3	CHROMIUM	4.31	U		P	1
7440-48-4	COBALT	4.45	U		P	1
7440-50-8	COPPER	2.6	B		P	1
7439-89-6	IRON	2740			P	1
7439-92-1	LEAD	1.6	B		P	1
7439-95-4	MAGNESIUM	14200			P	1
7439-96-5	MANGANESE	613			P	1
7439-97-6	MERCURY	0.02	B		CV	1
7440-02-0	NICKEL	13.21	U		P	1
7440-09-7	POTASSIUM	9930			P	1
7782-49-2	SELENIUM	2.57	U		P	1
7440-22-4	SILVER	2.54	U		P	1
7440-23-5	SODIUM	54700			P	1
7440-28-0	THALLIUM	4.8	B		P	1
7440-62-2	VANADIUM	6.9	B		P	1
7440-66-6	ZINC	5.7	B		P	1

Comments:

Client:	Katahdin Analytical 340 County Road Westbrook, Maine 04092
Contact:	Ms. Andrea Colby
Project Description:	Former Naval Complex

cc: KATA00199 Report Date: September 01, 1999

Sample ID	: 24GLM0301
Lab ID	: 9908507-03
Matrix	: Water
Date Collected	: 08/13/99
Date Received	: 08/13/99
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Total Rec. Petro. Hydrocarbons	J	2.96	1.22	5.00	mg/l	1.0	AAT	08/31/99	1030	157243	1

M = Method	Method-Description
M 1	SW846 9070

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
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* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

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in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Valerie Davis at (843) 769-7391.

Reviewed By

Katahdin
ANALYTICAL SERVICES

Lab Number : WP-3850-11
Report Date: 10/06/99
PO No. : N7912-P99264
Project : CTO #68

CLIENT: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr., Suite 102
Tallahassee, FL 32308

WIC#: CNC CHARLESTON

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE	RECEIVED
24GLM0301	Aqueous	P.HALVERSON,JR HEBL,J.KRIEGER,T .THOMPSON	09/08/99	09/09/99

PARAMETER	RESULT	UNITS	DF	*PQL	METHOD	ANALYZED	BY	NOTES
Nitrate as N	0.19	mg/L	1.0	0.050	353.2	09/10/99	KW	
Sulfate	97.	mg/L	5.0	1.0	375.4	09/18/99	VN	

* PQL (Practical Quantitation Level) represents laboratory reporting limits and may not reflect sample-specific reporting limits. Sample-specific limits are indicated by results annotated with '<' valu

10/06/99

LJO/baeajc(dw)/msm
PI10NOW1
CC: MS. LEE LECK
TETRA TECH NUS
FOSTER PLAZA 7
661 ANDERSEN DR.

340 County Road No. 5
P.O. Box 720, Westbrook, ME 04098
Tel: (207) 874-2400 Fax: (207) 775-4029

http://katahdinlab.com

210 West Road No. 5, Portsmouth, NH 03801
Tel: (603) 431-5777 Fax: (603) 436-3356

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

ent: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-6
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/9/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0301D	AQ	9/8/99	9/9/99	9/9/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	99	%	1.0		
2-DICHLOROETHANE-D4	92	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	86	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-6
SDG: WP3850
Report Date: 10/5/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/16/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0301D	AQ	9/8/99	9/9/99	9/10/99	DPD	EPA 3510	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	53	%	1.0		
2-FLUOROBIPHENYL	53	%	1.0		
TERPHENYL-D14	38	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3647-4
SDG: WP3647
Report Date: 9/23/99
PO No.: N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 8/21/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0401	AQ	8/13/99	8/17/99	8/21/99	HMP	5030	HMP

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	89	%	1.0		
1,2-DICHLOROETHANE-D4	80	%	1.0		
TOLUENE-D8	101	%	1.0		
P-BROMOFLUOROBENZENE	102	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3647-4
SDG: WP3647
Report Date: 9/23/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/2/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0401	AQ	8/13/99	8/17/99	8/20/99	DS	SW3510	KRT

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	76	%	1.0		
2-FLUOROBIPHENYL	86	%	1.0		
TERPHENYL-D14	69	%	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24GLM0401

Matrix: WATER **SDG Name:** WP3647

Percent Solids: 0.00 **Lab Sample ID:** WP3647-004

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	74.8	B		P	1
7440-36-0	ANTIMONY	1.81	U		P	1
7440-38-2	ARSENIC	2.07	U		P	1
7440-39-3	BARIUM	9.8			P	1
7440-41-7	BERYLLIUM	0.33	U		P	1
7440-43-9	CADMIUM	1.94	U		P	1
7440-70-2	CALCIUM	6330			P	1
7440-47-3	CHROMIUM	4.31	U		P	1
7440-48-4	COBALT	4.45	U		P	1
7440-50-8	COPPER	3.9	B		P	1
7439-89-6	IRON	109			P	1
7439-92-1	LEAD	1.7	B		P	1
7439-95-4	MAGNESIUM	4720			P	1
7439-96-5	MANGANESE	113			P	1
7439-97-6	MERCURY	0.02	U		CV	1
7440-02-0	NICKEL	13.21	U		P	1
7440-09-7	POTASSIUM	9190			P	1
7782-49-2	SELENIUM	2.57	U		P	1
7440-22-4	SILVER	2.54	U		P	1
7440-23-5	SODIUM	64000			P	1
7440-28-0	THALLIUM	4.49	U		P	1
7440-62-2	VANADIUM	15.5	B		P	1
7440-66-6	ZINC	7.5	B		P	1

Comments:

Client:	Katahdin Analytical 340 County Road Westbrook, Maine 04092
Contact:	Ms. Andrea Colby
Project Description:	Former Naval Complex

cc: KATA00199 Report Date: September 01, 1999

Sample ID	: 24GLM0401
Lab ID	: 9908507-04
Matrix	: Water
Date Collected	: 08/13/99
Date Received	: 08/13/99
Priority	: Routine
Collector	: Client

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	M
General Chemistry											
Total Rec. Petro. Hydrocarbons	J	2.63	1.22	5.00	mg/l	1.0	AAT	08/31/99	1030	157243	1

M = Method	Method-Description
M 1	SW846 9070

Notes:
The qualifiers in this report are defined as follows:
ND indicates that the analyte was not detected at a concentration greater than the detection limit.
J indicates presence of analyte at a concentration less than the reporting limit (RL) and greater than the detection limit (DL).
U indicates that the analyte was not detected at a concentration greater than the detection limit.
* indicates that a quality control analyte recovery is outside of specified acceptance criteria.

This data report has been prepared and reviewed
in accordance with General Engineering Laboratories
standard operating procedures. Please direct
any questions to your Project Manager, Valerie Davis at (843) 769-7391.

Reviewed By

9908507-04

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

'ient: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-7
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/9/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0501	AQ	9/8/99	9/9/99	9/9/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	99	%	1.0		
2-DICHLOROETHANE-D4	92	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	87	%	1.0		

Report Notes:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-7
SDG: WP3850
Report Date: 10/5/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: EPA 8270
Date Analyzed: 9/24/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24GLM0501	AQ	9/8/99	9/9/99	9/10/99	DPD	EPA 3510	SW

Compound	Result	Units	DF	Sample PQL	Method PQL
NAPHTHALENE	<10	ug/L	1.0	10	10
2-METHYLNAPHTHALENE	<10	ug/L	1.0	10	10
ACENAPHTHYLENE	<10	ug/L	1.0	10	10
ACENAPHTHENE	<10	ug/L	1.0	10	10
FLUORENE	<10	ug/L	1.0	10	10
PHENANTHRENE	<10	ug/L	1.0	10	10
ANTHRACENE	<10	ug/L	1.0	10	10
FLUORANTHENE	<10	ug/L	1.0	10	10
PYRENE	<10	ug/L	1.0	10	10
BENZO[A]ANTHRACENE	<10	ug/L	1.0	10	10
CHRYSENE	<10	ug/L	1.0	10	10
BENZO[B]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[K]FLUORANTHENE	<10	ug/L	1.0	10	10
BENZO[A]PYRENE	<10	ug/L	1.0	10	10
INDENO[1,2,3-CD]PYRENE	<10	ug/L	1.0	10	10
DIBENZ[A,H]ANTHRACENE	<10	ug/L	1.0	10	10
BENZO[G,H,I]PERYLENE	<10	ug/L	1.0	10	10
NITROBENZENE-D5	58	%	1.0		
2-FLUOROBIPHENYL	61	%	1.0		
TERPHENYL-D14	36	%	1.0		

Report Notes:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** 24GLM0501

Matrix: WATER **SDG Name:** WP3850

Percent Solids: 0.00 **Lab Sample ID:** WP3850-007

Concentration Units (ug/L or mg/Kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF
7429-90-5	ALUMINUM	58.5	B		P	1
7440-36-0	ANTIMONY	1.81	U		P	1
7440-38-2	ARSENIC	7.1	B		P	1
7440-39-3	BARIUM	71.8			P	1
7440-41-7	BERYLLIUM	0.21	U		P	1
7440-43-9	CADMIUM	0.26	U		P	1
7440-70-2	CALCIUM	224000			P	1
7440-47-3	CHROMIUM	1.6	B		P	1
7440-48-4	COBALT	1.9	B		P	1
7440-50-8	COPPER	2.8	B		P	1
7439-89-6	IRON	996			P	1
7439-92-1	LEAD	1.09	U		P	1
7439-95-4	MAGNESIUM	54700			P	1
7439-96-5	MANGANESE	998			P	1
7439-97-6	MERCURY	0.02	U		CV	1
7440-02-0	NICKEL	1.9	B		P	1
7440-09-7	POTASSIUM	13400			P	1
7782-49-2	SELENIUM	2.57	U		P	1
7440-22-4	SILVER	2.5	B		P	1
7440-23-5	SODIUM	627000			P	5
7440-28-0	THALLIUM	4.49	U		P	1
7440-62-2	VANADIUM	2.3	B		P	1
7440-66-6	ZINC	11.4	B		P	1

Comments:

KATAHDIN ANALYTICAL SERVICES
REPORT OF ANALYTICAL RESULTS

Client: Paul Calligan
Tetra Tech NUS
1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32308

Proj. ID: CNC CHARLESTON

Lab Number: WP3850-8
SDG: WP3850
Report Date: 10/1/99
PO No. : N7912-P99264
Project: CTO #68
% Solids: N/A
Method: SW8260
Date Analyzed: 9/10/99

Sample Description	Matrix	Sampled Date	Rec'd Date	Ext. Date	Ext'd By	Ext. Method	Analyst
24TL00201	AQ	9/8/99	9/9/99	9/10/99	KMC	5030	KMC

Compound	Result	Units	DF	Sample PQL	Method PQL
BENZENE	<5	ug/L	1.0	5	5
TOLUENE	<5	ug/L	1.0	5	5
1,2-DIBROMOETHANE	<5	ug/L	1.0	5	5
ETHYLBENZENE	<5	ug/L	1.0	5	5
NAPHTHALENE	<5	ug/L	1.0	5	5
MTBE	<5	ug/L	1.0	5	5
TOTAL XYLENES	<5	ug/L	1.0	5	5
DIBROMOFLUOROMETHANE	99	%	1.0		
1,2-DICHLOROETHANE-D4	92	%	1.0		
TOLUENE-D8	88	%	1.0		
P-BROMOFLUOROBENZENE	87	%	1.0		

Report Notes:

General Engineering Laboratories, Inc.
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Page 1 of 1

9908507%

Client Name/Facility Name: Katahdin Analytical

Collected by/Company: Tetra Tech

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

	SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	TPH		Remarks
01	24GLM01Ø1	8/13/99	1135	X				2																✓		HCl
02	24GLMØ2Ø1	↓	1136	X				2																✓		↓
03	24GLMØ3Ø1		1137	X				2																✓		
04	24GLMØ4Ø1		1151	X				2																✓		

420 ml

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
[signature]	8/13/99	1750					

Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:
[signature]			[signature]	8/13/99	1750	

White = sample collector Yellow = file Pink = with report

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Page ____ of ____

Client: Tetra Tech NUS
Contact: Bryan Howze
Phone #: (843) 554 4925
Fax #: ( )
Address: NH21 Ave H
City: N. Charleston
State: SC
Zip Code: 29405
Purchase Order #:
Proj. Name / No.:
Katahdin Quote #:
Bill (if different than above):
Address:
Sampler (Print / Sign):
Copies To:

LAB USE ONLY
WORK ORDER #: WP3647 - *
KATAHDIN PROJECT MANAGER:
REMARKS:
SHIPPING INFO: ☒ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO: 813402904484
TEMP°C: ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Filt. ☐Y☐N BTEX/EDB	Filt. ☐Y☐N PAH	Filt. ☐Y☐N TAL Metals	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N
	24GLM01 01	8/13/99 1135	W	1			1							
	24GLM02 01	/1136	W	1			1							
	24GLM03 01	/1137	W	1			1							
	24GLM04 01	/1151	W	6	3	2	1							
	36GLM01 01	/1752	W	5	3	2								
	36GL680-004	/1754	W	5	3	2								
	21GLM05 01	8/16/99 1240	W	5	3	2								
	24TL00 2 01	/	W	2	2									
		/												
		/												
		/												
		/												
		/												
		/												
		/												
		/												

COMMENTS

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	8/16/99	813402904484		8-17-99 1100	[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04098
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE PRINT IN PEN

Page ____ of ____

Client: TETRA TECH | Contact: Paul Calligan | Phone #: (850) 385-9899 | Fax #: (850) 385-9860

Address: 1401 Oven Park Drive, #102 | City: Tallahassee | State: FL | Zip Code: 32312

Purchase Order # | Proj. Name / No.: CNC / N0141 | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign): PAUL HALVERSON | Copies To:

LAB USE ONLY | WORK ORDER #: WP3850 - * | KATAHDIN PROJECT MANAGER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	Filt. ☐Y☒N ANIONS	Filt. ☐Y☒N PAH	Filt. ☐Y☒N MTBE HCL BETX - EOB Tmol, NaOH	Filt. ☐Y☒N DIS - (MBTE) HCL	Filt. ☐Y☒N DISOLVED METALS HCL	Filt. ☐Y☒N METALS HNO3	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N	Filt. ☐Y☐N
	15GLM0101	9/8/99/1260	GW	1	1	0	0	0	0					
	15GLM0201	9/8/99/1001	GW	9	1	2	3	3	3					
	15GLM0301	9/8/99/1050	GW	9	1	2	3	3	3					
	GLM0201D	9/8/99/Ø	GW	8	0	2	3	3	0					
	24GLM0501	9/8/99/1700	GW	6	0	2	3	0	0	1				
	24GLM0301	9/8/99/1752	GW	9	1	2	3		3					
	24GLM0301D	9/8/99/0000	GW	5		2	3							
	24TL00201	9/8/99/—	W	2			2				TRIP BLANK			
	24GLM0101	9/8/99/1707	GW	9	1	2	3		3					
	24GLM0201	9/8/99/1705	GW	9	1	2	3		3					
		/												
		/												
		/												
		/												
		/												
		/												

COMMENTS: PUT ON ICE 4°C

FED EX: 8134517388 31

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	9/8/99 1840	Fedex 8134517388 31		9.9.99 0920	Shelley Wilkinson
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
#	'#' flag denotes surrogate compound recovery is out of criteria.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.

KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
DL	'DL' flag denotes inability to calculate surrogate recovery due to sample dilution.
E	'E' flag indicates an estimated value. The analyte was detected in the sample at a concentration greater than the standard calibration range.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
O-1	Sample dilution required due to matrix interference, sample viscosity or other matrix-related problem; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
O-2	Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

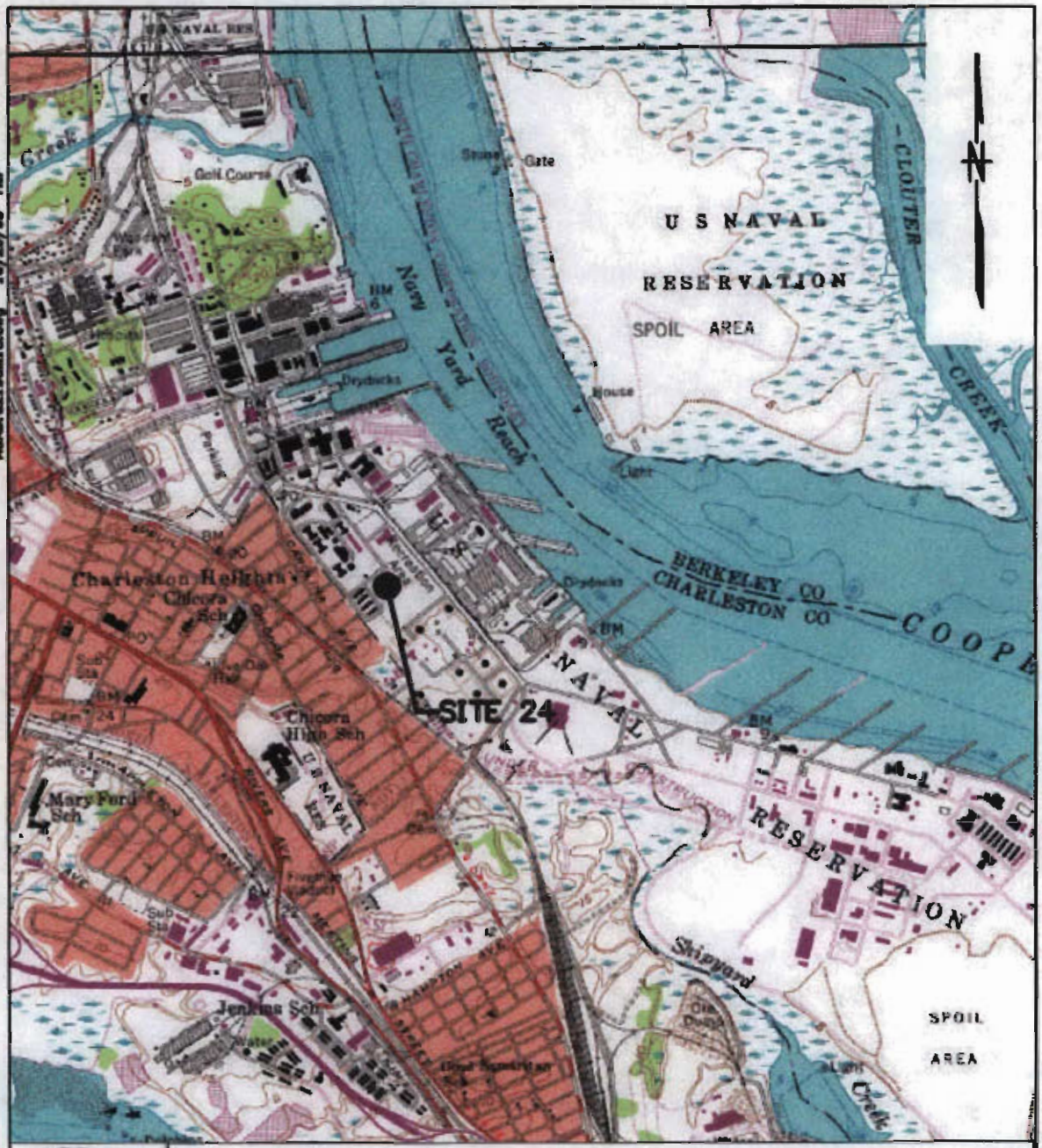
KATAHDIN ANALYTICAL SERVICES

Summary of Report Notes

Report Note	Note Text
$	'$' flag denotes surrogate compound recovery is out of criteria. Re-extraction or re-analysis confirmed matrix interference.
E	'E' flag indicates an estimated value. The analyte was detected in the sample at a concentration greater than the standard calibration range.
J	'J' flag denotes an estimated value less than the Laboratory's Practical Quantitation Level.
O-1	Sample dilution required due to matrix interference, sample viscosity or other matrix-related problem; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.
O-13	Internal standard area(s) are out of criteria. Reanalysis confirmedmatrix interference.
O-2	Sample dilution required for quantitation of one or more target analytes; therefore, standard laboratory Practical Quantitation Level (PQL) could not be achieved.

APPENDIX C

TOPOGRAPHIC MAP WITH SITE LOCATION



SOURCE: QUADRANGLE MAP SOUTH CAROLINA, REVISED 1979
QUADRANGLE MAP NORTH CHARLESTON REVISED, 1978

0 2000 4000
SCALE IN FEET

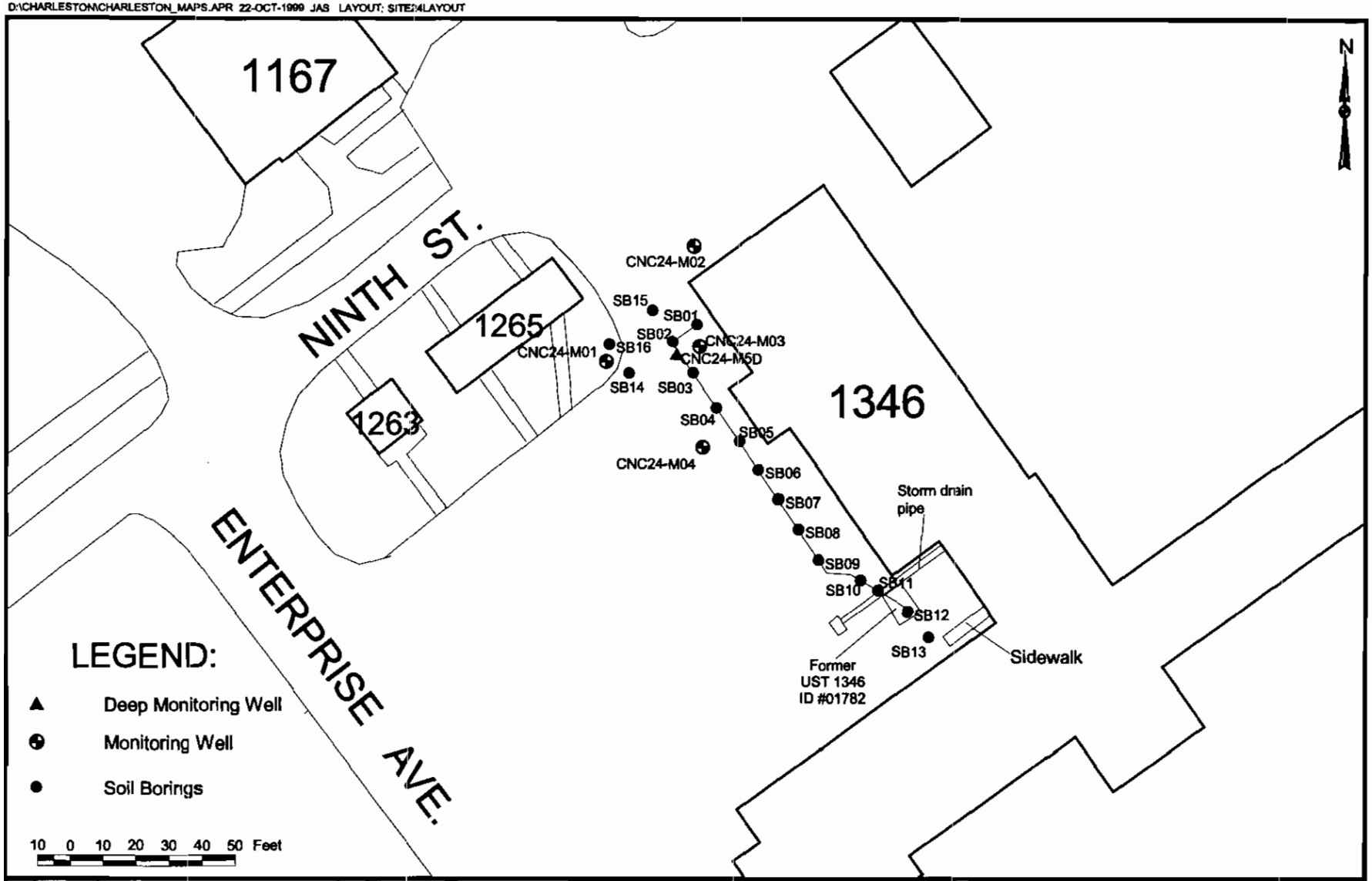
DRAWN BY HJP	DATE 10/29/99	SITE LOCATION MAP SITE 24, BUILDING 1346 ZONE F, CHARLESTON NAVAL COMPLEX NORTH CHARLESTON, SOUTH CAROLINA	CONTRACT NO. 0219
CHECKED BY	DATE		APPROVED BY / DATE
COST/SCHED-AREA			APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 / REV. 0

FORM CADD NO. SSEV_AV.DWG - REV 0 - 1/28/99

APPENDIX D

SITE BASE MAP

D:\CHARLESTON\CHARLESTON_MAPS.APR 22-OCT-1999 JAS LAYOUT: SITE24LAYOUT



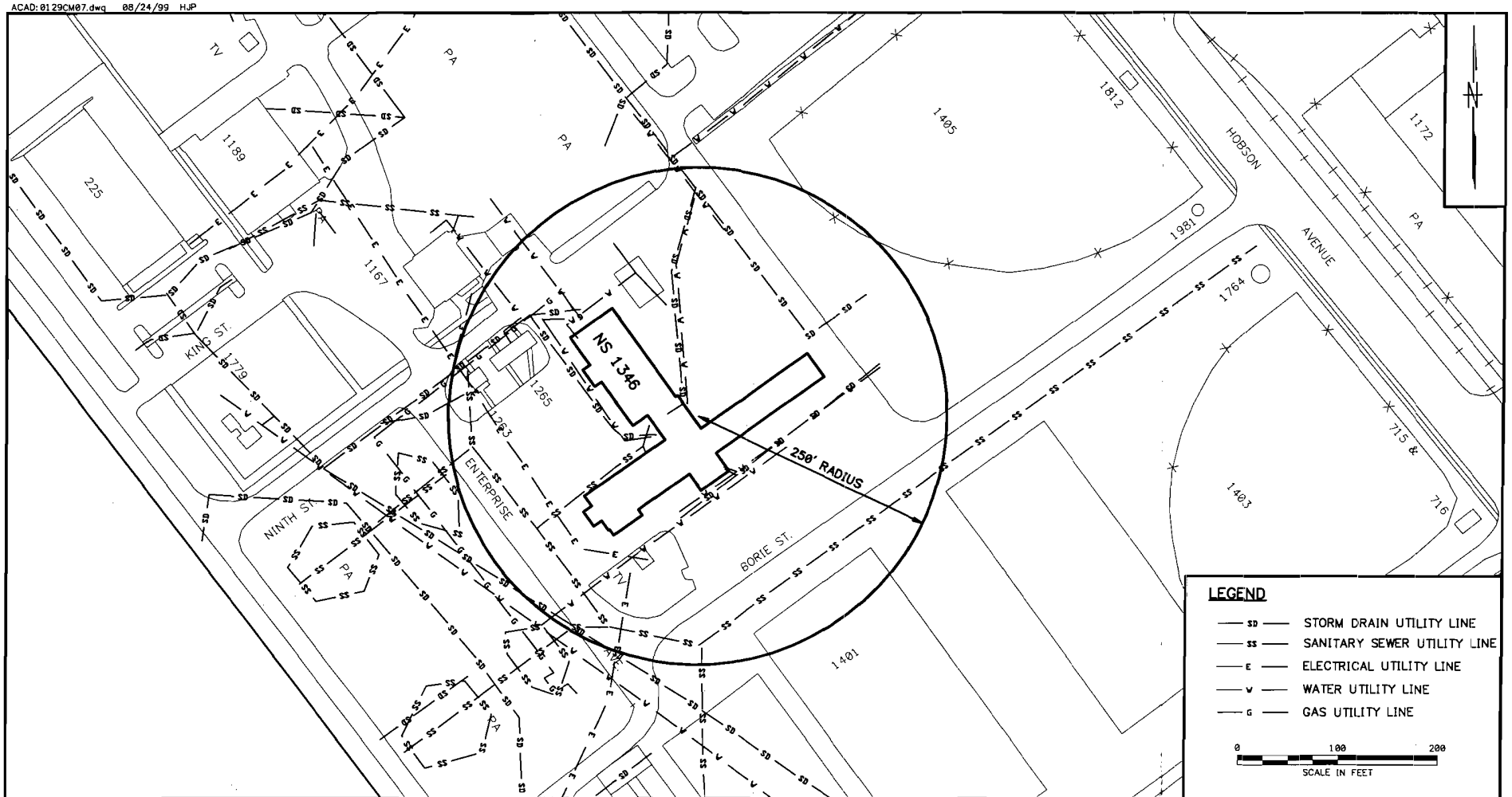
NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 10/22/1999
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

SITE VICINTY MAP
SITE 24, BUILD 1346
ZONE F, CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA

CONTRACT NO. 3219	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

ACAD:0129CM07.dwg 08/24/99 HJP



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY HJP DATE 8/24/99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

SITE VICINITY MAP
SITE 24, BUILDING NS 1346
ZONE F, CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA

CONTRACT NO. 0129
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. FIGURE 2
REV. 0

FORM CADD NO. SDIV_BH.DWG - REV 0 - 1/20/98