URS

TRENCH LOG AND DATA SHEET

Project Name: Former NPD Lab SI	Log of Trench: TR-3	GW Field Parameters: NA	Meter/test kit: Model / Calib. Date
Location: Troutdale, OR	Segment No.: —	Sample No.	PID: PhotoVac / 9/11/01
Project/Task No.: 53F00742 12.02	Approx. Surface Elev.:	Temperature	Temperature: NA
Date: 9/11/01	Depth to Water: not encountered	pH	pH:
Weather: sunny 80°F	Comments:	Conductivity	Conductivity:
Loggers/Samplers: Janette Rau		ORP	ORP:
Contractor: Anderson Environ.		DO	DO
Excavation Eqpt.: CAT 312B excavator		Turbidity	Turbidity:
Sampling Method: syringe, SS bowl & spoon from excavator bucket		Time	

Length (ft): 0 (blackberries) 2 3 4 5 6 7 8 9 10

Sample No.	Depth (ft) (Ground Surface)		Field Test Results: PID	Other
	1	Dark brown sandy gravel with cobbles up to 5" diameter		
	2	Debris includes glass, concrete, plastic buckets and		
	3	sheeting, concrete cores		
	4			
SS-028-05	5	Misc. glass sample containers encountered: glass vials,	Ø	bottles:
	6	eye droppers, jars containing orange paint(?), white		20
	7	grease(?) (PID=60), oily material(?) (PID=20 outside lid)		60
	8			
	9			
	10			
SS-028-11	11	Native material: silty fine to medium sand, brown, organic	Ø	
	12	material present		
	13	Base of trench		
	14			
	15			

Containers:

Analysis	Matrix	Type	#Primary (each)	#-MS/MSD	#-Duplicate	# - PE
VOCs	Soil	preserved	3	9		
SVOCs	↓	8 oz	1	1		
Pest & PCBs						
Metals						
Cyanide						
TPH		4 oz	1	1		

QA/OC sample designations:
Duplicate: —
PE: —
MS/MSD: SS-028-11
Blank: SS-028-11

Comments: No drums encountered in this trench, but sample containers & other misc. small glass containers encountered ~5' bgs

URS

TRENCH LOG AND DATA SHEET

Project Name: Former NPDLab	Log of Trench: TR-4	GW Field Parameters: NA	Meter/test kit: Model / Calib. Date
Location: Troutdale OR	Segment No.:	Sample No.	PID: Photovac 9/18/01
Project/Task No.: 53F0074212.02	Approx. Surface Elev.:	Temperature	Temperature:
Date: 9/18/01	Depth to Water: not encountered	pH	pH:
Weather: Sunny 80°F	Comments:	Conductivity	Conductivity:
Loggers/Samplers: JRay		ORP	ORP:
Contractor: Anderson Envir.		DO	DO
Excavation Eqpt.: CAT 312B excavator		Turbidity	Turbidity:
Sampling Method: syringe, SS bowl & spoon from excav. bucket		Time	

Length (ft): 0 1 2 3 4 5 6 7 8 9 10			Field Test Results: PID	Other
Sample No.	Depth (ft) (Ground Surface)	Blackberries		
	1	Dark brown sandy gravel (cobbles up to ~5" diam), debris such		
	2	as concrete blocks & pieces (up to 1' square x 6"), black		
	3	plastic, metal strapping, other metal such as crushed cans?)		
	4			
SS-029-05	5		Ø	
	6		(pile, trench, &	
	7		samples)	
	8	Native material: silty fine to medium sand, organic	Ø	
	9	material (roots), brown)		
SS-029-10	10	(Base of trench)		
	11			
	12			
	13			
	14			
	15			

Containers:

Analysis	Matrix	Type	#-Primary	#-MS/MSD	#-Duplicate	# - PE
VOCs	Soil	preserved	3			
SVOCs	↓	8 oz.	1			
Pest/PCBs						
metals						
cyanide						

QA/OC sample designations: NA
Duplicate:
PE:
MS/MSD:
Blank:

Comments
No drums removed from this trench

URS

TRENCH LOG AND DATA SHEET

Project Name: Former NPD Lab ST	Log of Trench: TR-5	GW Field Parameters: NA	Meter/test kit: Model / Calib. Date
Location: Troutdale OR	Segment No.:	Sample No.	PID: Photovac 9/12/01
Project/Task No.: 53F0074212.02	Approx. Surface Elev.:	Temperature	Temperature:
Date: 9/12/01	Depth to Water: ~~NA~~ not	pH	pH:
Weather: Sunny 80-85°F	Comments: encountered	Conductivity	Conductivity:
Loggers/Samplers: Janette Rau		ORP	ORP:
Contractor: Anderson Environ.		DO	DO
Excavation Eqpt.: CAT 312B excavator		Turbidity	Turbidity:
Sampling Method: syringe, SS bowl/spoon from bucket		Time	

Length (ft): 0 1 2 3 4 5 6 7 8 9 10

Sample No.	Depth (ft) (Ground Surface)	Field Test Results: PID	Other
	Blackberries, stained soil at surface (and below surface)		
SS-03301	1 Debris at surface, includes gas cans (large & small), paint cans, paint	surface ≈ 650	
	2 thinner cans, misc. sample-type jars (plastic &	breathing zone =	
	3 glass), some with oily-looking liquid and liquid	Ø	
SS-03304	4 asphalt-type product; other fill material includes	3.4	
	5 sandy gravel, concrete, and plastic.		
	6 - Odor of paint thinner at surface to ~2' bgs		
	7 - paint cans appear minimally deteriorated; other		
	8 metal cans rusted, deteriorated, & partial		
	9		
	10 Native material encountered at ~4' bgs, consists		
	11 of silty sand with organic material (roots)		
	12		
	13		
	14 Notes: stained soil & debris stockpiled on plastic		
	15 ~~Note~~: containers with liquid staged with drums		

Containers:

Analysis	Matrix	Type	#-Primary	#-MS/MSD	#-Duplicate	# - PE
VOCs	soil	preserved	3			
SVOCs	↓	& 8 oz.	1			
Pest/PCBs						
metals						
cyanide						
TPH						

QA/QC sample designations: NA
Duplicate:
PE:
MS/MSD:
Blank:

Comments

WELL DEVELOPMENT DATA SHEET

URS

Project Information Date: 9/13/01 Well ID: MC-1

Project Name:	USACE Former NPD Lab SI	Location:	Troutdale OR
Project/Task No.:	#53F0074212.02	Weather:	sunny 80°F
Samplers:	JAR	Other:	

Gauging and Purging Data

Reference Point:		Elevation:	
Depth to Water:	~11' bgs	Elevation:	
Depth to Bottom:	~20	Feet of Water:	
Purge Method:	peristaltic pump		
Water Disposal/Qty:	drum, 5 gal		
Other:			

Screen Interval: ~5-20' bgs
Well Diameter: 3/4" Annulus Diameter: ~2"
Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)
Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)
One Purge Volume:
Final Purge Volume:

Meter Information

	Model	Calibration Date	Comments
pH:	Horiba U-22	9/13/01	
ORP:			
Conductivity:			
DO:			
Turbidity:			
Temperature:			
Other:			

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity ~~(µS/cm)~~ mS	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)
0	16.0	6.38	0.283	79	7.71	360	1802
~1	15.1	6.31	0.587	77	7.08	51	1807
~1.5	14.8	5.27	0.584	138	7.09	30	1812
~2	14.6	5.29	0.580	136	7.16	26	1817
~3	14.7	5.39	0.576	135	7.11	20	1822
~3.5	14.6	5.32	0.575	139	7.12	14	1827
~4	14.6	5.24	0.575	144	7.14	11	1832
~5	14.4	5.26	0.575	144	7.09	10	1837

Comments

Well Allowed to pump briefly (5 min.) before hooking up to flow thru cell

WELL DEVELOPMENT DATA SHEET

URS

Project Information Date: 9/13/01 Well ID: MC-2

Project Name:	USACE Former NPD Lab SI	Location:	Troutdale, OR
Project/Task No.:	53F0074212.02	Weather:	Sunny 80°F
Samplers:	J. Rau	Other:	

Gauging and Purging Data

Reference Point:		Elevation:	
Depth to Water:	~12 bgs	Elevation:	
Depth to Bottom:	~20' bgs	Feet of Water:	
Purge Method:	peristaltic pump		
Water Disposal/Qty:	drum		
Other:			

Screen Interval: 5-20' bgs
Well Diameter: 3/4" Annulus Diameter: ~2"
Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)
Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)
One Purge Volume:
Final Purge Volume:

Meter Information

	Model	Calibration Date	Comments
pH:	Horiba U-22	9/13/01	
ORP:			
Conductivity:			
DO:			
Turbidity:			
Temperature:			
Other:			

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)
0	14.9	6.48	0.388	71	8.50	320	1854
~1.5	14.4	6.36	0.393	68	7.16	44	1859
~2.5	14.1	6.37	0.764	64	6.99	25	1904
~3.5	14.1	6.32	0.770	67	7.16	16	1909
~4.5	14.0	6.14	1.66	75	6.99	15	1914
~5.5	14.0	6.11	1.65	73	7.02	15	1919
~6.5	14.0	6.10	1.63	73	6.96	14	1924
~7.5	14.0	5.95	1.61	81	7.10	13	1929
~9	14.0	6.04	1.59	78	6.96	14	1934
~10	13.9	5.79	1.56	90	7.14	—	1939
~11	14.0	5.79	1.54	89	7.14	—	1944

Comments

Well allowed to pump for ~5 min. before hooking up flow thru cell.

WELL DEVELOPMENT DATA SHEET

URS

Project Information Date: 9/13/01 Well ID: MC-3

Project Name:	USACE Former NPD Lab SI	Location:	Troutdale, OR
Project/Task No.:	53F0074212.02	Weather:	Sunny 80-85°F
Samplers:	J. Rau	Other:	

Gauging and Purging Data

Reference Point:		Elevation:		Screen Interval:	5-20' bgs
Depth to Water:	~12' bgs	Elevation:		Well Diameter:	3/4" Annulus Diameter: 2"
Depth to Bottom:	~20	Feet of Water:		Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	
Purge Method:	peristaltic pump			Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Water Disposal/Qty:	drum, ~7 gal.			One Purge Volume:	
Other:				Final Purge Volume:	

Meter Information

	Model	Calibration Date	Comments
pH:	Horiba U-22	9/13/01	-Allowed pump to go for ~5 minutes before hooking up flow thru cell due to high turbidity
ORP:			
Conductivity:			
DO:			
Turbidity:			
Temperature:			-Bubbles entering flow thru cell until Teflon tape applied to connections.
Other:			

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)
0	18.1	6.37	0.569	119	9.19	270	1655
~1.5	17.2	6.12	0.542	136	9.85	46	1700
~2.5	17.2	6.07	0.499	138	10.01	18	1705
~3	17.1	6.35	0.462	125	10.04	8	1710
~4	17.1	6.30	0.436	128	9.86	8	1715
~5	17.1	6.26	0.419	127	8.59	20	1720
~6	17.1	6.24	0.407	127	8.63	26	1725
~7	17.1	6.15	0.398	132	8.60	41	1730

Comments

Turbidity appears to be increasing due to shaking up of sediment at base of flow-thru cell. Water from well appears at least as clear as previous 2 microwells.

WELL DEVELOPMENT DATA SHEET

URS

Project Information Date: 9/13/01 Well ID: MC-4

Project Name:	USACE Former NPD Lab SI	Location:	Troutdale OR
Project/Task No.:	53F0074212.02	Weather:	Sunny 80-85°
Samplers:	Janette Rau	Other:	

Gauging and Purging Data

Reference Point:	PVC	Elevation:	
Depth to Water:	~12' btoc	Elevation:	
Depth to Bottom:	~20	Feet of Water:	
Purge Method:	peristaltic pump		
Water Disposal/Qty:	drum		
Other:			

Screen Interval: ~5-20' bgs
Well Diameter: 3/4" Annulus Diameter: ~2"
Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)
Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)
One Purge Volume:
Final Purge Volume:

Meter Information

	Model	Calibration Date	Comments
pH:	Horiba U-22	9/13/01	
ORP:			
Conductivity:			
DO:			Bubbles entering flow-through cell due to peristalsis
Turbidity:			
Temperature:			
Other:			

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)
0	18.8	6.25	1.02	37 ~~45~~	9.74	750	1537
	17.6	6.28	0.95	75	7.67	250	1538
~1 gal	17.2	6.24	0.93	~~4~~ 97	7.48	49	1543
~1.5	17.6	6.38	0.91	100	7.65	43	1548
	17.8	6.15	0.862	112	7.81	21	1553
~2	17.8	6.14	0.842	118	7.90	19	1558
	17.8	6.17	0.816	120	8.01	14	1603
~2.5	17.9	6.14	0.790	124	8.19	10	1608
~3	17.8	6.13	0.773	127	8.19	7	1613

Comments

Well allowed to pump briefly before hooking up flow through cell.

WELL DEVELOPMENT DATA SHEET

URS

Project Information Date: 9/13/01 Well ID: MC-5

Project Name:	USACE	Location:	Troutdale OR
Project/Task No.:	53F00742 12.02	Weather:	Sunny 80-85°F
Samplers:	JAR	Other:	

Gauging and Purging Data

Reference Point:	PVC (N.side) Elevation:	Screen Interval:	~5-20' bgs
Depth to Water:	11.63' btoc Elevation:	Well Diameter:	3/4" Annulus Diameter: ~2"
Depth to Bottom:	20 Feet of Water:	Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	
Purge Method:	peristaltic pump	Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Water Disposal/Qty:	drum, ~3.5	One Purge Volume:	
Other:		Final Purge Volume:	

Meter Information

	Model	Calibration Date	Comments
pH:	Horiba U-22	9/13/01	
ORP:			
Conductivity:			
DO:			Bubbles entering flowthrou cell due to peristalsis
Turbidity:			
Temperature:			
Other:			

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)
0	17.2	6.17	.571	110	9.05	29	1431
~1	17.0	5.67	.583	148	9.54	24	1436
~1.5	17.1	5.23	.531	~~20~~ 170	8.94	23	1440
~2	17.2	5.08	.563	167	9.19	12	1445
~2.5	17.2	5.00	.565	165	9.56	8	1450
~3	17.1	4.93	.557	165	9.41	2	1455
~3.5	17.2	4.91	.546	165	9.65	0	1500

Comments

GROUNDWATER SAMPLING DATA SHEET

URS

Project Information Date: 9-14-01 Station ID: mw-001 Page 1 of 1

Project Name:	NPDL	Location:	ACOE - Trustdale
Project/Task No.:		Weather:	Sunny - 70°
Samplers:	Steve W., Andy Z.	Other:	

Gauging and Purging Data

Station Type:	mw - ags. - 2" PVC	Screen Interval:	
Well Condition:	good	Well Diameter: 2"	Annulus Diameter:
Reference Point: TOC	Elevation	Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16
Depth to Water: 15.47	Elevation	Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Bottom: 21.8	Feet of Water:	One Purge Volume:	
Depth to LNAPL:	Thickness:	Final Purge Volume:	
LNAPL Description:		Purge Method:	
Other:		Water Disposal/Qty:	

Containers

Analysis (TYPICAL)	Type	Primary Qty	MS/MSD Qty
SVOC		1	2
VOC		3	6
Pest./PCB		1	2
Total metal		1	2
Dissolved metal		1	2
Cyanide		1	2

Meter Information

Model & Calibration Date

pH:	4.00
ORP:	
Conductivity:	4.49
DO:	
Turbidity:	~~NTU~~ Ø
Temperature:	
Other:	

Sampling Data

Sample Name:	mw-001
Sample Method:	bladder w/ control.
Tubing Depth:	(low flow)
Pump Intake Depth:	18'

QA/QC Samples:

Duplicate:	
MS/MSD:	YES (Time = 1045)
Blank:	
Other:	

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	16.9	7.51	150	254	10.58	6	1010		<0.5
0.26	16.5	6.75	581	239	7.22	1	1015		0.2
0.26	16.4	6.48	576	234	6.87	1	1020		0.2
0.26	16.6	6.42	576	220	6.72	1	1025		0.2
0.26	16.5	6.27	581	222	7.13	1	1030		0.2
0.26	16.8	6.21	578	224	6.88	1	1035		0.2
	SAMPLES			COLLECTED			1040	15.5	
1.30									

Comments

GROUNDWATER SAMPLING DATA SHEET

URS

Project Information

Date: 9/15/01 Station ID: MW-002 Page 1 of 1

Project Name:	NPDL	Location:	Troutdale, OR ACOE
Project/Task No.:		Weather:	Partly sunny 70°
Samplers:	Steve W., JR	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	5-20
Well Condition:	good	Well Diameter:	2" Annulus Diameter: 0.165
Reference Point:	TOC Elevation	Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	
Depth to Water:	13.63 Elevation	Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Bottom:	20.00 Feet of Water:	One Purge Volume:	
Depth to LNAPL:	Thickness:	Final Purge Volume:	
LNAPL Description:		Purge Method:	
Other:		Water Disposal/Qty:	

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOC	40ml	3	
SVOC	1L	1	
Total Metal	500	1	
Dissolved Metal	500	1	
Cyanide	500	1	
pest/PCB	1L	1	

Meter Information

Model & Calibration Date

pH:	4.00
ORP:	
Conductivity:	4.49
DO:	
Turbidity:	Ø
Temperature:	
Other:	

Sampling Data

Sample Name:	MW-002
Sample Method:	bladder pump, low flow
Tubing Depth:	
Pump Intake Depth:	~ 16.0

QA/QC Samples:

Duplicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0							1205		
0.26	16.3	5.86	93	202	8.34	Ø	1210		0.2
0.26	16.0	5.62	195	212	7.86	Ø	1215		
0.26	16.3	5.53	197	218	7.50	Ø	1220		
0.26	16.5	5.52	431	220	7.15	1	1225		
0.26	16.5	5.36	433	229	7.18	1	1230		
0.26	16.5	5.43	432	221	7.04	1	1235		
		SAMPLES	COLLECTED				1240		

Comments