Cray Suit/SUM G 40 - 53

#### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site **Trip Report** PCE Plume Investigation Phase 2 - May 2007 Sampling Effort BVSPC Project 044719.01.49 File E.1.1 June 8, 2007

### **INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) has an ongoing remedial action at the 57<sup>th</sup> & North Broadway site, in Wichita, Sedgwick County, Kansas. Black & Veatch Special Projects Corp. (BVSPC) was tasked by the EPA to perform a direct-push investigation effort to further delineate the tetrachloroethene (PCE) contamination at the site. This contamination has been detected in monitoring well MW-306 and in the western in situ groundwater treatment system wells along 53<sup>rd</sup> Street. The first phase of the PCE plume delineation effort was conducted from March 28, 2007, through April 6, 2007. A trip report detailing the activities conducted during the first phase effort was prepared on May 17, 2007.

The second phase of the PCE plume delineation effort was conducted from May 29, 2007 through May 31, 2007. The scope of the second phase of the field work was agreed upon during a meeting held at EPA offices on April 10, 2007. Representatives from the Kansas Department of Health and Environment (KDHE) were in attendance at the meeting. The field activities were conducted in accordance with the following planning documents prepared by BVSPC:

- Project Plan, Volume 2-Confidential Business Information, September 26, 2005.
- Ouality Assurance Project Plan, Addendum No. 1, Revision 1, January 11, 2007.

Ms. Genise Luecke, BVSPC Site Manager, was onsite directing the direct-push subcontractor, Below Ground Surface Inc. (BGS) of Lawrence, Kansas. BGS performed the direct-push effort as well as the onsite analytical services. BVSPC had two representatives onsite during the field effort. BGS had three personnel onsite. Mr. Steve Kinser with EPA were onsite for part of the sampling effort. Mr. Ashley Allen, with the KDHE, was also onsite during part of the sampling effort.

The field team provided daily updates to the EPA by submitting daily reports to EPA via e-mail each night. The daily reports summarized the activities completed that day along with which persons and equipment were on site, the number of borings installed, and the number of samples collected. The daily reports included a summary of the onsite analytical results and a field generated figure of the boring locations as attachments. Copies of the daily reports and photographs are provided in Attachment A. (Note that the attachments to the daily reports are not included because Table 2 and the figure included in this Trip Report include the data in its entirety rather than daily piecemeal.) Copies of the field log book pages are provided in Attachment B.

1

07EF 40404140 Superfund OUDD

3.0.

### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site Trip Report PCE Plume Investigation Phase 2 – May 2007 Sampling Effort BVSPC Project 044719.01.49 June 8, 2007

### FIELD SAMPLING EFFORT

The following activities were conducted during the PCE plume delineation sampling effort:

- Installed direct–push borings at 16 locations.
- Collected 62 primary groundwater samples from various depths below ground surface (bgs).
- Analyzed the groundwater samples for PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride in the field using mobile gas chromatographs (GCs).
- Collected duplicates of 10 percent of the field samples for offsite analysis at the EPA Region VII laboratory.
- Collected one surface soil sample for analysis by the mobile field laboratory.

The direct-push borings were installed at the locations shown on the attached figure. The latitude-longitude of each boring was recorded with a global positioning satellite (GPS) unit. The latitude-longitude of the borings are listed in Table 1 along with the depth to refusal (where measured), the approximate depth to water, and a description of the location of each boring.

Based on the results of the first phase of the PCE plume delineation effort, borings G-40 through G-43 were sampled from 35 feet bgs up to the top of the water table at 5-foot intervals. Borings G-44 through G-47 were installed on the abandoned railroad tracks which are raised about 5 feet above the surrounding terrain. Therefore, for consistency, these borings were sampled from 40 feet bgs up to the top of the water table at 5-foot intervals.

Based on the results obtained from the first eight borings installed during this second phase of field work, EPA obtained access from Allen's Auto Salvage to sample. This property abuts the northern border of the Midland Refinery property. The purpose of the borings on this property were to determine if the PCE contamination extended north (upgradient) of Midland. Four borings (G-48 through G-51) were installed on the Allen's Auto Salvage property. The boring locations were agreed upon by EPA and KDHE. These borings were sampled from 30 feet bgs up to the top of the water table at 5-foot intervals. 5

### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site Trip Report PCE Plume Investigation Phase 2 – May 2007 Sampling Effort BVSPC Project 044719.01.49 June 8, 2007

As agreed upon in the April 10, 2007, meeting, borings G-52 and G-53 were installed upgradient and side-gradient of G-B253 to further delineate the low levels of PCE detected in the G-B253 samples by the onsite mobile laboratory. These two borings were samples from refusal up to the top of the water table at 5-foot intervals.

The following is a summary of the direct-push groundwater sample collection procedures:

- 1) Direct-push rods were hydraulically driven to refusal or the desired sampling maximum sample depth proposed at each location.
- 2) Once the sample depth has been reached, the rods were retracted approximately 4 feet to extend the sampling screen.
- 3) 1/4-inch polyethylene tubing was inserted through the probe rods and down into the sampling screen.
- 4) Approximately 2 to 4 liters was purged from the screened water-bearing zone before sampling. Purging and sampling was provided by oscillating the tubing up and down, by connecting the tubing to a low flow rate peristaltic pump, or a combination thereof. Purged water was disposed of to the ground. Field parameters including temperature, pH, specific conductivity, redox potential (ORP), turbidity, and dissolved oxygen (DO) were collected during purging and sampling using a flow-through cell. Purging information was recorded on the sampling point purge data field sheets.
- 5) Following purging, water samples were collected in appropriate sample containers in the following analyses order: onsite volatiles, offsite volatiles (if appropriate), field water quality. After the sample for onsite analysis was collected it was prepared for sample analysis. The samples collected for offsite analyses were secured and placed in a cooler for subsequent sample processing (either disposal or shipment).
- 6) After sampling of the specified interval was completed, the sampling tubing was withdrawn and bagged for disposal as investigative derived waste (IDW).
- 7) The rod and screen assembly was then raised to the next sampling interval (5 feet higher), and then steps (3) through (6) were repeated. It should be noted that new polyethylene tubing was used at each sampling depth to eliminate potential cross-contamination between sampling intervals.
- 8) Step (7) was repeated until all water-bearing intervals have been sampled.
- 9) Once the last sampling interval has been sampled, the rod and screen assembly was completely removed and disassembled for decontamination, and the hole was plugged with bentonite.

۲

ť"

### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site Trip Report PCE Plume Investigation Phase 2 – May 2007 Sampling Effort BVSPC Project 044719.01.49 June 8, 2007

Copies of the temporary direct-push sampling point purge data field sheets are provided in Attachment C.

It was noted by EPA and KDHE during the field effort that a concrete drainage ditch (or channel) was present on the Midland property. The drainage ditch was located just south of the north property fence and drained the property from the east to the west. The ditch discharges just inside the northwest corner of the property fence into a depression on the north side of the railroad tracks. EPA requested that a surface soil sample be collected from the depression. BGS supplied a sample bottle and makeshift sampling equipment including a rake and knife were decontaminated and used to collected the sample. The sample was collected from about 4 to 6 inches bgs and placed in the sample jar. The sample jar was put on ice and delivered to the mobile laboratory for analysis. PCE, TCE, cis-1,2-DCE, and vinyl chloride were non-detect in the soil sample with a detection limit of 20 micrograms per kilogram (ug/kg).

A total of 62 primary groundwater samples were collected for onsite analysis. A list of the samples collected is included in Table 2. Table 2 also lists the depth of each sample, the depth of the direct-push screen, the onsite laboratory results for each samples, the final field parameter readings for each sample, and the date and time of sample collection. The QAPP required that at least ten percent of the primary groundwater samples be submitted for confirmation analysis offsite at the EPA Region VII Laboratory. In addition, EPA requested that all the samples collected from borings G-52 and G-53 be submitted for offsite analysis. Therefore, a total of 16 primary samples (or 25 percent) were sent offsite for analysis. Table 3 lists the samples that were collected for offsite analysis. Except for the samples from borings G-52 and G-53, samples were selected for offsite analysis by the BVSPC field team leader at the end of each day. Samples selected for offsite analysis included a range of concentrations from non-detect to the higher total VOC concentrations. An effort was also made to include a range of sample depth intervals. Table 4 presents a summary of the samples selected for offsite analysis based on onsite mobile laboratory concentrations of total volatile organic compounds (VOCs) and sample depth interval.

Quality assurance/quality control (QA/QC) for the offsite analytical laboratory consisted of duplicate samples, rinsate blanks, trip blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples. QA/QC samples that were sent to the EPA Region VII Laboratory for analysis are also listed in Table 3. Copies of the sample collection field sheets and chain-of-custody records are provided in Attachment D.

### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site Trip Report PCE Plume Investigation Phase 2 – May 2007 Sampling Effort BVSPC Project 044719.01.49 June 8, 2007

### ONSITE ANALYTICAL RESULTS

The groundwater samples were analyzed by a field GC for PCE, TCE, cis-1,2-DCE, and vinyl chloride. The detection limits for PCE, TCE, and cis-1,2-DCE was 4.0 micrograms per liter (ug/L). The detection limit for vinyl chloride was 2.0 ug/L. The field analytical results are presented in Table 2. A complete copy of the analytical data report received from the onsite mobile laboratory is provided in Attachment E.

#### Field Quality Assurance/Quality Control (QA/QC)

QA/QC for the field analytical laboratory consisted of performance evaluation (PE) samples, duplicate samples, rinsate blanks, and MS/MSD samples.

PE samples consisted of samples with a known concentration of PCE, TCE, cis-1,2-DCE, and vinyl chloride prepared by the EPA Region VII laboratory. PE samples were provided to BGS by BVSPC at the beginning of every day. All the onsite PE sample results were within  $\pm 50$  percent of the known concentrations, therefore, no recalibration in the field was required. The PE sample results are summarized in Table 5. If necessary, field analytical laboratory results were qualified with a "J" based on the results of the PE samples, as required by the QAPP.

Duplicate samples for onsite field GC analyses were collected and analyzed at a rate of approximately 5 percent (1 per 20 primary samples). Four duplicate samples were collected for onsite analysis. Table 6 presents the duplicate sample results and the calculated relative percent differences. All of the duplicate samples were well within the control limits set in the QAPP.

Rinsate blank samples were collected from the screens used to collected the groundwater samples after the screens had been decontaminated. The field change made to the collection of rinsate blank samples during the first phase of sampling was continued during the second phase. Because the same screen was used to collect all the groundwater samples from the same boring without decontamination in between the sample interval, BVSPC decided to collect a rinsate blank after approximately every ten borings rather than after every twenty samples. Two rinsate blank samples were collected. Table 7 lists the rinsate samples collected and the associated borings. All the onsite analytical results for the rinsate blank samples were non-detect.

MS/MSD samples were collected and analyzed onsite at a rate of approximately 5 percent (1 per 20 primary). Three MS/MSD samples were collected. All of the

### Page 6

### **TRIP REPORT**

57<sup>th</sup> & North Broadway Site Trip Report PCE Plume Investigation Phase 2 – May 2007 Sampling Effort BVSPC Project 044719.01.49 June 8, 2007

MS/MSD recoveries were within QA/QC limits. The MS/MSD data is presented in Attachment E.

### ATTACHMENTS

Attachment A	Daily Reports and Photographs
Attachment B	Field Log Book Pages
Attachment C	Temporary Direct-Push Sampling Point Purge Data Field Sheets
Attachment D	Sample Collection Field Sheets and Chain-of-Custody Records
Attachment E	Complete Onsite Analytical Results

## Table 1Sampling Point InformationPCE Plume Investigation57th & North Broadway Site

	Depth to	Depth to			
	Refusal	Water			
Boring ID	(ft bgs)	(ft bgs)	Latitude	Longitude	Approximate Boring Location Description
G-40	NM	14	N37°47.283	W097°20.346	~ 100 feet W of G4-28
G-41	NM	14	N37°47.297	W097°20.366	~ 200 feet W of G4-28
G-42	NM	13	N37°47.308	W097°20.377	~ 300 feet W of G4-28
G-43	NM	14	N37°47.332	W097°20.415	~ 150 feet NE of G-B253 and ~100 feet W of
					MW-305
G-44	NM	16	N37°47.304	W097°20.354	~ 65 feet N of G-41
G-45	NM	16	N37°47.318	W097°20.368	~ 75 feet N of G-42
G-46	NM	16	N37°47.294	W097°20.344	~ 65 feet N of G-40
G-47	NM	15	N37°47.308	W097°20.360	~ centered between G-44 and G-45
G-48	NM	16	N37°47.330	W097°20.339	In Allen's Auto Salvage upgradient of concrete
					drain at Midland
G-49	NM	16	N37°47.327	W097°20.330	~ 50 feet E of G-48
G-50	NM	16	N37°47.326	W097°20.323	~ 50 feet E of G-49
G-51	NM	17	N37°47.330	W097°20.3311	~ 50 feet E of G-50
G-52	50	24	N37°47.363	W097°20.442	~ 350 feet N of G-B253 just S of railroad right
			•		of way
G-53	43	23	N37°47.314	W097°20.461	~ 100 feet W of G-B253

Note: All depths are estimates. NM - Not measured

E - east

W - west

N - north

S - south

.

Table 2
Onsite Analysis Results Summary
PCE Plume Investigation
57th & North Broadway Site

	Sample	Screen													
Boring	Depth	Interval		Mobile La	boratory R	esults (ug	/L)			Field Pa	rameters			Sample Coll	ection
	(ft bgs)	(ft bgs)	PCE	TCE	DCE	VC	Total VOCs	рН	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-40	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.75	1.085	548.0	0.78	16.03	69.3	5/29/2007	10:36
G-40-Dup	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.75	1.085	548.0	0.78	16.03	69.3	5/29/2007	10:36
G-40	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.78	1.059	1210.4	0.72	15.89	4.4	5/29/2007	10:51
G-40	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.65	0.939	997.4	0.55	15.65	-35.1	5/29/2007	11:03
G-40	20	16 - 20	12.8	ND (4)	ND (4)	ND (2)	1 <mark>2.8</mark>	6.30	0.644	1048.7	0.90	15.42	-0.3	5/29/2007	11:14
G-40	<mark>16</mark>	12 - 16	5.5	ND (4)	ND* (4)	ND (2)	<mark>5.5</mark>	6.42	1.319	197.4	1.50	15.10	29.3	5/29/2007	11:25
G-41	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.97	0.977	1231.2	0.54	17.57	-157.0	5/29/2007	12:48
G-41	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.86	0.931	285.7	0.63	15.88	-90.0	5/29/2007	13:00
G-41	25	21 - 25	332	29.8	ND (4)	ND (2)	361.8	6.85	0.942	1197.7	3.70	15.94	-34.1	5/29/2007	13:10
G-41	20	16 - 20	829	14.1 J	4.6	ND (2)	833.6	6.82	0.887	484.0	1.72	15.37	-12.6	5/29/2007	13:21
G-41	16	12 - 16	166	ND (4)	ND (4)	ND (2)	<b>166</b>	6.90	0.746	52.8	9.07	15.63	55.1	5/29/2007	13:32
G-42	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.83	0.954	160.2	0.82	16.64	34.3	5/29/2007	13:57
G-42	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.85	0.962	1158.0	0.67	16.33	-40.4	5/29/2007	21:07
G-42	25	21 - 25	16.3	5.4 J	ND (4)	ND (2)	16.3	6.76	0.946	479.0	0.74	16.00	-30.5	5/29/2007	14:18
G-42	20	16 - 20	62.1	ND* (4)	ND (4)	ND (2)	62.1	6.77	0.932	1211.8	0.96	15.81	-47.8	5/29/2007	14:28
G-42	16	12 - 16	53.6	ND (4)	ND (4)	ND (2)	53.6	7.06	1.631	212.5	8.44	17.00	0.0	5/29/2007	14:40
G-43	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	0.990	1242.4	0.52	19.13	-113.2	5/29/2007	15:14
G-43	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.76	0.964	811.8	0.57	16.24	-70.4	5/29/2007	15:23
G-43	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	<i>*</i> 6.79	0.973	869.4	0.63	15.84	-102.4	5/29/2007	15:34
G-43	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.61	0.902	525.4	0.72	15.63	-82.5	5/29/2007	15:45
G-43	16	12 - 16	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.44	0.789	1180.1	5.30	15.33	31.5	5/29/2007	15:54
G-44	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.85	1.091	1212.5	0.43	15.80	18.4	5/30/2007	8:06
G-44	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.88	1.087	692.1	0.34	15.66	-44.8	5/30/2007	8:20
G-44	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.90	1.014	1128.1	0.35	15.48	-55.6	5/30/2007	8:30
G-44	25	21 - 25	11.2 J	ND (4)	ND (4)	ND (2)	0	6.84	0.965	1198.4	0.34	15.99	-71.2	5/30/2007	8:41
G-44-Dup	25	21 - 25	11.4 J	ND (4)	ND (4)	ND (2)	0	6.84	0.965	1198.4	0.34	15.99	-71.2	5/30/2007	8:41
G-44	20	16 - 20	262	ND (4)	ND (4)	ND (2)	262	6.77	0.826	237.0	4.20	14.89	2.2	5/30/2007	8:56
G-45	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.95	0.976	1119.2	0.40	15.84	11.0	5/30/2007	9:27

Trip Report

1

.

.

۱

May 2007

-

• 1

	Sample	Screen													
Boring	Depth	Interval		Mobile La	boratory R	esults (ug	/L)			Field Par	ameters			Sample Col	lection
L	(ft bgs)	(ft bgs)	PCE	TCE	DCE	VC	Total VOCs	рН	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-45	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.95	0.995	1144.1	0.36	15.72	-74.1	5/30/2007	9:39
G-45	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.96	1.013	1070.4	0.36	15.21	-70.5	5/30/2007	9:50
G- <b>4</b> 5	25	21 - 25	234 J	ND (4)	ND (4)	ND (2)	0	6.94	0.760	960.1	3.94	14.92	-29.9	5/30/2007	10:00
G-45	20	16 - 20	150	ND (4)	ND (4)	ND (2)	<mark>150</mark>	7.03	0.610	90.5	5.69	14.64	-9.3	5/30/2007	10:10
G-46	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	1.100	415.4	0.44	16.10	7.3	5/30/2007	10:41
G-46	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.89	1.085	342.2	0.42	16.03	-42.1	5/30/2007	10:54
G-46	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.77	1.030	842.0	0.46	15.56	-68.3	5/30/2007	11:03
G-46	25	21 - 25	3.9 J	ND (4)	ND (4)	ND (2)	0	6.58	0.783	1035.9	0.43	15.26	-65.3	5/30/2007	11:16
G-46	20	16 - 20	11.3	ND (4)	ND (4)	ND (2)	11.3	6.54	0.638	346.2	8.20	15.07	52.8	5/30/2007	11:30
G-47	40	36 - 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.00	0.966	1212.6	0.61	15.86	-121.4	5/30/2007	13:09
G-47	35	31 - 35	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.94	0.966	1109.3	0.35	15.63	-102.4	5/30/2007	13:19
G-47	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.01	0.950	1203.3	0.46	15.60	-95.4	5/30/2007	13:32
G-47	25	21 - 25	175	8.2	ND* (4)	ND (2)	<mark>183.2</mark>	6.93	0.966	1012.1	0.37	15.26	-87.5	5/30/2007	13:43
G-47	20	16 - 20	800 J	12	ND (4)	ND (2)	12	6.88	0.828	1205.7	7.32	15.18	31.0	5/30/2007	13:52
G-48	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.99	0.849	1232.2	5.37	19.39	-13.4	5/30/2007	14:39
G-48	25	21 - 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.71	0.785	1108.0	3.56	16.61	6.0	5/30/2007	14:51
G-48	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.37	0.918	518.1	2.78	18.42	38.4	5/30/2007	15:03
G- <b>4</b> 9	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.869	1220.1	0.41	16.78	-64.8	5/30/2007	15:31
G-49-Dup	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.869	1220.1	0.41	16.78	-64.8	5/30/2007	15:31
G-49	25	21 - 25	ND (4)	ND (4)	6.6	ND (2)	6.6	0.43	0.724	1215.4	0.75	16.23	-76.0	5/30/2007	15:51
G-49	20	16 - 20	ND (4)	ND (4)	ND* (4)	ND (2)	ND	6.30	0.875	1212.8	0.90	16.01	-67.1	5/30/2007	16:00
G-50	30	26 - 30	ND (4)	ND (4)	5	ND (2)	5	6.66	0.921	1220.1	1.08	12.70	-22.5	5/30/2007	16:30
G-50	25	21 - 25	ND (4)	ND (4)	7.4	ND (2)	7.4	6.70	0.941	954.1	1.10	16.27	-78.9	5/30/2007	16:03
G-50	20	16 - 20	ND (4)	ND (4)	ND* (4)	ND (2)	ND	6.62	1.135	944.9	1.01	15.73	-47.4	5/30/2007	16:49
G-51	30	26 - 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.74	0.889	621.5	1.22	15.35	-106.3	5/31/2007	7:23
G-51	25	21 - 25	ND (4)	ND (4)	6.9	ND (2)	6.9	6.77	0.819	412.3	3.50	15.18	-91.7	5/31/2007	7:33
G-51	20	16 - 20	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.62	0.831	1185.1	2.71	14.88	-42.5	5/31/2007	7:41
G-52	50	46 50	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.82	0.990	748.3	3.15	15.73	-59.9	5/31/2007	8:20

Trip Report

1 ·

1 I

### Table 2Onsite Analysis Results SummaryPCE Plume Investigation57th & North Broadway Site

	Sample	Screen													
Boring	Depth	Interval		Mobile Lal	poratory R	esults (ug	/L)			Field Par	ameters			Sample Coll	ection
	(ft bgs)	(ft bgs)	PCE	TCE	DCE	VC	<b>Total VOCs</b>	pН	Sp. Cond.	Turbidity	DO	Temp.	ORP	Date	Time
G-52	45	41 45	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.78	0.982	434.5	10.44	15.99	-52.4	5/31/2007	8:32
G-52	40	36 40	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.91	0.984	1213.0	8.61	16.04	-77.6	5/31/2007	8:43
G-52	35	3135	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.73	0.948	162.1	9.34	16.38	-48.6	5/31/2007	8:56
G-52	30	26 30	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.63	0.836	121.9	7.36	15.12	-34.1	5/31/2007	9:05
G-52	25	21 25	ND (4)	ND (4)	ND (4)	ND (2)	ND	6.81	0.666	439.2	9.54	15.22	-15.9	5/31/2007	9:26
G-53	43	39 43	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.01	1.026	909.0	NR	19.28	-191.8	5/31/2007	10:10
G-53	38	34 38	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.11	1.038	1242.4	8.44	19.25	-182.3	5/31/2007	10:24
G-53	33	29 33	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.38	1.003	1246.5	12.73	19.60	-79.4	5/31/2007	10:39
G-53-Dup	33	29 33	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.38	1.003	1246.5	12.73	19.60	-79.4	5/31/2007	10:39
G-53	28	24 28	ND (4)	ND (4)	ND (4)	ND (2)	ND	7.30	0.931	1246.5	13.77	19.59	-81.9	5/31/2007	10:52
Rinsate 5-3	0-07	NA	ND (4)	ND (4)	ND (4)	ND (2)	ND	NA	NĂ	NA	NA	NA	NA	5/30/2007	15:00
Rinsate 5-3	31-07	NA	ND (4)	ND (4)	ND (4)	ND (2)	ND	NA	NA	NA	NA	NA	NA	5/31/2007	12:00
SOIL-01	NA		ND (20)	ND (20)	ND (20)	ND (20)	ND	NA	NA	NA	NA	NA	NÁ	5/31/2007	9:20

Notes:

ND = non-detect. Detection limit listed in parentheses.

J = Result is estimated.

Dup = duplicate sample.

NR = Not recorded.

\* = Compound detected but below the reporting limit.

PCE = Tetrachloroethene TCE = Trichloroethene DCE = cis-1,2-dichloroethene VC = vinyl chloride Sp. Cond. = Specific conductivity in uS/cm Turbidity in NTUs DO = dissolved oxygen in mg/L Temp = temperature in degrees C ORP = oxygen reduction potential in mV

.

ı.

•

Table 3
Groundwater Samples Collected for Offsite Analysis
PCE Plume Investigation
57 <sup>th</sup> & North Broadway Site

Onsite Sample ID	Offsite Sample ID	Comments						
G-40-20	3448-1	MS/MSD						
G-42-30	3448-2	Also 3448-2-FD						
G-41-20	3448-3							
G-48-20	3448-4							
G-49-25	3448-5							
G-50-20	3448-6							
G-52-50	3448-8							
G-52-45	3448-9							
G-52-40	3448-10							
G-52-35	3448-11							
G-52-30	3448-12							
G-52-25	3448-13							
G-53-43	3448-15							
G-53-38	3448-16							
G-53-33	3448-17							
G-53-28	3448-18							
Rinsate 05-30-07	3448-7							
TB-05-30-07	3448-21-FB	Trip blank						
TB-05-31-07	3365-22-FB	Trip blank						
FD indicates duplicate sample.								
FB indicated field bl	ank - trip blank.							

### Table 4 Summary Comparision of Onsite and Offsite Samples PCE Plume Investigation 57th & North Broadway Site

Onsite Laboratory				
<b>Results</b> Concentration	Number of		Number of	
Interval (ug/L, Total	Onsite		Offsite	
VOCs)	Samples	% of Total	Samples	% of Total
ND	42	67.74	13	81.25
ND-10	6	9.68	1	6.25
10-50	4	6.45	1	6.25
50-100	2	3.23	0	0
100-200	3	4.84	0	0
200-500	3	4.84	0	0
500 and above	2	3.23	1	6.25
Totals	62		16	

	Number of		Number of	
Sample Depth Interval	Onsite		Offsite	
(ft bgs)	Samples	% of Total	Samples	% of Total
0-15	0	0	0	0
16-20	16	25.81	4	25
21-25	13	20.97	2	12.5
26-30	14	22.58	3	18.75
31-35	10	16.13	2	12.5
36-40	6	9.68	2	12.5
41-45	2	3.23	2	12.5
46-50	1	1.61	1	6.25
Totals	62		16	

.

# Table 5Performance Evaluation (PE) Sample ResultsPCE Plume Investigation57th North Broadway Site

PE Sample	Analysis			Field	Spiked		J-Coding				
ID	Date	GC	Analyte	Results	Concentration	Difference	Required?				
3448-15-1	5/29/2007	Alpha	VC	57	80.2	28.9	N				
			DCE	62.3	84	25.8	N				
			TCE	18.3	22	16.8	Ň				
			PCE	11.5	15.6	26.3	N				
	Associated s	amples:	G-40-25, G-40-16, G-41-35, G-41-30, G-41-25, G-41-16, G-42-20,								
		-	G-42-16, G	-43-30							

PE Sample			T	Field	Spiked	%	J-Coding
ID	Date	GC		Results	Concentration	Difference	Required?
3448-15-2	5/29/2007	Beta	VC	72.4	80.2	9.7	N
			DCE	63.5	84	24.4	N
			TCE	14.4	22	34.5	Y
			PCE	13.7	15.6	12.2	N
	Associated s	amples:	G-40-35, G	-40-35-Dup, G	-40-30, G-40-20	, G-41-20, G-	42-35, G-42-
		-	30, G-42-25, G-43-35, G-43-25				

PE Sample				Field	Spiked	%	J-Coding	
ID	Date	GC		Results	Concentration	Difference	Required?	
3448-15-3	5/30/2007	Aipha	VC	88.6	80.2	10.5	N	
			DCE	101	84	20.2	N	
			TCE	19.8	22	10	N	
			PCE	20.3	15.6	30.1	Υ :	
	Associated samples:		G-44-35, G-44-25, G-44-25-Dup, G-45-35, G-45-30, G-45-25, G-46-					
		40, G-46-25, G-47-35, G-47-20, G-48-25, G-49-30, G-49-3				9-30-Dup, G-		
			49-20, G-50-25, G-50-20					

PE Sample				Field	Spiked	%	J-Coding
ID <sup>·</sup>	Date	GC		Results	Concentration	Difference	Required?
3448-15-4	5/30/2007	Beta	VC	70.7	80.2	11.8	N
			DCE	63.8	84	24	N
			TCE	15.4	22	30	N
			PCE	19.5	15.6	25	N
	Associated s	amples:	G-44-40, G	-44-30, G-44-2	20, G-45-40, G-4	5-20, G-46-3	5, G-46-30,
			G-46-20, G	-47-40, G-47-3	30, G-47-25, Rin	sate-05-30-07	7, G-48-30,
			G-48-20, G	-49-25, G-50-3	30		

## Table 5Performance Evaluation (PE) Sample ResultsPCE Plume Investigation57th North Broadway Site

PE Sample				Field	Spiked	%	J-Coding
ID	Date	GC		Results	Concentration	Difference	<b>Required?</b>
3448-17-1	5/31/2007	Alpha	VC	62.3	80.2	22.3	N
			DCE	52.6		37.4	Y
			TCE	11.2	22	49.1	Y
			PCE	11.1	15.6	28.8	N
	Associated s	amples:	G-51-30, G	-52-50, G-52-4	45, G-52-35, G-5	2-25, G-53-43	3, G-53-33,
		-	G-53-33-Du	lb Ib			

PE Sample				Field	Spiked	%	J-Coding
ID	Date	GC		Results	Concentration	Difference	<b>Required?</b>
3448-17-2	5/31/2007	Beta	VC	63.3	80.2	21.1	N
			DCE	60.7	84	27.7	N
			TCE	15.6	22	29.1	Y
			PCE	13.8	15.6	11.5	Y
	Associated s	amples:	G-51-25, G	-51-20, G-52-4	40, G-52-30, Soil	-01, G-53-38,	G-53-28,
			Rinsate-05	-31-07			

Notes:

QAPP specifies that positive results should be J-coded if the % difference is greater than  $\pm$  30 percent and less than  $\pm$  50 percent.

Mobile laboratory was equipped with two GCs, Alpha and Beta. All results are listed in ug/L.

## Table 6Duplicate Sample Onsite Analysis Results - RPD CalculationsPCE Plume Investigation57th & North Broadway Site

Boring ID	Sample Screen D Depth Interval		Mobile	e Laborato	ry Results	(ug/L)
-	(ft bgs)	(ft bgs)	PCE	TCE	DCE	VC
G-40	35	35 - 31	ND (4)	ND (4)	ND (4)	ND (4)
G-40	35 dup	35 - 31	ND (4)	ND (4)	ND (4)	ND (4)
		RPD	NC	NC	NC	NC
G-44	25	25 - 21	11.2	ND (4)	ND (4)	ND (4)
G-44	25-dup	25 - 21	11.4	ND (4)	ND (4)	ND (4)
		RPD	1.77	NC	NC	NC
G-49	30	30 - 26	ND (4)	ND (4)	ND (4)	ND (4)
G-49	30-dup	30 - 26	ND (4)	ND (4)	ND (4)	ND (4)
		RPD	NC	NC	NC	NC
G-53	33	33 - 29	ND (4)	ND (4)	ND (4)	ND (2)
G-53	33 dup	33 - 29	ND (4)	ND (4)	ND (4)	ND (2)
		RPD	NC	NC	NC	NC

### Notes:

ND = non-detect. Detection limit listed in parentheses.

J = Result is estimated.

Dup = duplicate sample.

NC = Not calculated because contaminant was ND in at least one of the two samples.

# Table 7Rinsate Blank ListingPCE Plume Investigation57th & North Broadway Site

Rinsate Sample	Associated Borings
Rinsate-05-30-07	G-40, G-41, G-42, G-43, G-45, G-46, G-47
Rinsate-05-31-07	G-48, G-49, G-50, G-51, G-52, G-53

1





### Attachment A Daily Reports and Photographs

(

DAILY REPORT

.

DATE

May 29, 2007

DAY

S M T W TH F
--------------

USEPA PM: Steve Kinser	WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
PROJECT: 57 <sup>th</sup> & North Broadway Site	TEMPERATURE	to 32	32-50	50-70	70-85	85-up
JOB: PCE Plume Investigation – Phase 2	WIND	Still	Mod.	High	Repor	t No. 1
CONTRACT: EP-S7-05-05 ,Task Order 056	HUMIDITY	Dry ·	Mod.	Humid		

TASK: Soil Sampling Soil Boring Aquifer Testing Well Installation <u>GW Sampling</u>						
SUBCONTRACTORS ON SITE: Black & Veatch (2): G. Luecke, G. Douglas; BGS (3): M. Ocsody, D. Freund, B. Cullen						
EQUIPMENT ON SITE: Geoprobe, Mobile Lab, YSI, miscellaneous soil sampling equipment, three POVs						
WORK PERFORMED (INCLUDING SAMPLING MEDIA, SAMPLE NUMBERS, AND ANALYSES):						
Mobilized to site. Set up mobile laboratory and located borings to be installed today.						
Installed boring G-40 (approximately 100 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).						
Installed boring G-41 (approximately 200 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).						
Installed boring G-42 (approximately 300 feet NW of G4-28). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).						
Installed boring G-43 (approximately 150 feet NE of G-B253 and 100 feet W of MW-305). Collected samples from 5 depths (35, 30, 25, 20, and 16 feet bgs).						
Soil Boring Summary: Number of Borings Installed: 4 Total Footage Bored: 140 feet						
Groundwater Sampling Summary:						
Number of Samples Collected and Analyzed:						
Sampling Point Number of Samples Notes						
G-40 7 Included a duplicate and an MS/MSD						
G-41 5						

PROJECT:	57 <sup>th</sup> & North Broadway Site	<b>REPORT NO:</b>	1	

### JOB: PCE Plume Investigation – Phase 2 DATE: May 29, 2007

 G-42
 5

 G-43
 5

 TOTAL
 22

Number of Samples Collected for Offsite Analysis: Sampling Point Number of Samples Notes G-40 MS/MSD 1 G-41 1 1 G-42 Duplicate G-43 0 3 TOTAL

Samples for offsite analysis were packaged and placed on ice and will be shipped tomorrow (May 30).

Onsite analytical results are presented in Table 1 provided separately. Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude .
G-40	N37°47.283	W097°20.346
G-41	N37°47.297	W097°20.366
G-42	N37°47.308	W097°20.377
G-43	N37°47.332	W097°20.415

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-15-1 and 3448-15-2) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

TOMORROW'S EXPECTATIONS: Continue installing borings, collecting groundwater samples, and analyzing groundwater samples.

PREPARED BY:

**REVIEWED BY:** 

Genise M. Luecke

DAILY REPORT

8

DATE

May 30, 2007

DAY

s м т w т
-----------

FS

		•				
USEPA PM: Steve Kinser	WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
<b>PROJECT:</b> 57 <sup>th</sup> & North Broadway Site	TEMPERATURE	to 32	32-50	50-70	70-85	85-up
<b>JOB:</b> PCE Plume Investigation – Phase 2	WIND	Still	Mod.	High	Repor	t No. 2
CONTRACT: EP-S7-05-05 Task Order 056	HUMIDITY	Dry	Mod.	Humid		

TASK:	Soil Sampling	Soil Boring	Aquifer Testing	Well Installation	GW Sampling	
SUBC( Cullen	ONTRACTORS O	N SITE: Black	& Veatch (2): G. L	uecke, G. Douglas;	BGS (3): M. Ocsody,	D. Freund, B.
EQUIP	MENT ON SITE:	Geoprobe, Mol	bile Lab, YSI, misc	ellaneous sampling:	g equipment, three PC	OVs
WORK	PERFORMED (I	NCLUDING SAN	IPLING MEDIA, SA	AMPLE NUMBERS, A	AND ANALYSES):	
Steve I decide obtaine Auto S	Kinser, EPA, and d that additional ed access to Alle alvage were laid	Ashley Allen, K investigation is en's Auto Salvag out and agreed	CDHE, were onsite needed north of t ge which abuts the upon by EPA and	Discussed location the fence on Midlan o north side of Midla KDHE.	ons of additional borin d's north property lin and. Boring locations	ngs and it was e. Steve Kinser s within Allen's
Instalie depths	ed boring G-44 (a s (40, 35, 30, 25, a	pproximately 6 and 20 feet bgs).	5 feet NE of G4-41	at north side of rail	road track). Collecte	d samples from 5
Instalie Collect	ed boring G-45 (a ted samples fron	pproximately 10 n 5 depths (40, 3	00 feet W of G4-44 5, 30, 25, and 20 f	and 75 feet NW of ( eet bgs).	G-42 on north side of	railroad track).
Installe Collect	ed boring G-46 (a ted samples fron	pproximately 10 1 5 depths (40, 3	00 feet E of G4-44 5, 30, 25, and 20 f	and 65 feet NW of G eet bgs).	G-40 on north side of	railroad track).
Installe sample screen	ed boring G-47 (a es from 5 depths used at this bor	pproximately h (40, 35, 30, 25, a ing.	alfway between G and 20 feet bgs).(	-44 and G-45 on nor Collected a rinsate s	th side of railroad tra sample from the decc	ck). Collected ontaminated
Installe sample	ed boring G-48 (a es from 3 depths	t Allen's Auto S (30, 25, and 20	alvage approxima feet bgs).	itely 150 feet from t	he W property line).(	Collected
Installe (30, 25	ed boring G-49 (a , and 20 feet bgs	nt Allen's Auto S ).	alvage approxima	ntely 50 feet E of G-4	18). Collected sample	es from 3 depths

PROJECT:	57 <sup>th</sup> & North Broadway Site	<b>REPORT NO:</b>	3	••••
JOB:	PCE Plume Investigation – Phase 2	DATE:	May 30, 2007	

Installed boring G-50 (at Allen's Auto Salvage approximately 50 feet E of G-49). Collected samples from 3 depths (30, 25, and 20 feet bgs).

Installed rods and set screen at boring G-51 (at Allen's Auto Salvage approximately 50 feet E of G-50), but will collect groundwater samples tomorrow (May 31, 2007).

Soil Boring Summary: Number of Borings Installed: 8 (only sampled 7) Total Footage Bored: 296 feet

Groundwater Sampling Summary:

### Number of Samples Collected and Analyzed:

Sampling Point	Number of Samples	Notes
G-44	6	Included a duplicate
G-45	6	Included a MS/MSD
G-46	5	
G-47	5	
G-48	3	
G-49	4	Included a duplicate
G-50	4	Included a MS/MSD
TOTAL	33	_

### Number of Samples Collected for Offsite Analysis:

Sampling Point	Number of Samples	Notes
G-44	0	
G-45	0	
G-46	0	
G-47	0	
G-48	1	
G-49	1	
G-50	1	· · · · · · · · · · · · · · · · · · ·
TOTAL	3	

Samples were packaged and shipped via FedEx to EPA Region VII laboratory.

Onsite analytical results are presented in Table 1 provided separately. Note that final results from borings G-47 through G-50 were not received although verbal results were. In boring G-47, PCE was detected at 800 ug/L in the shallowest (20 feet bgs) sample. In borings G-48 through G-50 (all on the Allen's Auto Salvage lot north of Midland), PCE or TCE was detected. DCE was detected in some of the samples but all the detections were all below 15 ug/L.

Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude
G-44	N37°47.304	W097°20.354

PROJECT:	57 <sup>th</sup> & North Broadway Site	<b>REPORT NO:</b>	3

### JOB: PCE Plume Investigation – Phase 2 DATE:

May 30, 2007

 $\mathbf{i}$ 

G-45	N37°47.318	W097°20.368
G-46	N37°47.294	W097°20.344
G-47	N37°47.308	W097°20.360
G-48	N37°47.330	W097°20.339
G-49	N37°47.327	W097°20.330
G-50	N37°47.326	W097°20.323

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-15-3 and 3448-15-4) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

ł

TOMORROW'S EXPECTATIONS: Continue installing borings, collecting groundwater samples, and analyzing groundwater samples. It is anticipated that field activities will be completed tomorrow.

PREPARED BY:

**REVIEWED BY:** 

x

Genise M. Luecke

### **DAILY REPORT**

٤

DAY

DATE

s	M	т	¥	тн	F	S

4

-

May 31, 2007

USEPA PM: Steve Kinser	WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
PROJECT: 57 <sup>th</sup> & North Broadway Site	TEMPERATURE	to 32	32-50	50-70	70-85	85-up
<b>JOB:</b> PCE Plume Investigation – Phase 2	WIND	Still	Mod.	High	Repor	t No. 3
CONTRACT: EP-S7-05-05 Task Order 056	HUMIDITY	Dry	Mod.	Humid		

TASK: Soil Sampling Soil Boring Aquifer Testing Well Installation GW Sampling
SUBCONTRACTORS ON SITE: Black & Veatch (2): G. Luecke, G. Douglas; BGS (3): M. Ocsody, D. Freund, B. Cullen
EQUIPMENT ON SITE: Geoprobe, Mobile Lab, YSI, miscellaneous sampling equipment, three POVs
WORK PERFORMED (INCLUDING SAMPLING MEDIA, SAMPLE NUMBERS, AND ANALYSES):
Steve Kinser, EPA, was onsite. Steve requested that we collect a soil sample just outside the Midland fence where the concrete ditch discharges. Collected sample with make-shift decontaminated sampling equipment. Sample was analyzed by the mobile laboratory. No PCE, TCE, cis-1,2-DCE, or vinyl chloride was detected in this sample (SOIL-01). The detection limit was 20 ug/kg.
Sampled boring G-51 (at Allen's Auto Salvage approximately 50 feet E of G-50). Collected samples from 3 depths (30, 25, and 20 feet bgs).
Installed boring G-52 (approximately 350 feet N of G-B253). Collected samples from 6 depths (50, 45, 40, 35, 30, and 25 feet bgs).
Installed boring G-53 (approximately 100 feet W of GB-253). Collected samples from 4 depths (43, 38, 33, and 28 feet bgs). Collected a rinsate sample from the decontaminated screen used at this boring.
At request of EPA, all the samples from G-52 and G-53 were collected for off-site analysis.
Demobilized from the site.
Soil Boring Summary: Number of Borings Installed: 2 (sampled 3) Total Footage Bored: 93 feet
Groundwater Sampling Summary:

PROJECT:	57 <sup>th</sup> & North Broadway Site	<b>REPORT NO:</b>	3
-			

### JOB:PCE Plume Investigation – Phase 2DATE:May 31, 2007

#### Number of Samples Collected for Offsite Analysis:

Sampling Point	Number of Samples	Notes
G-51	0	
G-52	6	
G-53	4	
TOTAL	10	

Samples were packaged for delivery to EPA Region VII laboratory tomorrow (June 1).

Locations of the sampling points are provided on separate figure. Latitude/longitude of sampling points are listed below:

Sampling Point	Latitude	Longitude
G-51	N37°47.330	W097°20.311
G-52	N37°47.363	W097°20.442
G-53	N37°47.314	W097°20.461
SOIL-01	N37°47.317	W097°20.351

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): Calibrated YSI. Analyzed PE samples (3448-17-1 and 3448-17-2) in the onsite mobile laboratory.

HEALTH AND SAFETY LEVELS AND ACTIVITIES: Held safety meeting.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN: None.

SPECIAL NOTES: None.

.

TOMORROW'S EXPECTATIONS: None

PREPARED BY:

**REVIEWED BY:** 

Genise M. Luecke



05/30/07. Facing east. Installing G-44, at north edge of former railroad track.



05/31/07. Soil sampling at fence where drainage leaves concrete ditch on Midland property.

57<sup>th</sup> & North Broadway May 2007



05/31/07. Northwest corner of Midland property. End of the concreted ditch.



05/31/07. Facing east. North fence line of Midland property with concrete ditch.

### Attachment B Field Log Book Pages

127] 05/29/07	128
PCE FlumeChase 2Dorung JocationsBoung #Intitude (N)Jongitude (W)G-4037° 47.28397° 20.246G-4037° 47.28397° 20.246G-4147.29720.366G-4247.30920.377G-4347.33220.415G-4447.30420.354G-4547.31820.368G-4647.29420.344G-4747.30820.360G-4847.33620.360	Bouring # Latitude (N) Hongetude (W)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	

.

**t** 1

.

.

5

129 05/29/07 NºM dueske 8 m dueste \$ \$129/07 1450 moved to 6-43. Collected 0610 Left NC for Sik 5 acuptes. 0900 anived at site. Packed 1525 Called Sten Kenser w/ my supplies. M. Occodey, update and cell phone # D. Freund, & B. Celler 1555 Completed 6-43 and us BGS maile ul bug Douglas BUSPC. demoked for day . lachanged surplies for lat. 6920 Foid out paints at north Prepared Daily Report end of study area. e-mailed reports to Stene 0949 Calchuted 45I held Salety mtg. PE 3448-15-112 6645 Kinsin EPA 1020 Installed and sugared 6-40 ~100 west of 64-28. 1030 Collected 4 Damples 1155 moved 10 6-41 ~ 200 fait west of 6408. Installed rod: and then bake for lunch and a second :250 returned to askes offer Lunch. Collection 5 surplus for 6-41. Word to 6-42 n Bou feet west of 64-28-Collected 5 sample form 1350 G-42 See separable field Suct 2 . 2m Fuche

151) 5/20/07 Min Americe DM dueshe 5/30/07 0700 annois at site. Calibutat 1155 Fanished F-46 . Left 2. F. Hard Safety metric, Ste for Lunch . What carinegy of site. w EPA and HDHE For martied locations of discise importance of 3 borning ~ 75' North. concrete dirch along 8, the G-40-41-42 N property denie of wound on RR ROW. Thidland . Fibras liphies month of 1355 Letuned to site . Degan. RR Row. Surgeling 6-47 located 0245 Boarn 6-44 ~ 65 Not balfway between. 6-44 al 6-45. porter in R.C. 2000. contracto paragino. Collected 5 Daughter. San 10 9.95 100 of BAR WE of 5-95 in RA ROW -Here Knoer called w/ Ciccos is allens into Salvage 30 horst of G-47 (about 75 hat) Morea to G-48 inside 0120 Willie 5 Dauplies alleno Luto Salvage "Thomas 30 G-46 - Let Collected 3 smalles Est, G-44 in R.2 How and with agreement from Just 1007 6-40 KONE will dille of boring Collected 5 samples in the auto Salvage 1100 EPA anived marte, Steve So- heart centre carst of Kussen, unta KAHE Dohley F + 4 3 allen. Cuscussed Exation 1700 and galen Left 1143 The went to get access. ANC 2012 Enche

133] 05/30/07 2 manuche 1515 mored to 6-49 ~ 50 ft west of G-48 Collected 3 Samples 1615 mored to 6-50 ~ 50 ft west of G-49 Collected 3 samples 1700 9 homes to 6.51 ~ 50 feet west of 6-50. Smotallas rodo and Screen will sample in morning . 1715 diff site to package and simp somples. Frepare daily reports and semanced report to Store Kinser EPA. Contraction of the second

eggndueche 5/3:107 134 5700 annois at site. Calchated 45I. Salaty Meeting. Staked from G-52 in of COB253 Began Sampling G-SI Collected 3 samples 0800 moved to G-53 ~ 350 fest NA G-B253 just south of "RR ROW Welcoted 5 Hangeles 0920 Collected SOIL - 01 sample at end of draning ditch coming off of medland LAT N 37º 47.317 LONG W970 20.351 0930 Steve Kinice left str. The Soil Samples was at his request and was given to the possible lab. 1000 moned do 6-53 ~ 100 pet WA G- B253 Collected of simples 1100 Completed 6-53. Began. packaging samples for

1355 XMX 8 5/3:107 EPA Job. Lollecterk RINSATE-05-31-1200 how series at . 1245 fuit ite for KC after alterno, Dample resulto. 1655 Anned KC. Said pamples prepared daily report and sunt of 876 voia ismail.

Attachment C Temporary Direct-Push Sampling Point Purge Data Field Sheets

		Tem	iporary Dir	ect-Push PCE 57 <sup>th</sup> &	Sampling Plume Inv North Bro	Point Pure estigation adway Site	<b>ge Data Fi</b> e	eld Sheet		•
DP Point I	Number:	6-40		_ Date li	nstalled: _	<b>1</b> 5/	29/07	s	ampler(s):	Page 1 of 1 G. Luecke
Notes/Pho	otos: $^{0}$	0119). <u>14 3</u>	t of	<u>64-</u> 2	28		<u>970</u>			G. Douglas
Dopth to 5		MM	ft bac		Donth to 14	latar Tabla		14 -		<u> </u>
Depth to f Purge I Sample Depth	Refusal: Informati	<u>рн</u>	_ ft bgs Sp. Cond.	ş Turbidity	Depth to W	Vater Table	ORP	Volume Purged	bgs QA	/QC?
Depth to F Purge I Sample Depth (feet bgs)	Refusal: <b>nformati</b> <sub>Time</sub>	<u>рн</u>	_ ft bgs Sp. Cond. (uS/cm)	ې Turbidity (NTU)	Depth to W DO (mg/L)	Vater Table Temp (C)	ORP (mV)	Volume Purged	bgs QA Onsite	/QC? Offsite
Depth to F Purge I Sample Depth (feet bgs) 3 5	Refusal: nformati Time 10:56	<u>рн</u> (4.7 <b>5</b>	ft bgs Sp. Cond. (uS/cm)	پ Turbidity (NTU) 548.0	Depth to W DO (mg/L) 0.78	Vater Table Temp (C) (6-03	ORP (mV)	Volume Purged ()) A Life	کم QA Onsite	/QC? Offsite
Depth to I Purge I Sample Depth (feet bgs) 35 30	Refusal: <b>nformati</b> Time 10:56 /0:57	<u>рн</u> 6. 75 6. 78	ft bgs Sp. Cond. (uS/cm) LOBS /.059	Turbidity (NTU) 548.0	Depth to W DO (mg/L) 0.78 \$0.72	Vater Table Temp (C) (6-03 /5.89	ORP (mV) (69.3	Volume Purged (L) A Lifee A Life	bgs QA Onsite 」レット	/QC? Offsite
Depth to I Purge I Sample Depth (feet bgs) 35 30 25	Refusal: <b>nformati</b> Time 10:56 10:51 //:03	NМ оп рн <u>6.75</u> <u>6.78</u> <u>6.65</u>	ft bgs Sp. Cond. (uS/cm) LOBS /DS9 0939	Turbidity (NTU) 548.0 1210.4 997.4	Depth to W DO (mg/L) 0.78 \$0.72 0.55	Vater Table Temp (C) 16-03 15.89	ORP (mV) 69.3 64.4 - 55./	Volume Purged (Life 4 Life 4 Life 4	Dup MS/MSD	/QC? Offsite
Depth to I Purge I Sample Depth (feet bgs) 35 30 25 20	Refusal: <b>nformati</b> Time 10:56 10:51 //:03 //:/4	NM on pH 4.75 6.78 6.65 6.30	ft bgs Sp. Cond. (uS/cm) LOBS 1.059 0.939 1.644	Turbidity (NTU) 548.0 1210.4 997.4 1048.7	Depth to W DO (mg/L) 0.78 \$0.72 0.55 0.80	Vater Table Temp (C) 16-03 15.69 15.65 15.42	ORP (mV) 69.3 64.4 -55.1 -0.3	Volume Purged (Life 4 Life 4 Life 4 Life	bgs QA Onsite DUP MS MSD	VQC? Offsite
Depth to I Purge I Sample Depth (feet bgs) 35 30 25 30 25 30 16	Refusal: <b>nformati</b> Time 10:56 10:51 //:03 //:/4 //:25	NM on pH G.75 G.75 G.65 G.30 G.42	ft bgs Sp. Cond. (uS/cm) LOBS 1.059 0.939 1.644 1.319	Turbidity (NTU) 548.0 1210.4 997.4 1048.7 197.4	Depth to W DO (mg/L) 0.78 \$0.72 0.55 0.80 1.50	Vater Table Temp (C) 16.03 15.69 15.65 15.42 15.10	ORP (mV) 69.3 69.4 69.3 69.4 69.3 69.4 69.3 69.3	Volume Purged ()) A Life A Life 4 Life 4 Life 4 Life 2, 5	bgs QA Onsite DUP MS∫MSD	VQC? Offsite

· ·

.

.

DP Point I	Number:	<u> </u>		_ Date Ir สรร	nstalled:	05/29	107	8	Sampler(s):	G
Notes/Pho	oing (LavL otos: <u>7</u>	long): <u>Ν</u> ΟΟ΄ (μ)ε≤	ST OF G	4-28	<u></u>					G
						<u></u>				
Dopth to [		1110			Donth to M		. /4	<u>/'</u>		
			_ π bgs	i		vater i adle	· <u>· /</u>	T	t bgs	
Sample Depth	Time	рН	Sp. Cond.		DO (mo/L)	Temp	ORP (mV)	Volume Purged	Q	 A/Q(
35	12:48	6.97	977	1231.2	0.54	17.57	-157.0	2	<u>Onsite</u>	╋
30	13:00	6.84	931	285.7	0.63	15.88	-90.0	13		T
25	13:10	6.85	942	1197.9	3.70	15.94	-34.1	23		T
20	13.21	6.82	887	4/84.0	1.72	15.37	-12.4	<b>\$</b> 3		
16	13.32	6.90	746	52.8	9.07	15.43	55.1	3		
		<u> </u>								_

e se en la s

 $\widehat{}$ 

0
						1	1_			Page 1 of 1
DP Point	Number:	6-92	- 42	Date I	nstalled:	<u>os   29</u>	107		Sampler(s):	G. Luecke
GPS Rea	ding (Lat/L	ong): <u>N</u> (	37° 47.	68	<u>W 097</u>	7° 20.3	377			G. Douglas
Notes/Pho	otos: _ <u>~</u>	300'	west a	<u>y 64</u>	-28	<u> </u>				
slow i	mater	<u>23</u>	16'							
		1100						13		·
Jepth to I	Refusal:		_ ft bgs		Depth to V	Vater Table			lt bgs	
Purge I	nformati	on	T		T	r	<u>гт</u>		- <u></u>	
Sample Depth	Time	рН	Sp. Cond.	Turbidity	DO	Temp	ORP	Volume Purged	a	A/QC?
	4							-		
(feet bgs)		ļ	(uS/cm)	(NTU)	(mg/L)	(C)	(mV)	(90)	Onsite	Offsite
(feet bgs) 35	/3.57	6.83	(uS/cm) 954	(NTU) 166. Z	(mg/L) D. 82	(C) 16.64	(mV) 34.3	( <b>1</b> ) 4	Onsite	Offsite
(feet bgs) 35 30	3.57  4.07	6.83 6.85	(uS/cm) 951 962	(NTU) /60. Z. /158.0	(mg/L) D. 82 D. 67	(C) 16.64 16.33	(mV) 34.3 -40-4	(da)) 4 3	Onsite	Offsite DUP
(feet bgs) 35 30 25	13.57 14.07 14.18	6.83 6.85 6.76	(us/cm) 954 962 946	(NTU) 166.2. 1158.0 479.0	(mg/L) D. 82 D. 67 D. 74	(C) 16.64 16.33 16.00	(mV) 34.3 -40-4 -30.5	4 3 3	Onsite	DUP
(feet bgs) ろら ろり みり みり	13.57 14.07 14.18 14.28	6.83 6.85 6.76 6.77	(us/cm) 951 962 946 932	(NTU) /66.2 /158.0 479.0 /211.8	(mg/L) D. &Z D. &Z D. &Z D. 74 0. 74	(C) 16.64 16.33 16.00 15.81	(mV) 34.3 -40-4 -30.5 -47.8	4 3 3 3.5	Onsite	Offsite DUP
(feet bgs) 35 30 25 20 /4	13.57 14.07 14.18 14.28 14.28 14.40	6.83 6.85 6.76 6.77 7.06	(uS/cm) 954 962 946 932 1631	(NTU) /60. Z. /158.0 479.0 /211.8 ZIZ.5	(mg/L) D. 82 D. 67 D. 74 D. 74 D. 94 <b>8</b> 44	(C) 16.64 16.33 16.00 15.81 17.00	(mV) 34.3 -40-4 -30.5 -47.8 • 0	4 3 3 3.5 2.5	Onsite	Offsite DUP
(feet bgs) 35 30 み5 みり /4	13.57 14.07 14.18 14.28 14.28 14.20	6.83 6.85 6.76 6.77 7.06	(us/cm) 951 962 946 932 1631	(NTU) / (.6. Z. / 158.0 479.0 /211.8 ZIZ.S	(mg/L) D. 82 D. 67 D. 74 0. 94 8.44 8.44	(C) 16.64 16.73 16.00 15.81 17.00	(mV) 34.3 -40-4 -30.5 -47.8 • 0	4 3 3 3.5 2.5	Onsite	Offsite DUP

۰ ۱۹۹۹

·

", , . -

· · ·

.

•

		Tem	porary Dir	ect-Push PCE 57 <sup>th</sup> &	<b>Sampling</b> Plume Inv North Broa	Point Purg estigation adway Site	ge Data Fie	eld Sheet		
DP Point I	Number:	<u>G-4</u>	3	Date Ir	nstalled:	5/29	107	s	ampler(s):	Page 1 of 1 G. Luecke
Notes/Pho	otos:	ong): <u>N 3</u> 150 <b>[</b>	NEof	6-82	<u>53</u> and	20 1 ~ / 0	e jut	evest	of mw.	G. Douglas - 305
Depth to F	Refusal: <b>nformat</b> i	NM Ion	_ ft bgs		Depth to W	/ater Table	:	<u>/4</u> fi	bgs	
Sample Depth (feet bgs)	Time	рН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (get)	Q/ Onsite	VQC?
35	15:14	6.91	990	1242.4	0:52	19.13	-113.2	Z	· · · ·	
30	15.23	6.76	964	811.8	0.57	16.24	-70.4	3		
25	1534	6.79	973	869,4	0.63	15.84	-102.4	3.5		
20	1545	6.61	902	525.4	0.72	15.63	-82.5	3		
16	1554	6.44	789	1180.1	\$ 5.30	15.33	31.5	3		
										<u> </u>
		1								

.

,

.

.....

.

 $\langle \hat{a} \rangle$ 

		Tem	porary Dir	ect-Push \$ PCE 57 <sup>th</sup> &	Sampling I Plume Invo North Broa	Point Purg estigation adway Site	je Data Fie	d Sheet		Page 1 of 1
DP Point N	lumber <sup>.</sup>	6-45		Date In	stalled <sup>.</sup>	5/30%	107	S	ampler(s).	Gluecke
GPS Read	ling (Lat/L	ong): <u>N 3</u>	70 47.	3/8	<u></u>	· 20.3	68	•	ampioi(0).	G. Douglas
Notes/Pho	otos: <u>~</u>	100 fee	tw	oz 6	-44	in RI	e Roc	<u></u>	~75'N	107 6-42
	·	• •		<b>v</b>			<u> </u>			
Depth to F Purge I	Refusal: <b>nformati</b>	/ on	ft bgs	i	Depth to W	ater Table	~	<u>16</u> ft	bgs	,
Sample Depth (feet bos)	Time	pН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (ma/L)	Temp (C)	ORP (mV)	Volume Purged	QA/ Onsite	QC? Offsite
40	927	6.95	976	)119,2	0.40	15:84	/[.0	4	MJ/MSD	
35	939	6.95	995	144:1	. 36	15:72	-74.1	3.5		
30	950	6.94	1013	1070.4	.36	IS.ZI	-70.5	3.5		
25	1000	6.94	740	940.1	3.94	14.9z	-29.9	3.5		
20	1010	7.03	610	90.5	5:69	14.62	-9.5	2.5		
				-						
					· · ·					

.

, ,

.

.

٠

٠

٠

.

•

٠

.

.

					•	.•	•			$\cdot$
DP Point I GPS Read Notes/Pho	Number: ding (Lat/L otos: <u>fu</u>	Tem <u>(- 49</u> .ong): <u>N 3</u> <u>had b</u>	porary Dir 1 70 47.3 40 fee	PCE 57 <sup>th</sup> & Date Ir	Sampling Plume Inv North Bro nstalled: <u>W 097</u>	Point Purplestigation adway Site OS/3 ro z 0.3 RR	ge Data Fie 5 / 07 5 4 65 / 1	old Sheet	ampler(s):	Page 1 of 1 G. Luecke G. Douglas <i>highe</i>
Depth to F	Refusal: <b>nformat</b>	<i>NM</i> ion	ft bgs		Depth to W	/ater Table	· <u>~</u>	<u>16</u> ft	bgs	
Sample Depth (feet bas)	Time	рН	Sp. Cond.	Turbidity (NTU)	DO (mg/l.)	· Temp	ORP (mV)		QA/	QC? Offsite
40	8:06	6.85	1091	1212.5	.0.43	15.80	18.4	4		
35	8:20	6.88	1087	692.1	0.34	15:64	-44.Y	4		
30	8:30	6.90	1014	1128.1	.35	15.48	-55.4	3.5		
25	f:41	6.84	965	1198.4	.34	15.99	-71.2	3.5	DUP	
20	9:56	6.77	826	237.0	4.20	14.89	Z.Z	4		
								L		

**.** •

7

٠

# Temporary Direct-Push Sampling Point Purge Data Field Sheet PCE Plume Investigation 57<sup>th</sup> & North Broadway Site

· · · .

Page 1 of 1

DP Point Number:	G-46		Date Installed:	05/30	107	Sam	pler(s):	G. Luecke
GPS Reading (Lat/Lo	ong): <u>N 379</u>	5 A	<u>4 wog</u> G-44 <b>1</b>	~ 65	heet	Not	G-4	G: Douglas る
in lf fou	par	2 0 0	<u> </u>		0	<u>/ </u>		
	•				و	CAN'T		
Depth to Refusal:	NM	ft bgs	Depth to V	Water Table:		26 ft bg	<b>S</b> .	

# Purge Information

JV

\?

Sample Depth	Time	рН	Sp. Cond.	Turbidity	DO	Temp	ORP	Volume Purged	· QA/	QC?
(feet bgs)			(uS/cm)	(NTU)	(mg/L)	(C)	(mV)	(gai) <b>L</b> _	Onsite	Offsite
40	1841	6.91	1100	415.4	0.44	16.00	7.3	3		
35	1054	6.89	1085	347.2	0.4Z	16.03	-42.1	3		
30	11:03	4.77	1030	842.0	• 0.46	15.56	-68.3	3	4	
25	1116	6.58	783	1035.9	4043	15.24	-65.3	3		
20	11.30	6.54	638	346.2	8.2	15.07	57.8	3		

.

¢.

		Tem	porary Dir	ect-Push ( PCE 57 <sup>th</sup> &	Sampling Plume Inv North Bro	Point Purg estigation adway Site	ge Data Fie	eld Sheet		Page 1 of 1
DP Point I GPS Read	Number:	<u>G-4</u> ong): N 3	7 7° 47.3	_ Date Ir 308	stalled: _ W 097	<u>05/30</u> 10 20.34	107	S	ampler(s):	G. Luecke G. Douglas
Notes/Pho final	otos: <u>Ha</u>	alferny lected	before from	en G-	44 501	& G-	45			
Depth to F	Refusal: <b>nformati</b>	NM on	_ ft bgs	 	Depth to W	Vater Table	:	<u>/5</u> fi	bgs	
Sample Depth (feet bgs)	Time	pН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged	Q/ Onsite	A/QC? Offsite
40	1309	7.00	944	1212.4	·le1	15.26	-121.4	4		
35	1319	4.94	944	1109.3	.35	15.63	-/oz.4	4		
30	1332	7.01	950	1203.3	.46	15.6	-95.4	3		
25	1342	6.93	966	1012.1	.37	15.26	-17.5	3		
20	1352	4.88	K	1205.7	7.32	15.19	31.0	R		
			828.							
									·	
										-

•

 $\bigcirc$ 

· · ·

•

		Tem	porary Dir	r <b>ect-Push</b> PCE	Sampling Plume Inv	Point Purg	ge Data Fi	eld Sheet		
				57 <sup>th</sup> &	North Broa	adway Site	)			Page 1 of 1
DP Point	Number	6-48		Data li	nstalled: /	5/20	laz	Se	moler(s).	
GPS Rea	ding (1 at/l	$\simeq$ 10	70 67.	_ Date ii \$30	13 Lalieu. <u>2</u> \\\/ 007	· 20-3	39	06		G Douglas
Notee/Dh			1000	: A. #					11	G. Douyida
The c		Au	+	An.	DÓ	nge 1	- up	<u>paraen</u>	r of	<u> </u>
2	to .l	- and	n ar	<u> </u>	(Len	21		<u></u> i	;	
Denth to	Refusal:		ft has		Denth to W	later Table	· •	ila fi	has	
Durgo	nformati		_ 11 0 90							
Sample Depth	Time	pH	Sp. Cond.	Turbidity	DO	Temp	ORP	Volume Purged	. QA	/QC?
(feet bgs)			(uS/cm)	(NTU)	(mg/L)	(C)	(mV)	(gal) L	Onsite	Offsite
30	1434	6.99	849	1222	5.37	19.39	-13.4	2		
	MEI	6.71	785	1108.0	3.56	16.61	6.0	2.5		
25	1CY1					10 4-	701	7.5		
25	1503	637	918	518.1	Z.78	18.46	SX.Y			1 1
25 20	1951	6.37	918	518.1	2.78	18.42	28.4			
25 20	1503	6.37	918	518.1	2.78	18.42	28.4			

.

.

.

· )P Point I }PS Rea Notes/Ph⊧	Number: ding (Lat/L otos:	<b>6-4</b> ong): <u>N 3</u>	<b>9</b> 7° 47. E A	_ Date Ir <u>377</u> G-48	nstalled: ( <u>W 097</u>	)5/30/1 ro zo. s	07 30		Sampler(s):	Page 1 d G. Luecke G. Douglas
Depth to I Purge I	Refusal: I <b>nformat</b> i	50 <u>189</u> 46 ion	<u>א לב</u> ft bgs		Depth to V	Vater Table	: <u> </u>	16	ft bgs	
Sample Depth (feet bgs)	Time	рН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gal)	Q Onsite	A/QC? Offsite
30	1531	6.74	869	1200.]	•41	16.78	-64.8	3	DUP	
হৈ	1551	6.43	724	1215,4	0.75	1623	-76.0	3		
0.	1600	6.39	875	1212.8	0.9	16.01	-67.1	3		
20										i
20								•		

.

• •

-

. . .

		Terr	<b>porary Di</b>	rect-Push S PCE	<b>Sampling</b> Plume Inv	Point Pure restigation	ge Data Fie	eld Sheet		
				57 <sup>m</sup> &	North Bro	adway Site				Page 1 of
<b>DP Point</b>	Number:	<u>G-50</u>	)	_ Date Ir	nstalled:	95/30	107	S	ampler(s):	G. Luecke
3PS Rea	ding (Lat/L	ong): <u>N</u>	<u>37° 47. 3</u>	326	<u>w 097</u>	\$0.3	23			G. Douglas
Notes/Ph	otos: 🔨	50 E	of G-0	49						
					<u></u>		<u></u>			
Depth to I	Refusal:	NM	_ ft bgs		Depth to V	Vater Table	e: _/	<u>6</u> ft	bgs	
Depth to I Purge I	Refusal: Informat	<u>NM</u> ion	_ ft bgs		Depth to V	/ater Table	e: _/	<u>le</u> ft	bgs	
Depth to I Purge I Sample Depth	Refusal: Informat	<u>"</u> ion рн	_ ft bgs Sp. Cond.	Turbidity	Depth to V	Vater Table		Volume Purged	bgs QA	
Depth to I Purge I Sample Depth (feet bgs) 30	Refusal: Informat Time	<u>ММ</u> ion рн 6. 66	ft bgs Sp. Cond. (uS/cm) 921	Turbidity (NTU)	Depth to V DO (mg/L)	Temp (C)	orp (mV) -22.5	Volume Purged (get) L 3	Donsite	VQC? Offsite
Depth to Purge Sample Depth (feet bgs) 30 75	Refusal: Informat Time /630 /638	<u>NM</u> ion рн <u>6. сее</u> 6. 70	_ ft bgs Sp. Cond. (uS/cm) 921 941	Turbidity (NTU) [2.20.] <b>9</b> 54.]	Depth to V DO (mg/L) 1.08 1.10	Vater Table Temp (C) 16.70 16.27	ORP (mV) -22.5 -78.9	Volume Purged (get) L 3	Donsite	/QC? Offsite
Depth to Purge Sample Depth (feet bgs) 30 75 20	Refusal: Informat 'Time /630 /638 /649	<u>NM</u> ion рн 6.66 6.70 6.62	ft bgs Sp. Cond. (uS/cm) 921 941 1/35	Turbidity (NTU) [2.20.] 954.] 944.9	Depth to V DO (mg/L) 1.08 1.10 1.01	Vater Table Temp (C) 16.70 16.27 /5.73	ORP (mV) -22.5 -78.9 -47.4	Volume Purged (get) L 3 3	Donsite	/QC? Offsite
Depth to Purge   Sample Depth (feet bgs) 30 75 20	Refusal: Informat Time /630 /649	<u>NM</u> ion рн 6.66 6.70 6.62	ft bgs Sp. Cond. (uS/cm) 921 941 1/35	Turbidity (NTU) [2.20.1 954.] 944.9	Depth to V DO (mg/L) 1.08 1.10 1.01	Vater Table Temp (C) 16.70 16.27 /5.73	ORP (mV) -22.5 -78.9 -47.4	Volume Purged (get) L 3	Desite	/QC? Offsite
Depth to Purge   Sample Depth (feet bgs) 30 75 20	Refusal: Informat 'Time /630 /649	<u>NM</u> ion рн <u>6.66</u> <u>6.70</u> <u>6.62</u>	_ ft bgs Sp. Cond. (uS/cm) 921 941 1/35	Turbidity (NTU) [2.20.] 954.] 944.9	Depth to V DO (mg/L) 1.08 1.10 1.01	Vater Table Temp (C) 16.70 16.27 /5.73	ORP (mV) -22.5 -78-9 -47.4	Volume Purged (get) L 3 3	e bgs QA Onsite	/QC? Offsite

寺寺学生の

•. -

. .

.

DP Point I	Number:	Tem <u> </u>	porary Dir	rect-Push & PCE 57 <sup>th</sup> & _ Date Ir	Sampling Plume Inv North Bro	Point Purg estigation adway Site	ge Data Fi Samp <b>5</b> [3]	eld Sheet le d lo7 s	ampler(s):	Page 1 of 1 G. Luecke
GPS Read	ding (Lat/L otos: <u>^</u>	ong): <u>N3</u> 50 <b>j</b> e	et e	ant o	<u>w 097</u> J G -	50	<u></u>			G. Douglas
Depth to I Purge I	Refusal: <b>nformat</b>	レM ion	_ ft bgs		Depth to W	/ater Table	: <u>· ^</u>	<u>17</u> fi	t bgs	
Sample Depth (feet bgs)	Time	ρН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (gail)	Q/ Onsite	A/QC? Offsite
30	723	6-74	889	1.21.5	1.22	15.35	-106-3	3		
25	733	4.77	819	417.3	3.5	15.18	-91.7	3		
20	741	6.62	831	1185.1	2.71	14.88	-42.5	3		
					•					
				•						
		ļ		·		 				
			<u> </u>	<u> </u>			· .			

.:

8,

-

.

•

.

•

Ţ,

٠

•

. -

.

.

		Tem	porary Dir	PCE 57 <sup>th</sup> &	Sampling Plume Inv North Broa	Point Pure estigation adway Site	ge Data Fi e	eld Sheet		Page 1 of 1
DP Point GPS Rea Notes/Ph	Number: ding (Lat/L otos: <u>~3</u>	<u>(55</u> ong): <u>N3</u> 50 fut	2 - 170 47.3	Date Ir 63 16 of G	nstalled: _ <u>W 097</u> B253	05 31 • 20.44 sint	107 12_ South	Si	ampler(s): 2R Roc	G. Luecke G. Douglas ب
Depth to	Refusal: I <b>nformat</b> i	<u>50</u> ion	_ ft bgs		Depth to W	/ater Table	s: ^ <u>~</u>	<u>24</u> ft	bgs	· · ·
Sample								Volume	_	
Sample Depth (feet bgs)	Time	рН	Sp. Cond. (uS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (C)	ORP (mV)	Volume Purged (g <del>al), 2</del>	Q/ Onsite	A/QC? Offsite
Depth (feet bgs) 50	Time 870	рН (82	Sp. Cond. (uS/cm) 990	Turbidity (NTU) 748.3	DO (mg/L) <b>3.15</b>	Temp (C) <b>15.73</b>	ORP (mV) ~ <b>59.9</b>	Volume Purged (gal) L	Q/ Onsite	A/QC? Offsite
Sample Depth (feet bgs) 50 45	Time 870 832	рн <u>(82</u> (78	Sp. Cond. (uS/cm) 990 982	Turbidity (NTU) 748.3 434.5	DO (mg/L) 3.15 10:44	Temp (C) 15.73 15.99	ORP (mV) -5 <b>9.9</b> -52.4	Volume Purged (gal) 2 2 8 2.5	Q/ Onsite	A/QC? Offsite
Sample Depth (feet bgs) 50 45 40	Time 820 832 843	рн ( <u></u> 82 ( <u></u> 78 ( <u>.</u> 91	Sp. Cond. (uS/cm) 990 982 984	Turbidity (NTU) 748.3 434.5 LZ[3.0	DO (mg/L) 3.15 10:44 6.61	Temp (C) 15.73 15.99 16.04	ORP (mV) -59.9 -52.4 -77.4	Volume Purged (gal): L 3 5 5 5 5 5 5 5 5	Q/ Onsite	A/QC? Offsite
Sample Depth (feet bgs) 50 45 40 35	Time 820 832 843 854	рн <u>6.82</u> <u>6.78</u> <u>6.91</u> <u>6.73</u>	Sp. Cond. (uS/cm) 990 982 984 948	Turbidity (NTU) 748.3 434.5 [Z[3.0]	DO (mg/L) 3.15 10:44 F.C.1 9.34	Temp (C) 15.73 15.99 16.04 16.38	ORP (mV) -59.9 -52.4 -77.4 -48.4	Volume Purged (gal) 2 3 5 7.5 7.5	Q/ <u>Onsite</u>	A/QC? Offsite
Sample Depth (feet bgs) 50 45 40 35 30	Time 820 832 843 854 905	рн 6.82 6.78 6.91 6.73 6.73 6.23	Sp. Cond. (US/cm) 990 982 982 984 948 834	Turbidity (NTU) 748.3 434.5 1213.0 162.1 121.9	DO (mg/L) 3.15 10:44 F.C.1 F.C.1 9.34 7.36	Temp (C) 15.73 15.99 16.04 16.38 15.12	ORP (mV) -59.9 -52.4 -77.4 -77.4 -48.4 -24.1	Volume Purged (gal): 2 3 5 5 5 5 5 5 3 •	Q/ Onsite	A/QC? Offsite
Sample Depth (feet bgs) 50 45 40 35 30 25	Time 820 832 843 843 854 905 924	рн 6.82 6.78 6.91 6.73 6.73 6.63 6.81	Sp. Cond. (US/cm) 990 982 984 948 948 834 644	Turbidity (NTU) 748.3 434.5 1213.0 162.1 121.9 439.2	DO (mg/L) 3.15 10:44 F.C.1 F.C.1 9.34 7.36 9.54	Temp (C) 15.73 15.99 16.04 16.38 15.12 15.22	ORP (mV) -59.9 -52.4 -77.4 -48.4 -48.4 -34.1 -15.9	Volume Purged (gail) 2 3 5 2.5 2.5 3. 2.5 2.5	Q/ <u>Onsite</u>	A/QC? Offsite

 $\bigcirc$ 

										$\sim$
										· ·
		Tem	porary Dir	ect-Push S PCE	Sampling Plume Inv	Point Purg	ge Data Fie	old Sheet	19 <b>11)</b>	b
				57" &	North Bro	adway Site	•			Page 1 of 1
DP Point I	Number:	6.53	)	_ Date ir	nstalled: 🖉	95/31/	2	5	Sampler(s):	G. Luecke
GPS Read	ding (Lat/L	ong): <u>N 3</u>	70 47.5	14	W 097	ro 20,4	<u>;</u> ]			G. Douglas
Notes/Pho	otos: <u>~</u>	100 \$	<u>eet i</u>	Voj	G-Ba	253				
n 0/1										<del></del>
	Contraction	12	ate c	22-39-6		om Ju	us se	ien		
	verusai:		_πogs	1		vater i adle		t	i Dgs	
Sample	ntormati		· ·····			<b></b>	<u></u>	Volume	1	
Depth	Time	рН	Sp. Cond.	Turbidity	DO	Temp	ORP	Purged	QA	
	101-	27			(mg/L)	(C) 10 10		(get)	Unsite	
30	1010	7.01	1076	707.0	73.6	17.60	-171.8	<u> </u>	<u> </u>	4
28	1024	7.11	1038	1242-4	8.44	14.25	-182.3	2	D.0	
33	1039	7.38	1003	1296.5	/2.73	19.60	-79.4	2	DOP	Research of
28	1052	7.30	931	12465	13,77	19.59	P1.9	2	DS/MSD	Bung
23	k., .	A''								
18	N. W. W.	N. 511								
			<u> </u>			· · ·				
	<u> </u>		<u> </u>			<u> </u>				<u>} .</u>
L	L	l	<u> </u>	1	1	l	L		L	

. د که

-- .

.

• •

,

•

, ±

,

Attachment D Sample Collection Field Sheets and Chain-of-Custody Records

			( Environn	CHAIN Rental	OF CU PROT	STODY RE		rd / Re	GIC	)N \	/H				•	
ACTIVITY LEADER(P	rint)		NAME	OF SU	RVEY	OR ACTIVITY	Ŷ		-			DATE OF	COLLECTIO	N	S	lia
Steve Kine	ser		575	th a	$N_{c}$	1th Die	.с.	lu	<u> </u>			DAY	MONTH	YEAR	1	of
CONTENTS OF SHIP	MENT									0						
SAMPLE			PE OF CONTAI	NERS		VOA SET	<u> </u>	SAMP	7LED	MEC	DIA other		RECEIVIN REMARKS/01	G LABORAT	ORY	
NUMBER	CUBITAINER	BOTTLE	BOTTLE	BO	TTLE	(2 VIALS EA)	Ę	ā	sedime	şırş			(condition of samples upon receipt, other sample numbers, etc.)			
3448-1	<u> </u>	1		T		4	X			Ē		MS	Imsi	\ \		
2448-2				1		2	Íx						1			
448-2-FD	····			1		i a	X					<u> </u>				
-448-3						2	X					<u> </u>			<u> </u>	
3448-4			· · ·			2	1	-				<u> </u>		<u> </u>		
3448.5				1	·····	à	ĥ		-			<u> </u>		<del>,</del>		·
54.48-6				+		2	t		$\vdash$							
3448-7				1		2	k					<u> </u>		<del></del>		
3448-21-66				+		2	$\overline{\mathbf{k}}$					17.	131	$\overline{\nu}$		<u></u>
NIG ALFO				1			Ê		┟──					<u> </u>		
$\sim$				+		<u> </u>	$\vdash$									
				+	- <u></u> ,		-									
			·				$\vdash$	$\square$								<del>~ ~ ~ ~</del>
				+			┝╌									
				$\leftarrow$			<u> </u>		┝─┥							
				+	$\sim$					$\vdash$						
								$\vdash$		$\vdash$					·	
							$\square$		Π							
						ļ		$\vdash$	Ч				<u></u> .			
			ļ										$\geq$			
							$\square$							$\searrow$		
				<b> </b>											$\searrow$	
																$\geq$
				<u> </u>										_		
ESCRIPTION OF SH	IPMENT				M	DDE OF SHI	PME	NT					. 5 .			
PIECE(S) CO	NSISTING OF		_ BOX(ES)		-		RCIA D	AL CA	ARR	IIER			$ \chi$			
ICE CHEST(S	5): OTHER					SAMPLE	n iR C(	ONV	EYE	D		(SHIP	PING DOCU	MENT N		
ERSONNEL CUSTOR	Y RECORD															
ELINQUISHED BY (	SAMPLER)	DAT		-	RECEI	VED BY						REASO	N FOR CHA	ANGE O	F CUST	TODY
13 m. Tuent	ع	4/30	/ 190	20												
	UNSEALE					LED		ÚNS	SEA	LEI	ьц	REASO	N FOR CH	ANGEO	FCUS	TODY
0				- {		0 /							, , un un			
SEALED	UNSEALE			-	SEA			UN	SEA	LE	▫⊓					
ELINQUISHED BY		DAT			RECEI	VED BY						REASO	N FOR CH	ANGË Ö	OF CUS	TODY
				Ļ		ED			SF/	71 E	ЪЧ					
SEALED	UNSEALE		L		Tarw				جب ب		-1					

.

7-EPA-9262(Revised 5/85)

.

.

-

.

.

4

1

ASK NUMDER: 3	3448 Sample Number:	: 1 QC Code: Matr	ix: Water Tag ID: 3448-1
Project ID:	SK7EF01	Project Manager:	Steven Kinser
Project Desc:	57th & North Broadway		
City:	Wichita	State:	Kansas
Program: Site Name:	Superfund 57TH AND NORTH BROAD REMEDIATION	WAY STREETS SITE - SITE	Site ID: 07EF Site OU: 01
Location Desc:	6-40-20		
	1	External Sample Number: _	G-40-20
Expected Conc:	(or Circle One:	Low Medium High)	Date Time(24 h
Latitude:		Sample Collection: Start:	5/29/07 11:14
Longitude:		End:	
Laboratory An	alyses:		
Container	Preservative	Molding Time Analysis	

MS/MSD Volume

Onsite Mobile Lab Field Results:

12.8 ug/L PCE 24 \_ug/L TCE

MMJ

Sample Collected By: \_

;

.

ASR Number:	3448 <b>Samp</b>	le Number:	2	QC Co	de: Ma	trix: Water	Tag ID: 3448-3	2
Project ID:	SK7EF01			Pro	oject Manago	er: Steven Kin	iser	
Project Desc: City:	57th & North Wichita Superfund	Broadway			Stal	t <b>e:</b> Kansas		
Site Name:	57TH AND NO REMEDIATION	ORTH BROAD N	WAY S	STREETS	SITE - SITE	Site ID: (	)7EF Site OU:	01
Location Desc:	6-4	2 - 3D		•				
		ľ	Exterr	nal Samp	ble Number:	6-42	-30	
Expected Conc	i (or	Circle One:	Low	Medium	High)	Date	Time(2	:4 hr)
Latitude:			San	nple Coll	ection: Star	t: 0%/2% 0%	7 14.07	
Longitude:					Enc	l: _/_/_	_:	
Laboratory An Container	alyses: Preservat 4 Deg C, H	tive ICL to pH<2	Holdir 14	ng Time Days	<b>Analysis</b> 1 VOCs in Wa	ter by GC/MS for	Low Detection Limit	 3
sample Comme	nts:				`			
(N/A)	,		•	Du	poz	34948	- Z -Dup	
C	Insite Mobile	Lab Field Res	<u>sults</u> :					
F	CE .	<u> </u>	_ug/I					

TCE <</td><4 \_\_\_\_\_ug/L

1

X g Sample Collected By:

Decient TD:	SKZEE01		Nanager	Stoven Kincer	
Project ID: Project Desc:	57th & North Broadway	Pro	ject manager:	Sleven Kinser	
City:	Wichita		State:	Kansas	
Program:	Superfund				
Site Name:	57TH AND NORTH BROAD REMEDIATION	WAY STREETS	SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-42-30				
	I	External Sam	ple Number: _	G-42-30	• .
Expected Conc:	(or Circle One:	Low Medium	High)	Date	Time(24 hr)
Latitude:		Sample Coli	ection: Start:	05/19/07	<u>14:0</u> 7
Longitude:	<u> </u>		End:		:
Laboratory An	alyses:		<u></u>		
Container	Preservative	Holding Time	Analysis		
- 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water	by GC/MS for Low Det	ection Limits
ample Comme	nts:				
N/A)					~
		•	$\wedge$	3448.	1
	,		Unp of		
				1	

PCE  $\underline{-24}_{ug/L}$ TCE  $\underline{-24}_{ug/L}$ 

Ymt

Sample Collected By:

(

ASR Number: 3	3448 Sample Number	: 3 QC Cod	le: Matr	ix: Water Tag	ID: 3448-3
Project ID:	SK7EF01	Pro	ject Manager:	Steven Kinser	
Project Desc:	57th & North Broadway				
City:	Wichita		State:	Kansas	
Program:	Superfund				
Site Name:	57TH AND NORTH BROAD	DWAY STREETS S	SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-41-20				
		External Samp	le Number: _	6-41-2	20
Expected Conc:	(or Circle One	: Low Medium	High)	Date	Time(24 hr
Latitude:		Sample Colle	ection: Start:	5/2907	13:21
Longitude:			End:		:
Lohovotowi Am	alyses:				
Laboratory Ana	-				
Container	Preservative	Holding Time	Analysis		

Onsite Mobile Lab Field Results:

ĺ

PCE  $\frac{829}{14.1}$  ug/L TCE  $\frac{14.1}{14.1}$  ug/L CISDCE 4.6 ug/L

13 m 1 Sample Collected By:

ASR Number:	3448 Sample Number:	4 QC Code: Matr	ix: Water Tag	<b>(D:</b> 3448-4		
Project ID:	SK7EF01	Project Manager:	Steven Kinser			
Project Desc: · City:	S7th & North Broadway Wichita	State: Kansas				
Program: Site Name:	Superfund 57TH AND NORTH BROAD REMEDIATION	WAY STREETS SITE - SITE	Site ID: 07EF	Site OU: 01		
Location Desc:	6-48-20					
	1	External Sample Number:	6-48-20	0		
Expected Conc	: (or Circle One:	Low Medium High)	Date	Time(24 hr)		
Latitude:		Sample Collection: Start:	05/30/07	<u>/s .03</u>		
Longitude:		End:	//	` <b>!</b>		
Laboratory An	alyses:					
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days 1 VOCs in Water	by GC/MS for Low D	etection Limits		
Ample Commo	ents:					

(N/A)

.

(

Onsite Mobile Lab Field Results:	
----------------------------------	--

PCE \_\_\_\_\_ug/L

TCE \_\_\_\_\_ug/L

M Luche Sample Collected By:

ASR Number:	3448 Sample Numbe	r: 5	QC Coc	le: Mati	r <b>ix:</b> Water <b>Tag</b>	ID: 3448-5
Project ID:	SK7EF01		Рго	ject Manager	: Steven Kinser	
Project Desc:	57th & North Broadway					
City:	Wichita			State	: Kansas	•
Program:	Superfund					
Site Name:	57TH AND NORTH BROA REMEDIATION	DWAY S	TREETS	SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-49-25			· · · · · · · · · · · · · · · · · · ·		
		Extern	ai Samp	le Number:	6-49-2	5
Expected Conc:	(or Circle One	e: Low	Medium	High)	Date 05/30/07	Time(24 hr)
Latitude:		Sam	ple Colle	ction: Start:	CS/30/51	<u>15:51</u>
Longitude:				End:	//	;
Laboratory An	alyses:					
Container	Preservative	Holding	7 Time	Analysis		
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Water	by GC/MS for Low I	Detection Limits
.mple Comme	nts:	<u> </u>			• • • • • • • • • • • • • • • • • • • •	

(N/A)

ĺ

<b>Onsite</b>	Mobile	Lab	Field	Results:

PCE \_\_\_\_\_ug/L

TCE \_\_\_\_\_ug/L

I'm Luche Sample Collected By:

ASR Number:	3448 Sample Number:	6 QC Code	: Matr	ix: Water Tag	ID: 3448-6		
Project ID: Project Desc:	SK7EF01 57th & North Broadway	Proje	ct Manager:	Steven Kinser			
City:	Wichita	State: Kansas					
Program: Site Name:	Superfund 57TH AND NORTH BROAD REMEDIATION	WAY STREETS SI	TE - SITE	Site ID: 07EF	Site OU: 01		
Location Desc:	6-50-20						
	- -	External Sample	Number: _	6-50-2	20		
Expected Conc	: (or Circle One:	Low Medium H	ligh)	Date	Time(24 hr)		
Latitude:	<u> </u>	Sample Collec	tion: Start:	05/20/07	16:30		
Longitude:			End:		:		
Laboratory An	alyses:				<u></u>		
4 - 40mL VOA vial	Preservative 4 Deg C, HCL to pH<2	Holding Time 14 Days	Analysis 1 VOCs in Water	by GC/MS for Low I	Detection Limits		
⊿mple Commo	ants:		<u> </u>		· · · · · · · · · · · · · · · · · · ·		

(N/A)

۱

ï

ĺ

Onsite Mobile Lab Field Results:
----------------------------------

PCE \_\_\_\_\_ug/L

TCE \_\_\_\_\_ug/L

13M Luch Sample Collected By:

Ņ

ASR Number:	3448 Sample Numb	<b>ber:</b> 7 Q	C Code:	Matrix: Water Tag	<b>ID:</b> 3448-7
Project ID:	SK7EF01		Project Man	ager: Steven Kinser	
Project Desc:	57th & North Broadwa	У			
City:	Wichita			State: Kansas	
Program:	Superfund				
Site Name:	57TH AND NORTH BRO REMEDIATION	DADWAY STR	EETS SITE - SI	TE Site ID: 07E	Site OU: 01
Location Desc:	RINSATE	05-30-0	7	· · · · · · · · · · · · · · · · · · ·	
		External	Sample Numb	er: <u><u><u>R</u>(N-05-</u></u>	30-07
Expected Conc:	: (or Circle O	ne: Low Me	dium High)	Date	Time(24 hr)
Latitude:		Sample	Collection: S	tart: 05/30/07	15:00
Longitude:				End://	<b></b> ;
Laboratory An	alyses:	•		`	
Container	Preservative	Holding T	ime Analysis	5	
	4 Deg C HCt to pHc	7 1 <u>4</u> r	Dave 1 VOCe in	Water by CC/MS for Low	Detection Limits

(N/A)

ł

finsate

Onsite	Mobil	e Lab	Field	Results:
--------	-------	-------	-------	----------

PCE \_\_\_\_\_ug/L

TCE '\_\_\_\_ug/L

•

Sm Lucle Sample Collected By: \_

1 of 1

4

(

<b>Project ID:</b>	SK7EF01	Pro	ject Manager:	Steven Kinser	
Project Desc:	57th & North Broadway				
City:	Wichita		State:	Kansas	
Site Name:	57TH AND NORTH BROA REMEDIATION	DWAY STREETS S	SITE - SITE	Site ID: 07EF	<b>Site OU:</b> 01
Location Desc:	Trip Blank	· · · · · · · · · · · · · · · · · · ·		-0	
		External Samp	le Number: _	18-05-3	0-07
Expected Conc:	: (or Circle One	: (ow)Medium	High)	Date	Time(24 hr) リオくつ
Latitude:		Sample Colle	ection: Start:	0 <del>5/23/2007</del>	
Longitude:			End:	0 <del>5/23/20</del> 07	0 <del>8:00</del>
Laboratory An	alyses:				
Container	Preservative	Holding Time	Analysis		
+ - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water	by GC/MS for Low D	etection Limits
ample Comme	ents:				
(N/A)			•		
		•		_	
	,			$\mathcal{O}$	
			$\langle 0 \rangle$	$\mathbf{I}$	)
	N /		SIV.	V. 1 K	
Q	Insite Mobile Lab Field R	<u>esults</u> :	IF		
				1 4/	
P		ug/L /V	.12		
Т	ICE . /	ug/L	K	) •	
			·		
		• • •			

Sample Collected By: 2 M Quarka

			ENVIRONN	HAIN O	F CUSTODY F	RECOI	rd ' Re	610	N N	/11						
ACTIVITY LEADER(P	Print)		NAME	OF SUR	VEY OR ACTIVI	TY		_	-		DATE OF	COLLECTI	ON	T	staa	
Steve Kins	er		57	th E	North Br	σa c	lω	0-	1		DAY	НТИОМ	YEAR	1	of	1
CONTENTS OF SHIP	MENT															
SAMPLE NUMBER	CUBITAINER	BOTTLE	BOTTLE	BOTTI	LE VOA SET (2 VIALS EA)			ED	MEC	other		RECEIVI REMARKS/ (condition of other sam	ING LABORA OTHER INFO I samples up typic numbers	TORY RMATION Ion receip 8. etc.)	ł.	
2449-8	NUM	ERS OF CON	ANERS PEH :	SAMPLE NU		╈	-	#	•							
2410-9	· · · ·					T					<u> </u>					
2448-10					2											
3148 10					2											
2/14 -17				+	2			_							•	
2/14/0 13				<u> </u>		+	$\vdash$				ļ. ·					
3448-13				1	a	+	Η					- <u></u>				-
3448-15					a	۲Ľ	$\vdash$			<u> </u>						
3448-16				<u> </u>	2	+										
3449 - 17			<u> </u>	+	d				_			•				
3448-18				<b></b>	2						ļ					
3448-20-FB	- <u>-</u>			<u> </u>	<u> </u>	~										
				<u> </u>												
				ļ								·				
	$\backslash$			ļ												_
		$\backslash$	Aca													
· · · · · · · · · · · · · · · · · · ·			$\underline{\sim}$		<u></u>										<u>.</u>	
					en a											
					Ke	K										
						Y	$\Delta$									
						Π			$\neg$							
· · · · · · · · · · · · · · · · · · ·													$\overline{}$			
······			_											$\overline{}$		
			.=					╡							~	-
DESCRIPTION OF SH	IPMENT			<u></u>	MODE OF SI	HIPME	NT									
PIECE(S) CO	DNSISTING OF		BOX(ES)		COMN	IERCIA	L C/	ARR	IER:			<u>.</u>				
	s): other			<u> </u>		ier Ler Co	ONV	EYE	D		(SH)	PPING DOC	UMENT N	UMBE	R)	
PERSONNEL CUSTO	DY RECORD															
RELINQUISHED BY	SAMPLER	OAT	TIME	R	ECEIVED BY						REASO	N FOR CH	ANGE	OF CU	STOD	Y
D'Mans	che	//	07	L		-	• • • • • •		_							
	UNSEALE			R	ECEIVED BY		JNS	EA		5.1	REASO	N FOR CH	ANGE	DF CU	STOD	Ŷ
SEALED	UNSEALE			┝┥	SEALED	(	UNS	EA	LEI	₅⊢						
RELINQUISHED BY		DATE	TIME	R	ECEIVED BY						REASO	N FOR CH	ANGE	OF CU	STOD	Y
			·	-	SEALED		UNS	SEA	LE	۰H						

7-EPA-9262(Revised 5/85)

.

.

•

÷

•

ASR Number:	3448 <b>S</b>	ample Number:	8	QC Co	le: Mat	rix: Water Tag	ID: 3448-8
Project ID:	SK7EF01			Pro	ject Manager	: Steven Kinser	· · · · · · · · · · · · · · · · · · ·
Project Desc:	57th & N	lorth Broadway					
City:	Wichita				State	: Kansas	
Program:	Superfur	nd i					
Site.Name:	57TH AN REMEDIA	D NORTH BROAD	WAY S	STREETS	SITE - SITE	Site ID: 07E	<b>Site OU:</b> 01
Location Desc:	6-5	2-50		· · · · · · · · · · · · · · · · · · ·			······································
		1	Exterr	n <b>al S</b> amp	le Number:	6-52-5	0
Expected Conc	<b>:</b>	(or Circle One:	Low	Medium	High)	Date	Time(24 hr)
Latitude:	<u> </u>	•	Sam	nple Coll	ection: Start:	03/31/07	05:80
Longitude:	<u> </u>				End:	//	_:
Laboratory An	alyses:			·	·		
Container	Pres	servative	Holdir	ng Time	Analysis		
4 - 40mL VOA vial	4 De	g C, HCL to pH<2	14	Days	1 VOCs in Wate	r by GC/MS for Low	Detection Limits
mple Comme	ents:	•				·	

(N/A)

ť

Onsite Mobile Lab Field Results:					
PCE	24	ug/L			
TCE	24	ug/L			

Sample Collected By: DM Shehe ١

.

ĺ

.

~

•

۰.

ASR Number:	3448	Sample Number	r: 9	QC Co	de: Mat	rix: Water Ta	g ID: 3448-9
Project ID:	SK7EF	01		Pro	oject Manager	: Steven Kinse	r
Project Desc: City: Program:	57th 8 Wichit Super	k North Broadway a fund			State	: Kansas	
Site Name:	57TH A	AND NORTH BROA DIATION	DWAY	STREETS	SITE - SITE	<b>Site ID:</b> 075	EF <b>Site OU:</b> 01
Location Desc:	6-	52-45	·····				
			Exter	nal Samp	le Number:	6-52-	45
Expected Conc:		(or Circle One	: Low	Medium	High)	Date	Time(24 hr)
Latitude:			San	nple Coll	ection: Start:	05/31/07	08:32
Longitude:		<u> </u>			End:	_/_/	:
Laboratory Ani Container 4 - 40mL VOA vial	<b>alyses</b> P 4	<b>:</b> reservative Deg C, HCL to pH<2	Holdi 14	n <b>g Time</b> 4 Days	Analysis 1 VOCs in Wate	r by GC/MS for Lov	v Detection Limits
mple Comme	nts:	•		<u> </u>			
(N/A)	-	# y vial 5	ml	e barth	e, sm1	· · · · ·	
<u>0</u>	<u>Insite N</u>	10bile Lab Field Ro	esults:				
Р	CE		ug/l	L			
Т	CE	24	ug/l	Ĺ			

Sample Collected By: Sim Luke

ASR Number:	3448 Sample Numbe	er: 10	QC Co	de: Mati	rix: Water Tag	<b>ID:</b> 3448-10
Project ID:	SK7EF01		Pro	ject Manager	Steven Kinser	•
Project Desc:	57th & North Broadway					
City:	Wichita			State	: Kansas	
Program:	Superfund					
Site Name:	57TH AND NORTH BROAREMEDIATION	ADWAY S	STREETS	SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-52-40					
		Exter	nal Samp	le Number:	6-52-4	40
Expected Conc	: (or Circle On	e: Low	Medium	High)	Date	Time(24 hr)
Latitude:		San	npie Coll	ection: Start:	05/31/07	08:43
Longitude:				End:		<u> </u>
Laboratory An	alyses:					
Container	Preservative	Holdi	ng Time	Analysis		
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	l Days	1 VOCs in Water	by GC/MS for Low	Detection Limits
mple Comme	ents:				<u> </u>	

(N/A)

í

,

2

ĺ

Onsite Mobile Lab Field Results:					
PCE	24	ug/L			
TCE	24	ug/L			

Sample Collected By: JM Luche

ASR Number:	3448 Sample Number:	: 11	QC Co	de: <u> </u>	rix: Water Tag	ID: 3448-11
Project ID:	SK7EF01		Pro	ject Manager	: Steven Kinser	
<b>Project Desc:</b>	57th & North Broadway					
City:	Wichita			State	: Kansas	
Program:	Superfund					
Site Name:	57TH AND NORTH BROAD REMEDIATION	WAY S	TREETS	SITE - SITE	Site ID: 07EF	<b>Site OU:</b> 01
Location Desc:	6-52-35				······	
	I	Extern	al Samp	le Number:	G-52-3	2
Expected Conc	or Circle One:	Low	Medium	High)	Date	Time(24 hr)
Latitude:		Sam	ple Coll	ection: Start:	05/31/07	08:56
Longitude:	<u> </u>			End:	_/_/_	;
Laboratory An	alyses:				<u> </u>	
Container	Preservative	Holding	g Time	Analysis		
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Water	by GC/MS for Low [	Detection Limits
Imple Comme	ents:				•	·

(N/A)

ŕ

(

<b>Onsite Mobile</b>	Lab Field Re	<u>sults</u> :
PCE	24	ug/L
TCE	24	ug/L

M M Luch Sample Collected By:

ASR Number:	3448 Sample Number	: 12	QC Code: Mat	rix: Water Tag	ID: 3448-12
Project ID:	SK7EF01		Project Manager	: Steven Kinser	
Project Desc:	57th & North Broadway				
City:	Wichita		State	: Kansas	
Program:	Superfund				
Site Name:	57TH AND NORTH BROAD	DWAY	STREETS SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-52-30				
		Exter	nal Sample Number:	6-52-3	30
Expected Conc	: (or Circle One	: Lov	v Medium High)	Date	Time(24 hr)
Latitude:		Sa	mple Collection: Start:	05/31/07	09:05
Longitude:			End:	//	:
Laboratory An	alyses:				
Container	Preservative	Hold	ing Time 🥤 Analysis		•
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	1	4 Days 1 VOCs in Wate	r by GC/MS for Low	Detection Limits
.mple Comme	ents:	•			

(N/A)

Ç

<u>,</u>

4

ę

÷

٨

Onsite Mobile Lab Field Results:				
PCE	۷ _	ug/L		
TCE	24	ug/L		

Sample Collected By: SM Linke

ASR Number:	3448 Sample Number:	13	QC Co	de: Mati	r <b>ix:</b> Water Ta	<b>g ID:</b> 3448-13
Project ID:	SK7EF01		Pro	ject Manager	: Steven Kinser	
Project Desc:	57th & North Broadway					
City:	Wichita			State	: Kansas	
Program:	Superfund					
Site Name:	57TH AND NORTH BROAD REMEDIATION	WAY	STREETS	SITE - SITE	Site ID: 07E	F Site OU: 01
Location Desc:	6-52-25				<u> </u>	·····
	I	Exter	nal Samp	le Number:	6-52-	25
Expected Conc	or Circle One:	Low	Medium	High)	Date	Time(24 hr)
Latitude:		San	nple Colle	ection: Start:	05/31/07	09:26
Longitude:				End:	//	;
Laboratory An	alyses:				<u></u>	······································
Container	Preservative	Holdi	ng Time	Analysis		
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	4 Days	1 VOCs in Water	by GC/MS for Low	Detection Limits
<b>∡mple Comme</b>	ents:					

(N/A)

!

Ć

Onsite Mobile	Lab Field Re	<u>sults</u> :
PCE	24	ug/L
TCE	24	ug/L

IM Linehe Sample Collected By:

ð

ASR Number:	3448	Sample Number	: 15	QC Co	de: Mat	rix: Water Tag I	(D: 3448-15
Project ID:	SK7EF	01		Pro	oject Manager	: Steven Kinser	
Project Desc:	57th 8	North Broadway					
City:	Wichit	3			State	: Kansas	
Program:	Super	und					
Site Name:	S7TH A	AND NORTH BROAD	SWAY :	STREETS	SITE - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	G	53-43					
		·	Exter	nal Sam	ple Number:	6-53-4	3
Expected Conc	:	(or Circle One:	Low	Medium	High)	Date	Time(24 hr)
Latitude:	<u> </u>		San	n <mark>pie</mark> Coll	ection: Start:	<del>05/23/200</del> 7	<del>08:00</del> -
Longitude:					End:	0 <del>5/23/2007</del>	
Laboratory An	alyses	:					
••••••••••••••••••••••••••••••••••••••		recemptive	Holdi	ng Time	Analysis		
Container	P						

mple Comments:

(N/A)

\$

i,

(

Onsite Mobile	Lab Field Re	<u>sults</u> :
PCE	24	ug/L
TCE	< 4	ug/L

sample Collected By: DM Tuche

÷

8

ľ

1

.

Project 1D:	SK7EF01			Proje	ct Manager:	Steven Kinser	
Project Desc:	57th & Nor	th Broadway		-	. –		
City:	Wichita				State:	Kansas	
Program:	Superfund						
Site Name:	S7TH AND REMEDIATI	ON ON	JWAY SIR	LEIS SI	IE - SIIE	Site ID: U/EF	<b>Site OU:</b> 01
Location Desc:	6-53	8-38			·······	······································	
			External	Sample	Number:	6-53-3	8
Expected Conc	: (	or Circle One	Low M	edium H	igh)	Date	Time(24 hr)
Latitude:			Sample	e Collec	tion: Start:	05/23/2007	
Longitude:		·			End:	- <del>05/23/2007</del>	<del>08:00</del>
Container	-	vative	Holding T		Anahusia		
4 - 40mL VOA vial	Presen 4 Deg (	C, HCL to pH<2	14	Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
4 - 40mL VOA vial	Preser 4 Deg ( ents:	, HCL to pH<2	14	Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
4 - 40mL VOA vial mple Comme	Presen 4 Deg ( ents:	, HCL to pH<2	14	Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
(N/A)	Presen 4 Deg ( ents:	, , HCL to pH<2		Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
(N/A)	Presen 4 Deg ( ents:	, HCL to pH<2		Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
(N/A)	Presen 4 Deg ( ents:	, HCL to pH<2		Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
N/A)	Presen 4 Deg ( ents:	, HCL to pH<2		Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
(N/A)	Presen 4 Deg ( ents: ) ) nsite Mobil	e Lab Field Re		Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
(N/A)	Presen 4 Deg ( ents: ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	e Lab Field Re	14	Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
4 - 40mL VOA vial mple Comme (N/A)	Presen 4 Deg ( ents: ) ) Disite Mobile PCE	e Lab Field Re	ug/L	Days	VOCs in Water	by GC/MS for Low D	etection Limits

I'm Lacke sample Collected By: \_\_

ASR Number:	3448 Sample Number:	: 17 🤇	C Code:	Matri	ix: Water Tag I	<b>D:</b> 3448-17
Project ID:	SK7EF01	۰.	Projec	t Manager:	Steven Kinser	
Project Desc:	57th & North Broadway					
City:	Wichita			State:	Kansas	
Program:	Superfund					
Site Name:	57TH AND NORTH BROAD REMEDIATION	OWAY STR	REETS SIT	E - SITE	Site ID: 07EF	Site OU: 01
Location Desc:	6-53-33			······································		
	I	External	Sample	Number: _	6-53-33	3
Expected Conc	(or Circle One:	Low M	edium Hig	gh)	Date	Time(24 hr)
Latitude:		Sample	e Collecti	on: Start:	05/23/2007	
Longitude:				End:	G <b>5/23/2007</b>	
Laboratory An	alyses:	<u> </u>			<u></u>	
Container	Preservative	Holding 1	lime /	nalysis		
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days 1	VOCs in Water	by GC/MS for Low D	etection Limits
mple Comme	ints:				·	

(N/A)

f

ĺ

Onsite Mobile	Lab Field Re	<u>sults</u> :
PCE	24	ug/L
TCE	24	ug/L

MM Luch Sample Collected By:  $\mathbf{x}$ 

ASR Number:	3448 Sample Numi	b <b>er:</b> 18	QC Code:	Matrix: Water	Tag ID: 3448-18
Project ID:	SK7EF01		Project Mar	nager: Steven Ki	nser
Project Desc:	57th & North Broadwa	зу			
City:	Wichita		:	State: Kansas	
Program:	Superfund				•
Site Name:	57TH AND NORTH BR	OADWAY STI	REETS SITE - SI	TE Site ID:	07EF Site OU: 01
Location Desc:	6-53-28		······································	·····	
		Externa	Sample Numt	er: <u>6-53</u>	- 28
Expected Conc	: (or Circle 0	ne: Low M	edium High)	Date	Time(24 hr)
Latitude:		Samp	e Collection: S	Start: - <del>05/23/20</del>	07-08:00
Longitude:	· · · · · · · · · · · · · · · · · · ·	-		End: 05/23/20	07 08:00
Laboratory An	alyses:				•
Container	Preservative	Holding	Time Analysi	s	
4 - 40mL VOA vial	4 Deg C, HCL to pH<	2 14	Days 1 VOCs i	n Water by GC/MS for	<sup>,</sup> Low Detection Limits
mple Comme	ints:				

(N/A)

:

í

Onsite Mobile	Lab Field Re	sults:
PCE	24	ug/L
тсе	24	ug/L

sample Collected By: D. M. Luche

•

ſ

•

• .

.

-

;

Project ID:	SK7EF01	Project Manager:	Steven Kinser	
Project Desc:	57th & North Broadway	-		
City:	Wichita	State:	Kansas	
Site Name:	57TH AND NORTH BROA REMEDIATION	ADWAY STREETS SITE - SITE	Site ID: 07EF	Site OU: 01
ocation Desc:	Trip Blan	Κ	- 2	
		External Sample Number:	TB-05-3	1-01
Expected Conc Latitude:	: (or Circle One	e: (Loy Medium High) Sample Collection: Start:	<b>Date,</b> o5/31/07 0 <del>5/23/2007</del>	Time(24 hr) // <sup>40</sup> <del>08:00</del>
Longitude:		End:	0 <del>5/23/2007</del>	- <del>08:00</del> -
<b>⊿mple Comm</b> e N/A)	ents:			
<u>(</u>	Onsite Mobile Lab Field R	esults: NA		
F	PCE	ug/L nm L		
7		<u>الكرا</u>		
1		ug/L		

I M Luche Sample Collected By:

.

Attachment E Complete Onsite Analytical Results
#### GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET SECOND ROUND

Client: Black & Veatch Special Projects Corp. Project: 57th & Broadway Site; Wichita, KS Matrix: Water Method: modified 8021b Date: May 29 through May 31, 2007

.

	Action Levels ===>		5	5	70	2			
	Date Collected	Sample				Vinyl			
Sample ID	& Analyzed	Amount	TCE	PCE	cis-1,2-DCE	Chloride	Surrogate	·	
		ml	ug/l	ug/l	ug/l	ug/l	70-130%	GC Name	Notes
G-40-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	85%	Beta	
G-40-35-DUP	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	89%	Beta	
G-40-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	96%	Beta	
G-40-25	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	84%	Alpha	
G-40-20	05/29/07	10	< 4.0	12.8	< 4.0	< 2.0	94%	Beta	
G-40-16	05/29/07	10	< 4.0	5.5	< 4.0 j	< 2.0	85%	Alpha	
G-41-35	05/29/07	10	< 4.0	< 4.0	< <b>4</b> .0	< 2.0	92%	Alpha	
G-41-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	85%	Alpha	
G-41-25	05/29/07	10	29.8	332	< 4.0	< 2.0	85%	Alpha	
G-41-20	05/29/07	10	14.1	8 <b>29</b>	4.6	< 2.0	96%	Beta	
G-41-16	05/29/07	10	< 4.0	166	< 4.0	< 2.0	88%	Alpha	<u> </u>
G-42-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
G-42-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	96%	Beta	
G <b>-42-25</b>	05/29/07	10	5.4	16.3	< 4.0	< 2.0	95%	Beta	
G-42-20	05/29/07	10	< <b>4</b> .0 j	62.1	< 4.0	< 2.0	91%	Alpha	
G-42-16	05/29/07	10	< 4.0	53.6	< 4.0	< 2.0	95%	Alpha	
G-43-35	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-43-30	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Alpha	
G-43-25	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-43-20	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Beta	
G-43-16	05/29/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-44-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	88%	Beta	
G-44-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Alpha	

Notes: 1 - Unknown peaks detected j: Compound detected but below reporting level

1

	Date Collected	d Sample				Vinyl			
Sample ID	& Analyzed	Amount	TCE	PCE ·	cis-1,2-DCE	Chloride	Surrogate		
			ug/l	ug/l	ug/i	ug/l	70-130%	GC Name	Notes
G-44-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	beta	
G-44-25	05/30/07	10	< 4.0	11.2	< 4.0	< 2.0	100%	Alpha	
G-44-25-DUP	05/30/07	10	< 4.0	11.4	< 4.0	< 2.0	93%	Alpha	
G-44-20	05/30/07	10	< 4.0	262	< 4.0	< 2.0	87%	Beta	
G-45-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
G-45-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G-45-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Alpha	
G <b>-45-25</b>	05/30/07	10	< 4.0 j	234	< 4.0	< 2.0	97%	Alpha	
G-45-20	05/30/07	10	< 4.0	150	< 4.0	< 2.0	102%	Beta	
G-46-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	95%	Alpha	
G-46-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	91%	Beta	
G-46-30	05/30/07	10	< 4.0	< <b>4</b> .0	< 4.0	< 2.0	95%	Beta	
G-46-25	05/30/07	10	< 4.0	3.9	< 4.0	< 2.0	96%	Alpha	
G-46-20	05/30/07	10	< 4.0	11.3	< 4.0	< 2.0	96%	Beta	
G-47-40	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Beta	
G-47-35	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G <b>-47-30</b>	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Beta	
G-47-25	05/30/07	10	8.2	175	< <b>4</b> .0 j	< 2.0	93%	Beta	
G-47-20	05/30/07	10	12.0	800	< 4.0	< 2.0	91%	Alpha	
Rinsate 5-30-07	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	99%	Beta	
G-48-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	
G-48-25	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Alpha	
G-48-20	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	103%	Beta	
G-49-30	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	102%	Alpha	
G-49-30-DUP	05/30/07	10	< 4.0	< 4.0	< 4.0	< 2.0	92%	Alpha	
G-49-25	05/30/07	10	< 4.0	< 4.0	6.6	< 2.0	102%	Beta	
G-49-20	05/30/07	10	< 4.0	< 4.0	< 4.0 j	< 2.0	102%	Alpha	

### GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET SECOND ROUND

Notes: 1 - Unknown peaks detected j: Compound detected but below reporting level

# GROUNDWATER RESULTS - MOBILE LAB SUMMARY SHEET SECOND ROUND

.

	Date Collected	I Sample				Vinyl			
Sample ID	& Analyzed	Amount	TCE	PCE	cis-1,2-DCE	Chloride	Surrogate		
		ml	ug/l	ug/l	ug/l	ug/l	70-130%	GC Name	Notes
G-50-30	05/30/07	10	< 4.0	< 4.0	5.0	< 2.0	107%	Beta	
G-50-25	05/30/07	10	< 4.0	< 4.0	7.4	< 2.0	95%	Alpha	
G-50-20	05/30/07	10	< 4.0	< 4.0	< 4.0 j	< 2.0	90%	Alpha	
G-51-30	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	104%	Aipha	
G-51-25	05/31/07	10	< 4.0	< 4.0	6.9	< 2.0	99%	Beta	
G-51-20	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	90%	Beta	
G-52-50	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	95%	Alpha	
G <b>-52-45</b>	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	107%	Aipha	
G-52-40	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Beta	
G- <b>52-35</b>	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	97%	Alpha	
G-52-30	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	105%	Beta	
G-52-25	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	100%	Alpha	
Soil-01	05/31/07	2	< 20.0	< 20.0	< 20.0	< 20.0	101%	Beta	Soil Sample
G- <b>53-43</b>	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	101%	Alpha	
G-53-38	05/31/07	10	< <b>4</b> .0	< 4.0	< <b>4</b> .0	< 2.0	106%	Beta	
G- <b>53-33</b> .	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	105%	Alpha	
G-53-33-DUP	05/31/07	10 <sup>.</sup>	< 4.0	< 4.0	< 4.0	< 2.0	104%	Aipha	
G- <b>53-28</b>	05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	98%	Beta	
Rinsate 5-31-07	· 05/31/07	10	< 4.0	< 4.0	< 4.0	< 2.0	94%	Beta	

•:

.

.

٠

.

|

## PAGE \_ of 6

**.** 

.

#### CHAIN OF CUSTODY RECORD

PROJ.	NO.	PROJEC 574	CT NA	AME	nr · wichit	, ks				7	7	7	7	TT	7	
SAMPLE	RS:	<u> </u>			<b>7</b>	·····	OF		/	10	/		//			
D65 t	<u> </u>	<del></del>		T		····	CON-		/	1			/ ,			REMARKS
STA. NO.	DATE	TIME	COMP.	GRAB	STAŤ		TAINERS	V	i i i	/	/			/		
	5-29-0	7		×	PÉ Sample	3448-15-1	1	X					Τ			
	14			¥	PE Sample	3449-15-2	1	X								
	- 11			Y	6-40 - 35		1	×					·			
	4			X	6-40- 23	5- Dop	1	X								
	4.			x	6-40-25		1	X						~		
				x	6-40-25	ms/msD	2						-1			
	"			x	6-40-20	······	1	X					-			
	11			×	6-40-16	1	X					-				
	u			Y	6.40.30		1	×					-			· · · · · · · · · · · · · · · · · · ·
	(1			X	6-41-35		1	x				$\neg$				
	"			x	6-41-30	•	(	×								
· · · · · · · · · · · · · · · · · · ·	"			1	6-41-25	***************************************	L	×								
	"		†	Y	6-41-20		l	×			-+		1	<u> </u>		
	11		†	¥	6-41-16		1	X			-+					
				Y	6-42-35		1	X	$\neg$							
Relinquist	ned by: (	Signatur	 e)		Date / Time	Received by: <i>(Signatur</i>	rej	Reli	nquish	ed by	: (Sig	naturi	e)	Date	Time	Received by: <i>(Signeture)</i>
lelinquished by: <i>(Signeture)</i>		1	Date / Time Received by: (Signature		•)	Reli	nquish	ed by	: (Sig	naturi	)	Date /	Time	Received by: (Signature)		
Relinquish	ed by: (	Signaturi	e)		Date / Time	Received for Laborator (Signature) with 1.	у бу:	5/29	Date	/ Tim	e	Rei	marks	£	· <b></b> .	_ <u></u>

.

. т

# PAGE Z of 6

.

¢

CHAIN OF CUSTODY RECORD

e 5 e

PROJ. NO. PROJECT NAME 57 * Browlawy ; Wichita, KS					NO.	T		7	7	7	7				
SAMPLE	RS:				-		OF CON-		/		/		/		REMARKS
STA. NO.	DATE	TIME	COMP.	GRAB	STAT	ION LOCATION	TAINERS	V.		/	/				
	5.290	7		X	6-42-30		l	x							
	1/			X	6-42-25		1	K							
	ľ			X	6-42-20	5-42-20							'	-	•
	11			x	6-42-11	6-42-16									
	h			x	6-43-31		L	X							
	L.			X	6 - 43 - 30	)	1	x						· · · · · · · · · · · · · · · · · · ·	······································
	4			×	6-43-25	6-43-25									
·	١r			x	6 - 43 - 20	6 - 43 - 20								•	
			•	×	6-43-16		1	×						····	·
	5-3.3.07			×	PE Sample	3448-3	1	x							
	••			X	PE Sample	5448-4 .	l	x							
	<b>)</b> •			X	6-44-40		1	x							
	١,			x	6 - 44 - 35	-	t	*					Τ	······································	
	١,			X	6-44-30		1	x							
	"			x	6 - 44 - 25		£	X							_
Relinquish	ed by: <i>(</i> 5	Signature	1		Date / Time	Received by: (Signatur	-e)	Reli	nquish	ed by	ı: (Sig	nature	 e)	Date / Time	Received by: (Signature)
telinquish	ed by: <i>(</i> S	ignature	,		Date / Time	Received by: (Signatur	•)	Relin	nquish	ed by	: (Sig	nature	1	Date / Time	Received by: (Signeture)
ielinguishe	d by : (S	ignature,	)		Date / Time	Received for Laboratory (Signature)	y by:	5/3	Date	/ Tim	e	Rer	narks	<b>4</b>	

• 2

• ·· ·

#### CHAIN OF CUSTODY RECORD

.

PROJ.	ROJ. NO. PROJECT NAME 57 th & Broadway; Wichita, KS						NO.			<u></u>	7	7	7	777	-		
SAMPLE	RS:					- -		OF CON-		/	\$	/	//	/			REMARKS
STA, NO.	DA	TE	TIME	COMP.	GRAB	STAT	ION LOCATION	TAINERS	1								
	5.30	-07			x	6-44-	25-200	1	X						· · · · · · · · · · · · · · · · · · ·		
					x	6-44-2	.0	1	×								
					4	6-45-4	0	1	×					÷			· ·
					x	6-45-35	<b></b>	1	×								
					x	6-45-40	45.40 MS/MSD 2										
					x	6-45-30	>	1	x						•		
	Τ				X	6-45-25	-45-25										
1					r	6-45-20	4-45-20									<u> </u>	
					x	6-46-4	0	1	x								•
					x	6 - 46 - 35		1	×								
					X	6-45-30	·	1	5								
					r	6-45-25	-	1	x								
		T			~	6-45.20		1	+								
	T				5	6-47-40		1	~								
		Τ			7	6.47-35		'	×								
Relinquish	linquished by: (Signature) Date / Time Received by: (Signa		Received by: <i>(Signatu</i>	re)	Reli	nquist	ned by	y: (Si	gnatui	re)	Date / Tir	ne	Received by: (Signature)				
Relinquish	ed by	y: (S	Signeture	,		Date / Time	Received by: (Signatur	re) ,	Reli	nquist	ed by	: (Sig	natur	0)	Dete / Tin	16	Received by: <i>(Signature)</i>
Relinquished by: (Signature) Date / Time Received for Laboratory (Signature)			rγ by:	Date / Time 5/30/07			Re	mark	5								

4 7 L

. .

•

PAGE 4 of 4

•

### CHAIN OF CUSTODY RECORD

PROJ. NO. PROJECT NAME 57th & Broodumy; Wichton KS					NO	T		7	3/	7	7	TTT			
SAMPLE	AS:	<b></b>					OF CON-			S)	/		//		REMARKS
STA. NO.	DATE	TIME	COMP.	GRAB	STAT	ION LOCATION	TAINERS	V	ð/	/					
	5-30-0	7		×	6-47-30		١	7						·····	·
				7	6.47-15	-	l	4							
				x	6-47-2	0	١	x					·		· · ·
				X	Rinsate S	- 30-07	1	K							
]				×	6-48-30	48 - 30								· · · · · · · · · · · · · · · · · · ·	
				×	6 - 43 - 25	43-25									
				Y	6 - 48 - 20	- 48- 20									
·				>	6-49-3	6-49-30								······	,
				×	6-49-25		1	x						•	•
				x	6-49-30	-Dup	1	x							
				2	6-49-20	· · · · · · · · · · · · · · · · · · ·	1	ł							
				*	6-50-30		1	x							
				*	6-50-30	-ms/msD	2	*							
				x	6-50-25		1	x	•						
N	$\mathbf{V}$			*	6-50-20		1	x							
elinquish:	ed by: (	(Signeturi	e)		Date / Time	Received by: (Signat	ture)	Reli	nquist	ed by	: (Sig	natur	ej	Date / Time	Received by: (Signature)
Hinquishe	ed by: (	Signature	•)		Date / Time	Received by: <i>(Signat</i>	ure)	Relir	nquish	ed by	; (Sig	nature	•/	Date / Time	Received by: (Signature)
elinguishe	ed by: (.	Signature	Ŋ		Date / Time	Received for Laborato (Signature)	ory by:	5/30	Date	/ Tim	e	Rei	marks	┺ <sub>╺╼╴─</sub>	

د ، ،

.

. .. .

#### CHAIN OF CUSTODY RECORD

PROJ. NO. PROJECT NAME 57 th & Broadway; Wichita, KS						NO.			7	7	7	7	TT	7		
SAMPLE	RS:				· · ·		OF		/	Jos /	' /	/ /	/ /			
							CON-			/	/	/	/ /	/ /		REMARKS
STA. NO.	DATE	TIME	COMP.	GRAB	STAT	ION LOCATION	TAINERS	$\bigvee$		/		/ /				
	5/5407			X	G-51-30	>	1	X								
	1			x	6-51-2	<u>r</u>	(	X								
				×	6-51-20		1	X					•			· · · · · · · ·
				X	6-52-51	<u>م</u>	1	Y								
				K	K G-52-45			X					-1			,
				K	6-52-40	i	x					-				
				X	6-52-35	1	X					-+				
				×	6-52-30	- 52 - 30							-1			
				X	5011-01	· · · · · · · · · · · · · · · · · · ·	(	X						Soil	anal	 
	$\square$			×	6-52-25		I	r								
				x	6-53-43	· ·	(	x					-	······	•••• <u>•</u>	
T	$\square$			X	6-53-38	·	(	X								
				X	6-53-33		1	X								
	1/			x	6-53-33.	Dup	1	x	-†	-			1			
	V			X	6-53-28	· · · · · · · · · · · · · · · · · · ·	1	X								
linquished by: (Signature) Date / Time Received by: (Signature)		ure)	Relir	quish	ed by	: (Sig	Inatur	e)	Date /	Time	Received by: (Signature)					
linquish	ed by: (S	Signature	<i>.</i>	-	Date / Time	Received by: (Signatu	ire)	Relir	quìsh	ed by	: (Sig	netur	e)	Date /	] Time 	Received by: (Signature)
elinquished by: (Signature)		Date / Time Received for Laboratory by (Signature)			bry by:	strill	Date	Tim	e	Re	marks	l	l ·	<u> </u>		

1 18 A

.

. . .

PAGE 6 of 6

-

CHAIN OF CUSTODY RECORD

x 41 1

PROJ. NO. PROJECT NAME 57th & Broadway; Wichita, KS						NO			7.	7	7	7	777	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
SAMPLE	RS:						<b>I</b>		OF CON-			0,100)	/	/	/		REMARKS
STA. NO.	DATE	TIME	COMP.	GRAB		STATI	ON LOCATI	ON	TAINERS	/	, Se Se	//	//		/		
	5-51-07			1	Rinsa	te s	5-31-07		1	X		<u>.</u>					
					·								ļ	· 			
																·	, ,
					<u></u>						•						
					<u></u>												
				-+													· ·
+			-+	-+								-					
			-†												-†	· · · · · · · · · · · · · · · · · · ·	
					· · · · ·												
			-+		<u></u>												
elinquish	elinquished by: <i>(Signeture)</i> Date / Time Received by: <i>(Signeture)</i>		by: <i>(Signature</i>	. (و	Retir	nquist	ned by	: (Sig	natui	re)	Date / Time	Received by: (Signeture)					
letinquish	ed by: /S	Signature	<i>.</i>		Date / Tim	e	Received	by: (Signature	<i>י</i>	Relia	nquist	ed by	: (Sig	netur	e)	Date / Time	Received by: (Signeture)
letinquish	ed by: (S	ignature.	)		Date / Tim	e .	Received ( (Signature)	for Laboratory	by:	. 5/5	Date 7/07	/ Tim	ie 	Re	mark	<u>,                                     </u>	



500 Lonetree Dr. Lawrence, KS 66044

Office: 785-865-2655 Fax: 785-312-7625 e-mail: midwestbgs@sbcglobal.net

#### **Quality Assurance / Quality Control Summary**

#### Black & Veatch Special Projects Corp. 57<sup>th</sup> & Broadway Wichita, KS

#### **Calibration Summary**

The laboratory data for this project site was obtained using one (2) gas chromatograph; an SRI Gas Chromatograph with a 60-meter Restek Capillary Column equipped with a Photoionization Detector (PID) and Flame Ionization Detector (FID). The GC was initially calibrated using a 5-level calibration curve and checked each day using a midpoint level. The low end of the calibration level determined the reporting limit for this project.

#### **Methods**

The sample introduction method followed in this project included USEPA SW-846 Method 5030b Purge and Trap Injection. The analytical methods followed in this project included a modified version of USEPA SW-846 Method 8021b. A surrogate compound (Fluorobenzene) was added to every sample, calibration check, and duplicate sample. On every sample the surrogate recovery was within the acceptable recovery range.

#### Calibration Criteria

The initial multi-level calibration curve for all target analytes produced a correlation coefficient (rvalue) of no less than 0.99. An initial calibration was conducted at the beginning of the project while continuing calibration verifications (CCV) were conducted at a rate of 1 per day per GC. A total of three calibration verifications were run. The results are included in the following attachment. EPA PE samples were ran after each CCV at the beginning of the day. The PE sample results are included in the following attachments

#### **Method and Field Blanks**

Blank samples were run after calibration checks and PE samples and after samples that exhibited elevated compound detections. Additional blank samples were analyzed if the initial blank sample contained carryover from the previous sample.

#### Sample Duplicates & MS/MSDs

Sample duplicates and MS/MSDs were collected and analyzed approximately every twenty samples. The results of the duplicates are included with the sample results summary sheets , and the results of the MS/MSDs are included in the following attachments.

Signed M

Mike Ocsody, Analyst

CCV REPORT 57<sup>th</sup> & Broadway Site Wichita, KS

Client: Black & Veatch gc1- Calibration Verification-1 Sample ID: Date Analyzed: 5/29/07

1

2

Lab ID: 1211 GC: Alpha (1) Method: Modified 8021b

		Spike	CV	CV	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	19.8	99	70-130
cis-1,2-Dichloroethene	ug/i	20	15.3	77	70-130
Trichloroethene	ug/l	20	17.7	89	70-130
Tetrachloroethene	ug/l	20	17.5	88	70-130
Fluorobenzene (surr.)	%	40	33.3	83	70-130

Client:	Black & Veatch
Sample ID:	gc2- Calibration Verification-1
Date Analyzed:	5/29/07

Lab ID: 1270 GC: Beta (2) Method: Modified 8021b

· · · · · · · · · · · · · · · · · · ·		Spike	CV	cv	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	20.6	103	70-130
cis-1,2-Dichloroethene	ug/l	20	19.2	96	70-130
Trichloroethene	ug/l	20 .	17.3	87	70-130
Tetrachloroethene	ug/i	20	21	105	70-130
Fluorobenzene (surr.)	%	40	35.4	89	70-130

Client: Black & Veatch gc1-Method Blank Sample ID: Date Analyzed: 5/29/07

Lab ID: 1212 GC: Alpha Method: Modified 8021b

Parameter	<b>Reporting Limit</b>	Units	Result
, vc	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/i	< 4.0
Fluorobenzene (surr.)	70-130	%	96

Client: Black & Veatch Sample ID: gc2-Method Blank Date Analyzed: 5/29/07

Lab ID: 1271 GC: Alpha Method: Modified 8021b

Parameter	<b>Reporting Limit</b>	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Fluorobenzene (surr.)	70-130	%	101

Client:	
Sample ID:	•
Date Analyz	

.

Black & Veatch gc1- Calibration Verification-2 Date Analyzed: 5/30/07

Lab ID: 1233 GC: Alpha Method: Modified 8021b

Parameter	Units	Spike Concentration	CV Result	CV % Recovery	% Recovery Limits
Vinyl Chloride	ug/l	20	21.7	109	70-130
cis-1,2-Dichloroethene	ug/l	20	18.4	92	70-130
Trichloroethene	ug/l	20	17.9	90	70-130
Tetrachloroethene	• ug/l	20	21	105	70-130
Fluorobenzene (surr.)	%	40	38	95	70-130

Client:	Black & Veatch	Lab ID:	
Sample ID:	gc2- Calibration Verification-2	GC: Beta	
Date Analyzed:	5/30/07	Method:	Modified 8021b

		Spike	CV	cv	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	18.5	93	70-130
cis-1,2-Dichloroethene	ug/l	20	20.9	105	70-130
Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	21.4	. 107	70-130
Fluorobenzene (surr.)	%	40	37.7	94	70-130

57<sup>th</sup> & Broadway Site Wichita, KS

Client:Black & VeatchSample ID:gc1-Method BlankDate Analyzed:5/30/07

2

J

5

Lab ID: 1235 GC: Alpha Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
SurrFluorobenzene	70-130	%	98

Client:Black & VeatchSample ID:gc2-Method BlankDate Analyzed:5/30/07

Lab ID: 1288 GC: Beta Method: Modified 8021b

.

Parameter ·	Reporting Limit	Units	Result
VC	2.0	ug/l	· < 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
SurrFluorobenzene	70-130	%	104

Client:Black & VeatchSample ID:gc1- Calibration Verification-3Date Analyzed:5/31/07

Lab ID: 1256 GC: Alpha Method: Modified 8021b

		Spike	CV	CV \	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	18.9	95	70-130
cis-1,2-Dichloroethene	ug/l	20	18.9	. 95	70-130
Trichloroethene	ug/l	20	18.9	95	70-130
Tetrachloroethene	ug/l	20	20.9	105	70-130
Fluorobenzene (surr.)	%	40	37.8	95	70-130

.

Client:Black & VeatchSample ID:gc2- Calibration Verification-3Date Analyzed:5/31/07

Lab ID: 1308 GC: Beta Method: Modified 8021b

		Spike	CV	CV	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	15.6	78	70-130
cis-1,2-Dichloroethene	ug/l	20	21.9	110	70-130
Trichloroethene	ug/l	20	20.4	102	70-130
Tetrachloroethene	ug/l	20	23.2	116	70-130
Fluorobenzene (surr.)	%	40	37.9	95	70-130

Client:	Black & Veatch		
Sample ID:	gc1-Method Blank		
Date Analyzed:	5/31/07		

Lab ID: 1258 GC: Alpha Method: Modified 8021b

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
SurrFluorobenzene	70-130	%	99

Client:Black & VeatchSample ID:gc2-Method BlankDate Analyzed:5/31/07

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	< 2.0
cis-1,2-DCE	4.0	ug/l	< 4.0
TCE	4.0	ug/l	< 4.0
PCE	4.0	ug/l	< 4.0
Fluorobenzene (surr.)	70-130	%	98

Lab ID: 1310 GC: Beta Method: Modified 8021b

:

57<sup>th</sup> & Broadway Site ~ Wichita, KS

Client:Black & VeatchSample ID:G-40-25-MSDate Analyzed:5/29/07

J

 Lab ID: 1217 GC: Alpha (1) Method: Modified 8021b

		Spike	MS	MS	% Recovery
 Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/ł	20	14.9	75	70-130
cis-1,2-Dichloroethene	ug/l	20	14.8	74	70-130
Trichloroethene	ug/l	20	19.3	97	70-130
Tetrachloroethene	ug/l	20	18.9	95	70-130
Fluorobenzene (s)	%	40	34	85	70-130

Client:Black & VeatchSample ID:G-40-25-MSDDate Analyzed:5/29/07

Lab ID: 1218 GC: Alpha Method: Modified 8021b

•		Spike	MSD	MSD	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	16.3	82	70-130
cis-1,2-Dichloroethene	ug/l	20	15.7	79	70-130
Trichloroethylene	ug/l	20	15.3	77	70-130
Tetrachloroethene	ug/l	20	20.1	101	70-130
Fluorobenzene (s)	%	40	32.1	80	70-130

Client:	Black & Veatch
Sample ID:	G-45-40-MS
Date Analyzed:	5/30/07

Lab ID: 1244 GC: Alpha Method: Modified 8021b

		Spike	MS	MS	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	15.3	77	70-130
cis-1,2-Dichloroethene	ug/l	20	17.3	87	70-130
* Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	19.3	· 97	70-130
Fluorobenzene (s)	%	40	34.2	86	70-130

T

Below Ground Surface, Inc.

Black & Veatch Client: G-45-40-MSD Sample ID: Date Analyzed: 5/30/07

Lab ID: 1245 GC: Alpha Method: Modified 8021b

		Spike	MSD	MSD	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	18.2	91	70-130
cis-1,2-Dichloroethene	ug/l	20	21.4	107	70-130
Trichloroethylene	ug/l	20	20.5	103	70-130
Tetrachloroethene	ug/l	20	24.1	121	70-130
Fluorobenzene (s)	%	40	37.6	94	70-130

Black & Veatch Client: Sample ID: G-50-30-MS Date Analyzed: 5/30/07

Lab ID: 1306 GC: Beta (2) Method: Modified 8021b

ų

i.

i e

		Spike	MS	MS	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/ł	20	15.3	77	70-130
cis-1,2-Dichloroethene	ug/l	20	17.3	87	70-130
Trichloroethene	ug/l	20	18.5	93	70-130
Tetrachloroethene	ug/l	20	19.3	97	70-130
Fluorobenzene (s)	. %	40	34.2	86	70-130

Client:	Black & Veatch
Sample ID:	G-50-30-MSD
Date Analyzed:	5/30/07

Lab ID: 1307 GC: Beta Method: Modified 8021b

		Spike	MSD	MSD	% Recovery
Parameter	Units	Concentration	Result	% Recovery	Limits
Vinyl Chloride	ug/l	20	15.9	80	70-130
cis-1,2-Dichloroethene	ug/l	20	20.2	101	70-130
Trichloroethylene	ug/ł	20	21.2	106	70-130
Tetrachloroethene	ug/l	20	21	105	70-130
Fluorobenzene (s)	%	40	<b>41</b> .1	103	70-130

Below Ground Surface. Inc.

Client:Black & VeatchSample ID:gc1- PE Sample 3448-15-1Date Analyzed:5/29/07

Lab ID: 1213 GC: Alpha (1) Method: Modified 8021b -)

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	57.0
cis-1,2-DCE	4.0	ug/i	62.3
TCE	4.0	ug/l	18.3
PCE	4.0	ug/l	11.5
Fluorobenzene (surr.)	70-130	%	97

Client:Black & VeatchSample ID:gc2- PE Sample 3448-15-2Date Analyzed:5/29/07

ĸ

\$

Lab ID: 1272 GC: Beta (2) Method: Modified 8021b

Parameter	<b>Reporting Limit</b>	Units	Result
VC	2.0	ug/l	72.4
cis-1,2-DCE	4.0	ug/l	63.5
TCE	4.0	ug/l	14.4
PCE	4.0	ug/l	13.7
Fluorobenzene (surr.)	70-130	%	97

Client:Black & VeatchSample ID:gc1- PE Sample 3448-15-3Date Analyzed:5/30/07

.

Lab ID: 1234 GC: Alpha Method: Modified 8021b

Parameter	<b>Reporting Limit</b>	Units	Result
VC	2.0	ug/l	88.6
cis-1,2-DCE	4.0	ug/l	101
TCE	4.0	ug/ł	19.8
PCE	4.0	ug/l	<i>,</i> 20.3
Fluorobenzene (surr.)	70-130	%	100

## PE SAMPLE RESULTS

57<sup>th</sup> & Broadway Site Wichita, KS

Client:Black & VeatchSample ID:gc2- PE Sample 3448-15-4Date Analyzed:5/30/07

Lab ID: 1287 GC: Beta Method: Modified 8021b

.

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	70.7
cis-1,2-DCE	4.0	ug/l	63.8
TCE	4.0	ug/l	15.4
PCE	4.0	ug/l	19.5
Fluorobenzene (surr.)	70-130	%	104

Client:Black & VeatchSample ID:gc1- PE Sample 3448-17-1Date Analyzed:5/31/07

Lab ID: GC: Alpha Method: Modified 8021b

â

G

Parameter	Reporting Limit	Units	Result
VC	2.0	ug/l	62.3
cis-1,2-DCE	4.0	ug/l	52.6
TCE	4.0	ug/l	11.2
PCË	4.0	ug/l	11.1
Fluorobenzene (surr.)	70-130	%	86

Client:Black & VeatchSample ID:gc2- PE Sample 3448-17-2Date Analyzed:5/31/07

Lab ID: GC: Beta Method: Modified 8021b

Parameter	<b>Reporting Limit</b>	Units	Result
VC	2.0	ug/l	63.3
cis-1,2-DCE	4.0	ug/l	60.7
TCE	4.0	ug/l	15.6
PCE	4.0	ug/l	13.8
Fluorobenzene (surr.)	70-130	%	93

Below Ground Surface, Inc.

Steven Kinser/SUPR/R7/USEPA/US 06/14/2007 09:57 AM To AAllen@kdhe.state.ks.us

cc Craig Smith/SUPR/R7/USEPA/US@EPA, Diane Easley/SUPR/R7/USEPA/US@EPA

bcc

Subject Fw: May 2007 Trip Report

Ashley,

Attached is B&Vs report on the plume search. I am bringing hard copies to our meeting today.

Craig,

Here is the final report on the plume search. I have not had time to upload it to the FTP site if you think it is necessary go ahead, I am out of the office for them most part of the next week.

Steven E. Kinser R.G. Remedial Project Manager Missouri Kansas Branch (MOKS) Superfund Division (SUPR) Telephone 913-551-7728 Fax 913-551-9728 kinser.steven@epa.gov



オートレ

3