N61165.AR.005599
CNC CHARLESTON
5090.3a

RFI RESULTS FOR FUEL DISTRIBUTION SYSTEM WITHIN HOBSON FULE FARM CNC CHARLESTON SC

09/25/2000

ENSAFE INC

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ENSAFE

ENSAFE INC.

ENVIRONMENTAL AND MANAGEMENT CONSULTANTS

201 North Palafox Street, Suite 200 • Pensacola, FL 32501 • Telephone 850-434-2230 • Facsimile 850-434-2288 • www.ensafe.com

September 25, 2000

RECEIVED
OCT 5 2000
Water Monitoring, Assessment & Protection Division

Mr. Paul Bristol
Bureau of Solid and Hazardous Waste
South Carolina Department of Health and Environmental Control
8901 Farrow Road
Columbia, South Carolina 29203

Dear Mr. Bristol:

As requested, EnSafe has compiled all analytical results from samples collected during the RFI and investigation of the Fuel Distribution System within the area of the Hobson fuel farm. This area is roughly bounded by Viaduct Rd., Hobson Ave., Wood St., and the western boundary of CNC.

Phase I TPH data was used to screen for potential areas which may require additional assessment. These biased screening samples were collected from areas most likely to have been impacted, (ie., surface where the pipelines and valves were at the surface and subsurface where pipelined are buried). Subsurface samples were collected directly adjacent to the buried pipeline. Where TPH GRO exceeded 50 ug/kg, discrete samples were collected and analyzed for standard analytical parameters. Six locations within the area of interest had exceedances which triggered Phase II sampling (Areas 8, 11, the combined Areas 12, 13 and 14 and Area 15). The analytical data for these Areas is presented in the attached tables.

Included in the soil analytical results tables are: Soil boring and DPT sampling results from the portion of the Zone L investigation of located in this area; Areas 19 and 20 DPT samples; SWMU 3 soil borings; and, SWMU 24 soil borings.

Included in the groundwater analytical results tables are: DPT and monitoring well sampling results for the portion of the Zone L investigation in this area; Areas 19 and 20 DPT and monitoring well samples; SWMU 3 monitoring well samples; and, SWMU 24 monitoring well samples.

Should you have any questions or require additional information, please contact me at (850) 434-2230 or via e-mail at csmith@ensafe.com.

Thank you for the opportunity to assist with this evaluation,

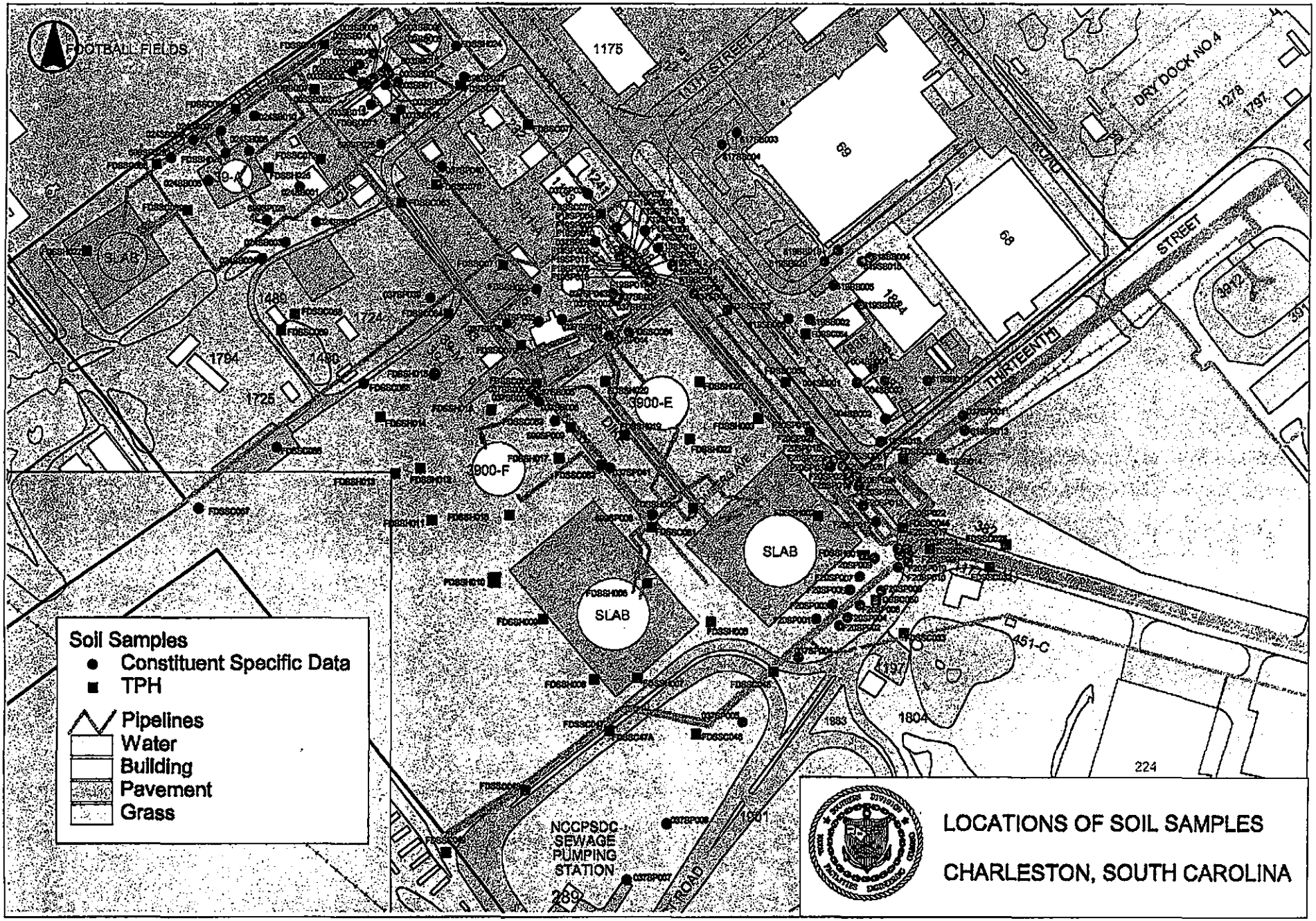
Sincerely,

ENSAFE

Craig R. Smith/sap

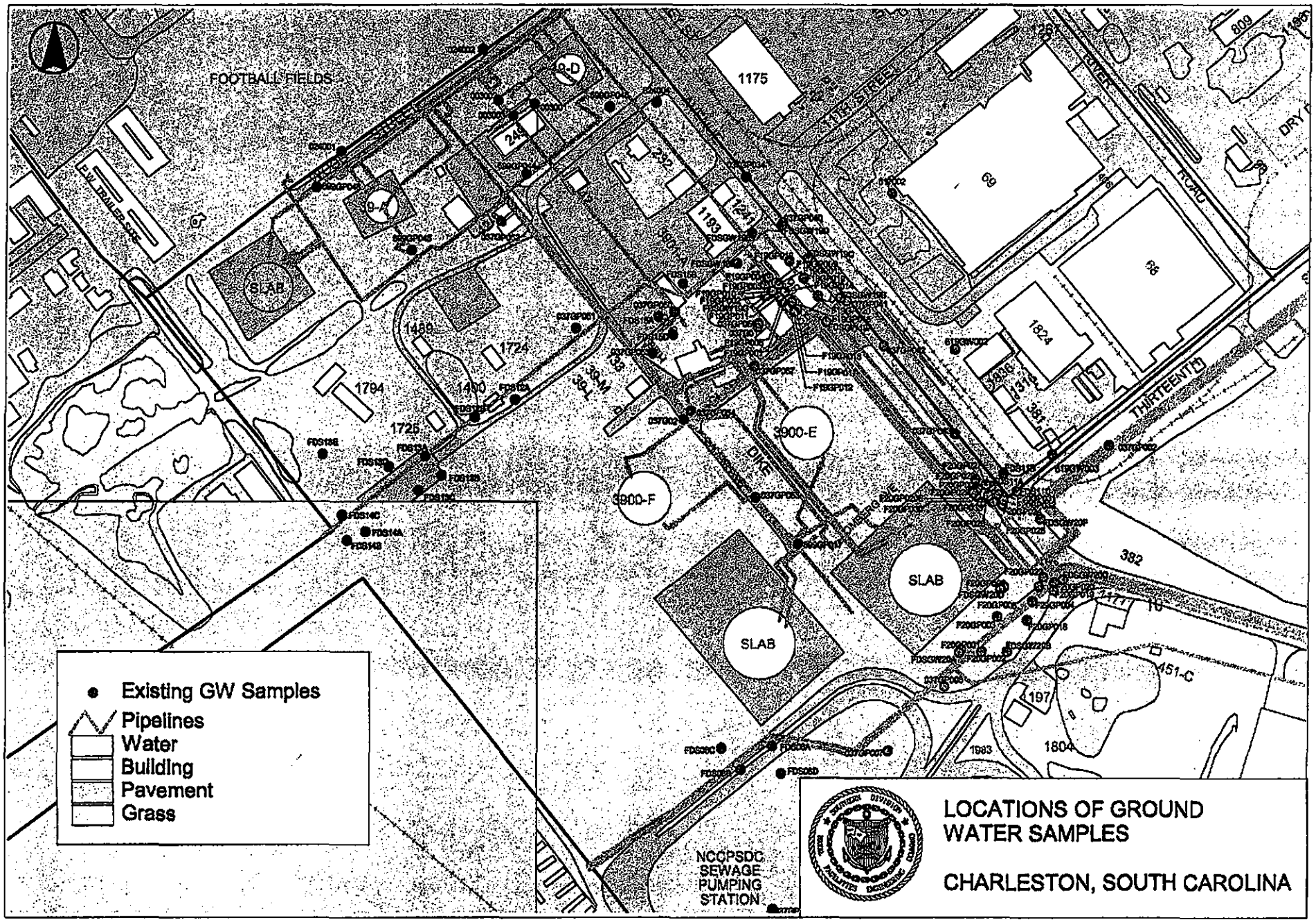
Craig R Smith

Attachments



LOCATIONS OF SOIL SAMPLES

CHARLESTON, SOUTH CAROLINA


FOOTBALL FIELDS
SLAB
SLAB
SLAB
1175
1824
1794
1724
1725
1489
1400
3900-E
3900-F
DIKE
THIRTEENTH
382
451-C
1804
1983
NCCPSDC
SEWAGE
PUMPING
STATION
Existing GW Samples
Pipelines
Water
Building
Pavement
Grass
LOCATIONS OF GROUND
WATER SAMPLES
CHARLESTON, SOUTH CAROLINA

FDS Soil Samples - Phase I

Boring Location	Sample ID	Date	Depth	Remarks
FDSSC001	FDSSC00101	9/12/96	4-5.5	Fuel staining on soil, fuel odor
FDSSC002	FDSSC00201	9/12/96	4-5.5	Fuel sheen and odor
FDSSC003	FDSSC00301	9/12/96	4-5.5	Slight fuel odor noted
FDSSC004	FDSSC00401	9/12/96	4-5.5	No fuel odor noted
FDSSC005	FDSSC00501	9/12/96	4-5.5	Slight fuel odor noted
FDSSC006	FDSSC00601	9/12/96	4-5.5	No fuel odor noted
FDSSC007	FDSSC00701	9/12/96	4-5	No fuel odor noted
FDSSC008	FDSSC00801	9/13/96	2.8-5.6	Slight fuel odor noted
FDSSC009	FDSSC00901	9/13/96	4-5.5	No fuel odor noted
FDSSC010	FDSSC01001	9/16/96	5.7-72	No unusual observations logged
FDSSC011	FDSSC01101 FDSCC01101*	9/16/96 9/16/96	4-6 4-6	Slight fuel odor noted
FDSSC012	FDSSC01201	9/17/96	6.8	Free product on sample
FDSSC013	FDSSC01301	9/16/96	4.3-5.8	Fuel odor present
FDSSC014	FDSSC01401	9/16/96	6-7.5	Slight fuel odor noted
FDSSC015	FDSSC01501	9/17/96	4-6.6	No fuel odor noted
FDSSC016	FDSSC01601	9/16/96	6-7.5	Fuel odor present
FDSSC017	FDSSC01701	9/17/96	2.9-7.3	Fuel odor present
FDSSC018	FDSSC01801	9/18/96	5-7	No fuel odor noted
FDSSC019	FDSSC01901 FDSCC01901*	9/17/96 9/17/96	4.5-6.5 4.5-6.5	No unusual observations logged
FDSSC020	FDSSC02001	9/17/96	6-8	No unusual observations logged
FDSSC021	FDSSC02101	9/17/96	4-6	Slight fuel odor noted
FDSSC022	FDSSC02201	9/18/96	5-7	No fuel odor noted
FDSSC023	FDSSC02301	9/18/96	4.5-6.5	No fuel odor noted
FDSSC024	FDSSC02401	9/17/96	6-8	No unusual observations logged
FDSSC025	FDSSC02501	9/18/96	3.7-5.3	Slight fuel odor noted
FDSSC026	FDSSC02601	9/18/96	5.8-8.8	No fuel odor noted
FDSSC027	FDSSC02701	9/18/96	5-7	Slight fuel odor noted
FDSSC028	FDSSC02801 FDSCC02801	9/18/96 9/18/96	4.3-6.3 4.3-6.3	Stong fuel odor in entire interval
FDSSC029	FDSSC02901	9/18/96	4.5-6.5	No fuel odor noted
FDSSC030	FDSSC03001	9/19/96	4.5-6.5	Fuel odor present
FDSSC031	FDSSC03101	9/19/96	4.2-6.2	No fuel odor noted
FDSSC032	FDSSC03201	9/19/96	4.3-6.5	Slight fuel odor noted

FDS Soil Samples - Phase I

Boring Location	Sample ID	Date	Depth	Remarks
FDSSC033	FDSSC03301	9/19/96	5-7	Slight fuel odor noted
FDSSC034	FDSSC03401	9/19/96	4.5-7.5	No unusual observations logged
FDSSC035	FDSSC03501	9/19/96	7-9	No fuel odor noted
FDSSC036	FDSSC03601 FDSSC03602	9/19/96 9/19/96	9-11 13-15	No fuel odor noted
FDSSC037	FDSSC03701 FDSSC03702	9/20/96 9/20/96	7-8.5 12-14	Smelled like petroleum
FDSSC038	FDSSC03801 FDSSC03802	9/20/96 9/20/96	7-9 12-14	No unusual observations logged
FDSSC039	FDSSC03901 FDSSC03902	9/20/96 9/20/96	8-10 10.5-12.5	No unusual observations logged
FDSSC040	FDSSC04001 FDSSC04002 FDSCC04002*	9/20/96 9/20/96	5-7 12-14	No unusual observations logged
FDSSC041	FDSSC04101 FDSSC04102	9/20/96 9/20/96	5-7 12-14	Sulfur odor noted
FDSSC042	FDSSC04201 FDSSC04202	9/22/96 9/22/96	5.7-8 11.7-14.1	No fuel odor noted
FDSSC043	FDSSC04301	9/22/96	5.8-7.6	No fuel odor noted
FDSSC044	FDSSC04401	9/22/96	5.7-7.7	No unusual observations logged
FDSSC045	FDSSC04501	9/22/96	13-15	No unusual observations logged
FDSSC046	FDSSC04601	9/22/96	14-16	No fuel order noted
FDSSC047	FDSSC04701	9/22/96	14-16	Petroleum odor with sheen
FDSSC048	FDSSC04801	9/22/96	14-16	No unusual observations logged
FDSSC049	FDSSC04901	9/22/96	14-16	No unusual observations logged
FDSSC050	FDSSC05001	9/23/96	7.7-9.7	No unusual observations logged
FDSSC051 FDSCC051	FDSSC05101 FDSCC05101*	9/23/96 9/23/96	5.7-7.4 5.7-7.4	Petroleum odor noted
FDSSC052	FDSSC05201	9/23/96	6-8	No unusual observations logged
FDSSC053	FDSSC05301	9/23/96	unlogged	No fuel odor noted
FDSSC054	FDSSC05401	9/23/96	11-13	No unusual observations logged
FDSSC055	FDSSC05501	9/23/96	5-9	No unusual observations logged
FDSSC056	FDSSC05601	9/23/96	unlogged	No unusual observations logged
FDSSC057	FDSSC05701	9/24/96	3.7-5.5	No fuel odor noted
FDSSC058	FDSSC05801	9/24/96	4-10	Slight fuel odor noted
FDSSC059	FDSSC05901	9/24/96	unlogged	No fuel odor noted
FDSSC060	FDSSC06001	9/24/96	4-6	No unusual observations logged

FDS Soil Samples - Phase I

Boring Location	Sample ID	Date	Depth	Remarks
FDSSC061	FDSSC06101 FDSCC06101*	9/24/96 9/24/96	5-6	No unusual observations logged
FDSSC062	FDSSC06201		No Phase I sample taken at this location	
FDSSC063	FDSSC06301	9/25/96	6.5-8.5	No fuel contamination noted
FDSSC064	FDSSC06401	9/25/96	6.5-8.5	No unusual observations logged
FDSSC065	FDSSC06501	9/25/96	6.3-10.6	Strong fuel odor noted
FDSSC066	FDSSC06601	9/25/96	8.5-10.5	Strong fuel odor noted
FDSSC067	FDSSC06701	9/25/96	8.2-11	No unusual observations logged
FDSSC068	FDSSC06801	9/30/96	8-10	No unusual observations logged
FDSSC069	FDSSC06901	9/30/96	6.5-8.5	No unusual observations logged
FDSSC070	FDSSC07001	9/30/96	7.3-9.2	No unusual observations logged
FDSSC071	FDSSC07101	9/30/96	7.2-9.2	No unusual observations logged
FDSSC072	FDSSC07201	10/01/96	unlogged	No unusual observations logged
FDSSC073	FDSSC07301	10/01/96	unlogged	No unusual observations logged
FDSSC074	FDSSC07401	10/01/96	9-11	No unusual observations logged
FDSSC075	FDSSC07501	10/01/96	8-10	No unusual observations logged
FDSSC076	FDSSC07601	10/01/96	6.6-8.4	No fuel odor noted
FDSSC077	FDSSC07701 FDSCC07701*	10/01/96 10/01/96	7-9 7-9	H_2s odor noted
FDSSC078	FDSSC07801	10/01/96	7-9	Unrecognizable organic odor noted
FDSSC079	FDSSC07901	10/01/96	5-7	No fuel odor noted
FDSSC080	FDSSC08001 FDSCC08001*	10/01/96 10/01/96	6-8 6-8	Fuel odor present
FDSSC081	FDSSC08101	10/02/96	7.5-9.5	No unusual observations logged
FDSSC082	FDSSC08201	10/02/96	5.7-7.3	No fuel odor noted
FDSSC083	FDSSC08301	10/02/96	6-8	No unusual observations logged
FDSSC084	FDSSC08401	10/02/96	7-11	Slight fuel odor noted
FDSSC085	FDSSC08501	10/02/96	5-7	No fuel odor noted
FDSSC086	FDSSC08601 FDSCC08601*	10/02/96	5-7 5-7	No fuel odor noted
FDSSC087	FDSSC08701	10/02/96	4-6	No fuel odor noted
FDSSC088	FDSSC08801	10/02/96	9-11	No fuel odor noted
FDSSC089	FDSSC08901	10/02/96	7-9	No fuel odor noted

FDS Soil Samples - Phase I

Boring Location	Sample ID	Date	Depth	Remarks
FDSSC090	FDSSC09001	10/03/96	3-5	No unusual observations logged
FDSSC091	FDSSC09101 FDSCC09101*	10/03/96 10/03/96	9-11 9-11	No unusual observations logged
FDSSC092	FDSSC09201	10/03/96	6-8	No fuel odor noted
FDSSC093	FDSSC09301	10/03/96	6-8	No unusual observations logged
FDSSC094	FDSSC09401	10/03/96	5-7	Strong fuel odor noted
FDSSC095	FDSSC09501 FDSCC09501*	10/03/96 10/03/96	5-7 5-7	Fuel odor throughout interval
FDSSC096	FDSSC09601	10/03/96	5-7	No unusual observations logged
FDSSC097	FDSSC09701 FDSSC09702	10/03/96 10/03/96	7-9 9-11	Fuel oder noted
FDSSC098	FDSSC09801	10/03/96	9-11	No fuel odor noted
FDSSC099	FDSSC09901	10/03/96	9-11	No fuel odor noted
FDSSC100	FDSSC10001 FDSCC10001*	10/04/96 10/04/96	13-15 13-15	No fuel odor noted
FDSSC101	FDSSC10101	10/04/96	9-11	No fuel odor noted
FDSSC102	FDSSC10201	10/04/96	9-11	No fuel odor noted
FDSSC103	FDSSC10301	10/04/96	9-11	No fuel odor noted
FDSSC104	FDSSC10401 FDSSC10402	10/04/96 10/04/96	4-6 9-11	No fuel odor noted
FDSSC105	FDSSC10501	10/04/96	4-5	No fuel odor noted
FDSSC106	FDSSC10601	10/04/96	7-9	Slight fuel odor noted
FDSSC107	FDSSC10701 FDSCC10701*	10/04/96 10/04/96	6-8 6-8	No fuel odor noted
FDSSC108	FDSSC10801	10/04/96	6-8	No fuel odor noted
FDSSC109	FDSSC10901	10/05/96	7-9	No fuel odor noted
FDSSC110	FDSSC11001	10/05/96	7-9	No fuel odor noted
FDSSC111	FDSSC11101	10/05/96	6-8	No fuel odor noted
FDSSC112	FDSSC11201	10/05/96	5-7	No fuel odor noted
FDSSC113	FDSSC11301	10/05/96	5-7	No fuel odor noted
FDSSC114	FDSSC11401 FDSCC11401*	10/05/96 10/05/96	3-5 3-5	No fuel odor noted
FDSSC115	FDSSC11501	10/05/96	3-5	No fuel odor noted
FDSSH001	FDSSH00101	10/18/96	0-1	
FDSSH002	FDSSH00201	10/17/96	0-1	
FDSSH003	FDSSH00301	10/17/96	0-1	
FDSSH004	FDSSH00401	10/17/96	0-1	

FDS Soil Samples - Phase I

Boring Location	Sample ID	Date	Depth	Remarks
FDSSH005	FDSSH00501	10/17/96	0-1	
FDSSH006	FDSSH00601	10/21/96	0-1	
FDSSH007	FDSSH00701	10/17/96	0-1	
FDSSH008	FDSSH00801	10/21/96	0-1	
FDSSH009	FDSSH00901	10/21/96	0-1	
FDSSH010	FDSSH01001	10/21/96	0-1	
FDSSH011	FDSSH01101	10/17/96	0-1	
FDSSH012	FDSSH01201	10/18/96	0-1	
FDSSH013	FDSSH01301	10/17/96	0-1	
FDSSH014	FDSSH01401	10/17/96	0-1	
FDSSH015	FDSSH01501	10/17/96	0-1	
FDSSH016	FDSSH01601	10/18/96	0-1	
FDSSH017	FDSSH01701	10/18/96	0-1	
FDSSH018	FDSSH01801	10/18/96	0-1	
FDSSH019	FDSSH01901	10/18/96	0-1	
FDSSH020	FDSSH02001 FDSCH02001*	10/18/96 10/18/96	0-1 0-1	
FDSSH021	FDSSH02101	10/18/96	0-1	
FDSSH022	FDSSH02201	10/18/96	0-1	
FDSSH023	FDSSH02301	10/17/96	0-1	Strong fuel odor noted
FDSSH024	FDSSH02401 FDSCH02401*	10/21/96 10/21/96	0-1 0-1	Strong fuel odor noted
FDSSH025	FDSSH02501	10/21/96	0-1	
FDSSH026	FDSSH02601	10/21/96	0-1	Strong fuel odor noted
FDSSH027	FDSSH02701	10/21/96	0-1	

Note

* = Indicates a duplicate sample.

H_2S = hydrogen sulfide

All Phase I samples analyzed for total petroleum hydrocarbons-gasoline range organics (TPH-GRO) and TPH-diesel range organics (DRO) unless noted.

Phase I
Detected Subsurface Soil TPH Concentrations
Fuel Distribution System
NAVBASE

Sample ID	Result	Area
	TPH-DRO Diesel (mg/kg)	
FDSSC02701	30.20	
FDSSC03001	102.00	Area 7
FDSSC11401	336.00	Area 18
	TPH-GRO Gasoline (μg/kg)	
FDSSC00101	14.00	
FDSSC00201	16300.00	Area 1
FDSSC00301	24.00	
FDSSC00401	13.00	
FDSSC00501	11.00	
FDSSC00601	9.00	
FDSSC00701	35.00	
FDSSC00801	24.80	
FDSSC00901	13.50	
FDSSC01001	22.60	
FDSSC01101	61.80	Area 4
FDSSC01201	124000.00	Area 2
FDSSC01301	77.60	Area 6
FDSSC01401	67.50	Area 3
FDSSC01501	25.50	
FDSSC01601	65.00	Area 5
FDSSC01701	32.70	
FDSSC01901	37.95	
FDSSC02001	23.60	
FDSSC02101	12.40	
FDSSC02201	10.00	
FDSSC02301	14.00	
FDSSC02501	10.00	
FDSSC02601	29.00	
FDSSC02801	25.50	
FDSSC02901	13.00	
FDSSC03001	9.00	

Phase I
Detected Subsurface Soil TPH Concentrations
Fuel Distribution System
NAVBASE

Sample ID	Result	Area
FDSSC03101	8.00	
FDSSC03201	27.00	
FDSSC03301	18.00	
FDSSC03602	15.00	
FDSSC03701	23.80	
FDSSC03702	20.30	
FDSSC03901	17.20	
FDSSC03902	24.00	
FDSSC04001	16.40	
FDSSC04002	15.40	
FDSSC04101	14.60	
FDSSC04102	14.00	
FDSSC04201	8.51	
FDSSC04202	21.50	
FDSSC04501	23.70	
FDSSC04401	35.80	
FDSSC04601	11.10	
FDSSC04701	**19000.00**	Area 8
FDSSC04801	8.88	
FDSSC04901	7.12	
FDSSC05001	15.30	
FDSSC05101	**42.75**[a]	Area 11
FDSSC05201	8.56	
FDSSC05301	24.60	
FDSSC05401	16.80	
FDSSC05501	**63.70**	Area 10
FDSSC05601	37.60	
FDSSC05701	17.00	
FDSSC05801	**10.00**[b]	Area 9
FDSSC05901	10.00	
FDSSC06001	21.00	
FDSSC06101	8.00	

Phase I
Detected Subsurface Soil TPH Concentrations
Fuel Distribution System
NAVBASE

Sample ID	Result	Area
FDSSC06401	8.00	
FDSSC06501	147.00	Area 12
FDSSC06601	67.00	Area 13
FDSSC06701	106.00	Area 14
FDSSC06801	18.00	
FDSSC06901	8.00	
FDSSC07001	15.00	
FDSSC07201	8.00	
FDSSC07301	15.00	
FDSSC07401	8.00	
FDSSC07701	11.50	
FDSSC08101	9.00	
FDSSC08201	8.00	
FDSSC08301	8.00	
FDSSC08401	7.00	
FDSSC08801	9.00	
FDSSC08901	35.00	
FDSSC09501	33078.50	Area 17
FDSSC09701	25.00	
FDSSC09702	87.00	Area 16
FDSSC10001	17.00	
FDSSC10501	42.00	
FDSSC10601	7.00	
FDSSC10701	9.50	
FDSSC11201	9.00	
FDSSC11301	15.00	
FDSSC11501	7.00	
FDSSH00101	10.00	
FDSSH00601	9.00	
FDSSH01201	9.00	
FDSSH01601	32.00	
FDSSH01801	10.00	

Phase I
Detected Subsurface Soil TPH Concentrations
Fuel Distribution System
NAVBASE

Sample ID	Result	Area
FDSSH02101	10.00	
FDSSH02201	10.00	
FDSSH02301	501.00	Area 15
FDSSH02601	20.00	

Notes:
a = Average of original duplicate concentrations. Original sample concentration was 77.6 μg/kg.
b = Included based on visual observation of gross contamination.
Bolded concentrations exceed 50 μg/kg (GRO) or 50 mg/kg (DRO).

FDS Soil Samples - Phase II

Boring Location	Sample Identifier	Date	Sample Interval	Remarks
FDSSC002	FDSSC00201	12/4/96	4-6	Fuel odor noted
FDSSC011	FDSSC01101	12/4/96	4-6	No unusual observations logged
FDSSC012	FDSSC01201	12/4/96	6-8	Free product present
FDSSC013	FDSSC01301	12/4/96	4-6	Oily sheen present
FDSSC014	FDSSC01401	12/5/96	6-8	Strong fuel odor noted, 117 ppm FID
FDSSC016	FDSSC01601	12/4/96	6-8	Fuel odor noted
FDSSC030	FDSSC03001	12/4/96	4.5-6.5	No odor noted, 83 ppm FID
FDSSC47A	FDSSC47A01	9/24/96	13.5-15.5	No unusual observations logged
FDSSC051	FDSSC05101	1/13/97	5-7	
FDSSC055	FDSSC05501	12/5/96	6-8	No unusual observations logged, 17 ppm FID
FDSSC058	FDSSC05801	9/24/96	4-6	Fuel odor
FDSSC062	FDSSC06201	12/10/96	0-1	Strong fuel odor noted
FDSSC065	FDSSC06501	9/25/96	6.5-10.6	Strong fuel odor noted
FDSSC066	FDSSC06601	12/4/96	8.5-10.5	Strong fuel odor
FDSSC067	FDSSC06701 FDSCC06701*	12/4/96 12/4/96	8.5-10.5 8.5-10.5	Strong fuel odor noted, 173 ppm FID
FDSSC084	FDSSC08401	10/02/96	7-11	Slight fuel odor noted
FDSSC094	FDSSC09401	10/03/96	5-7	Strong fuel odor noted
FDSSC095	FDSSC09501	12/05/96	5-7	Strong fuel odor noted
FDSSC097	FDSSC09701 FDSCC09701*	12/05/96 12/5/96	8-10 8-10	Strong fuel odor noted
FDSSC114	FDSSC11401	12/05/96	3-5	No unusual observations logged, 54 ppm FID
FDSSH023	FDSSH02301	10/17/96	0-1	Strong fuel odor noted
FDSSH024	FDSSH02401	10/21/96	0-1	Strong fuel odor noted
FDSSH026	FDSSH02601	10/21/96	0-1	Strong fuel odor noted

Notes:

1 = Phase II sample collected concurrently with Phase I TPH sample based on field observations.

* = Duplicates were analyzed for Appendix IX parameters (metals, pesticides/PCBs, herbicides, organophosphorous (OP) pesticides, dioxins, SVOAs, VOAs); cyanide, and hex-chrome, Level IV.

FID = Flame ionization detector

ppm = parts per million

Samples analyzed using SW-846 methods (metals, pesticides/PCBs, SVOAs, VOAs) at data quality objective (DQO) Level III.

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Area 8				
TPH - GRO (µg/kg)				
Gasoline	FDSSC04701	19000	NL/NL	NA
Volatile Organic Compounds (µg/kg)				
Toluene	FDSSC47A01	4	1622/12000	NA
Semivolatile Organic Compounds (µg/kg)				
Total Naphthalenes	FDSSC47A01	5210	210/84000	NA
2-Methylnaphthalene	FDSSC47A01	5100	NL/126000	NA
Naphthalene	FDSSC47A01	110	NL/84000	NA
Acenaphthene	FDSSC47A01	430	NL/570000	NA
Anthracene	FDSSC47A01	280	NL/12000000	NA
Benzo(a)anthracene	FDSSC47A01	300	73084/2000	NA
Dibenzofuran	FDSSC47A01	330	NL/50000	NA
Fluoranthene	FDSSC47A01	190	NL/4300000	NA
Fluorene	FDSSC47A01	570	NL/560000	NA
Phenanthrene	FDSSC47A01	1600	NL/1380000	NA
Pyrene	FDSSC47A01	710	NL/4200000	NA
Inorganics (mg/kg)				
Aluminum (Al)	FDSSC47A01	15000	NL/1000000	23600
Arsenic (As)	FDSSC47A01	16	NL/29	15.5[a]
Barium (Ba)	FDSSC47A01	27.3	NL/1600	64.5
Beryllium (Be)	FDSSC47A01	1	NL/63	1.63
Calcium (Ca)	FDSSC47A01	30800	NL/NL	NL
Chromium (Cr)	FDSSC47A01	29.6	NL/1000000	43.4[a]
Cobalt (Co)	FDSSC47A01	5.6	NL/2000	8.14
Copper (Cu)	FDSSC47A01	18.9	NL/920	32.6
Iron (Fe)	FDSSC47A01	19600	NL/NL	NL
Lead (Pb)	FDSSC47A01	30.3	NL/400	66.3
Magnesium (Mg)	FDSSC47A01	4270	NL/NL	NL
Manganese (Mn)	FDSSC47A01	186	NL/1100	291
Mercury (Hg)	FDSSC47A01	0.09	NL/2.1	0.31
Potassium (K)	FDSSC47A01	1870	NL/NL	NL

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Inorganics (mg/kg)				
Selenium (Se)	FDSSC47A01	1.00	NL/5	1.26
Sodium (Na)	FDSSC47A01	2300	NL/NL	NL
Vanadium (V)	FDSSC47A01	42.7	NL/6000	72.5
Zinc (Zn)	FDSSC47A01	77.9	NL/12000	145
Area 11				
TPH - GRO (μg/kg)				
Gasoline	FDSSC05101	42.75	NL/NL	NA
Semivolatile Organic Compounds (μg/kg)				
bis(2-Ethylhexyl)phthalate	FDSSC05101	1500	NL/3600000	NA
Chrysene	FDSSC05101	80	12998/160000	NA
Inorganics (mg/kg)				
Aluminum (Al)	FDSSC05101	5690	NL/1000000	23600
Barium (Ba)	FDSSC05101	23.3	NL/1600	64.5
Beryllium (Be)	FDSSC05101	0.24	NL/63	1.63
Cadmium (Cd)	FDSSC05101	0.05	NL/8	0.48
Calcium (Ca)	FDSSC05101	1770	NL/NL	NL
Chromium (Cr)	FDSSC05101	6.1	NL/1000000	43.4[a]
Cobalt (Co)	FDSSC05101	0.67	NL/2000	8.14
Copper (Cu)	FDSSC05101	2.6	NL/920	32.6
Iron (Fe)	FDSSC05101	4300	NL/NL	NL
Lead (Pb)	FDSSC05101	8.8	NL/400	66.3
Magnesium (Mg)	FDSSC05101	269	NL/NL	NL
Manganese (Mn)	FDSSC05101	27.1	NL/1100	291
Mercury (Hg)	FDSSC05101	0.25	NL/2.1	0.31
Nickel (Ni)	FDSSC05101	2.8	NL/130	18.3
Sodium (Na)	FDSSC05101	175	NL/NL	NL
Thallium (Tl)	FDSSC05101	0.41	NL/0.95	0.95
Vanadium (V)	FDSSC05101	15.5	NL/6000	72.5
Zinc (Zn)	FDSSC05101	9.9	NL/12000	145

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Area 12, 13, 14				
TPH - GRO (μg/kg)				
Gasoline	FDSSC06501	147	NL/NL	NA
	FDSSC06601	67		
	FDSSC06701	106		
Volatile Organic Compounds (μg/kg)				
Carbon disulfide	FDSSC06601	2	NL/52000	NA
	FDSSC06701	1		
Toluene	FDSSC06501	47	1622/12000	NA
	FDSSC06601	4		
	FDSSC06701	12		
Xylene (Total)	FDSSC06601	45	42471/148000	NA
	FDSSC06701	3		
Semivolatile Organic Compounds (μg/kg)				
Total Naphthalenes	FDSSC06501	62	210/84000	NA
	FDSSC06601	6500		
	FDSSC06701	4700		
2-Methylnaphthalene	FDSSC06501	62	NL/126000	NA
	FDSSC06601	3100		
	FDSSC06701	4700		
Naphthalene	FDSSC06601	3400	NL/84000	NA
Acenaphthlene	FDSSC06501	130	NL/570000	NA
	FDSSC06601	3000		
	FDSSC06701	1400		
Anthracene	FDSSC06501	110	NL/12000000	NA
	FDSSC06601	3900		
	FDSSC06701	1450		
Benzo(a)anthracene	FDSSC06501	86	73084/2000	NA
	FDSSC06601	1800		
	FDSSC06701	1355		
Benzo(b)fluoranthene	FDSSC06501	72	29097/5000	NA
	FDSSC06601	630		
	FDSSC06701	615		
Benzo(k)fluoranthene	FDSSC06601	710	231109/49000	NA
	FDSSC06701	670		
Benzo(a)pyrene	FDSSC06601	930	NL/8000	NA
	FDSSC06701	935		
Benzo(g,h,i)perylene	FDSSC06601	550	NL/4.66E+08	NA
	FDSSC06701	655		
Chrysene	FDSSC06501	70	12998/169000	NA
	FDSSC06601	2000		
	FDSSC06701	1510		
Dibenz(a,h)anthracene	FDSSC06601	120	87866/2000	NA
	FDSSC06701	170		
Dibenzofuran	FDSSC06601	2700	NL/50000	NA
	FDSSC06701	1085		
Di-n-octyl phthalate	FDSSC06701	45	NL/10000000	NA
Fluoranthene	FDSSC06501	120	NL/430000	NA
	FDSSC06601	6000		
	FDSSC06701	2700		
Fluorene	FDSSC06501	140	NL/560000	NA
	FDSSC06601	4400		
	FDSSC06701	2000		
Indeno(1,2,3-cd)pyrene	FDSSC06601	460	NL/14000	NA
	FDSSC06701	460		

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Semivolatile Organic Compounds (μg/kg)				
Phenanthrene	FDSSC06501	240	NL/1380000	NA
	FDSSC06601	15000		
	FDSSC06701	6150		
Pyrene	FDSSC06501	290	NL/4200000	NA
	FDSSC06601	5300		
	FDSSC06701	3700		
Dioxin (ng/kg)				
Dioxin(2,3,4,8-TCDD TEQs[1])	FDSSC06701	0.0847	NL/1900	NA
Inorganics (mg/kg)				
Aluminum (Al)	FDSSC06501	28400	NL/1000000	23600
	FDSSC06601	15400		
	FDSSC06701	12050		
Antimony (Sb)	FDSSC06501	.51	NL/5	ND
Arsenic (As)	FDSSC06501	17	NL/29	15.5[a]
	FDSSC06601	10.2		
	FDSSC06701	10.35		
Barium (Ba)	FDSSC06501	40.6	NL/1600	64.5
	FDSSC06601	33.9		
	FDSSC06701	25.65		
Beryllium (Be)	FDSSC06501	1.3	NL/63	1.63
	FDSSC06601	.76		
	FDSSC06701	.62		
Calcium (Ca)	FDSSC06501	14500	NL/NL	NL
	FDSSC06601	40000		
	FDSSC06701	24100		
Chromium (Cr)	FDSSC06501	42.9	NL/1000000	43.4[a]
	FDSSC06601	28.2		
	FDSSC06701	24.35		
Cobalt (Co)	FDSSC06501	6.3	NL/2000	8.14
	FDSSC06601	3.4		
	FDSSC06701	3.1		
Copper (Cu)	FDSSC06501	24.8	NL/920	32.6
	FDSSC06601	18.3		
	FDSSC06701	14.25		
Iron (Fe)	FDSSC06501	30700	NL/NL	NL
	FDSSC06601	17800		
	FDSSC06701	23900		
Lead (Pb)	FDSSC06501	42.9	NL/400	66.3
	FDSSC06601	28.2		
	FDSSC06701	27.6		
Magnesium (Mg)	FDSSC06501	4840	NL/NL	NL
	FDSSC06601	6460		
	FDSSC06701	2585		
Manganese (Mn)	FDSSC06501	382	NL/1100	291
	FDSSC06601	163		
	FDSSC06701	238.5		
Mercury (Hg)	FDSSC06501	.22	NL/2.1	0.31
	FDSSC06601	.2		
	FDSSC06701	.175		
Nickel (Ni)	FDSSC06501	13.9	NL/130	18.3
	FDSSC06601	10.1		
	FDSSC06701	8.15		

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Inorganics (mg/kg)				
Potassium (K)	FDSSC06501	2580	NL/NL	NL
	FDSSC06601	2260		
	FDSSC06701	1455		
Selenium (Se)	FDSSC06501	1.1	NL/5	1.26
	FDSSC06701	.87		
Sodium (Na)	FDSSC06601	5770	NL/NL	NL
	FDSSC06701	2340		
Thallium (Tl)	FDSSC06501	.57	NL/0.95	0.95
Vanadium (V)	FDSSC06501	69.1	NL/6000	72.5
	FDSSC06601	30.2		
	FDSSC06701	34.8		
Zinc (Zn)	FDSSC06501	97	NL/12000	145
	FDSSC06601	69		
	FDSSC06701	58.55		
Area 15				
TPH - GRO (µg/kg)				
Gasoline	FDSSH02301	501	NL/NL	NA
Volatile Organic Compounds (µg/kg)				
1,1-Dichloroethane	FDSSH02301	85	NL/23000	NA
1,1,1-Trichloroethane	FDSSH02301	48	NL/2000	NA
Ethylbenzene	FDSSH02301	130	7800000/13000	NA
Tetrachloroethene	FDSSH02301	13	NL/60	NA
Toluene	FDSSH02301	22	160000000/12000	NA
Xylene (Total)	FDSSH02301	1800	160000000/148000	NA
Semivolatile Organic Compounds (µg/kg)				
Total Naphthalenes	FDSSH02301	8500	3100000/84000	NA
2-Methylnaphthalene	FDSSH02301	6800	NL/126000	NA
Naphthalene	FDSSH02301	1700	NL/84000	NA
Chrysene	FDSSH02301	240	88000/160000	NA
Fluorene	FDSSH02301	1900	NL/560000	NA
Phenanthrene	FDSSH02301	1900	NL/1380000	NA
Pyrene	FDSSH02301	590	NL/4200000	NA
Pesticides (µg/kg)				
Endrin	FDSSH02301	20	NL/1000	NA
Heptachlor	FDSSH02301	5.3	NL/23000	NA
gamma-Chlordane	FDSSH02301	3.4	NL/10000	NA

Analytes Detected in Subsurface Soil
Fuel Distribution System

Parameters	Location	Subsurface Conc.	RBSL/SSL	Subsurface Background
Inorganics (mg/kg)				
Aluminum (Al)	FDSSH02301	2820	NL/1000000	18700
Arsenic (As)	FDSSH02301	1.8	NL/29	17.2
Barium (Ba)	FDSSH02301	13.1	NL/1600	109
Cadmium (Cd)	FDSSH02301	0.19	NL/8	1.07
Calcium (Ca)	FDSSH02301	13,100	NL/NL	NL
Chromium (Cr)	FDSSH02301	9.3	NL/1000000	42.8
Cobalt (Co)	FDSSH02301	1.3	NL/2000	6.60
Iron (Fe)	FDSSH02301	4,860	NL/NL	NL
Lead (Pb)	FDSSH02301	29.5	NL/400	181
Magnesium (Mg)	FDSSH02301	499	NL/NL	NL
Manganese (Mn)	FDSSH02301	29.6	NL/1100	325
Mercury (Hg)	FDSSH02301	0.07	NL/2.1	1.03
Nickel (Ni)	FDSSH02301	4.2	NL/130	206
Potassium (K)	FDSSH02301	240	NL/NL	NL
Thallium (Tl)	FDSSH02301	0.47	NL/0.95	0.85
Vanadium (V)	FDSSH02301	10.6	NL/6000	60.9
Zinc (Zn)	FDSSH02301	66.8	NL/12000	519

Notes:
a = Background value for non-clay samples
NL = Not listed
NA = Not applicable
μg/kg = Micrograms per kilogram
mg/kg = Milligrams per kilogram
RBSLs from the *South Carolina Risk-Based Corrective Action for Petroleum Releases* (SCDHEC, January 5, 1998) and soil-to-groundwater SSLs (DAF=20) from the *Soil Screening Guidance: Technical Background Document* (USEPA, 1996b) were used as reference concentrations.
Bolded concentrations exceed RBSL or the SSL (if no RBSL is available).
All background values for Zone G are based on twice the mean of grid sample concentrations.

FDS Groundwater Samples

Well Number	Sample Identifier	Date Sampled	Remarks
Area 8			
FDS08A	FDS08A01 FDS08A02	1/24/97 6/05/97	Area 8 associated with FDSSC047 and FDSSC47A; elevated TPH-GRO/SVOCs
FDS08B	FDS08B01 FDS08B02	1/25/97 6/09/97	
FDS08C	FDS08C01* FDS08C02*	1/24/97 6/09/97	*duplicate sample also collected
FDS08D	FDS08D01	3/05/99	Sampled for metals, VOAs, SVOAs only
Area 11			
FDS11A	FDS11A01 FDS11A02	1/28/97 6/11/97	
FDS11B	FDS11B01 FDS11B02	1/28/97 6/11/97	
FDS11C	FDS11C01* FDS11C02*	1/28/97 6/11/97	*duplicate sample also collected
Area 12			
FDS12A	FDS12A01* FDS12A02*	1/27/97 6/11/97	Area 12 associated with FDSSC065; elevated TPH-GRO/inorganics *duplicate sample also collected
FDS12B	FDS11B01 FDS11B02	1/27/97 6/11/97	
Area 13			
FDS13A	FDS13A01 FDS13A02	1/27/97 6/11/97	Area 13 associated with FDSSC066; elevated TPH-GRO/SVOCs
FDS13B	FDS13B01 FDS13B02	1/27/97 6/13/97	
FDS13C	FDS13C01 FDS13C02	1/27/97 6/12/97	
FDS13D	FDS13D01 FDS13D02	1/27/97 6/12/97	
FDS13E	FDS13E01 FDS13E02	1/28/97 6/13/97	
Area 14			
FDS14A	FDS14A01 FDS14A02	1/27/97 6/12/97	Area 14 associated with FDSSC067; elevated TPH-GRO/SVOCs/inorganics
FDS14B	FDS14B01 FDS14B02	1/27/97 6/12/97	
FDS14C	FDS14C01 FDS14C02	1/27/97 6/13/97	

FDS Groundwater Samples

Well Number	Sample Identifier	Date Sampled	Remarks
Area 15			
FDS15A	FDS15A01 FDS15A02	1/28/97 6/13/97	Area 15 associated with FDSSH023; elevated TPH-GRO/inorganics
FDS15B	FDS15B01 FDS15B02	1/28/97 6/16/97	
FDS15C	FDS15C01 FDS15C02	1/28/97 6/16/97	

Notes:

* = Duplicates; analyzed for Appendix IX parameters (metals, pesticides/PCBs, herbicides, OP pesticides, dioxins, SVOAs, VOAs); cyanide, and hex-chrome, at DQO Level IV.

Samples analyzed using SW-846 methods (metals, pesticides/PCBs, SVOAs, VOAs) at DQO Level III. First-round samples also analyzed for cyanide.

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (μg/L)	Shallow Background
Area 8					
Semivolatile Organic Compounds (μg/L)					
Total PAHs	FDS08B	46	21	25/NL	NA
Acenaphthene	FDS08B	17	6	10/220	NA
Anthracene	FDS08B	2	ND	10/1100	NA
Fluoranthene	FDS08B	6	4	10/150	NA
Fluorene	FDS08B	9	4	10/150	NA
2-Methylnaphthalene	FDS08B	2	2	10/150	NA
Phenanthrene	FDS08B	6	5	10/150	NA
Pyrene	FDS08B	4	2	10/110	NA
Benzoic acid	FDS08B	2	1	NL/13000	NA
Benzyl alcohol	FDS08C	ND	3	NL/1100	NA
Butylbenzylphthalate	FDS08C	ND	5	NL/730	NA
Dibenzofuran	FDS08B	4	2	NL/15	NA
Di-n-butylphthalate	FDS08C	ND	1	NL/370	NA
Inorganics (μg/L)					
Aluminum (Al)	FDS08A	8900	381	NL/3700	692
	FDS08B	682	116		
	FDS08C	ND	72		
Antimony (Sb)	FDS08B	ND	2.7	NL/1.5	4.85
Arsenic (As)	FDS08A	20.6	16.4	50/4.5E-02	17.8
	FDS08B	6.5	6.6		
	FDS08C	3.4	3.8		
Barium (Ba)	FDS08A	54.4	22.2	2000/260	31
	FDS08B	179	89.8		
	FDS08C	131	72.6		
Beryllium (Be)	FDS08A	1.3	ND	NL/1.6E-02	ND
	FDS08C	0.66	ND		
Calcium (Ca)	FDS08A	88100	76500	NL/NL	NL
	FDS08B	83800	90000		
	FDS08C	170000	244000		
Chromium (Cr)	FDS08A	18.9	ND	100/18	3.88
	FDS08B	4.8	2.3		
Cobalt (Co)	FDS08A	3.1	ND	NL/220	1.45
	FDS08B	3.5	2.8		
	FDS08C	2.0	0.85		
Copper (Cu)	FDS08A	6.4	2.3	NL/13000	8.33

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (μg/L)	Shallow Background
Inorganics (μg/L)					
Iron (Fe)	FDS08A	15500	8630	NL/NL	NL
	FDS08B	3040	23800		
	FDS08C	828	1445		
Lead (Pb)	FDS08A	8.4	ND	15/15	4.6
Magnesium (Mg)	FDS08A	41900	37600	NL/NL	NL
	FDS08B	160000	157000		
	FDS08C	169000	127500		
Manganese (Mn)	FDS08A	304	275	NL/84	2906
	FDS08B	386	561		
	FDS08C	332	435		
Nickel (Ni)	FDS08A	8	1	NL/73	4.08
	FDS08B	13	1.6		
	FDS08C	5.8	0.88		
Potassium (K)	FDS08A	20500	20900	NL/NL	NL
	FDS08B	71500	63800		
	FDS08C	68600	51750		
Silver (Ag)	FDS08C	ND	1.4	5/18	1.65
Sodium (Na)	FDS08A	114000	59000	NL/NL	NL
	FDS08B	1960000	1850000		
	FDS08C	1210000	598000		
Thallium (Tl)	FDS08A	4.1	ND	NL/0.29	ND
	FDS08B	5.8	7.8		
	FDS08C	8.4	ND		
Vanadium (V)	FDS08A	22.9	4.5	NL/26	15.4
	FDS08B	13.1	6.6		
	FDS08C	2.8	18.1		
Zinc (Zn)	FDC08A	36	ND	NL/1100	15.6
Area 11					
Volatile Organic Compounds (μg/L)					
Chloromethane	619003	8.0	ND	NL/1.4	NA
Toluene	FDS11C	1	ND	1000/75	NA
Semivolatile Organic Compounds (μg/L)					
Total PAHs	FDS11A	1	2	25/NL	NA
	619003	13	1		
Acenaphthene	FDS11A	1.0	2.0	10/220	NA
	619003	2.0	ND		
Fluorene	619003	4.0	ND	10/150	NA
2-Methylnapthalene	619003	3.0	ND	10/150	NA
Naphthalene	619003	2.0	1.0	10/150	NA

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (µg/L)	Shallow Background
Semivolatile Organic Compounds (µg/L)					
Phenanthrene	619003	2.0	ND	10/150	NA
Aniline	FDS11C	5	NT	NL/1	NA
Benzoic Acid	FDS11A	7	ND	NL/15000	NA
	FDS11C	ND	19		
Dibenzofuran	619003	2.0	ND	NL/15	NA
4-Methylphenol (p-Cresol)	FDS11C	ND	2.0	NL/18	NA
	619003	6.0	ND		
Dioxin (pg/L)					
Dioxin (2,3,7,8-TCDD TEQs[1])	FDS11C	0.1694	NT	NL/0.45	NA
Inorganics (µg/L)					
Aluminum (Al)	FDS11A	209	395	NL/3700	692
	FDS11B	174	86.2		
	FDS11C	466	169		
	619003	235	10.3		
Antimony (Sb)	FDS11A	5.1	ND	NL/1.5	4.85
	FDS11B	4.2	ND		
	FDS11C	4.0	ND		
	619003	ND	4.9		
Arsenic (As)	FDS11A	2.9	ND	50/4.5E-02	17.8
	FDS11C	3.2	2.9		
	619003	3.0	8.0		
Barium (Ba)	FDS11A	39.8	27.9	2000/260	31
	FDS11B	68.9	54		
	FDS11C	57.8	51.1		
	619003	92.2	69.2		
Beryllium (Be)	619003	ND	0.39	NL/.016	ND
Calcium (Ca)	FDS11A	101000	105000	NL/NL	NL
	FDS11B	93200	84500		
	FDS11C	125500	77800		
	619003	205000	200000		
Chromium (Cr)	FDS11A	0.96	1	100/18	3.88
	FDS11B	0.92	ND		
	FDS11C	1.1	ND		
	619003	1.0	1.5		
Cobalt (Co)	619003	ND	1.4	NL/220	1.45
Cyanide (CN)	FDS11B	3.2	NT	NL/73	3.8
	FDS11C	2.2	NT		
Iron (Fe)	FDS11A	2260	2920	NL/NL	NL
	FDS11B	15800	17300		
	FDS11C	7690	7120		
	619003	32000	17000		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (μg/L)	Shallow Background
Inorganics (μg/L)					
Magnesium (Mg)	FDS11A	34000	28500	NL/NL	NL
	FDS11B	67900	54100		
	FDS11C	191500	99650		
	619003	356000	497000		
Manganese (Mn)	FDS11A	300	348	NL/84	2,906
	FDS11B	913	814		
	FDS11C	527	500		
	619003	1420	702		
Mercury (Hg)	FDS11C	ND	0.11	2/1.1	ND
Nickel (Ni)	FDS11A	0.96	ND	NL/73	4.08
	FDS11B	3	ND		
	FDS11C	1	ND		
	619003	ND	1.5		
Potassium (K)	FDS11A	27300	15300	NL/NL	NL
	FDS11B	38200	31200		
	FDS11C	54050	39650		
	619003	163000	158000		
Sodium (Na)	FDS11A	380000	185000	NL/NL	NL
	FDS11B	587000	433000		
	FDS11C	908000	1030000		
	619003	3840000	4600000		
Thallium (Tl)	619003	6.6	ND	NL/0.29	ND
Tin (Sn)	FDS11C	3.3	ND	NL/2200	ND
Vanadium (V)	FDS11A	0.67	ND	NL/26	13.4
	FDS11B	ND	ND		
	FDS11C	0.67	ND		
	619003	ND	2.5		
Areas 12, 13, & 14					
Semivolatile Organic Compounds (μg/L)					
Total PAHs	FDS13A	1	5	25/NL	NA
2-Methylnaphthalene	FDS13A	1	5	10/150	NA
4-Nitrophenol	FDS14A	ND	1	NL/230	NA
Benzoic acid	FDS13A	2	ND	NL/15000	NA
	FDS13B	2	ND		
	FDS14A	ND	2		
	FDS14B	ND	1		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (μg/L)	Shallow Background
Inorganics (μg/L)					
Aluminum (Al)	FDS12A	514	288	NL/3700	692
	FDS12B	ND	213		
	FDS13A	1360	692		
	FDS13B	787	74.4		
	FDS13C	1730	1600		
	FDS13D	1850	2820		
	FDS13E	215	1290		
	FDS14A	ND	2940		
	FDS14B	ND	201		
	FDS14C	738	250		
	GDG002	176	ND		
Antimony (Sb)	FDS13E	3.4	ND	NL/1.5	4.85
	GDG002	ND	3.8		
Arsenic (As)	FDS12A	6.55	27.95	50/0.045	17.8
	FDS12B	28	49.3		
	FDS13A	27	210		
	FDS13B	5.2	16.8		
	FDS13C	3.9	6		
	FDS13D	ND	16.7		
	FDS13E	22.5	79.9		
	FDS14A	30.3	21.8		
	FDS14B	6.9	22.5		
	FDS14C	14	34.9		
	GDG002	7.8	10		
Barium (Ba)	FDS12A	268	196.5	2000/260	31
	FDS12B	78.9	70.4		
	FDS13A	138	28.1		
	FDS13B	144	29.8		
	FDS13C	27.3	17		
	FDS13D	35.6	31.9		
	FDS13E	32.9	30.4		
	FDS14A	45.2	59.6		
	FDS14B	52	46.2		
	FDS14C	51.5	33.1		
	GDG002	13.6	17.4		
Beryllium (Be)	FDS13B	.45	ND	NL/0.016	ND
	FDS13C	.53	ND		
	FDS14C	.64	ND		
Cadmium (Cd)	FDS12A	ND	.46	5/1.8	0.53
	FDS12B	ND	.52		
	FDS13A	ND	.44		
	FDS13C	ND	.68		
	FDS14A	ND	.31		
	FDS14B	ND	.41		
	GDG002	ND	.4		
Calcium (Ca)	FDS12A	274500	215300	NL/NL	NL
	FDS12B	172000	160000		
	FDS13A	161000	155000		
	FDS13B	197000	185000		
	FDS13C	69800	49400		
	FDS13D	8930	3580		
	FDS13E	155000	161000		
	FDS14A	177000	137000		
	FDS14B	127000	137000		
	FDS14C	201000	151000		
	GDG002	91400	90700		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (µg/L)	Shallow Background
Inorganics (µg/L)					
Chromium (Cr)	FDS12A	1.2	ND	100/18	3.88
	FDS12B	87	ND		
	FDS13A	4.2	1.9		
	FDS13B	2.6	1.9		
	FDS13C	1.3	2.9		
	FDS13D	3.6	5.3		
	FDS13E	ND	3.3		
	FDS14A	2	9.6		
	FDS14B	4.3	2.8		
	FDS14C	1.4	2.4		
Cobalt (Co)	FDS12A	17.85	18.7	NL/220	1.45
	FDS12B	31	29.6		
	FDS13A	4.1	ND		
	FDS13B	3.1	1.9		
	FDS13C	29	23.4		
	FDS13D	3.4	1.4		
	FDS14A	1.9	2.1		
	FDS14B	3	1.6		
	FDS14C	1.6	.98		
Copper (Cu)	FDS12A	5.2	ND	NL/13000	8.33
	FDS13B	ND	2.2		
	FDS13D	ND	1.8		
	FDS14A	ND	3.7		
	FDS14B	3.8	ND		
	FDS14C	5	ND		
Cyanide (CN)	FDS13E	2.6	NT	NL/73	3.8
	FDS14B	2.2	NT		
	FDS14C	8.4	NT		
Iron (Fe)	FDS12A	10800	19850	NL/NL	NL
	FDS12B	18500	32200		
	FDS13A	14700	37200		
	FDS13B	2110	9150		
	FDS13C	73800	64300		
	FDS13D	4640	8280		
	FDS13E	10700	19000		
	FDS14A	20100	15600		
	FDS14B	4240	25600		
	FDS14C	2830	4930		
	GDG002	28200	35700		
Lead (Pb)	FDS13A	ND	1	15/15	4.6
	FDS13D	ND	1.9		
	FDS13E	ND	1.3		
	FDS14A	ND	3.5		
Magnesium (Mg)	FDS12A	88000	83400	NL/NL	NL
	FDS12B	106000	112000		
	FDS13A	203000	75700		
	FDS13B	428000	214000		
	FDS13C	153000	113000		
	FDS13D	6130	2730		
	FDS13E	131000	137000		
	FDS14A	257000	281000		
	FDS14B	266000	217000		
	FDS14C	170000	197000		
	GDG002	100000	81000		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (µg/L)	Shallow Background
Inorganics (µg/L)					
Manganese (Mn)	FDS12A	3650	3180	NL/84	2906
	FDS12B	3370	3240		
	FDS13A	1370	2480		
	FDS13B	286	292		
	FDS13C	1680	1300		
	FDS13D	163	73.7		
	FDS13E	1540	1660		
	FDS14A	607	354		
	FDS14B	329	405		
	FDS14C	3360	1510		
	GDG002	2630	2820		
Nickel (Ni)	FDS12A	9.2	4.85	NL/73	4.08
	FDS12B	9.6	6.2		
	FDS13A	11	ND		
	FDS13B	7.7	4		
	FDS13C	10.5	7.9		
	FDS13D	4.8	2.2		
	FDS13E	.94	.82		
	FDS14A	ND	4.8		
	FDS14B	7.7	1.4		
	FDS14C	ND	2.3		
	GDG002	2	ND		
Potassium (K)	FDS12A	7140	5935	NL/NL	NL
	FDS12B	41200	43900		
	FDS13A	75200	42100		
	FDS13B	123000	86500		
	FDS13C	40300	30300		
	FDS13D	3610	2910		
	FDS13E	57400	67000		
	FDS14A	91500	109000		
	FDS14B	90000	81600		
	FDS14C	63100	94300		
	GDG002	46400	49800		
Selenium (Se)	GDG002	ND	4.1	50/18	4.3
Silver (Ag)	GDG002	1.7	ND	5/18	1.65
Sodium (Na)	FDS12A	427000	388000	NL/NL	NL
	FDS12B	876000	1010000		
	FDS13A	1850000	425000		
	FDS13B	3860000	2080000		
	FDS13C	1620000	1260000		
	FDS13D	163000	104000		
	FDS13E	538000	795000		
	FDS14A	1970000	2510000		
	FDS14B	2240000	2020000		
	FDS14C	1030000	1750000		
	GDG002	694000	576000		
Thallium (Tl)	FDS12A	4.5	ND	NL/0.29	ND
	FDS12B	3.2	ND		
	FDS13A	5.7	ND		
	FDS13B	7.1	ND		
	FDS13D	4.2	ND		
	FDS14A	3.5	ND		
	FDS14B	3.2	ND		
	FDS14C	5.3	ND		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (µg/L)	Shallow Background
Inorganics (µg/L)					
Vanadium (V)	FDS12A	1.35	ND	NL/26	13.4
	FDS13A	4.7	5.1		
	FDS13B	9.1	20.5		
	FDS13C	1.6	2.9		
	FDS13D	3.7	6.1		
	FDS13E	3.7	5.3		
	FDS14A	5	20.2		
	FDS14B	8.4	13.2		
	FDS14C	5.4	17.3		
	GDG002	2.7	3.1		
Zinc (Zn)	FDS12A	ND	8.4	NL/1100	15.6
	FDS12B	ND	16.3		
	FDS13A	ND	7.8		
	FDS13C	ND	21.7		
	FDS13D	ND	12.9		
	FDS14A	ND	10.4		
Area 15					
Volatile Organic Compounds (µg/L)					
Toluene	FDS15A	3	ND	1000/75	NA
Chlorobenzene	FDS15A	6	ND	NL/3.9	NA
Semivolatile Organic Compounds (µg/L)					
Phenol	FDS15A	1	ND	NL/2200	NA
4-Methylphenol (p-cresol)	FDS15A	23	2	NL/18	NA
Benzoic acid	FDS15A	6	ND	NL/15000	NA
Pesticides/PCBs (µg/L)					
beta-BHC	FDS15A	0.057	ND	NL/0.037	NA
Inorganics (µg/L)					
Aluminum (Al)	FDS15A	100	503	NL/7700	692
	FDS15B	3,010	209		
	FDS15C	962	474		
Antimony (Sb)	FDS15C	3.5	ND	NL/1.5	4.85
Arsenic (As)	FDS15A	19.4	26.7	50/0.045	17.8
	FDS15B	4.1	4.6		
Barium (Ba)	FDS15A	55.2	94.5	2000/260	31
	FDS15B	68.6	70.6		
	FDS15C	159	153		
Calcium (Ca)	FDS15A	126000	235000	NL/NL	NL
	FDS15B	98800	119000		
	FDS15C	268000	284000		
Chromium (Cr)	FDS15A	0.92	1.5	100/18	3.88
	FDS15B	4.7	ND		
	FDS15C	1.9	ND		

Analytes Detected in Groundwater
Fuel Distribution System

Parameters	Location	First Sampling Event	Second Sampling Event	RBSL/Tap Water RBC (μg/L)	Shallow Background
Inorganics (μg/L)					
Cobalt (Co)	FDS15B	8.1	6.8	NL/220	1.45
	FDS15C	1.3	ND		
Copper (Cu)	FDS15A	3.6	ND	NL/13000	8.33
Cyanide (CN)	FDS15A	3	NT	NL/73	3.8
	FDS15B	7	NT		
Iron (Fe)	FDS15A	4920	6620	NL/NL	NL
	FDS15B	2060	675		
	FDS15C	1920	3040		
Magnesium (Mg)	FDS15A	12200	15800	NL/NL	NL
	FDS15B	26200	22800		
	FDS15C	19300	14000		
Manganese (Mn)	FDS15A	**721**	**515**	NL/84	2906
	FDS15B	**1050**	**813**		
	FDS15C	**806**	**465**		
Nickel (Ni)	FDS15A	3.7	0.84	NL/73	4.08
	FDS15B	3.2	1.6		
	FDS15C	1.7	0.9		
Potassium (K)	FDS15A	10800	5130	NL/NL	NL
	FDS15B	7410	8050		
	FDS15C	3440	3450		
Sodium (Na)	FDS15A	78300	157000	NL/NL	NL
	FDS15B	92400	158000		
	FDS15C	117000	114000		
Thallium (Tl)	FDS15C	3.3	ND	NL/0.29	ND
Vanadium (V)	FDS15A	1.3	1.6	NL/26	15.4
	FDS15B	6	1.1		
	FDS15C	1.9	1.6		

Notes:
NL = Not listed
NA = Not applicable
ND = Not detected
NT = Not taken
μg/L = Micrograms per liter
pg/L = Picograms per liter
1 = Calculated from methods described in USEPA Interim *Supplemental Guidance to RAGS: Human Health Risk Assessment*, Bulletin 2 (USEPA, 1995).

RBSLs from the *South Carolina Risk-Based Corrective Action for Petroleum Releases* (SCDHEC, January 5, 1998) and tap water RBCs (THQ=0.1) from *Risk Based Concentration Table* (USEPA, October 22, 1997) were used as reference concentrations.
Bolded concentration exceed RBSL or the Tap Water RBC (if no RBSL is available).
All background values for Zone G are based on twice the means of the grid sample concentrations. Background values for groundwater are based on two sampling rounds in two wells at each depth.

DPT Soil and Groundwater Samples and Analyses

Sample Location	Sample Identifier	Medium	Date Collected	Analyses
Area 19				
P001	F19SP00106 F19GP00101	Soil Groundwater	1/21/99 4/12/99	VOCs, SVOCs "
P002	F19SP00205 F19GP00201	Soil Groundwater	1/21/99 4/12/99	VOCs, SVOCs "
P003	F19SP00305 F19GP00301	Soil Groundwater	1/21/99 4/12/99	VOCs, SVOCs "
P004	F19SP00406 F19GP00401	Soil Groundwater	1/22/99 4/12/99	VOCs, SVOCs "
P005	F19SP00505 F19GP00501	Soil Groundwater	1/21/99 4/12/99	VOCs, SVOCs "
P006	F19SP00604	Soil	1/21/99	VOCs, SVOCs
P007	F19SP00706	Soil	1/21/99	VOCs, SVOCs
P009	F19SP00909 F19GP00901	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs "
P010	F19SP01005 F19GP01001	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs "
P011	F19SP01105 F19GP01101	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs "
P012	F19SP01205 F19GP01201	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs "
P013	F19SP01311 F19GP01301	Soil Groundwater	6/23/99 6/24/99	VOCs, SVOCs "
P014	F19SP01407 F19GP01401	Soil Groundwater	6/23/99 6/24/99	VOCs, SVOCs "
P015	F19SP01507 F19GP01501	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
P016	F19SP01611 F19GP01601	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
P017	F19SP01711 F19GP01701	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
P018	F19SP01811 F19GP01801	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
P019	F19SP01912 F19GP01901	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
P020	F19SP02010 F19GP02001	Soil Groundwater	6/23/99 6/28/99	VOCs, SVOCs "
Area 20				
P001	F20SP00111 F20GP00101	Soil Groundwater	1/22/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals
P002	F20SP00206 F20GP00201	Soil Groundwater	1/22/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals

DPT Soil and Groundwater Samples and Analyses

Sample Location	Sample Identifier	Medium	Date Collected	Analyses
P003	F20SP00308 F20GP00301	Soil Groundwater	1/22/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals
P004	F20SP00403 F20GP00401	Soil Groundwater	1/29/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals
P005	F20SP00511 F20GP00501	Soil Groundwater	1/26/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals
P006	F20SP00606 F20GP00601	Soil Groundwater	1/27/99 1/29/99	VOCs, SVOCs VOCs, SVOCs, Metals
P007	F20SP00719	Soil	1/26/99	VOCs, SVOCs
P008	F20GP00801	Groundwater	1/29/99	VOCs, SVOCs, Metals
P009	F20SP00921	Soil	1/27/99	VOCs, SVOCs
P010	F20SP01002	Soil	1/27/99	VOCs, SVOCs
P012	F20SP01210	Soil	1/27/99	VOCs, SVOCs
P013	F20SP01309	Soil	1/27/99	VOCs, SVOCs
P014	F20SP01404	Soil	1/28/99	VOCs, SVOCs
P015	F20SP01509	Soil	1/28/99	VOCs, SVOCs
P016	F20SP01609	Soil	1/28/99	VOCs, SVOCs
P017	F20SP01709	Soil	1/27/99	VOCs, SVOCs
P018	F20GP01801	Groundwater	5/07/99	VOCs, SVOCs
P019	F20SP01906 F20GP01901	Soil Groundwater	5/07/99 5/07/99	VOCs, SVOCs *
P020	F20SP02006 F20GP02001	Soil Groundwater	5/07/99 5/07/99	VOCs, SVOCs *
P021	F20SP02106	Soil	5/07/99	VOCs, SVOCs
P022	F20SP02204 F20GP02201	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs *
P023	F20SP02307	Soil	5/07/99	VOCs, SVOCs
P024	F20SP02407 F20GP02401	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs *
P025	F20SP02505 F20GP02501	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs *
P026	F20SP02608 F20GP02601	Soil Groundwater	5/07/99 5/10/99	VOCs, SVOCs *
P027	F20SP02708 F20GP02701	Soil Groundwater	5/07/99 5/11/99	VOCs, SVOCs *
P028	F20GP02801	Groundwater	5/11/99	VOCs
P029	F20SP02907 F20GP02901	Soil Groundwater	5/07/99 5/11/99	VOCs, SVOCs *
P030	F20SP03005 F20GP03001	Soil Groundwater	5/07/99 5/11/99	VOCs, SVOCs *

DPT Soil and Groundwater Samples and Analyses

Sample Location	Sample Identifier	Medium	Date Collected	Analyses
P031	F20GP03101	Groundwater	6/24/99	VOCs, SVOCs
P032	F20GP03201	Groundwater	6/24/99	VOCs, SVOCs
P033	F20GP03301	Groundwater	6/24/99	VOCs

Notes:
Sample P008 was not collected
Sample P011 was not collected
SVOCs = Semivolatile Organic Compounds
VOCs = Volatile Organic Compounds

Summary of DPT Soil Analytical Results

Parameters	Location	Subsurface Conc.	Groundwater Protection RBSL	Exceeds Groundwater Protection RBSL
Area 19				
Volatile Organic Compounds (µg/kg)				
Benzene	F19SP006	8	5	Yes
	F19SP012	18		Yes
	F19SP013	26		Yes
Ethylbenzene	F19SP006	83	1,260	No
	F19SP012	7,700		Yes
	F19SP013	38		No
	F19SP014	2		No
	F19SP015	300		No
Xylene (Total)	F19SP006	12	42,471	No
	F19SP012	780		No
	F19SP014	3		No
	F19SP020	1		No
Semivolatile Organic Compounds (µg/kg)				
Total Naphthalenes	F19SP001	450	210	Yes
	F19SP006	3,000		Yes
	F19SP012	159,855		Yes
	F19SP013	93,000		Yes
	F19SP014	6,800		Yes
	F19SP015	7,100		Yes
	F19SP016	1,080		Yes
	F19SP020	10,300		Yes
2-Methylnaphthalene	F19SP01205	112,855	NL	NA
	F19SP013	75,000		
	F19SP014	6,800		
	F19SP015	5,700		
	F19SP016	920		
	F19SP020	1,200		
Naphthalene	F19SP001	450	210	Yes
	F19SP006	3,000		Yes
	F19SP012	47,000		Yes
	F19SP013	18,000		Yes
	F19SP015	1,400		Yes
	F19SP016	160		No
	F19SP020	9,100		Yes
Benzo(a)anthracene	F19SP001	140	73,084	No
	F19SP004	6,300		No
	F19SP006	1.900		No
	F19SP009	75		No
	F19SP010	56		No
	F19SP012	570		No
	F19SP013	600		No
	F19SP014	2,100		No
Benzo(a)pyrene	F19SP014	2,400	NL	NA
Benzo(b)fluoranthene	F19SP001	110	29,097	No
	F19SP004	5,500		No
	F19SP006	1,800		No
	F19SP009	62		No
	F19SP010	58		No
	F19SP012	390		No
	F19SP014	2,500		No

Summary of DPT Soil Analytical Results

Parameters	Location	Subsurface Conc.	Groundwater Protection RBSL	Exceeds Groundwater Protection RBSL
Semivolatile Organic Compounds (μg/kg)				
Benzo(g,h,i)perylene	F19SP014	940	NL	NA
Benzo(k)fluoranthene	F19SP001	120	231,109	No
	F19SP004	5,600		No
	F19SP006	2,000		No
	F19SP009	54		No
	F19SP010	66		No
	F19SP014	2,400		No
Chrysene	F19SP001	240	12,998	No
	F19SP004	6,300		No
	F19SP006	3,200		No
	F19SP009	120		No
	F19SP010	71		No
	F19SP012	1,200		No
	F19SP013	1,100		No
	F19SP014	3,000		No
Acenaphthene	F19SP020	1,900	NL	NA
Anthracene	F19SP014	910	NL	NA
Dibenzofuran	F19SP020	790	NL	NA
Fluoranthene	F19SP014	4,900	NL	NA
	F19SP020	160		
Fluorene	F19SP013	7,100	NL	NA
	F19SP014	1,600		
	F19SP015	720		
	F19SP016	150		
	F19SP020	880		
Indeno(1,2,3-cd)pyrene	F19SP014	1,000	NL	NA
Phenanthrene	F19SP013	14,000	NL	NA
	F19SP014	5,700		
	F19SP015	1,200		
	F19SP020	1,300		
Pyrene	F19SP014	3,900	NL	NA
	F19SP020	100		
bis(2-ethylhexyl)phthalate	F19SP015	25	NL	NA
	F19SP016	23		
Area 20				
Volatile Organic Compounds (μg/kg)				
Benzene	F20SP014	38	5	Yes
	F20SP023	3		No
Ethylbenzene	F20SP014	11	1,260	No
	F20SP024	1		No
Toluene	F20SP014	1	1,622	No
	F20SP021	2		No
	F20SP030	2		No
Xylene (Total)	F20SP001	1	42,471	No
	F20SP014	13		No
	F20SP023	5		No

Summary of DPT Soil Analytical Results

Parameters	Location	Subsurface Conc.	Groundwater Protection RBSL	Exceeds Groundwater Protection RBSL
Semivolatile Organic Compounds (μg/kg)				
Total Naphthalenes	F20SP001	390	210	Yes
	F20SP003	76		No
	F20SP012	171		No
	F20SP014	41,012		Yes
	F20SP015	79		No
	F20SP017	604		Yes
	F20SP019	624		Yes
	F20SP020	56		No
	F20SP023	660		Yes
	F20SP024	600		Yes
	F20SP029	93		No
	F20SP030	89		No
Naphthalene	F20SP001	390	210	Yes
	F20SP003	76		No
	F20SP014	4,000		Yes
	F20SP015	79		No
	F20SP017	260		Yes
	F20SP020	30		No
	F20SP023	660		Yes
	F20SP024	600		Yes
	F20SP029	29		No
	F20SP030	43		No
2-Methylnaphthalene	F20SP012	171	NL	NA
	F20SP014	37,012		
	F20SP015	121		
	F20SP017	344		
	F20SP019	624		
	F20SP020	26		
	F20SP029	66		
	F20SP030	46		
Benzo(a)anthracene	F20SP001	1,900	73,084	No
	F20SP003	580		No
	F20SP004	60		No
	F20SP005	120		No
	F20SP006	100		No
	F20SP012	190		No
	F20SP014	220		No
	F20SP015	660		No
	F20SP016	1,200		No
	F20SP017	3,900		No
	F20SP019	220		No
	F20SP020	210		No
	F20SP021	200		No
	F20SP022	160		No
	F20SP023	170		No
	F20SP024	40		No
	F20SP025	120		No
	F20SP027	35		No
	F20SP029	95		No
	F20SP030	200		No

Summary of DPT Soil Analytical Results

Parameters	Location	Subsurface Conc.	Groundwater Protection RBSL	Exceeds Groundwater Protection RBSL
Semivolatile Organic Compounds (µg/kg)				
Benzo(b)fluoranthene	F20SP001	730	29,097	No
	F20SP003	710		No
	F20SP004	60		No
	F20SP005	95		No
	F20SP006	95		No
	F20SP012	48		No
	F20SP014	220		No
	F20SP015	790		No
	F20SP016	1,200		No
	F20SP017	3,000		No
	F20SP020	100		No
	F20SP021	100		No
	F20SP022	140		No
	F20SP023	79		No
	F20SP024	46		No
	F20SP025	110		No
	F20SP027	41		No
	F20SP029	96		No
	F20SP030	140		No
Benzo(k)fluoranthene	F20SP001	590	231,109	No
	F20SP003	560		No
	F20SP004	43		No
	F20SP005	73		No
	F20SP006	81		No
	F20SP012	57		No
	F20SP014	140		No
	F20SP015	720		No
	F20SP016	920		No
	F20SP017	2,800		No
	F20SP020	110		No
	F20SP021	110		No
	F20SP022	140		No
	F20SP023	53		No
	F20SP024	30		No
	F20SP025	120		No
	F20SP027	29		No
	F20SP029	85		No
	F20SP030	170		No
Chrysene	F20SP001	3,200	12,998	No
	F20SP003	1,000		No
	F20SP004	64		No
	F20SP005	220		No
	F20SP006	180		No
	F20SP012	250		No
	F20SP013	52		No
	F20SP014	410		No
	F20SP015	740		No
	F20SP016	1,200		No
	F20SP017	3,700		No
	F20SP019	440		No
	F20SP020	220		No
	F20SP021	260		No
	F20SP022	190		No
	F20SP023	310		No
	F20SP024	55		No
	F20SP025	150		No
	F20SP027	45		No
	F20SP029	180		No
	F20SP030	280		No

Notes:

NL = Not listed

NA = Not applicable

$\mu g/kg$ = Micrograms per kilogram

RBSLs for groundwater protection from the *South Carolina Risk-Based Corrective Action for Petroleum Releases* (SCDHEC, January 5, 1998) were used as reference concentrations.

Bolded concentrations exceed RBSLS.

Summary of DPT Groundwater Analytical Results

Parameters	Location	Concentration	RBSLs	Exceeds RBSL
Area 19				
Volatile Organic Compounds (μg/L)				
Benzene	F19GP009	8	5	Yes
	F19GP013	32		Yes
	F19GP014	2		No
Ethylbenzene	F19GP001	1	700	No
	F19GP012	44		No
	F19GP013	40		No
Xylene (Total)	F19GP012	2	10,000	No
	F19GP013	13		No
	F19GP015	2		No
Semivolatile Organic Compounds (μg/L)				
Total PAHs	F19GP004	2.8	25	No
	F19GP009	46		Yes
	F19GP010	2.4		No
	F19GP011	7.8		No
	F19GP012	354,216		Yes
	F19GP013	305		Yes
	F19GP014	133		Yes
	F19GP015	1,551		Yes
	F19GP016	161		Yes
	F19GP017	7		No
	F19GP018	41		Yes
	F19GP019	22		No
	F19GP020	464		Yes
2-Methylnaphthalene	F19GP009	43.6	10	Yes
	F19GP010	1.58		No
	F19GP011	4.84		No
	F19GP012	260,816		Yes
	F19GP013	190		Yes
	F19GP014	130		Yes
	F19GP015	1,300		Yes
	F19GP016	140		Yes
	F19GP017	7		No
	F19GP018	5		No
	F19GP019	10		Yes
	F19GP020	15		Yes
Naphthalene	F19GP009	2	10	No
	F19GP010	0.8		No
	F19GP011	3		No
	F19GP012	91,600		Yes
	F19GP013	100		Yes
	F19GP015	240		Yes
	F19GP016	18		Yes
	F19GP018	16		Yes
	F19GP019	12		Yes
	F19GP020	440		Yes
2,4-Dimethylphenol	F19GP020	12	NL	NA
Benzo(a)anthracene	F19GP013	5	10	No
	F19GP014	1		No
	F19GP016	0.8		No
	F19GP018	5		No
	F19GP020	2		No

Summary of DPT Groundwater Analytical Results

Parameters	Location	Concentration	RBSLs	Exceeds RBSL
Semivolatile Organic Compounds (μg/L)				
Benzo(a)pyrene	F19GP013	2	NL	NA
	F19GP014	0.6		
	F19GP018	3		
Benzo(b)fluoranthene	F19GP004	0.8	10	No
	F19GP013	2		No
	F19GP016	0.7		No
	F19GP018	2		No
	F19GP020	2		No
Benzo(k)fluoranthene	F19GP004	1	10	No
	F19GP018	3		No
	F19GP020	2		No
Benzo(g,h,i)perylene	F19GP013	0.8	NL	NA
Chrysene	F19GP004	1	10	No
	F19GP012	2,400		Yes
	F19GP013	8		No
	F19GP014	2		No
	F19GP015	11		Yes
	F19GP016	1		No
	F19GP018	7		No
	F19GP020	3		No
Acenaphthene	F19GP013	24	NL	NA
	F19GP014	8		
	F19GP018	42		
	F19GP019	15		
	F19GP020	32		
Anthracene	F19GP018	10	NL	NA
	F19GP019	1		
	F19GP020	3		
Dibenzofuran	F19GP013	22	NL	NA
	F19GP014	8		
	F19GP015	42		
	F19GP018	17		
	F19GP019	5		
	F19GP020	11		
Fluoranthene	F19GP013	5	NL	NA
	F19GP014	2		
	F19GP018	22		
	F19GP019	1		
	F19GP020	6		
Fluorene	F19GP013	40	NL	NA
	F19GP014	16		
	F19GP015	130		
	F19GP016	20		
	F19GP017	2		
	F19GP018	24		
	F19GP019	7		
	F19GP020	14		

Summary of DPT Groundwater Analytical Results

Parameters	Location	Concentration	RBSLs	Exceeds RBSL
Semivolatile Organic Compounds (μg/L)				
Phenanthrene	F19GP013	73	NL	NA
	F19GP014	28		
	F19GP015	240		
	F19GP016	26		
	F19GP017	2		
	F19GP018	48		
	F19GP019	6		
	F19GP020	20		
Phenol	F19GP013	1	NL	NA
Pyrene	F19GP013	9	NL	NA
	F19GP014	3		
	F19GP016	5		
	F19GP018	17		
	F19GP020	6		
Bis(2-ethylhexyl)phthalate	F19GP013	3	NL	NA
	F19GP014	5		
	F19GP016	1		
	F19GP017	2		
	F19GP018	0.70		
	F19GP019	1		
	F19GP020	2		
Area 20				
Volatile Organic Compound (μg/L)				
Benzene	F19GP005	2	5	No
Ethylbenzene	F19GP005	5	700	No
	F19GP008	5		No
Toluene	F19GP005	4	1,000	No
Xylene (Total)	F19GP005	21	10,000	No
	F19GP008	10		No
	F19GP024	4		No
Semivolatile Organic Compounds (μg/L)				
Total PAHs	F20GP001	14	25	No
	F20GP002	1		No
	F20GP003	19		No
	F20GP004	17		No
	F20GP005	53		Yes
	F20GP006	8		No
	F20GP008	1,438		Yes
	F20GP018	7		No
	F20GP022	3		No
	F20GP024	144		Yes
	F20GP025	44		Yes
	F20GP031	16		No

Summary of DPT Groundwater Analytical Results

Parameters	Location	Concentration	RBSLs	Exceeds RBSL
Semivolatile Organic Compounds (μg/L)				
2-Methylnaphthalene	F20GP001	13	10	Yes
	F20GP003	9.6		No
	F20GP004	10.9		Yes
	F20GP005	32.6		Yes
	F20GP006	3		No
	F20GP008	507		Yes
	F20GP018	0.53		No
	F20GP019	4		No
	F20GP020	6		No
	F20GP022	2		No
	F20GP024	127		Yes
Naphthalene	F20GP001	1	10	No
	F20GP002	1		No
	F20GP003	3		No
	F20GP004	6		No
	F20GP005	16		Yes
	F20GP006	5		No
	F20GP008	780		Yes
	F20GP018	0.60		No
	F20GP022	1		No
	F20GP024	9		No
Benzo(a)anthracene	F20GP003	2	10	No
	F20GP005	1		No
	F20GP008	55		Yes
	F20GP018	2		No
	F20GP024	2		No
	F20GP025	15		Yes
	F20GP031	4		No
Benzo(a)pyrene	F20GP031	4	NL	No
Benzo(b)fluoranthene	F20GP003	2	10	No
	F20GP005	1		No
	F20GP008	26		Yes
	F20GP018	1		No
	F20GP024	1		No
	F20GP025	10		No
	F20GP031	4		No
Benzo(k)fluoranthene	F20GP008	20	10	Yes
	F20GP018	0.50		No
	F20GP024	0.90		No
	F20GP025	6		No
	F20GP031	3		No
Benzo(g,h,i)perylene	F20GP031	3	NL	NA
Benzoic acid	F20GP031	2	NL	NA
	F20GP032	1		
Chrysene	F20GP003	2	10	No
	F20GP005	2		No
	F20GP008	50		Yes
	F20GP018	2		No
	F20GP024	4		No
	F20GP025	13		Yes
	F20GP031	5		No
Anthracene	F20GP031	2	NL	NA
Fluoranthene	F20GP031	11	NL	NA

Summary of DPT Groundwater Analytical Results

Parameters	Location	Concentration	RBSLs	Exceeds RBSL
Semivolatile Organic Compounds (μg/L)				
Fluorene	F20GP031	0.80	NL	NA
Indeno(1,2,3-cd)pyrene	F20GP031	2	NL	NA
Phenanthrene	F20GP031	5	NL	NA
Phenol	F20GP032	0.60	NL	NA
Pyrene	F20GP031	10	NL	NA
Bis(2-ethylhexyl)phthalate	F20GP031 F20GP032	2 2	NL	NA
Diethylphthalate	F20GP031 F20GP032	0.70 0.60	NL	NA
Di-n-butylphthalate	F20GP031 F20GP032	1 0.50	NL	NA

Notes:
NL = Not listed
NA = Not applicable
μg/L = Micrograms per liter
RBSLs from the *South Carolina Risk-Based Corrective Action for Petroleum Releases* (SCDHEC, January 5, 1998) were used as reference concentrations.
Bolded concentrations exceed RBSL

Summary of Monitoring Well Analytical Results

Parameters	Location	Concentration	RBSL	Shallow Background	Exceed RBSL
Area 19					
Semivolatile Organic Compounds (μg/L)					
Benzoic acid	FDS19A	9	NL	NA	NA
	FDS19B	19			
	FDS19C	6			
	FDS19D	6			
	FDS19E	6			
	FDS19G	8			
bis(2-Ethylhexyl)phthalate	FDS19B	41	NL	NA	NA
Butylbenzylphthalate	FDS19B	1	NL	NA	NA
Di-n-butylphthalate	FDS19A	1	NL	NA	NA
	FDS19B	1			
	FDS19C	1			
	FDS19E	1			
	FDS19F	1			
Inorganics (μg/L)					
Arsenic (As)	FDS19A	13.2	50	17.8	No
	FDS19B	8.2			No
	FDS19C	4.1			No
	FDS19D	17			No
	FDS19E	3.3			No
	FDS19F	20.6			No
	FDS19G	5.2			No
Barium (Ba)	FDS19A	293	2,000	31	No
	FDS19B	217			No
	FDS19C	46.7			No
	FDS19D	42.7			No
	FDS19E	46.2			No
	FDS19F	81.8			No
	FDS19G	32.6			No
Chromium (Cr)	FDS19A	0.73	100	3.88	No
	FDS19B	1.9			No
	FDS19C	2.7			No
	FDS19D	1			No
	FDS19E	1.5			No
	FDS19F	3.1			No
	FDS19G	6.7			No
Lead (Pb)	FDS19C	4.9	15	4.6	No
	FDS19F	3.2			No
Area 20					
Semivolatile Organic Compounds (μg/L)					
Total PAHs	FDS20A	3	25	NA	No
	FDS20C	3			No
2-Methylnaphthalene	FDS20A	3	10	NA	No
	FDS20C	2			No
Naphthalene	FDS20C	1	10	NA	No
4-Chloro-3-methylphenol	FDS20A	1	NL	NA	NA

Summary of Monitoring Well Analytical Results

Parameters	Location	Concentration	RBSL	Shallow Background	Exceed RBSL
Semivolatile Organic Compounds (μg/L)					
4-Methylphenol	FDS20B	1	NL	NA	NA
	FDS20C	1			
	FDS20E	8			
4-Nitrophenol	FDS20C	1	NL	NA	NA
Acenaphthene	FDS20A	2	NL	NA	NA
	FDS20C	3			
	FDS20E	1			
	FDS20F	2			
Anthracene	FDS20A	1	NL	NA	NA
	FDS20C	1			
Benzoic acid	FDS20A	1.5	NL	NA	NA
	FDS20B	2			
	FDS20C	1			
	FDS20D	1			
	FDS20E	4			
Dibenzofuran	FDS20C	2	NL	NA	NA
Diethylphthalate	FDS20A	1	NL	NA	NA
Di-n-butylphthalate	FDS20A	1	NL	NA	NA
	FDS20B	1			
	FDS20C	0.6			
	FDS20D	1			
Fluoranthene	FDS20C	1	NL	NA	NA
Fluorene	FDS20C	4	NL	NA	NA
	FDS20F	1			
Pentachlorophenol	FDS20C	1	NL	NA	NA
Phenanthrene	FDS20A	1	NL	NA	NA
	FDS20B	1			
	FDS20C	7			
	FDS20E	2			
Phenol	FDS20A	1	NL	NA	NA
Pyrene	FDS20A	1	NL	NA	NA
	FDS20C	1			
Inorganics (μg/L)					
Arsenic (As)	FDS20A	5.5	50	17.8	No
	FDS20B	11.3			No
	FDS20C	13.4			No
	FDS20D	3.7			No
	FDS20E	15.8			No
Barium (Ba)	FDS20A	94.55	2,000	31	No
	FDS20B	142			No
	FDS20C	428			No
	FDS20D	79.3			No
	FDS20E	146			No
	FDS20F	45.4			No

Summary of Monitoring Well Analytical Results

Parameters	Location	Concentration	RBSL	Shallow Background	Exceed RBSL
Inorganics (μg/L)					
Cadmium (Cd)	FDS20C	1.2	5	0.53	No
	FDS20D	0.36			No
	FDS20E	0.89			No
Chromium (Cr)	FDS20A	1.15	100	3.88	No
	FDS20B	2			No
	FDS20C	3.9			No
	FDS20D	2.6			No
	FDS20E	2.4			No
	FDS20F	0.56			No
Lead (Pb)	FDS20B	2.2	15	15.4	No
	FDS20C	3.1			No

Notes:

NL = Not listed

NA = Not applicable

μg/L = Micrograms per liter

RBSLs from the *South Carolina Risk-Based Corrective Action for Petroleum Releases* (SCDHEC, January 5, 1998) were used as reference concentrations.

Bolded concentrations exceed RBSL.

SWMU 3
Soil Samples and Analyses

Boring Location	Sample Identifier	Sample Interval	Date Collected	Analyses	Remarks
003SB001	003SB00101 003SB00102	Upper Lower	8/29/96	Suite 1/cyanide, SVOCs	Pesticides, OP Pesticides collected 11/12/96
003SB002	003SB00201 003SB00202	Upper Lower	8/28/96	Suite 1/cyanide, pH	Pesticides, OP Pesticides collected 11/12/96
003SB003	003SB00301 003SB00302	Upper Lower	8/28/96	Suite 1/cyanide, pH	Pesticides, OP Pesticides collected 11/12/96
003SB004	003SB00401 003SB00402	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB005	003SB00501 003SB00502	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB006	003SB00601 003SB00602	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB007	003SB00701 003SB00702*	Upper	10/08/96	Suite 1 Suite 2	Lower interval not sampled due to obstruction. OP Pesticides not collected *Duplicate Sample
003SB008	003SB00801 003SB00802	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB009	003SB00901 003SB00902	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB010	003SB01001 003SB01002	Upper Lower	9/26/96	Suite 1	OP Pesticides collected 11/12/96
003SB011	003SB01101 003SB01102	Upper Lower	7/28/99	SW-846 pesticides	*Duplicate Sample
003SB012	003SB01201 003CB01201* 003SB01202	Upper Upper Lower	7/28/99	SW-846 pesticides	*Duplicate Sample
003SB013	003SB01301 003CB01301* 003SB01302	Upper Upper Lower	7/30/99	SW-846 pesticides	
003SB014	003SB01402	Lower	7/28/99	Suite 3	
003SB015	003SB01501 003SB01502	Upper Lower	12/17/99	pesticides only	
003SB016	003SB01601 003SB01602	Upper Lower	1/27/99	pesticides only	
003SB017	003SB01701 003SB01702	Upper Lower	1/27/99	pesticides only	
003SB018	003SB01801 003SB01802	Upper Lower	1/27/99	pesticides only	
003SB019	003SB01901 003SB01902	Upper Lower	1/27/99	pesticides only	

SWMU 3
Soil Samples and Analyses

Boring Location	Sample Identifier	Sample Interval	Date Collected	Analyses	Remarks
003SB020	003SB02001 003SB02002	Upper Lower	1/27/99	pesticides only	

Notes:

Suite 1 = SW-846 (metals, pesticides/PCBs, OP pesticides) at DQO Level III.

Suite 2 = Appendix IX suite: SW-846 (metals, pesticides/PCBs, herbicides, OP pesticides, dioxins, SVOCs, VOCs); cyanide; hexchrome at DQO Level IV.

Suite 3 = SW-846 pesticides, SPLP pesticides/PCBs, Total Organic Carbon (TOC) at DQO Level III.

* = Duplicate Sample

SWMU 3
Groundwater Sample and Analyses

Well Number	Well Depth	Sample Identifier	Date Sampled	Analyses	Remarks
003001	Shallow	00300101	11/21/96	Note 1	
003002	Shallow	00300201*	11/21/96	Note 1/2*	*Duplicate sample collected
003003	Shallow	00300301	11/21/96	Note 1	

Notes:

1 = SW-846 (metals, pesticides/PCBs, OP pesticides) at DQO Level III

2 = Appendix IX suite: SW-846 (metals, pesticides/PCBs, herbicides, OP pesticides, dioxins, SVOCs, VOCs); hex-chrome at DQO Level IV

* = Duplicate sample collected

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
SWMU 3							
Volatile Organic Compounds (μg/kg)							
Acrolein	003B007	2	160000	NA	NT	867.40	NA
Semivolatile Organic Compounds (μg/kg)							
Butylbenzylphthalate	003B007	930	1600000	NA	NT	6103322.75	NA
Pesticides and PCBs (μg/kg)							
alpha-Chlordane	003B002	4.90	1800	NA	ND	2035.14	NA
	003B003	15000			5.5		
	003B007	2.40			ND		
	003B008	420			35		
	003B009	21			85		
	003B013	6.70			ND		
	003B015	17			ND		
gamma-Chlordane	003B002	5.90	1800	NA	ND	4067.95	NA
	003B003	22000			6.10		
	003B006	1.70			ND		
	003B007	2.65			ND		
	003B008	510			40		
	003B009	21			110		
	003B013	5.25			ND		
	003B015	23			ND		
4,4'-DDD	003B003	420	2700	NA	ND	5082.41	NA
	003B007	9.10			ND		
	003B012	3900			6100		
	003B013	250			7.60		
	003B016	17000			20		
	003B017	770			74		
	003B018	310000			190		
	003B019	17			8.10		
	003B020	66			ND		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Pesticides and PCBs (μg/kg)							
4,4'-DDE	003B001	3.50	1900	NA	ND	16226.39	NA
	003B002	81			ND		
	003B003	2600			ND		
	003B004	2.80			ND		
	003B005	25			ND		
	003B006	5			ND		
	003B007	14			ND		
	003B008	27			8		
	003B009	200			160		
	003B010	21			ND		
	003B011	72			ND		
	003B012	2150			1500		
	003B013	130			ND		
	003B015	770			ND		
	003B016	3600			8.2		
	003B017	410			ND		
	003B018	44000			60		
	003B019	130			ND		
	003B020	56			ND		
4,4'-DDT	003B002	65	1900	NA	ND	9547.19	NA
	003B003	570			ND		
	003B004	3.60			ND		
	003B005	19			ND		
	003B006	5.70			ND		
	003B007	95.50			ND		
	003B008	82			12		
	003B009	180			250		
	003B010	20			ND		
	003B011	71			20		
	003B012	89000			73000		
	003B013	875			27		
	003B015	220			ND		
	003B016	200000			240		
	003B017	7400			340		
	003B018	2500000			3700		
	003B019	340			180		
	003B020	360			39		
Dieldrin	003B007	3.65	40	NA	ND	1.65	NA
	003B009	12			ND		
Endosulfan I	003B013	5.7	47000	NA	ND	7093.81	NA

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Pesticides and PCBs (µg/kg)							
Endrin	003B002	8.60	2300	NA	ND	359.54	NA
	003B003	540			ND		
Heptachlor	003B003	520	140	NA	ND	8200.18	NA
	003B007	3			ND		
	003B008	210			9.0		
Heptachlor epoxide	003B002	3.1	70	NA	ND	241.85	NA
	003B009	5.9			15		
	003B015	49			ND		
	003B019	2.5			ND		
Aroclor-1248	003B003	28000	320	NA	ND	2243.95	NA
Dioxins (ng/kg)							
1234678-HpCDD	003B007	3.81	0.43	NA	NT	99.32	NA
234678-HxCDF	003B007	0.472	0.043	NA	NT	198.63	NA
OCDD	003B007	126	4.30	NA	NT	99.32	NA
TEQ	003B007	0.13	0.0043	NA	NT	NA	NA
Total Hepta-Dioxins	003B007	11.3	NA	NA	NT	NA	NA
Total Hexa-Dioxins	003B007	0.738	NA	NA	NT	NA	NA
pH (SU)							
pH	003B002	7.86	NA	NA	7.93	NA	NA
	003B003	6.89			7.18		
Inorganics (mg/kg)							
Aluminum (Al)	003B001	4200	7800	18700	3150	1740950	23600
	003B002	6330			4990		
	003B003	8000			6810		
	003B004	6750			5620		
	003B005	5960			8080		
	003B006	5390			9840		
	003B007	7015			NT		
	003B008	4920			8520		
	003B009	3750			6270		
	003B010	7220			6760		
Antimony (Sb)	003B004	0.34	3.10	2.89	ND	7.11	NA
	003B009	ND			0.39		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Arsenic (As)	003B001	1.60	0.43	17.20	2.60	536.02	15.50
	003B002	2.40			1.50		
	003B003	3.60			4.30		
	003B004	2.60			2.20		
	003B005	1.50			4.40		
	003B006	1.20			3		
	003B007	1.50			NT		
	003B008	1.60			1.80		
	003B009	2			2.90		
	003B010	3.30			2.20		
Barium (Ba)	003B001	34.80	550	109	20.30	631.79	64.50
	003B002	44.60			24.70		
	003B003	52			14.50		
	003B004	40.10			39.70		
	003B005	65			26.80		
	003B006	45.10			33.30		
	003B007	13.10			NT		
	003B008	37.50			22.30		
	003B009	27.90			40.20		
	003B010	38.30			36.80		
Beryllium (Be)	003B002	0.53	16	1.20	0.28	14.01	1.63
	003B003	0.67			0.29		
	003B004	0.56			0.53		
	003B005	0.58			0.37		
	003B006	0.51			0.59		
	003B008	0.49			0.37		
	003B009	0.33			0.64		
	003B010	0.52			0.43		
Cadmium (Cd)	003B001	ND	7.80	1.07	0.15	22.56	0.48
	003B002	0.22			ND		
	003B003	0.38			0.12		
	003B008	0.25			ND		
	003B009	ND			0.22		
	003B010	0.06			0.14		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Calcium (Ca)	003B001	3770	NA	NA	1290	NA	NA
	003B002	12400			813		
	003B003	34000			5180		
	003B004	6840			8040		
	003B005	1360			1270		
	003B006	1380			1420		
	003B007	567			NT		
	003B008	22600			9010		
	003B009	2830			23200		
	003B010	3280			929		
Chromium (Cr)	003B001	4.40	23	42.80	16.40	5561.99	43.40
	003B002	12			6.30		
	003B003	12.90			28		
	003B004	9.70			6.60		
	003B005	4.90			23.50		
	003B006	4.70			17.30		
	003B007	6.60			NT		
	003B008	5.60			9		
	003B009	4.70			14.20		
	003B010	12			9		
Cobalt (Co)	003B001	2	470	6.60	0.89	655.98	8.14
	003B002	2.60			1.60		
	003B003	2.10			0.90		
	003B004	2.40			2.30		
	003B005	2.50			0.90		
	003B006	2			1.90		
	003B007	9.20			NT		
	003B008	2.40			1.20		
	003B009	1.70			2.50		
	003B010	2.40			2.20		
Copper (Cu)	003B001	2.30	310	260	0.51	27410.37	32.60
	003B002	11.90			0.83		
	003B003	28.70			ND		
	003B009	ND			41.50		
	003B010	10.70			ND		
Cyanide (CN)	003B002	0.28	160	0.38	ND	13.30	0.22

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Iron (Fe)	003B001	4670	2300	29200	12700	708024.31	35800
	003B002	6860			5750		
	003B003	4210			20000		
	003B004	6170			4700		
	003B005	3510			16200		
	003B006	3210			12200		
	003B007	2950			NT		
	003B008	3320			8520		
	003B009	4100			5330		
	003B010	6660			6910		
Lead (Pb)	003B001	3	400	181	4.1	522.29	66.30
	003B002	114			4.1		
	003B003	50.60			5.5		
	003B004	16			8.2		
	003B005	5.40			6.4		
	003B006	4.90			7.0		
	003B007	5.40			NT		
	003B008	8.20			3.7		
	003B009	12.10			36.9		
	003B010	41.70			6.3		
Magnesium (Mg)	003B001	278	NA	NA	367	NA	NA
	003B002	630			289		
	003B003	1290			575		
	003B004	519			447		
	003B005	359			461		
	003B006	338			670		
	003B007	209			NT		
	003B008	1060			498		
	003B009	280			1260		
	003B010	602			420		
Manganese (Mn)	003B001	61.80	1100	325	27.3	161337.64	291
	003B002	193			39.1		
	003B003	183			26.0		
	003B004	194			196.0		
	003B005	341			29.8		
	003B006	207			62.1		
	003B007	17.65			NT		
	003B008	210			50.9		
	003B009	118			164.0		
	003B010	160			114.0		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Mercury (Hg)	003B001	0.27	2.30	1.03	ND	24.10	0.31
	003B002	0.06			ND		
	003B003	0.11			ND		
	003B009	ND			0.04		
	003B010	0.04			ND		
Nickel (Ni)	003B001	2.20	160	20.60	1.3	2366.00	18.30
	003B002	7			2.3		
	003B003	6.30			1.3		
	003B007	3.20			ND		
Potassium (K)	003B001	ND	NA	NA	243	NA	NA
	003B002	224			169		
	003B003	302			239		
	003B005	ND			347		
	003B006	ND			406		
	003B009	ND			258		
	003B010	278			ND		
Selenium (Se)	003B006	0.36	39	1.22	ND	219.39	1.26
	003B007	0.55			ND		
	003B009	ND			0.43		
	003B010	0.43			ND		
Sodium (Na)	003B001	167	NA	NA	154	NA	NA
	003B002	226			171		
	003B003	185			119		
Vanadium (V)	003B001	7.70	55	60.90	21.0	5928.27	72.50
	003B002	13.10			9.4		
	003B003	15.60			32.0		
	003B004	11.90			7.7		
	003B005	6			29.2		
	003B006	5.40			20.3		
	003B007	8.70			NT		
	003B008	6.70			14.3		
	003B009	7.30			17.2		
	003B010	15.80			11.3		
Zinc (Zn)	003B001	10.30	2300	519	59.8	103103.73	145
	003B002	49.10			14.4		
	003B003	64.30			9.2		
	003B007	33.60			ND		
	003B009	ND			126		
	003B010	52.90			ND		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
SWMU 24							
Volatile Organic Compounds (µg/kg)							
1,4-Dichlorobenzene	024B004	ND	27000	NA	34	762.99	NA
Semivolatile Organic Compounds (µg/kg)							
BEQs	024B001	176.97	87	453	0	NA	184
	024B002	128.41			0		
	024B003	189.10			0		
	024B004	141.48			172.39		
	024B005	0			0		
	024B006	887.68			0		
	024B007	292.23			0		
	024B009	94.40			137.21		
	024B010	142			0		
Benzo(a)anthracene	024B001	20	870	NA	3800	693.62	NA
	024B002	31			ND		
	024B003	69			ND		
	024B004	71			75		
	024B006	960			ND		
	024B007	100			ND		
	024B009	50			90		
	024B010	36			ND		
Benzo(a)pyrene	024B002	35	87	NA	ND	2962.31	NA
	024B003	87			ND		
	024B004	110			140		
	024B006	680			ND		
	024B007	190			ND		
	024B009	63			87		
	024B010	41			ND		
Benzo(b)fluoranthene	024B002	39	870	NA	ND	2143.29	NA
	024B003	85			ND		
	024B004	100			95		
	024B006	470			ND		
	024B007	260			ND		
	024B009	51			82		
	024B010	35			ND		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Semivolatile Organic Compounds (µg/kg)							
Benzo(k)fluoranthene	024B002	28	8700	NA	ND	21432.93	NA
	024B003	77			ND		
	024B004	94			75		
	024B006	750			ND		
	024B007	270			ND		
	024B009	58			68		
	024B010	30			ND		
Chrysene	024B002	40	87000	NA	ND	69361.60	NA
	024B003	70			ND		
	024B004	110			86		
	024B006	970			ND		
	024B007	200			ND		
	024B009	60			83		
	024B010	40			ND		
Dibenz(a,h)anthracene	024B004	29	87	NA	30	662.13	NA
	024B006	190			ND		
	024B009	30			48		
Indeno(1,2,3-cd)pyrene	024B002	21	870	NA	ND	6046.27	NA
	024B003	55			ND		
	024B004	76			68		
	024B006	330			ND		
	024B007	110			ND		
	024B009	38			48		
	024B010	29			ND		
2-Methylnaphthalene	024B004	ND	160000	NA	57	13209.67	NA
	024B005	340			8900		
	024B006	110			38500		
	024B007	ND			11000		
Acenaphthene	024B006	290	470000	NA	ND	228747.04	NA
Acenaphthylene	024B004	21	160000	NA	38	33715.44	NA
Anthracene	024B005	ND	2300000	NA	120	4724640.14	NA
	024B006	399.50			265		
Benzo(g,h,i)perylene	024B002	22	160000	NA	ND	41339296.88	NA
	024B003	64			ND		
	024B004	87			150		
	024B006	310			ND		
	024B007	120			ND		
	024B009	56			78		
	024B010	28			ND		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Semivolatile Organic Compounds (µg/kg)							
Benzoic acid	024B001	29	31000000	NA	ND	177050.51	NA
	024B002	29			42		
	024B003	50			67		
	024B004	40			74		
	024B009	50			80		
	024B010	36			51		
bis(2-Ethylhexyl)phthalate (BEHP)	024B006	200	46000	NA	ND	1315519.04	NA
Dibenzofuran	024B004	ND	31000	NA	27	4906.84	NA
	024B005	ND			460		
	024B006	325			1250		
	024B007	ND			380		
Dimethyl phthalate	024B009	440	78000000	NA	ND	621525.82	NA
Di-n-butylphthalate	024B001	20	780000	NA	ND	1825578.49	NA
	024B004	29			36		
	024B009	32			50		
	024B010	23			ND		
Fluoranthene	024B001	36	310000	NA	22	2332217.77	NA
	024B002	52			ND		
	024B003	110			ND		
	024B004	160			78		
	024B006	2500			ND		
	024B009	88			150		
	024B010	57			ND		
Fluorene	024B006	660	310000	NA	2200	302323.09	NA
	024B007	ND			510		
Isophorone	024B005	ND	670000	NA	370	166.61	NA
	024B006	ND			1900		
	024B007	ND			700		
N-Nitrosodiphenylamine	024B005	ND	130000	NA	890	338.34	NA
	024B006	450			3900		
Naphthalene	024B006	130	160000	NA	9200	22060.67	NA
	024B007	ND			4200		
Nitrobenzene	024B006	ND	3900	NA	420	37.98	NA

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Semivolatile Organic Compounds (μg/kg)							
Phenanthrene	024B002	26	230000	NA	ND	480449.19	NA
	024B003	56			ND		
	024B004	130			ND		
	024B005	ND			2000		
	024B006	2050			5050		
	024B007	ND			890		
	024B009	38			33		
	024B010	21			ND		
Pyrene	024B001	27	230000	NA	ND	1678349.00	NA
	024B002	46			ND		
	024B003	85			ND		
	024B004	130			79		
	024B005	ND			90		
	024B006	1800			230		
	024B007	120			110		
	024B009	74			130		
	024B010	43			ND		
Inorganics (mg/kg)							
Aluminum (Al)	024B005	7030	7800	18700	7600	1740950	23600
	024B006	8665			5675		
	024B007	5650			4650		
Antimony (Sb)	024B005	0.46	3.10	2.89	0.53	7.11	NA
	024B006	0.48			0.25		
	024B007	0.37			ND		
Arsenic (As)	024B005	2.50	0.43	17.20	8.10	536.02	15.30
	024B006	5.50			1.55		
	024B007	8.10			2.80		
Barium (Ba)	024B005	31.20	550	109	16.60	631.79	64.50
	024B006	15.90			20.55		
	024B007	19.90			8.50		
Calcium (Ca)	024B005	1960	NA	NA	481	NA	NA
	024B006	2760			184		
	024B007	16600			253		
Chromium (Cr)	024B005	9.60	23	42.80	22.60	5561.99	43.40
	024B006	27.80			7.75		
	024B007	15.40			10.80		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Cobalt (Co)	024B005	2.20	470	6.60	1.40	655.98	8.14
	024B006	1.55			1.01		
	024B007	1.60			0.76		
Copper (Cu)	024B005	3	310	260	0.86	27410.37	32.60
	024B006	1.15			0.75		
	024B007	10.40			0.39		
Iron (Fe)	024B005	4920	2300	29200	19100	708024.31	35800
	024B006	20750			6435		
	024B007	5850			9870		
Lead (Pb)	024B005	110	400	181	19100	522.29	66.30
	024B006	49.80			6435		
	024B007	62.10			9870		
Magnesium (Mg)	024B005	418	NA	NA	634	NA	NA
	024B006	503			389		
	024B007	898			262		
Manganese (Mn)	024B005	23.20	1100	325	54.5	161337.64	291
	024B006	36.55			25.65		
	024B007	74.80			16.9		
Mercury (Hg)	024B005	ND	2.30	1.03	0.04	24.19	0.31
	024B006	0.04			ND		
	024B007	0.06			0.06		
Nickel (Ni)	024B005	3.40	160	20.60	2.2	2366.00	18.30
	024B006	2.75			1.7		
	024B007	5.40			1.4		
Potassium (K)	024B005	206	NA	NA	365	NA	NA
	024B006	272			214.50		
	024B007	302			102		
Selenium (Se)	024B005	0.45	39	1.22	2.20	219.39	1.26
	024B006	1.60			0.69		
	024B007	0.72			1.10		
Sodium (Na)	024B005	90.10	NA	NA	99.40	NA	NA
	024B006	109			72.85		
	024B007	169			ND		
Vanadium (V)	024B005	13.80	55	60.90	43.9	5928.27	72.50
	024B006	37.10			12.05		
	024B007	16.60			18.2		

Analytes Detected in Surface and Subsurface Soil

Parameters	Sample Location	Surface Concentration	Residential RBC	Surface Background	Subsurface Concentration	Soil to Groundwater SSL (Site Specific)	Subsurface Background
Inorganics (mg/kg)							
Zinc (Zn)	024B005	38.50	2300	519	8.7	103103.73	145
	024B006	17.60			5.75		
	024B007	47.20			4.7		

Notes:

Table 10.3.11
SWMU 003
Analytes Detected in Shallow Groundwater

Name	Location	1st Quarter Conc.	2nd Quarter Conc.	3rd Quarter Conc.	Tap Water RBC* (µg/L)	MCL/SMCL* (µg/L)	Shallow Background
Inorganics (mg/kg)							
Aluminum (Al)	003001	9930	202	590	3700	50	224
	003002	2465	109	27			
	003003	15200	941	966			
Arsenic (As)	003001	9.6	ND	ND			
	003002	3.1	ND	ND			
	003003	9.7	ND	ND			
Barium (Ba)	003001	76.9	29.1	24.3	260	2000	94.3
	003002	34.4	17	15.9			
	003003	77.1	20.2	19.8			
Beryllium (Be)	003002	ND	0.35	ND			
	003003	1.1	ND	ND			
Calcium (Ca)	003001	65100	47800	46500	NL	NL	NL
	003002	5500	3275	21900			
	003003	41100	27800	32400			
Chromium (Cr)	003001	20.4	ND	1.2	18	100	2.05
	003002	5.4	ND	ND			
	003003	6.6	1.1	ND			
Cobalt (Co)	003001	5.9	ND	ND			
	003002	5.4	2.7	ND			
	003003	6.6	1.1	ND			
Iron (Fe)	003001	15100	371	448	1100	300	NL
	003002	3460	63.6	47.8			
	003003	22800	606	973			
Magnesium (Mg)	003001	9370	8680	3370	NL	NL	NL
	003002	1700	939	1855			
	003003	7640	3770	6710			
Manganese (Mn)	003001	199	80.9	8.7	84	50	2010
	003002	189	102.6	33.8			
	003003	544	46.6	24.8			
Mercury (Hg)	003001	ND	ND	0.28			

Table 10.3.11
SWMU 003
Analytes Detected in Shallow Groundwater

Name	Location	1st Quarter Conc.	2nd Quarter Conc.	3rd Quarter Conc.	Tap Water RBC* (μg/L)	MCL/SMCL* (μg/L)	Shallow Background
Inorganics (mg/kg)							
Nickel (Ni)	003001	10	ND	ND			
	003002	4.9	1.0	64.5			
	003003	10.7	ND	2.2			
Potassium (K)	003001	ND	757	1590	NL	NL	NL
	003002	672	ND	ND			
	003003	3300	1670	1950			
Selenium (Se)	003002	6	ND	ND			
Sodium (Na)	003001	18400	19200	9100	NL	NL	NL
	003002	9605	8590	18300			
	003003	38200	17400	36300			
Thallium (Tl)	003001	3.8	ND	ND	0.29	2	5.38
	003002	2.9	ND	ND			
	003003	2.8	ND	ND			
Vanadium (V)	003001	31.4	1.3	1.2	26	NL	1.58
	003002	ND	7.1	ND			
	003003	46.7	2	2.2			
Zinc (Zn)	003002	ND	6.6	ND			
	003003	ND	59.8	22.2			

Notes: