APPENDIX A

Field Sampling Logs

(Groundwater, Water Levels, Sediment, Surface Water, Soil Vapor, Surface Soil, Test Pits,)

Groundwater Sampling Logs

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl huey

Well ID: MW01S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 7.7

Depth to Well Bottom (ft): 17.27

Date: 11/07/2016

Time: (hhmm)

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
12:37…	7.75	160	0.21	7.24	1.84	4.7	3.49	17.60	-89	
12:42…	7.76	160	0.42	7.43	0.87	3.7	3.47	17.60	-102	
12:47…	7.76	160	0.63	7.47	0.33	1.5	3.45	17.74	-110	
12:52…	7.76	160	0.84	7.48	.23	0.8	3.43	17.93	-115	
12:57…	7.75	160	1.05	7.49	0.00	0.0	3.44	18.84	-117	
13:02…	7.75	160	1.26	7.49	0.00	0.0	3.44	18.14	-117	
13:07…	7.76	160	1.47	7.49	0.00	0.0	3.44	18.14	-117	
13:12…	7.75	160	1.68	7.49	0.00	0.0	3.44	18.14	-117	

Sampling Data

Method:

Date: 11/07/2016

Time: (hhmm) 13:15:43

Total Volume of Water Purged: 1.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.49		
Spec. Cond. (mS/cm)	3.44		
Turbidity (NTU)	0.0		
DO (mg/L)	0.00		
Temp.(°C)	18.14		
ORP (mv)	-117		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl Huey

Well ID: MW02D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 5.42

Depth to Well Bottom (ft): 37.5

Date: 11/09/2016

Time: 07:45:00 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
07:51…	5.48	225	.29	7.16	3.10	0.0	31.7	14.64	-131	Clear
07:56…	5.49	200	.56	7.17	0.39	0.0	32.5	14.53	-135	
08:01…	5.48	200	.83	7.17	0.12	0.0	33.1	14.63	-139	
08:06…	5.48	200	1.1	7.18	0.00	0.1	33.4	14.42	-144	
08:11…	5.47	200	1.38	7.18	0.0	1.4	33.4	14.23	-147	

Sampling Data

Method: Dedicated tubing

Date: 11/09/2016

Time: *(hhmm)* 08:15:26

Total Volume of Water Purged: 1.5 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.18		
Spec. Cond. (mS/cm)	33.4		
Turbidity (NTU)	1.4		
DO (mg/L)	0.0		
Temp.(°C)	14.23		
ORP (mv)	-147		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl Huey

Well ID: MW02S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 3.28

Depth to Well Bottom (ft): 17.47

Date: 11/09/2016

Time: (hhmm)

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:28...	3.58	200	.21	7.08	0.00	37.1	46.9	14.50	-125	
08:33...	3.61	150	..43	7.09	0.00	46.4	46.8	14.58	-138	
08:38...	3.62	150	.63	7.08	0.00	21.2	46.9	14.45	-141	
08:43...	3.65	150	.84	7.06	0.00	24.5	47.2	14.6	-148	
08:48...	3.67	150	1.05	7.05	0.00	19.0	47.2	14.57	-150	
08:53...	3.7	150	1.26	7.06	0.00	17.0	47.3	14.59	-154	
08:58...	3.72	150	1.47	7.06	0.00	16.9	47.2	14.52	-158	
09:03...	3.75	150	1.68	7.06	0.00	13.4	47.3	14.49	-158	
09:08...	3.77	150	1.89	7.05	0.00	14.7	47.4	14.49	-158	
09:13...	3.79	150	2.1	7.05	0.00	12.3	47.4	14.68	-161	
09:18...	3.81	150	2.32	7.03	0.00	14.1	47.4	14.71	-161	
09:23...	3.82	150	2.53	7.03	0.00	16.3	47.5	14.58	-160	

Sampling Data

Method: Dedicated tubing

Date: 11/09/2016

Time: (hhmm) 09:25:15

Total Volume of Water Purged: 2.6 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.03		
Spec. Cond. (mS/cm)	47.5		
Turbidity (NTU)	16.3		
DO (mg/L)	0.00		
Temp.(°C)	14.58		
ORP (mv)	-160		

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl Huey

Well ID: MW03S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 3.82

Depth to Well Bottom (ft): 20.3

Date: 11/09/2016

Time: 09:54:24 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:59…	4.01	150	.21	6.67	0.04	98.4	37.7	13.7	-103	
10:04…	4.07	150	.42	6.61	0.00	82.3	37.7	13.96	-111	
10:09…	4.08	150	.63	6.60	0.00	53.3	37.7	14.51	-114	
10:14…	4.10	150	.84	6.60	0.00	49.5	37.6	14.80	-115	
10:19…	4.08	120	1.0	6.59	0.00	47.7	37.3	14.99	-115	
10:24…	4.08	120	1.16	6.59	0.00	48.4	37.4	15.00	-116	

Sampling Data

Method: Dedicated tubing

Date: 11/09/2016

Time: *(hhmm)* 10:25:02

Total Volume of Water Purged: 1.25 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.59		
Spec. Cond. (mS/cm)	37.4		
Turbidity (NTU)	48.4		
DO (mg/L)	0.00		
Temp.(°C)	15.00		
ORP (mv)	-116		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt F; Cheryl Huey

Well ID: MW05S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 14.41

Depth to Well Bottom (ft): 25.5

Date: 11/08/2016

Time: 14:06:50 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:11…	14.41	200	0.27	7.14	0.01	16.3	6.47	16.76	-112	
14:16…	14.41	200	0.54	7.12	0.00	15.3	6.50	16.29	-119	Clear
14:21…	14.41	200	.081	7.11	0.00	13.8	6,52	16.07	-122	
14:26…	14.41	200	1.08	7.11	0.00	14.2	6.55	15.95	-125	
14:31…	14.41	200	1.35	7.11	0.00	14.2	6.57	15.77	-127	

Sampling Data

Method: Dedicated tubing

Date: 11/08/2016

Time: *(hhmm)* 14:35:05

Total Volume of Water Purged: 1.50 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.11		
Spec. Cond. (mS/cm)	6.57		
Turbidity (NTU)	14.2		
DO (mg/L)	0.00		
Temp.(°C)	15.77		
ORP (mv)	-127		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers:
- Matt F
- Cheryl H

Well ID: MW06D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 14.75

Depth to Well Bottom (ft): 47

Date: 11/08/2016

Time: 11:20:29 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:25...	14.78	200	0.27	7.77	2.33	20.6	0.701	14.22	-45	
11:30...	14.80	200	0.54	7.73	0.60	20.0	0.794	14.19	-106	
11:35...	14.80	200	0.81	7.30	0.00	19.5	1.79	14.59	-105	
11:40...	14.80	200	1.08	7.08	0.00	19.5	4.69	14.29	-115	
11:45...	14.80	200	1.35	7.08	0.00	19.4	4.81	14.20	-117	
11:50...	14.80	200	1.62	7.08	0.00	19.2	4.90	14.28	-119	

Sampling Data

Method: Dedicated tubing

Date: 11/08/2016

Time: *(hhmm)* 11:55:51

Total Volume of Water Purged: 1.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.08		
Spec. Cond. (mS/cm)	4.90		
Turbidity (NTU)	19.2		
DO (mg/L)	0.00		
Temp.(°C)	14.28		
ORP (mv)	-119		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt F, Cheryl Huey

Well ID: MW06M

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Select...

Initial Depth to Water (ft): 15.24

Depth to Well Bottom (ft): 39.55

Date: 11/08/2016

Time: 10:31:14 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:36…	15.3	220	.29	7.51	3.88	34.3	5.27	14.33	-111	
10:41…	15.3	220	.58	7.07	0.00	4.82	4.82	14.11	-114	
10:46…	15.31	200	.85	7.07	0.00	38.6	4.82	14.11	-114	
10:51…	15.31	200	1.07	7.04	0.00	36.5	4.82	14.01	-118	
10:56…	15.31	200	1.34	7.01	0.00	38.2	4.73	13.88	-120	

Sampling Data

Method:

Date: 11/08/2016

Time: *(hhmm)* 11:00:28

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.01		
Spec. Cond. (mS/cm)	4.73		
Turbidity (NTU)	38.2		
DO (mg/L)	0.00		
Temp.(°C)	13.88		
ORP (mv)	-120		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt F; Cheryl Huey

Well ID: MW06S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 15.25

Depth to Well Bottom (ft): 27.3

Date: 11/08/2016

Time: 12:07:03 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
12:12…	15.34	150	0.21	6.76	0.19	157	6.35	14.64	-102	
12:17…	15.32	150	.42	6.76	0.00	149	6.38	14.55	-103	
12:22…	15.32	150	0.63	6.76	0.00	136	6.33	14.50	-106	
12:27…	15.32	150	0.84	6.76	0.00	129	6.27	14.34	-108	
12:32…	15.32	150	1.05	6.75	0.00	129	6.20	14.47	-108	

Sampling Data

Method: Dedicated tubing

Date: 11/08/2016

Time: *(hhmm)* 12:35:03

Total Volume of Water Purged: 1.2 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.75		
Spec. Cond. (mS/cm)	6.20		
Turbidity (NTU)	129		
DO (mg/L)	0.00		
Temp.(°C)	14.47		
ORP (mv)	-108		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl Huey

Well ID: MW07M

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.01

Depth to Well Bottom (ft): 43.9

Date: 11/08/2016

Time: 15:11:50 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:16:...	21.03	160	0.22	7.78	0.43	20.7	11.3	15.09	-177	
15:21:...	21.07	160	0.44	7.9	0.00	12.1	14.3	15.52	-190	
15:26:...	21.05	160	0.66	7.91	0.00	14.5	16.7	15.45	-198	
15:31:...	21.05	160	0.88	7.92	0.00	9.6	20.5	15.51	-212	
15:36:...	21.02	160	1.1	7.96	0.00	9.3	23.0	15.66	-220	
15:41:...	21.05	160	1.32	7.97	0.00	9.1	23.8	15.61	-227	
15:46:...	21.05	160	1.54	7.99	0.00	7.2	23.9	15.56	-230	

Sampling Data

Method: Dedicated tubing

Date: 11/08/2016

Time: *(hhmm)* 15:50:08

Total Volume of Water Purged: 1.6 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.99		
Spec. Cond. (mS/cm)	23.9		
Turbidity (NTU)	7.2		
DO (mg/L)	0.00		
Temp.(°C)	15.56		
ORP (mv)	-230		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	✓	8260B
SVOC	✓	8270D
PEST	✓	8081B
PCB AROCLORS	✓	8082A
Metals	✓	6010C
Mercury	✓	7470A/7471B
Cyanide	✓	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl H

Well ID: MW08D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 23.72

Depth to Well Bottom (ft): 54.2

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Date: 11/08/2016

Time: (hhmm)

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:05:...	23.75	150	0.21	8.02	3.67	54.3	29.0	13.97	-117	
09:10:...	23.89	150	0.42	8.03	0.00	43.6	44.5	13.76	-154	
09:15:...	23.9	150	0.63	8.02	0.00	35.1	58.1	13.76	-161	
09:20:...	23.9	150	0.84	7.98	0.00	26.6	68.1	13.7	-173	
09:25:...	23.9	150	1.05	7.94	0.00	24.8	87.3	13.78	-203	
09:30:...	23.9	150	1.26	7.82	0.0	22.8	90.8	13.76	-201	
09:35:...	23.93	150	1.47	7.81	0.0	10.0	91.3	13.73	-206	
09:40:...	23.94	150	1.68	7.82	0.0	4.7	91.5	13.71	-212	

Sampling Data

Method: Dedicated tubing

Date: 11/08/2016

Time: (hhmm) 09:45:12

Total Volume of Water Purged: 1.89 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.82		
Spec. Cond. (mS/cm)	91.5		
Turbidity (NTU)	4.7		
DO (mg/L)	0.0		
Temp.(°C)	13.71		
ORP (mv)	-212		

Comments:

SAMPLE SET

Parameter		Method
VOC	✓	8260B
SVOC	✓	8270D
PEST	✓	8081B
PCB AROCLORS	✓	8082A
Metals	✓	6010C
Mercury	✓	7470A/7471B
Cyanide	✓	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt F; Cheryl H

Well ID: MW08S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.89

Depth to Well Bottom (ft): 34.45

Date: 11/08/2016

Time: 08:12:19 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:22:...	21.93	150	0.21	7.39	1.04	23	17.1	14.38	-106	Very slight cloudiness
08:27:...	21.95	150	0.42	7.43	0.00	17.9	16.8	14.16	-137	
08:32:...	21.97	150	0.63	7.41	0.00	10.5	16.5	14.06	-151	Clearer
08:37:...	21.98	150	0.84	7.41	0.00	8.8	16.4	14.02	-159	
08:42:...	21.98	150	1.05	7.41	0.00	8.2	16.4	13.98	-166	
08:47:...	21.98	150	1.26	7.40	0.00	7.7	16.5	13.98	-168	

Sampling Data

Method:

Date: 11/08/2016

Time: *(hhmm)* 08:50:48

Total Volume of Water Purged: 1.35 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.40		
Spec. Cond. (mS/cm)	16.5		
Turbidity (NTU)	7.7		
DO (mg/L)	0.00		
Temp.(°C)	13.98		
ORP (mv)	-168		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	✓	8260B
SVOC	✓	8270D
PEST	✓	8081B
PCB AROCLORS	✓	8082A
Metals	✓	6010C
Mercury	✓	7470A/7471B
Cyanide	✓	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers:
- Matt Faryan
- Cheryl Huey

Well ID: MW09S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 4.75

Depth to Well Bottom (ft):

Date: 11/07/2016

Time: 14:08:45 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:13...	4.75	180	0.23	7.82	8.26	76.8	15.4	20.88	-178	Cloudy, slight Amber color
14:18...	4.75	180	0.46	7.79	8.06	75.3	15.1	17.78	-190	
14:23...	4.76	180	0.69	7.61	7.59	23.6	11.7	17.13	-190	
14:28...	4.76	180	0.92	7.52	6.68	13.2	9.80	17.76	-194	
14:33...	4.76	180	1.15	7.49	6.34	11.1	9.38	17.57	-198	Clear
14:38...	4.76	180	1.38	7.50	5.53	5.6	9.31	17.51	-199	
14:43...	4.77	180	1.61	7.48	5.46	0.5	9.11	17.77	-201	
14:48...	4.77	180	1.84	7.47	5.39	0.3	9.12	17.72	-202	

Sampling Data

Method:

Date: 11/07/2016

Time: *(hhmm)* 14:50:56

Total Volume of Water Purged: 2 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.47		
Spec. Cond. (mS/cm)	9.12		
Turbidity (NTU)	0.3		
DO (mg/L)	5.39		
Temp.(°C)	17.72		
ORP (mv)	-202		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Well ID: MW11

Manual Entry:

Samplers:

Matt Faryan

Cheryl Huey

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Submersible pump w/ dedicated tubing

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Date: 11/10/2016

Time: (hhmm)

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:0...	NA	100	NA	7.05	0.00	209	6.82	15.51	-221	Began purging at 07:40

Sampling Data

Method:

Date: 11/10/2016

Time: *(hhmm)* 08:05

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.05		
Spec. Cond. (mS/cm)	6.82		
Turbidity (NTU)	209		
DO (mg/L)	0.00		
Temp.(°C)	15.51		
ORP (mv)	-221		

Comments:

Log created manually from field notes.

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Matt Faryan; Cheryl Huey

Well ID: MW12

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.92

Depth to Well Bottom (ft): 49.6

Date: 11/09/2016

Time: 12:11:34 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
12:17…	22.10	160	0.22	6.96	0.54	46.6	5.52	18.43	-96	Clear with some black paericul…
12:22…	22.12	160	0.44	6.89	0.00	46.5	5.31	18.94	-107	
12:27…	22.20	160	0.66	6.85	0.00	43.8	5.17	19.30	-116	
12:32…	22.20	150	0.77	6.82	0.00	42.1	5.14	19.52	-123	
12:37…	22.20	150	0.98	6.77	0.00	40.1	5.12	19.78	-128	
12:42…	22.20	150	1.2	6.76	0.00	40.5	5.10	19.89	-131	

Sampling Data

Method: Dedicated tubing

Date: 11/09/2016

Time: *(hhmm)* 12:45:33

Total Volume of Water Purged: 1.4 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.76		
Spec. Cond. (mS/cm)	5.10		
Turbidity (NTU)	40.5		
DO (mg/L)	0.00		
Temp.(°C)	19.89		
ORP (mv)	-131		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers:
- Matt Faryan
- Cheryl Huey

Well ID: MW13

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 18.81

Depth to Well Bottom (ft): 63.7

Date: 11/09/2016

Time: 14:05:39 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:10…	18.89	200	0.27	6.86	0.00	6.2	7.99	19.09	-334	
14:15…	18.9	200	0.54	6.85	0.00	6.1	8.04	19.29	-343	
14:20…	18.9	200	0.81	6.84	0.00	6.0	8.05	19.31	-349	
14:25…	18.9	200	1.08	6.84	0.00	9.5	8.07	19.45	-351	
14:30…	18.9	200	1.35	6.85	0.00	9.8	8.10	19.35	-354	

Sampling Data

Method: Dedicated tubing

Date: 11/09/2016

Time: *(hhmm)* 14:35:04

Total Volume of Water Purged: 1.5 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.85		
Spec. Cond. (mS/cm)	8.10		
Turbidity (NTU)	9.8		
DO (mg/L)	0.00		
Temp.(°C)	19.35		
ORP (mv)	-354		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW01S	
Samplers:	Manual Entry:	Well Diameter:
Jason Price		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
7.9	17.2

Date:	Time:
03/27/2017	08:35 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:3...	7.8	180	0.1	7.74	1.12	13.9	4.100	10.4	131.4	
08:3...	7.8		0.2	7.59	0.75	14.9	3.900	10.5	142.6	
08:4...	7.8		0.3	7.53	0.62	18.4	3.852	10.6	149.4	
08:4...	7.8		0.4	7.49	0.54	28.6	3.823	10.5	155.5	
08:4...	7.8		0.5	7.48	0.51	24.5	3.813	10.5	157.5	
08:5...	7.8		0.6	7.46	0.47	18.8	3.798	10.6	160.9	
08:5...	7.8		0.8	7.46	0.45	24.2	3.784	10.7	163.2	
08:5...	7.8		1.0	7.45	0.43	18.7	3.781	10.7	165.8	
09:0...	7.8		1.1	7.45	0.42	11.4	3.776	10.8	167.8	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/27/2017	09:03	1.1 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.45		
Spec. Cond. (mS/cm)	3.776		
Turbidity (NTU)	11.4		
DO (mg/L)	0.42		
Temp.(°C)	10.8		
ORP (mv)	167.8		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: D.Savin

Well ID: MW02S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 3.04

Depth to Well Bottom (ft): 37.51

Date: 03/24/2017

Time: 14:50 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:5...	3.04	200	0.16	7.53	1.98	29.5	57.730	13.3	-119.6	
14:5...	3.06	200	0.32	6.78	1.68	35.4	57.414	13	-128.2	
14:5...	3.07	200	0.48	6.79	1.46	60.5	56.961	13.2	-133.0	
14:5...	3.07	200	0.64	6.81	1.37	104,4	56.718	13.1	-139.3	
15:0...	3.07	200	0.80	6.84	1.31	158.8	56.750	13.2	-143.2	
15:0...	3.06	200	0.96	6.89	1.29	162	56.690	12.8	-147.9	
15:0...	3.06	200	1.12	6.91	1.30	83.8	55.792	12.7	-148.2	
15:1...	3.06	200	1.28	6.90	1.26	83.5	55.723	12.3	-149.4	
15:1...	3.06	200	1.46	6.9	1.22	91	55.509	12.3	--150	

Sampling Data

Method:

Date: 03/24/2017

Time: *(hhmm)* 15:20

Total Volume of Water Purged: 1.46 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.9		
Spec. Cond. (mS/cm)	55.509		
Turbidity (NTU)	91		
DO (mg/L)	1.22		
Temp.(°C)	12.3		
ORP (mv)	--150		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW02D	
Samplers:	Manual Entry:	Well Diameter:
D.Savin		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
4.45	37.51

Date: 03/24/2017 Time: (hhmm)

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:3...	4.45	200	016	7.42	0.78	2.3	30.339	13.9	-85.7	
13:3...	4.46	200	0,32	7.34	0,67	1.6	31.091	13.9	-106.4	
13:3...	4.47	200	0.48	7.25	0.50	1.6	32.308	13.9	-121.5	
13:4...	4.47	200	0.64	7.21	0,44	1.7	33.370	14.0	-129.1	
13:4...	4.47	200	0.80	7.16	0.40	2.01	34.428	13.9	-134.4	
13:4...	4.46	209	0.96	7.11	0.37	3.1	35.080	14.1	-137.1	

Sampling Data

Method:	Date:	Time: (hhmm)	Total Volume of Water Purged:
Dedicated tubing	03/24/2017	14:00	(gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.11		
Spec. Cond. (mS/cm)	35.080		
Turbidity (NTU)	3.1		
DO (mg/L)	0.37		
Temp.(°C)	14.1		
ORP (mv)	-137.1		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: KT

Well ID: MW03S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Select...

Initial Depth to Water (ft): 3.76

Depth to Well Bottom (ft): 20.4

Date: 03/27/2017

Time: 11:33:56 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:34:...	3.85	180	0.11	6.51	6.56	80.1	52.0	11.53	-106	
11:37:...	3.85	180	0.22	6.58	1.02	67.5	51.6	11.44	-109	
11:40:...	3.85	180	0.33	6.61	0.56	63.5	51.7	11.28	-111	
11:43:...	3.85	180	0.44	6.63	0.33	67.0	51.6	11.21	-113	
11:46:...	3.85	180	0.55	6.64	0.19	73.0	51.8	11.07	-115	
11:49:...	3.85	180	0.66	6.65	0.19	70.1	51.9	11.09	-116	

Sampling Data

Method:

Date: 03/27/2017

Time: *(hhmm)* 12:00:13

Total Volume of Water Purged: 0.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.65		
Spec. Cond. (mS/cm)	51.9		
Turbidity (NTU)	70.1		
DO (mg/L)	0.19		
Temp.(°C)	11.09		
ORP (mv)	-116		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: KT

Well ID: MW04S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 3.88

Depth to Well Bottom (ft): 12.34

Date: 03/27/2017

Time: 09:05:17 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:06:...	3.95	180	0.15	8.97	14.21	7.2	4.72	11.23	-126	
09:09:...	3.95	180	0.25	8.95	11.97	8.3	4.56	10.37	-164	
09:12:...	3.95	180	0.35	8.96	11.20	7.9	4.03	10.06	-161	
09:15:...	3.95	180	0.45	8.95	10.59	8.3	3.70	9.49	-162	
09:18:...	3.95	180	0.55	8.91	9.98	6.8	3.45	9.45	-164	
09:21:...	3.95	180	0.66	8.88	9.53	7.5	3.36	9.49	-164	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2017

Time: *(hhmm)* 09:30:56

Total Volume of Water Purged: 0.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	8.88		
Spec. Cond. (mS/cm)	3.36		
Turbidity (NTU)	7.5		
DO (mg/L)	9.53		
Temp.(°C)	9.49		
ORP (mv)	-164		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Florin Savin

Well ID: MW05S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 13.56

Depth to Well Bottom (ft): 25.49

Date: 03/24/2017

Time: 09:37:19 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:40:...	13.56	200	0.16	7.52	1.84	4.6	6.57	16.38	-174	
09:43:...	13.61	200	0.32	7.44	0.92	2.6	6.55	16.54	-178	
09:46:...	13.6	200	0.48	7.41	0.55	1.7	6.53	16.69	-180	
09:49:...	13.61	200	0.64	7.39	0.44	2.1	6.52	16.79	-182	
09:52:...	13.6	200	0.80	7.38	0.41	2.7	6.52	16.85	-183	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2017

Time: *(hhmm)* 09:55:22

Total Volume of Water Purged: 0.8 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.38		
Spec. Cond. (mS/cm)	6.52		
Turbidity (NTU)	2.7		
DO (mg/L)	0.41		
Temp.(°C)	16.85		
ORP (mv)	-183		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW06S	
Samplers:	Manual Entry:	Well Diameter:
Florin Savin		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
13.7	26.92

Date: 03/31/2017 Time: 10:08 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:1...	13.79	180	0.11	6.70	2.0	27.9	5.365	7.7	-84.5	
10:1...	13.79	180	0.22	6.69	0.72	22.2	5.421	7.8	-92.3	
10:1...	13.79	180	0.33	6.71	0.37	18.9	5.429	8.0	-96.7	
10:2...	13.79	180	0.44	6.73	0.23	21.3	5.444	7.9	-99.3	
10:2...	13.79	180	0.55	6.73	0.17	20.8	5.442	8.1	-101.3	
10:2...	13.79	180	0.66	6.74	0.17	20.9	5.443	8.1	-101.5	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/31/2017	10:35	0.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.74		
Spec. Cond. (mS/cm)	5.443		
Turbidity (NTU)	20.9		
DO (mg/L)	0.17		
Temp.(°C)	8.1		
ORP (mv)	-101.5		

Comments:

LNAPL present at 13.69 feet below TOC. Water at 13.70 feet.

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW06M	
Samplers:	Manual Entry:	Well Diameter:
D. Savin		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
14.32	39.26

Date: 03/24/2017 Time: 09:29 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:2...	14.32	200	0.16	7.42	0.65	5.8	5.024	13.1	-90.9	
09:3...	14.32	200	0.32	7.35	0.48	5.5	5.010	13.2	-103.2	
09:3...	14.35	200	0.48	7.33	0.42	5.4	5.009	13.3	-106.1	
09:3...	14.35	200	0.64	7.32	0.37	5.6	5.011	13.3	-113.0	
09:4...	14.36	200	0.80	7.32	0.34	5.5	5.011	13.4	-116.6	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/24/2017	09:45	0.80 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.32		
Spec. Cond. (mS/cm)	5.011		
Turbidity (NTU)	5.5		
DO (mg/L)	0.34		
Temp.(°C)	13.4		
ORP (mv)	-116.6		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW06D	
Samplers:	Manual Entry:	Well Diameter:
D.Savin		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
13.52	45.81

Date: 03/24/2017 Time: 11:04 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:0...	13.52	200	0.16	6.98	0.92	169.1	6.124	15.1	-97.4	
11:0...	13.52	200	0.32	6.91	0.53	269.2	6.279	15.2	-109.8	
11:1...	13.53	200	0.48	6.91	0.43	125.9	6.295	15.3	-113.9	
11:1...	13.54	200	0.64	6.91	0.38	71.5	6.237	15.4	-116.1	
11:1...	13.54	200	0.80	6.91	0.36	49.4	6.216	15.6	-117.4	
11:1...	13.54	200	0.96	6.92	0.35	48.5	6.195	15.5	-118.6	
11:2...	13.53	200	1.12	6.92	0.33	48.6	6.165	15.6	-119.1	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/24/2017	11:25	1.12 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.92		
Spec. Cond. (mS/cm)	6.165		
Turbidity (NTU)	48.6		
DO (mg/L)	0.33		
Temp.(°C)	15.6		
ORP (mv)	-119.1		

Comments:

SAMPLE SET		
Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Florin Savin

Well ID: MW07M

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 20.7

Depth to Well Bottom (ft): 43.96

Date: 03/24/2017

Time: 10:30:32 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:49:...	20.7	200	0.16	7.73	2.44	38.4	9.92	17.72	-135	
10:52:...	20.74	200	0.32	7.56	1.03	37.2	10.9	19.8	-157	
10:55:...	20.75	200	0.48	7.54	0.56	33.5	11.5	19.93	-165	
10:58:...	20.75	200	0.64	7.6	0.36	31.6	13.2	20.07	-179	
11:02:...	20.75	200	0.8	7.71	0.22	29.6	15	20.19	-188	
11:05:...	20.73	200	0.96	7.76	0.18	28.7	16.9	20.13	-193	
11:08:...	20.74	200	1.12	7.8	0.15	27	16.8	20.25	-195	
11:11:...	20.74	200	1.28	7.83	0.12	26.8	16.9	20.30	-198	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2017

Time: *(hhmm)* 11:15:22

Total Volume of Water Purged: 1.3 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.83		
Spec. Cond. (mS/cm)	16.9		
Turbidity (NTU)	26.8		
DO (mg/L)	0.12		
Temp.(°C)	20.30		
ORP (mv)	-198		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: KT

Well ID: MW08S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 20.93

Depth to Well Bottom (ft): 34.4

Date: 03/23/2017

Time: 14:13:59 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:18:...	20.99	200	0.16	7.32	0.57	27.1	17.1	12.6	-91.9	
14:24:...	20.99	200	0.32	7.33	0.47	37.5	17.1	12.5	-105.1	
14:27:...	20.99	200	0.48	7.33	0.40	56.7	17.0	12.5	-116.6	
14:30:...	20.99	180	0.55	7.33	0.38	87.3	17.1	12.7	-127.2	
14:33:...	20.99	180	0.67	7.34	0.35	116.2	17.1	12.8	-136.5	
14:36:...	20.99	180	0.78	7.34	0.34	171.1	17.0	12.9	-142.8	
14:39:...	20.99	180	0.90	7.34	0.33	173.2	17.0	12.9	-148.7	
14:42:...	20.99	180	1.05	7.34	0.33	171.2	17.0	12.9	-149.1	

Sampling Data

Method: Dedicated tubing

Date: 03/23/2017

Time: *(hhmm)* 14:45:44

Total Volume of Water Purged: 1.1 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.34		
Spec. Cond. (mS/cm)	17.0		
Turbidity (NTU)	171.2		
DO (mg/L)	0.33		
Temp.(°C)	12.9		
ORP (mv)	-149.1		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Well ID: MW08D

Manual Entry:

Samplers: Florin Savin

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 23.75

Depth to Well Bottom (ft): 54.52

Date: 03/23/2017

Time: 14:16 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:1...	23.75	200	0.16	8.25	0.8	16.4	74.8	14.12	-159	
14:2...	23.8	200	0.32	8.26	0.8	22.2	83.1	13.96	-198	
14:2...	23.83	200	0.48	8.27	0.57	24.3	86	13.93	-210	
14:2...	23.85	200	0.64	8.28	0.44	25.2	88.7	13.87	-217	
14:2...	23.84	200	0.8	8.3	0.31	31.6	91.9	13.82	-224	
14:3...	23.8	200	0.96	8.31	0.28	40.9	94.4	13.82	-229	
14:3...	23.81	200	1.12	8.31	0.19	55	97.9	13.89	-235	
14:3...	23.85	200	1.28	8.31	0.16	44.1	99.2	13.94	-238	
14:4...	23.82	200	1.44	8.3	0.13	24.1	100	14.02	-241	
14:4...	23.84	200	1.60	8.29	0.11	22.1	100	14.08	-243	
14:4...	23.81	200	1.76	8.29	0.16	19.1	100	14.09	-245	

Sampling Data

Method: Dedicated tubing

Date: 03/23/2017

Time: *(hhmm)* 14:47

Total Volume of Water Purged: 1.76 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	8.29		
Spec. Cond. (mS/cm)	100		
Turbidity (NTU)	19.1		
DO (mg/L)	0.16		
Temp.(°C)	14.09		
ORP (mv)	-245		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW09S	
Samplers:	Manual Entry:	Well Diameter:
Jason Price		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
4.73	17.43

Date: Time: *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:4...	4.6	180	0.1	7.18	1.13	42.4	5.762	9.4	132.4	
09:5...	4.6		0.2	7.16	0.77	45.3	5.706	9.3	139.2	
09:5...	4.6		0.3	7.14	0.55	41.7	5.527	9.4	150.5	
09:5...	4.6		0.4	7.14	0.47	44.2	5.484	9.5	156.7	
10:0...	4.6		0.5	7.16	0.41	44.5	5.922	9.5	166.1	
10:0...	4.6		0.6	7.18	0.40	39.9	6.312	9.2	171.4	
10:0...	4.6		0.7	7.20	0.38	46.4	6.646	9.1	175.4	
10:1...	4.6		0.8	7.22	0.37	51.9	6.796	9.1	177.9	
10:1...	4.6		0.9	7.23	0.36	62.2	6.919	9.1	180.1	
10:1...	4.6		1.0	7.23	0.36	62.3	6.963	9.1	181.3	
10:2...	4.6		1.1	7.24	0.35	69.6	7.019	9.0	182.4	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
	03/27/2017	10:25	1.25 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.24		
Spec. Cond. (mS/cm)	7.019		
Turbidity (NTU)	69.6		
DO (mg/L)	0.35		
Temp.(°C)	9.0		
ORP (mv)	182.4		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: KT

Well ID: MW11

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 17.25

Depth to Well Bottom (ft): 51.03

Date: 03/27/2017

Time: 10:23:50 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:23:...	17.36	180	0.11	7.54	1.81	111	3.97	14.11	-140	
10:26:...	17.36	180	0.22	7.36	1.04	101	3.89	14.45	-144	
10:29:...	17.36	180	0.33	7.22	0.54	95.0	3.83	14.73	-148	
10:32:...	17.36	180	0.44	7.11	0.43	90.4	3.82	14.91	-152	
10:35:...	17.36	180	0.55	7.05	0.33	90.4	3.81	14.97	-154	
10:38:...	17.36	180	0.66	7.04	0.32	89.9	3.81	14.97	-154	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2017

Time: *(hhmm)* 10:45:18

Total Volume of Water Purged: 0.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.04		
Spec. Cond. (mS/cm)	3.81		
Turbidity (NTU)	89.9		
DO (mg/L)	0.32		
Temp.(°C)	14.97		
ORP (mv)	-154		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	✓	8260B
SVOC	✓	8270D
PEST	✓	8081B
PCB AROCLORS	✓	8082A
Metals	✓	6010C
Mercury	✓	7470A/7471B
Cyanide	✓	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Florin Savin

Well ID: MW12

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 20.7

Depth to Well Bottom (ft): 49.12

Date: 03/24/2017

Time: 14:20:37 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:23:...	20.7	200	0.16	7.46	1.99	80.4	5.41	23.94	-239	
14:26:...	20.76	200	0.32	7.39	1.06	97	5.36	24.09	-245	
14:29:...	20.76	200	0.48	7.36	0.78	124	5.33	24.06	-252	
14:32:...	20,75	200	0.64	7.34	0.63	122	5.31	24.09	-257	
14:35:...	20,75	200	0.8	7.32	0.53	124	5.31	23.99	-262	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2017

Time: *(hhmm)* 14:50:47

Total Volume of Water Purged: 0.8 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.32		
Spec. Cond. (mS/cm)	5.31		
Turbidity (NTU)	124		
DO (mg/L)	0.53		
Temp.(°C)	23.99		
ORP (mv)	-262		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Florin Savin

Well ID: MW13

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 17

Depth to Well Bottom (ft): 63.98

Date: 03/24/2017

Time: 13:15:22 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:37:...	17	200	0.16	7.3	3.71	2.0	7.9	23.83	-327	
13:40:...	17.4	200	0.32	7.28	1.86	1.9	7.92	23.7	-331	
13:43:...	17.4	200	0.48	7.26	1.2	1.9	7.95	23.69	-334	
13:46:...	17.3	200	0.64	7.24	0.83	1.9	7.98	23.64	-335	
13:49:...	17.4	200	0.8	7.23	0.61	2.3	8.02	23.58	-337	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2017

Time: *(hhmm)* 13:55:56

Total Volume of Water Purged: 0.8 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.23		
Spec. Cond. (mS/cm)	8.02		
Turbidity (NTU)	2.3		
DO (mg/L)	0.61		
Temp.(°C)	23.58		
ORP (mv)	-337		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn

Well ID: MW01S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 7.56

Depth to Well Bottom (ft): 17.19

Date: 07/19/2017

Time *(HH:MM)*: 09:20

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:22	7.56	125	0	5.94	10....	803	4.83	17.88	-196		
09:28	7.56	125	.50	5.86	9.06	357	4.77	17.38	-196		
09:33	7.56	125	1	5.84	8.66	210	4.70	17.06	-196		
09:37	7.56	125	1.5	5.81	8.44	114	4.68	16.82	-196		
09:41	7.56	125	2	5.80	8.39	66.8	4.66	16.74	-197		
09:46	7.56	125	2.5	5.80	8.34	23.6	4.64	16.58	-197		
09:51	7.56	125	3.0	5.80	8.21	8.16	4.63	16.55	-199		

Sampling Data

Method: Dedicated tubing

Date: 07/19/2017

Time *(HH:MM)*: 09:55

Total Volume of Water Purged: 3.0

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	5.80		
Spec. Cond. (mS/cm)	4.63		
Turbidity (NTU)	8.16		
DO (mg/L)	8.21		
Temp.(°C)	16.55		
ORP (mv)	-199		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW02D

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 5.55

Depth to Well Bottom (ft): 37.24

Date: 07/20/2017

Time *(HH:MM)*: 15:18

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:18	5.55	125	0	6.53	4.70	17.4	24.9	33.06	-141		
15:23	5.55	125	.50	6.51	4.23	30.7	23.9	31.77	-142		
15:28	5.55	125	1.00	6.50	3.96	41.6	23.6	30.61	-143		
15:33	5.55	125	1.50	6.50	3.86	57.9	23.8	29.69	-144		
15:38	5.55	125	2.00	6.50	3.82	63.0	23.9	29.24	-145		
15:43	5.55	125	2.50	6.51	3.82	74.7	24.1	28.82	-147		
15:48	5.55	125	3.00	6.51	3.86	80.8	24.3	28.34	-147		

Sampling Data

Method: Dedicated tubing

Date: 07/20/2017

Time *(HH:MM)*: 15:50

Total Volume of Water Purged: 3.00

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.51		
Spec. Cond. (mS/cm)	24.3		
Turbidity (NTU)	80.8		
DO (mg/L)	3.86		
Temp.(°C)	28.34		
ORP (mv)	-147		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn, lg

Well ID: MW02S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 3.25

Depth to Well Bottom (ft): 17.42

Date: 07/20/2017

Time *(HH:MM)*: 14:31

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:31	3.25	125	0	6.52	6.83	122	39.2	30.16	-147		
14:36	3.25	125	.50	6.47	5.75	88.8	40.5	24.75	-176		
14:41	3.25	125	1	6.45	5.48	78.5	41.3	24.3	-182		
14:46	3.25	125	1.5	6.44	5.17	73.5	41.5	23.95	-189		
14:51	3.25	125	2	6.43	5.04	71.0	41.8	24.01	-192		

Sampling Data

Method: Dedicated tubing

Date: 07/20/2017

Time *(HH:MM)*: 14:51

Total Volume of Water Purged: 2

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.43		
Spec. Cond. (mS/cm)	41.8		
Turbidity (NTU)	71.0		
DO (mg/L)	5.04		
Temp.(°C)	24.01		
ORP (mv)	-192		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW03S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 4.32

Depth to Well Bottom (ft): 20.33

Date: 07/25/2017

Time *(HH:MM)*:

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
16:22	4.32	125	0	7.15	9.32	900	38.7	17.48	-89		
16:43	4.32	125	.75	6.77	6.14	268	42.5	16.67	-78		Readings 2,3&4 deleted
16:48	4.32	125	1.00	6.76	6.06	211	43.2	16.63	-77		
16:53	4.32	125	1.25	6.74	5.92	182	43.8	16.72	-77		
16:58	4.32	125	1.50	6.72	5.86	154	44.3	16.65	-74		

Sampling Data

Method: Select...

Date: 07/25/2017

Time *(HH:MM)*: 17:00

Total Volume of Water Purged: 1.50

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.72		
Spec. Cond. (mS/cm)	44.3		
Turbidity (NTU)	154		
DO (mg/L)	5.86		
Temp.(°C)	16.65		
ORP (mv)	-74		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW04S	
Samplers:	Manual Entry:	Well Diameter:
Nn,lg		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
4.65	12.94

Date: 07/25/2017 Time: 13:01 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:0...	4.65	125	0	6.77	8.00	20.9	6.40	21.88	26	
13:0...	4.65	125	.25	6.74	6.07	20.6	6.63	21.17	45	
13:1...	4.65	125	.50	6.74	5.90	23.4	6.68	20.96	47	
13:1...	4.65	125	0.75	6.73	5.87	24.1	6.70	20.74	32	
13:2...	4.65	125	1.00	6.74	5.80	23.8	6.62	20.75	-13	
13:2...	4.65	125	1.25	6.75	5.78	23.2	6.57	20.66	-34	
13:3...	4.65	125	1.50	6.74	5.76	23.6	6.51	20.61	-45	
13:3...	4.65	125	1.75	6.74	5.74	22.8	6.48	20.58	-52	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	07/25/2017	13:40	1.75 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.74		
Spec. Cond. (mS/cm)	6.48		
Turbidity (NTU)	22.8		
DO (mg/L)	5.74		
Temp.(°C)	20.58		
ORP (mv)	-52		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name:	Well ID:	
Gary Development Landfill	MW05S	
Samplers:	Manual Entry:	Well Diameter:
Nn,lg		2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft):	Depth to Well Bottom (ft):
14.59	25.49

Date: 07/25/2017 Time: 11:45 *(hhmm)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:4...	14.59	125	0	6.77	6.32	29.5	4.65	27.12	-110	
11:5...	14.95	125	.25	6.74	4.88	27.9	4.62	25.68	-122	
11:5...	14.95	125	.50	6.70	6.17	34.2	5.30	19.43	-131	
12:0...	14.95	125	.75	6.68	6.04	41.7	5.33	19.41	-136	
12:0...	14.95	125	1.00	6.68	5.93	43.6	5.33	19.53	-141	
12:1...	14.95	125	1.25	6.69	5.87	48.6	5.33	19.63	-146	
12:1...	14.95	125	1.50	6.70	5.75	48.5	5.32	19.90	-152	
12:2...	14.95	125	1.75	6.70	5.80	50.3	5.34	19.74	-156	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	07/25/2017	12:25	1.00 (gal)

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.70		
Spec. Cond. (mS/cm)	5.34		
Turbidity (NTU)	50.3		
DO (mg/L)	5.80		
Temp.(°C)	19.74		
ORP (mv)	-156		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals	☑	6010C
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW06D

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 14.65

Depth to Well Bottom (ft): 45.2

Date: 07/25/2017

Time *(HH:MM)*:

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:22	14.65	125	0	6.73	8.99	1000	5.44	15.99	-106		
09:27	14.65	125	0.50	6.68	7.71	894	5.32	15.86	-113		
09:32	14.65	125	0.75	6.67	7.58	1000	5.44	15.67	-117		
09:37	14.65	125	1.00	6.67	7.47	927	5.52	15.68	-121		
09:52	14.65	125	1.50	6.80	7.37	624	5.55	15.83	-112		Had to restart because meter was clog
09:57	14.65	125	1.75	6.80	7.13	1000	5.48	15.66	-122		
10:02	14.65	125	2.0	6.79	6.98	293	5.44	15.85	-127		
10:07	14.65	125	2.25	6.79	6.90	82.1	5.45	15.89	-127		
10:12	14.65	125	2.75	6.78	6.93	362	5.45	15.67	-129		

Sampling Data

Method: Dedicated tubing

Date: 07/25/2017

Time *(HH:MM)*: 10:15

Total Volume of Water Purged: 2.75

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.78		
Spec. Cond. (mS/cm)	5.45		
Turbidity (NTU)	362		
DO (mg/L)	6.93		
Temp.(°C)	15.67		
ORP (mv)	-129		

Comments:

Very high NTU. Surface of well looks ok. Stopped purging to rinse low flow meter. Suggest well redevelopment.

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

PARSONS

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW06M

Manual Entry:

Form Submitted? ☑ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 15.46

Depth to Well Bottom (ft): 38.72

Date: 07/21/2017

Time *(HH:MM)*:

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
12:36	15.46	125	0	6.80	8.53	8.27	5.10	21.80	-108		
12:41	15.46	125	.25	6.75	6.69	9.13	4.94	20.43	-112		
12:46	15.46	125	.5	6.75	6.44	14.8	5.20	19.60	-119		
12:51	15.46	125	.75	6.85	6.15	19.3	5.19	20.08	-125		
12:56	15.46	125	1.00	6.77	6.14	22.3	5.22	19.99	-123		
13:01	15.46	125	1.25	6.78	6.27	26.1	5.30	19.10	-128		

Sampling Data

Method: Dedicated tubing

Date: 07/21/2017

Time *(HH:MM)*: 15:05

Total Volume of Water Purged: 1.25

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.78		
Spec. Cond. (mS/cm)	5.30		
Turbidity (NTU)	26.1		
DO (mg/L)	6.27		
Temp.(°C)	19.10		
ORP (mv)	-128		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW06S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 15.48

Depth to Well Bottom (ft): 26.9

Date: 07/25/2017

Time *(HH:MM)*: 08:18

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:18	15.48	125	0	6	10....	146	6.35	15.05	-105		
08:22	15.48	125	.25	6.73	8.85	127	6.24	14.85	-101		
08:27	15.48	125	.50	6.72	8.47	115	6.19	14.68	-100		
08:32	15.48	125	1.0	6.72	8.28	114	6.11	14.57	-100		
08:37	15.48	125	1.25	6.73	8.13	72	6.04	14.63	-100		
08:42	15.48	125	1.50	6.73	7.96	63.7	5.92	14.69	-101		
08:47	15.48	125	1.75	6.72	7.86	51.3	5.88	14.72	-102		
08:52	15.48	125	2.00	6.72	7.79	49.6	5.83	14.82	-103		

Sampling Data

Method: Dedicated tubing

Date: 07/25/2017

Time *(HH:MM)*: 08:55

Total Volume of Water Purged: 2.0

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.72		
Spec. Cond. (mS/cm)	5.83		
Turbidity (NTU)	49.6		
DO (mg/L)	7.79		
Temp.(°C)	14.82		
ORP (mv)	-103		

Comments:

SAMPLE SET		
Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW07M

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 20.95

Depth to Well Bottom (ft): 43.62

Date: 07/21/2017

Time *(HH:MM)*: 11:31

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:31	20.95	125	0	6.77	7.99	19.8	9.75	21.45	-151		
11:36	20.95	125	.25	6.75	6.58	12.7	11.9	20.81	-184		
11:41	20.95	125	.50	6.76	6.35	11.8	13.5	20.73	-198		
11:46	20.95	125	1.00	6.77	6.20	10.7	16.4	20.73	-209		
11:51	20.95	125	1.25	6.79	6.03	9.84	19.6	20.79	-222		
11:56	20.96	125	1.5	6.79	5.98	9.58	20.6	20.74	-228		

Sampling Data

Method: Dedicated tubing

Date: 07/21/2017

Time *(HH:MM)*: 11:31

Total Volume of Water Purged:

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.79		
Spec. Cond. (mS/cm)	20.6		
Turbidity (NTU)	9.58		
DO (mg/L)	5.98		
Temp.(°C)	20.74		
ORP (mv)	-228		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW08D

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 23.62

Depth to Well Bottom (ft): 53.96

Date: 07/21/2017

Time *(HH:MM)*: 09:34

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:34	23.62	125	0	6.88	5.96	27.1	68.4	18.43	-199		
09:39	23.62	125	.25	6.83	5.28	29	72.5	18.31	-210		
09:44	23.62	125	.50	6.82	4.88	27.5	75.7	18.95	-221		
09:49	23.62	125	.75	6.81	4.60	27.7	75.5	20.27	-193		
09:54	23.62	125	1.0	6.81	4.58	33.7	79.4	20.10	-160		
09:59	23.62	125	1.25	6.82	4.62	28.3	82.7	19.43	-209		
10:04	23.62	125	1.5	6.82	4.39	24.7	85.0	19.76	-219		

Sampling Data

Method: Select...

Date: 07/21/2017

Time *(HH:MM)*: 10:10

Total Volume of Water Purged: 1.5

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.82		
Spec. Cond. (mS/cm)	85.0		
Turbidity (NTU)	24.7		
DO (mg/L)	4.39		
Temp.(°C)	19.76		
ORP (mv)	-219		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Non,lg

Well ID: MW08S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.41

Depth to Well Bottom (ft): 35.4

Date: 07/21/2017

Time *(HH:MM)*:

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
07:33	21.41	125	0	7.04	8.16	47.8	16.2	18.49	-143		
07:38	21.41	125	.25	6.99	7.56	27	16.5	16.92	-171		
07:42	21.41	125	0.50	6.96	7.33	17	16.4	16.79	-177		
07:47	21.41	125	0.75	6.94	7.19	12.6	16.2	16.64	-180		
07:52	21.41	125	1.00	6.94	7.13	9.72	15.3	16.57	-172		

Sampling Data

Method: Dedicated tubing

Date: 07/21/2017

Time *(HH:MM)*: 07:55

Total Volume of Water Purged: 1.00

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.94		
Spec. Cond. (mS/cm)	15.3		
Turbidity (NTU)	9.72		
DO (mg/L)	7.13		
Temp.(°C)	16.57		
ORP (mv)	-172		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN, LG

Well ID: MW09S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 4.01

Depth to Well Bottom (ft): 17.44

Date: 07/20/2017

Time *(HH:MM)*: 17:37

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
17:37	4.01	125	.25	6.51	5.56	299	.019	25.42	-42		
17:42	4.01	125	.5	6.51	5.50	11.4	.017	25.88	-43		
17:47	4.01	125	.75	6.55	6.49	0.0	14.4	20.98	-176		
17:52	4.01	125	1	6.53	5.52	8.74	6.68	23.86	-132		
17:57	4.01	125	1.25	6.58	5.38	41.8	9.70	22.52	-167		
18:02	4.01	125	1.5	6.58	5.27	26.8	8.92	21.98	-173		
18:07	4.01	125	1.75	6.59	5.29	23.4	8.89	21.56	-178		
18:12	4.01	125	2	6.62	5.33	17.2	8.93	21.20	-182		
18:17	4.01	125	2.25	6.63	5.36	16.5	9.00	20.94	-184		

Sampling Data

Method: Dedicated tubing

Date: 07/20/2017

Time *(HH:MM)*: 18:20

Total Volume of Water Purged:

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.63		
Spec. Cond. (mS/cm)	9.00		
Turbidity (NTU)	16.5		
DO (mg/L)	5.36		
Temp.(°C)	20.94		
ORP (mv)	-184		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

PARSONS

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW11

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 18.73

Depth to Well Bottom (ft): 50.46

Date: 07/25/2017

Time *(HH:MM)*: 10:48

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:48	18.73	125	0	6.76	7.51	140	3.28	21.21	-108		
10:53	18.73	125	.25	6.80	6.41	120	3.25	20.97	-116		
10:58	18.73	125	.50	6.80	6.20	118	3.23	20.94	-120		
11:03	18.73	125	.75	6.80	6.13	115	3.22	21.06	-121		
11:08	18.73	125	1.00	6.80	6.05	119	3.21	21.14	-123		

Sampling Data

Method: Dedicated tubing

Date: 07/25/2017

Time *(HH:MM)*: 11:11

Total Volume of Water Purged: 1.00

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.80		
Spec. Cond. (mS/cm)	3.21		
Turbidity (NTU)	119		
DO (mg/L)	6.05		
Temp.(°C)	21.14		
ORP (mv)	-123		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW12

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 19.58

Depth to Well Bottom (ft): 48.36

Date: 07/20/2017

Time *(HH:MM)*: 12:31

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
12:31	19.58	125	0	6.26	7.69	83.6	3.89	22.63	-146		
12:36	19.58	125	.25	6.27	7.43	34.1	3.90	22.34	-161		
12:41	19.58	125	.50	6.28	7.18	122	3.92	22.11	-176		
12:46	19.58	125	.75	6.28	7.07	133	3.92	22.17	-186		
12:51	19.58	125	1	6.28	7.04	10.2	3.92	22.17	-189		
12:56	19.58	125	1.25	6.29	6.89	13.3	3.93	22.51	-195		
13:03	19.58	125	1.50	6.31	6.64	13.3	3.87	23.38	-210		
13:08	19.58	125	1.75	6.28	6.36	10.2	3.90	24.17	-213		0.0299999999999994

Sampling Data

Method: Dedicated tubing

Date: 07/20/2017

Time *(HH:MM)*: 13:50

Total Volume of Water Purged: 1.75

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.28		
Spec. Cond. (mS/cm)	3.90		
Turbidity (NTU)	10.2		
DO (mg/L)	6.36		
Temp.(°C)	24.17		
ORP (mv)	-213		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Nn,lg

Well ID: MW13

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 17.32

Depth to Well Bottom (ft): 63.32

Date: 07/20/2017

Time *(HH:MM)*: 19:26

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
19:03	17.32	125	0	6.72	7.47	46.8	7.15	19.72	-259		
19:08	17.32	125	.25	6.71	6.69	23.1	7.17	19.87	-287		
19:13	17.32	125	.50	6.68	6.45	18.3	7.19	20.12	-295		
19:18	17.32	125	.75	6.66	6.37	14.1	7.19	20.18	-304		
19:23	17.32	125	1.0	6.66	6.27	13.6	7.16	20.24	-318		
19:28	17.32	125	1.25	6.67	6.22	7.94	7.20	20.26	-322		
19:33	17.32	125	1.5	6.66	6.16	14.8	7.17	20.19	-326		

Sampling Data

Method: Dedicated tubing

Date: 07/20/2017

Time *(HH:MM)*: 19:30

Total Volume of Water Purged: 1.5

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.66		
Spec. Cond. (mS/cm)	7.17		
Turbidity (NTU)	14.8		
DO (mg/L)	6.16		
Temp.(°C)	20.19		
ORP (mv)	-326		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg, nn

Well ID: MW01S

Manual Entry:

Form Submitted? ☑ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 8.13

Depth to Well Bottom (ft): 17.16

Date: 10/09/2017

Time *(HH:MM)*: 08:36

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:38	8.13	.10	0	7.55	11....	3.70	4.79	16.17	-162		
08:45	8.13	.10	0.25	7.53	10....	3.36	4.75	16.02	-169		
08:48	8.13	.10	0.50	7.52	9.88	3.77	4.73	15.94	-171		
08:53	8.13	.10	.75	7.51	9.57	4.05	4.71	15.91	-172		
08:58	.13	.10	1.0	7.50	9.38	3.89	4.71	15.96	-171		

Sampling Data

Method: Dedicated tubing

Date: 10/09/2017

Time *(HH:MM)*: 09:59

Total Volume of Water Purged: 1.0

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.50		
Spec. Cond. (mS/cm)	4.71		
Turbidity (NTU)	3.89		
DO (mg/L)	9.38		
Temp.(°C)	15.96		
ORP (mv)	-171		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN, LG

Well ID: MW02D

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 6.95

Depth to Well Bottom (ft): 37.16

Date: 10/11/2017

Time *(HH:MM)*: 07:40

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
07:40	6.95	125	.17	7.01	5.49	41.6	33.9	15.94	-149		
07:46	6.95	125	.33	7.02	5.10	60.0	34.1	15.75	-148		
07:50	6.95	125	.5	7.02	5.01	60.0	34.3	15.58	-147		
07:55	6.95	125	.67	7.01	4.93	87.9	34.3	15.62	-147		
08:00	6.95	125	.83	7.00	4.87	87.7	34.6	15.59	-146		
08:05	6.95	125	1.0	6.99	4.81	31.1	35.8	15.51	-145		
08:10	6.95	125	1.17	6.98	4.73	18.2	37.9	15.44	-146		
08:15	6.95	125	1.33	6.97	4.59	10.5	40.6	15.39	-149		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 08:20

Total Volume of Water Purged: 1.33

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.97		
Spec. Cond. (mS/cm)	40.6		
Turbidity (NTU)	10.5		
DO (mg/L)	4.59		
Temp.(°C)	15.39		
ORP (mv)	-149		

Comments:

SAMPLE SET		
Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg,nn

Well ID: MW02S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 4.24

Depth to Well Bottom (ft): 17.33

Date: 10/11/2017

Time *(HH:MM)*: 07:35

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
07:38	4.24	125	0.25	7.04	17....	76.5	46.9	16.78	-141		
07:42	4.24	125	0.50	7.03	8.81	68	46.4	16.97	-156		
07:48	4.24	125	.75	7.00	8.12	58.3	46.4	17.03	-161		
07:53	4.24	125	1.00	6.98	7.87	50	46.5	17.06	-165		
07:58	4.24	125	1.25	6.95	7.73	43.6	46.5	17.04	-167		
08:03	4.24	125	1.50	6.94	7.60	46.1	46.6	17.07	-169		
08:08	4.24	125	1.75	6.92	7.49	46.3	46.8	17.07	-170		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 08:10

Total Volume of Water Purged: 1.75

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.92		
Spec. Cond. (mS/cm)	46.8		
Turbidity (NTU)	46.3		
DO (mg/L)	7.49		
Temp.(°C)	17.07		
ORP (mv)	-170		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

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GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN, LG

Well ID: MW03S

Manual Entry:

Form Submitted? ☑ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 5.77

Depth to Well Bottom (ft): 20.29

Date: 10/11/2017

Time *(HH:MM)*: 09:10

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:14	5.77	125	0	6.91	3.80	232	63.2	15.10	-88		
09:19	5.77	125	.17	6.87	3.46	321	64.8	14.95	-98		
09:24	5.77	125	.33	6.82	3.57	250	63.8	14.97	-103		
09:29	5.77	125	.5	6.80	3.64	203	59.4	15.03	-104		
09:34	5.77	125	.67	6.77	3.77	185	53.5	15.13	-105		
09:39	5.77	125	.83	6.75	3.78	179	51.4	15.23	-106		
09:44	5.77	125	1.0	6.74	3.74	168	50.9	15.27	-108		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 09:50

Total Volume of Water Purged: 1.0

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.74		
Spec. Cond. (mS/cm)	50.9		
Turbidity (NTU)	168		
DO (mg/L)	3.74		
Temp.(°C)	15.27		
ORP (mv)	-108		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN

Well ID: MW04S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 5.7

Depth to Well Bottom (ft): 12.82

Date: 10/11/2017

Time *(HH:MM)*: 14:37

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:39	5.7	125	0	8.79	8.49	190	6.45	17.90	-148		
14:44	5.7	125	.17	8.79	4.31	118	6.28	18.37	-135		
14:49	5.7	125	.33	8.79	4.08	107	6.20	18.57	-255		
14:54	5.7	125	.5	8.79	4.05	86.7	6.12	18.65	-290		
14:59	5.7	125	.67	8.79	4.10	74.9	6.08	18.68	-313		
15:04	5.7	125	.83	8.79	4.12	67.0	6.05	18.76	-324		
15:09	5.7	125	1	8.79	4.14	59.4	6.05	18.70	-330		
15:14	5.7	125	1.17	8.79	4.15	58.4	6.04	18.73	-334		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 15:20

Total Volume of Water Purged: 1.17

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	8.79		
Spec. Cond. (mS/cm)	6.04		
Turbidity (NTU)	58.4		
DO (mg/L)	4.15		
Temp.(°C)	18.73		
ORP (mv)	-334		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg, NN

Well ID: MW05S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 16

Depth to Well Bottom (ft): 25.47

Date: 10/11/2017

Time *(HH:MM)*: 14:30

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:35	16	125	0	6.50	7.79	0	7.59	15.67	-142		
14:40	16	125	0.25	6.50	7.69	812	7.57	15.70	-145		
14:45	16	125	0.5	6.51	7.59	595	7.56	15.71	-150		
14:50	16	125	.75	6.50	7.49	458	7.55	15.72	-153		
14:55	16	125	1	6.50	7.40	391	7.54	15.73	-164		
15:00	16	125	1.25	6.50	7.33	347	7.54	15.77	-175		
15:05	16	125	1.50	6.51	7.28	343	7.41	15.79	-173		
15:10	16	125	1.75	6.51	7.20	320	7.38	15.80	-170		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 15:15

Total Volume of Water Purged: 1.75

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.51		
Spec. Cond. (mS/cm)	7.38		
Turbidity (NTU)	320		
DO (mg/L)	7.20		
Temp.(°C)	15.80		
ORP (mv)	-170		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg, nn

Well ID: MW06D

Manual Entry:

Form Submitted? ☑ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 15.66

Depth to Well Bottom (ft): 45.34

Date: 10/10/2017

Time *(HH:MM)*: 08:06

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:08	15.66	125	0	6.56	11....	0.00	5.30	16.81	-146		
08:16	15.66	125	.25	6.59	7.51	0.00	5.41	16.67	-146		Horiba clogged
08:27	15.66	125	.50	6.62	7.39	56.8	5.42	16.71	-120		
08:35	15.66	125	.75	6.68	6.85	186	5.43	16.36	-132		
08:40	15.66	125	1	6.70	6.70	190	5.43	16.32	-136		
08:45	15.66	125	1.25	6.71	6.63	188	5.44	16.34	-138		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 08:45

Total Volume of Water Purged: 1.25

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.71		
Spec. Cond. (mS/cm)	5.44		
Turbidity (NTU)	188		
DO (mg/L)	6.63		
Temp.(°C)	16.34		
ORP (mv)	-138		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN, LG

Well ID: MW06M

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 16.46

Depth to Well Bottom (ft): 38.73

Date: 10/10/2017

Time *(HH:MM)*: 08:05

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:10	16.46	125	0	7.40	16....	13.5	5.26	16.45	-124		
08:16	16.46	125	0.17	7.39	10....	18.7	5.27	15.46	-124		
08:20	16.46	125	.33	7.35	10....	25.8	5.27	15.15	-125		
08:25	16.46	125	.5	7.31	9.60	34.1	5.28	15.05	-126		
08:30	16.46	125	.67	7.36	9.39	9.69	5.32	14.72	-131		
08:35	16.46	125	.83	7.31	9.16	6.25	5.28	14.88	-132		
08:40	16.46	125	1.0	7.22	8.83	6.39	5.23	15.17	-133		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 20:45

Total Volume of Water Purged: 1.0

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.22		
Spec. Cond. (mS/cm)	5.23		
Turbidity (NTU)	6.39		
DO (mg/L)	8.83		
Temp.(°C)	15.17		
ORP (mv)	-133		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg,NN

Well ID: MW06S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 16.45

Depth to Well Bottom (ft):

Date: 10/10/2017

Time *(HH:MM)*: 10:45

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:45	16.45	125	0	6.75	13....	0	6.54	17.75	-115		
10:50	16.45	125	0.25	6.70	5.22	0	6.53	17.40	-119		
10:58	16.45	125	.50	6.69	5.21	0	6.52	17.35	-120		
11:05	16.45	125	.75	6.68	5.22	252	6.52	17.22	-121		
11:10	16.45	125	1.00	6.68	5.08	267	6.50	17.13	-122		
11:15	16.45	125	1.25	6.42	4.60	248	6.42	17.08	-123		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 11:30

Total Volume of Water Purged: 1.25

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.42		
Spec. Cond. (mS/cm)	6.42		
Turbidity (NTU)	248		
DO (mg/L)	4.60		
Temp.(°C)	17.08		
ORP (mv)	-123		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg, nn

Well ID: MW07M

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.31

Depth to Well Bottom (ft): 43.61

Date: 10/10/2017

Time *(HH:MM)*: 11:55

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:57	21.31	125	0	6.57	4.37	233	9.20	18.53	-130		
12:02	21.31	125	.25	6.54	3.48	264	10.6	18.51	-161		
12:08	21.31	125	.50	6.52	3.31	263	12.5	18.48	-178		
12:15	21.31	125	.75	6.52	3.23	264	14.3	18.48	-190		
12:20	21.31	125	1	6.61	3.31	264	15.6	18.50	-194		
12:23	21.31	125	1.25	6.53	3.18	263	17.4	18.51	-201		
12:28	21.31	125	1.50	6.52	3.15	261	19.0	18.47	-207		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 12:30

Total Volume of Water Purged: 1.50

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.52		
Spec. Cond. (mS/cm)	19.0		
Turbidity (NTU)	261		
DO (mg/L)	3.15		
Temp.(°C)	18.47		
ORP (mv)	-207		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg,nn

Well ID: MW08D

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 23.99

Depth to Well Bottom (ft): 53.88

Date: 10/10/2017

Time *(HH:MM)*: 13:30

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:38	23.99	125	0.25	6.49	8.52	101	47.5	17.24	-189		
13:43	23.99	125	.5	6.51	3.46	102	53.4	17.20	-199		
13:48	23.99	125	.75	6.53	2.66	123	58.7	17.38	-209		
13:53	23.99	125	1	6.54	2.51	136	63.1	17.35	-210		
13:58	23.99	125	1.25	6.56	2.60	144	57.9	17.53	-208		
14:03	23.99	125	1.50	6.58	2.68	148	56.8	17.60	-208		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 14:10

Total Volume of Water Purged: 1.50

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.58		
Spec. Cond. (mS/cm)	56.8		
Turbidity (NTU)	148		
DO (mg/L)	2.68		
Temp.(°C)	17.60		
ORP (mv)	-208		

Comments:

SAMPLE SET		
Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: lg, nn

Well ID: MW08S

Manual Entry:

Form Submitted? ☑ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 21.95

Depth to Well Bottom (ft): 35.38

Date: 10/10/2017

Time *(HH:MM)*: 14:02

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:02	21.95	125	0	6.80	10....	19.2	15.4	17.62	-149		
14:07	21.95	125	0.25	6.80	8.52	18.5	15.5	17.26	-158		
14:12	21.95	125	0.5	6.80	8.17	18.8	15.5	16.96	-164		
14:18	21.95	125	.75	6.79	7.91	17.8	15.1	17.02	-166		
14:23	21.95	125	1	6.76	7.77	18	15.2	17.16	-153		

Sampling Data

Method: Dedicated tubing

Date: 10/10/2017

Time *(HH:MM)*: 14:30

Total Volume of Water Purged: 1.00

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.76		
Spec. Cond. (mS/cm)	15.2		
Turbidity (NTU)	18		
DO (mg/L)	7.77		
Temp.(°C)	17.16		
ORP (mv)	-153		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Laura green

Well ID: MW09S

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 4.81

Depth to Well Bottom (ft): 17.53

Date: 10/09/2017

Time *(HH:MM)*: 12:19

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
12:19	4.81	.10	0	7.52	10....	34.3	16.9	19.42	-188		
12:25	4.81	.10	.25	7.51	7.73	26.2	17.4	19.07	-221		
12:30	4.81	.10	.50	7.46	7.23	22.6	15	19.28	-226		
12:35	4.81	.10	.75	7.45	6.75	16.5	12.9	20.24	-223		
12:40	4.81	.10	1.0	7.46	6.40	11.0	11.8	21.10	-221		
12:45	4.81	.10	1.25	7.46	6.22	8.39	11.3	21.75	-225		
12:50	4.81	.10	1.50	7.47	6.00	6.55	10.9	22.43	-226		
12:55	4.81	.10	1.75	7.46	5.82	5.65	10.7	22.99	-227		
13:00	4.81	.10	2.00	7.46	5.67	5.75	10.04	23.45	-227		

Sampling Data

Method: Dedicated tubing

Date: 10/09/2017

Time *(HH:MM)*: 13:00

Total Volume of Water Purged: 2.00

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	7.46		
Spec. Cond. (mS/cm)	10.04		
Turbidity (NTU)	5.75		
DO (mg/L)	5.67		
Temp.(°C)	23.45		
ORP (mv)	-227		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

PARSONS

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: NN

Well ID: MW11

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 20.7

Depth to Well Bottom (ft): 50.43

Date: 10/11/2017

Time *(HH:MM)*: 11:25

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:26	20.7	125	0	7.88	4.07	0	4.89	16.60	-98		
11:31	20.7	125	.17	7.87	4.86	0	4.23	16.89	-82		
11:36	20.7	125	.33	6.41	4.83	453	.886	15.81	-44		
11:41	20.7	125	.5	6.47	4.90	241	3.74	15.97	-116		
11:46	20.7	125	.67	6.49	5.05	221	3.80	16.21	-133		
11:51	20.7	125	.83	6.50	5.07	228	3.86	16.42	-145		
11:56	20.7	125	1	6.47	5.08	225	3.91	16.64	-153		
12:01	20.7	125	1.17	6.45	5.02	224	3.98	16.93	-163		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 12:05

Total Volume of Water Purged: 1.17

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.45		
Spec. Cond. (mS/cm)	3.98		
Turbidity (NTU)	224		
DO (mg/L)	5.02		
Temp.(°C)	16.93		
ORP (mv)	-163		

Comments:

SAMPLE SET		
Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg,nn

Well ID: MW12

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 22.15

Depth to Well Bottom (ft): 48.83

Date: 10/11/2017

Time *(HH:MM)*: 09:00

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:05	22.15	125	0.25	6.82	9.61	26.1	6.06	18.14	-105		
09:10	22.15	125	0.50	6.81	8.56	29.1	6.01	17.98	-116		
09:15	22.15	125	.75	6.78	8.40	32.1	5.97	17.54	-119		
09:20	22.15	125	1.0	6.77	8.20	36.1	5.92	17.04	-120		
09:25	22.15	125	1.25	6.77	8.14	39.2	5.90	16.90	-121		
09:30	22.15	125	1.5	6.77	8.02	39.8	5.87	16.56	-123		
09:35	22.15	125	1.75	6.78	7.68	41.2	5.83	16.40	-125		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 09:45

Total Volume of Water Purged: 1.75

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.78		
Spec. Cond. (mS/cm)	5.83		
Turbidity (NTU)	41.2		
DO (mg/L)	7.68		
Temp.(°C)	16.40		
ORP (mv)	-125		

Comments:

SAMPLE SET		
Parameter		**Method**
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

GARY DEVELOPMENT LANDFILL GROUNDWATER SAMPLING LOG

Site Name: Gary Development Landfill

Samplers: Lg,nn

Well ID: MW13

Manual Entry:

Form Submitted? ☐ Yes

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Geopump

Initial Depth to Water (ft): 18.73

Depth to Well Bottom (ft): 63.31

Date: 10/11/2017

Time *(HH:MM)*: 11:10

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Enter turbidity limit: 10 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:15	18.73	125	0	6.60	8	10.1	7.87	17.58	-343		
11:20	18.73	125	0.25	6.59	7.80	13	7.95	17.73	-364		
11:25	18.73	125	.5	6.59	7.67	15.8	8.04	17.70	-367		
11:30	18.73	125	.75	6.56	7.67	21.9	8.19	17.35	-367		
11:35	18.73	125	1.0	6.58	7.54	33.1	8.05	16.94	-348		
11:40	18.73	125	1.25	6.57	7.42	35.5	8.18	16.91	-366		
11:45	18.73	125	1.50	6.56	7.34	40.9	8.10	16.87	-368		
11:50	18.73	125	1.75	6.55	7.17	47.2	8.10	16.81	-370		
11:55	18.73	125	2.00	6.54	9.87	50.5	8.11	16.82	-370		

Sampling Data

Method: Dedicated tubing

Date: 10/11/2017

Time *(HH:MM)*: 12:00

Total Volume of Water Purged: 2

STABILIZED PARAMETERS		FIELD TEST KITS	
pH	6.54		
Spec. Cond. (mS/cm)	8.11		
Turbidity (NTU)	50.5		
DO (mg/L)	9.87		
Temp.(°C)	16.82		
ORP (mv)	-370		

Comments:

SAMPLE SET

Parameter		Method
VOC	☑	8260B
SVOC	☑	8270D
PEST	☑	8081B
PCB AROCLORS	☑	8082A
Metals/Cr6+	☑	6010C/7199
Mercury	☑	7470A/7471B
Cyanide	☑	9010C

Filtered and Unfiltered samples will be collected for Mercury, Cyanide, and Metals. Only filtered samples will be collected for Mercury, Cyanide, and Metals from direct push samples.

PARSONS

Water Level Data

Water Level Database

October 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	10/9/2017	590.32	8.13	-	582.19
MW02D	10/9/2017	590.41	6.95	-	583.46
MW02S	10/9/2017	590.45	4.24	-	586.21
MW03S	10/9/2017	590.84	5.77	-	585.07
MW04S	10/9/2017	591.57	5.70	-	585.87
MW05S	10/9/2017	600.81	16.00	-	584.81
MW06D	10/9/2017	599.85	15.66	-	584.19
MW06M	10/9/2017	600.60	16.46	-	584.14
MW06S	10/9/2017	600.58	16.45	16.43	584.13
MW07M	10/9/2017	604.73	21.31	-	583.42
MW08D	10/9/2017	606.20	23.99	-	582.21
MW08S	10/9/2017	606.84	21.95	-	584.89
MW09S	10/9/2017	587.38	4.81	-	582.57
MW11	10/9/2017	615.40	20.70	-	594.70
MW12	10/9/2017	617.07	22.15	-	594.92
MW13	10/9/2017	609.07	18.73	-	590.34
GP01A	10/12/2017	591.98	9.25	-	582.73
GP01B	10/12/2017	589.69	6.91	-	582.78
GP01C	10/12/2017	588.96	6.49	-	582.47
GP04	10/9/2017	589.75	4.00	3.88	585.75
GP08B	10/9/2017	603.17	16.68	16.65	586.49
GP09A	10/12/2017	601.82	10.55	-	591.27
GP09C	10/12/2017	598.10	13.79	-	584.31
GP10	10/12/2017	605.22	22.07	-	583.15
GP11A	10/12/2017	603.13	9.70	-	593.43
GP11B	10/12/2017	604.16	19.19	-	584.97
GP12A	10/12/2017	608.18	14.58	-	593.60
GP12B	10/12/2017	607.96	21.97	-	585.99
GP12C	10/12/2017	608.43	26.19	-	582.24
GP13A	10/9/2017	609.95	16.04	-	593.91
GP13B	10/9/2017	608.71	21.43	21.41	587.28
GP13C	10/9/2017	610.09	28.25	-	581.84
GP15	10/12/2017	588.04	5.77	-	582.27
GP16	10/12/2017	610.25	27.75	-	582.50
GP17	10/12/2017	609.60	26.15	-	583.45
Bridge East	10/9/2017	592.59	11.10	-	581.49
Bridge West	10/9/2017	592.75	11.32	-	581.43
Bridge West	10/12/2017	592.75	11.26	-	581.49
North Pond	10/9/2017	587.61	0.20	-	587.41

Water Level Database

August 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	8/29/2017	590.32	7.59	-	582.73
MW02D	8/29/2017	590.41	6.18	-	584.23
MW02S	8/29/2017	590.45	3.79	-	586.66
MW03S	8/29/2017	590.84	4.75	-	586.09
MW04S	8/29/2017	591.57	5.25	-	586.32
MW05S	8/29/2017	600.81	15.43	-	585.38
MW06D	8/29/2017	599.85	15.26	-	584.59
MW06M	8/29/2017	600.60	16.08	-	584.52
MW06S	8/29/2017	600.58	16.09	-	584.49
MW07M	8/29/2017	604.73	21.15	-	583.58
MW08D	8/29/2017	606.20	23.56	-	582.64
MW08S	8/29/2017	606.84	21.55	-	585.29
MW09S	8/29/2017	587.38	4.32	-	583.06
MW11	8/29/2017	615.40	19.9	-	595.50
MW12	8/29/2017	617.07	21.13	-	595.94
MW13	8/29/2017	609.07	18.12	-	590.95
GP04	8/29/2017	589.75	3.11	-	586.64
GP08B	8/29/2017	603.17	16	-	587.17
GP13A	8/29/2017	609.95	15.83	-	594.12
GP13B	8/29/2017	608.71	21.31	-	587.40
Bridge East	8/29/2017	592.59	10.7	-	581.89
Bridge West	8/29/2017	592.75	10.68	-	582.07
North Pond	8/29/2017	587.61	0.6	-	587.01

Water Level Database

July 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	7/19/2017	590.32	7.56	-	582.76
MW02S	7/19/2017	590.41	3.25	-	587.16
MW02D	7/19/2017	590.45	5.55	-	584.90
MW03S	7/25/2017	590.84	4.32	-	586.52
MW04S	7/19/2017	591.57	4.65	<0.01	586.92
MW05S	7/19/2017	600.81	14.59	-	586.22
MW06S	7/19/2017	600.58	15.48	-	585.10
MW06D	7/19/2017	599.85	14.65	-	585.20
MW06M	7/19/2017	600.60	15.46	-	585.14
MW07M	7/19/2017	604.73	20.95	-	583.78
MW08D	7/19/2017	606.20	23.62	-	582.58
MW08S	7/19/2017	606.84	21.41	-	585.43
MW09S	7/20/2017	587.38	4.01	-	583.37
MW11	7/19/2017	615.40	18.73	-	596.67
MW12	7/19/2017	617.07	19.58	-	597.49
MW13	7/19/2017	609.07	17.32	-	591.75
GP04	7/25/2017	589.75	1.86	-	587.89
GP08B	7/19/2017	603.17	15.31	-	587.86
GP13A	7/25/2017	609.95	15.63	-	594.32
GP13B	7/19/2017	608.71	21.59	21.58	587.12
Bridge West	7/19/2017	592.75	10.68	-	582.07
Bridge West	7/19/2017	592.75	10.61	-	582.14
North Pond	7/25/2017	587.61	1.10	-	586.51

Water Level Database

May 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	5/18/2017	590.32	7.40	-	582.92
MW02D	5/18/2017	590.41	3.75	-	586.66
MW02S	5/18/2017	590.45	2.87	-	587.58
MW03S	5/18/2017	590.84	2.91	-	587.93
MW04S	5/18/2017	591.57	3.87	-	587.70
MW05S	5/18/2017	600.81	13.14	-	587.67
MW06D	5/18/2017	599.85	12.38	-	587.47
MW06M	5/18/2017	600.60	13.19	-	587.41
MW06S	5/18/2017	600.58	13.20	13.18	587.38
MW07M	5/18/2017	604.73	19.89	-	584.84
MW08D	5/18/2017	606.20	23.49	-	582.71
MW08S	5/18/2017	606.84	19.94	-	586.90
MW09S	5/18/2017	587.38	4.34	-	583.04
MW11	5/18/2017	615.40	13.53	-	601.87
MW12	5/18/2017	617.07	17.28	-	599.79
MW13	5/18/2017	609.07	14.68	-	594.39
GP04	5/18/2017	589.75	1.78	1.75	587.97
GP08B	5/18/2017	603.17	14.08		589.09
GP13A	5/18/2017	609.95	14.47	-	595.48
GP13B	5/18/2017	608.71	20.41	20.38	588.30
Bridge East	5/18/2017	592.59	11.39	-	581.20
Bridge West	5/18/2017	592.75	11.53	-	581.22
North Pond	5/18/2017	587.61	1.42	-	586.19

Water Level Database

March 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	3/22/2017	590.32	7.90	-	582.42
MW02D	3/22/2017	590.41	4.50	-	585.91
MW02S	3/22/2017	590.45	3.32	-	587.13
MW03S	3/22/2017	590.84	3.76	-	587.08
MW04S	3/22/2017	591.57	3.88	-	587.69
MW05S	3/22/2017	600.81	13.56	-	587.25
MW06D	3/22/2017	599.85	13.52	-	586.33
MW06M	3/22/2017	600.60	14.32	-	586.28
MW06S	3/22/2017	600.58	14.33	14.32	586.25
MW07M	3/22/2017	604.73	20.70	-	584.03
MW08D	3/22/2017	606.20	23.75	-	582.45
MW08S	3/22/2017	606.84	20.93	-	585.91
MW09S	3/22/2017	587.38	4.73	-	582.65
MW11	3/22/2017	615.40	17.25	-	598.15
MW12	3/22/2017	617.07	21.01	-	596.06
MW13	3/22/2017	609.07	17.00	-	592.07
GP01A	3/22/2017	591.98	9.34	-	582.64
GP01B	3/22/2017	589.69	6.95	-	582.74
GP01C	3/22/2017	588.96	6.40	-	582.56
GP02	3/22/2017	591.90	6.60	-	585.30
GP03A	3/22/2017	592.82	4.65	-	588.17
GP03B	3/22/2017	589.61	2.50	-	587.11
GP03C	3/22/2017	588.98	3.10	-	585.88
GP04	3/22/2017	589.75	2.1	1.65	587.65
GP05A	3/22/2017	595.95	8.45	-	587.50
GP05B	3/22/2017	592.62	5.25	-	587.37
GP05C	3/22/2017	595.17	7.81	-	587.36
GP08A	3/22/2017	603.11		-	603.11
GP08B	3/22/2017	603.17	14.95	14.93	588.22
GP08C	3/22/2017	600.01	12.80	-	587.21
GP09A	3/22/2017	601.82	7.66	-	594.16
GP09B	3/22/2017	601.68	15.50	-	586.18
GP09C	3/22/2017	598.10	12.05	-	586.05
GP10	3/22/2017	605.22	21.05	-	584.17
GP11A	3/22/2017	603.13	9.43	-	593.70
GP11B	3/22/2017	604.16	16.85	-	587.31
GP11C	3/22/2017		19.25	-	-19.25
GP13A	3/22/2017	609.95	14.96	14.95	594.99
GP13B	3/22/2017	608.71	20.16	20.12	588.55
GP13C	3/22/2017	610.09	28.25	-	581.84
GP14A	3/22/2017	589.08	6.40	-	582.68
GP14B	3/22/2017	586.03	3.45	-	582.58

Water Level Database

March 2017 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
GP14C	3/22/2017	586.58	5.25	-	581.33
GP15	3/22/2017	588.04	5.83	-	582.21
GP16	3/22/2017	610.25	27.44	-	582.81
GP17	3/22/2017	609.60	26.00	-	583.60
GP18	3/22/2017	599.34	16.65	-	582.69
GP19	3/22/2017	608.04	17.90	-	590.14
GP20A	3/22/2017	599.04	9.70	-	589.34
GP20B	3/22/2017	595.45	6.55	-	588.90
GP20C	3/22/2017	598.58	10.05	-	588.53
GP21	3/22/2017	607.32	19.10	-	588.22
Bridge East	3/22/2017	592.75	11.60	-	581.15
Bridge West	3/22/2017	592.59	11.72	-	580.87
North Pond	3/22/2017	587.61	1.55	-	586.06

Water Level Database

December 2016 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	12/21/2016	590.32	8.07	-	582.25
MW02D	12/21/2016	590.41	5.98	-	584.43
MW02S	12/21/2016	590.45	3.69	-	586.76
MW03S	12/21/2016	590.84	3.98	-	586.86
MW05S	12/21/2016	600.81	14.62	-	586.19
MW06D	12/21/2016	599.85	14.54	-	585.31
MW06M	12/21/2016	600.60	15.35	-	585.25
MW06S	12/21/2016	600.58	15.35	-	585.23
MW07M	12/21/2016	604.73	20.94	-	583.79
MW08D	12/21/2016	606.20	23.90	-	582.30
MW08S	12/21/2016	606.84	21.84	-	585.00
MW09S	12/21/2016	587.38	4.96	-	582.42
MW11	12/21/2016	615.40	20.68	-	594.72
MW12	12/21/2016	617.07	22.27	-	594.80
MW13	12/21/2016	609.07	19.03	-	590.04
Bridge East	12/21/2016	592.59	11.84	-	580.75
Bridge West	12/21/2016	592.75	11.62	-	581.13
North Pond	12/21/2016	587.61	1.18	-	586.43

Water Level Database

November 2016 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
MW01S	11/3/2016	590.32	7.4	-	582.92
MW02D	11/3/2016	590.41	5.42	-	584.99
MW02S	11/3/2016	590.45	3.38	-	587.07
MW03S	11/3/2016	590.84	3.97	-	586.87
MW05S	11/3/2016	600.81	14.5	-	586.31
MW06D	11/3/2016	599.85	14.43	-	585.42
MW06M	11/3/2016	600.60	15.34	-	585.26
MW06S	11/3/2016	600.58	15.34	-	585.24
MW07M	11/3/2016	604.73	21.06	-	583.67
MW08D	11/3/2016	606.20	23.63	-	582.57
MW08S	11/3/2016	606.84	22.03	-	584.81
MW09S	11/3/2016	587.38	4.33	-	583.05
MW11	11/3/2016	615.40	20.58	-	594.82
MW12	11/3/2016	617.07	21.72	-	595.35
MW13	11/3/2016	609.07	18.76	-	590.31
GP01A	11/3/2016	591.98	9.03	-	582.95
GP01B	11/3/2016	589.69	6.71	-	582.98
GP01C	11/3/2016	588.96	7.6	-	581.36
GP02	11/3/2016	591.90	7.29	-	584.61
GP03A	11/3/2016	592.82	4.22	-	588.60
GP03B	11/3/2016	589.61	2.68	-	586.93
GP03C	11/3/2016	588.98	3.82	-	585.16
GP04	11/3/2016	589.75	1.99	-	587.76
GP05A	11/3/2016	595.95	8.59	-	587.36
GP05B	11/3/2016	592.62	5.2	-	587.42
GP05C	11/3/2016	595.17	3.33	-	591.84
GP08A	11/3/2016	603.11	14.23	-	588.88
GP08B	11/3/2016	603.17	15.8	-	587.37
GP09A	11/3/2016	601.82	9.45	-	592.37
GP09B	11/3/2016	601.68	16.53	-	585.15
GP10	11/3/2016	605.22	21.45	-	583.77
GP11B	11/3/2016	604.16	18.86	-	585.30
GP12A	11/3/2016	608.18	14.7	-	593.48
GP12B	11/3/2016	607.96	21.79	-	586.17
GP12C	11/3/2016	608.43	26.05	-	582.38
GP13C	11/3/2016	610.09	28.7	-	581.39
GP14A	11/3/2016	589.08	6.14	-	582.94
GP15	11/3/2016	588.04	5.46	-	582.58
GP16	11/3/2016	610.25	27.58	-	582.67
GP17	11/3/2016	609.60	27.73	-	581.87
GP18	11/3/2016	599.34	16.71	-	582.63
GP19	11/3/2016	608.04	19.11	-	588.93

Water Level Database

November 2016 Gauging Event

Location	Measured	TOC (ft asml)	Depth to Water (ft)	Depth to Liquid (ft)	Groundwater Elevation (ft asml)
GP20A	11/3/2016	599.04	10.21	-	588.83
GP20B	11/3/2016	595.45	7.03	-	588.42
GP20C	11/3/2016	598.58	10.61	-	587.97
Bridge East	11/3/2016	592.59	11.29	-	581.30
Bridge West	11/3/2016	592.75	10.97	-	581.78
North Pond	11/3/2016	587.61	1.1	-	586.51

Sediment Logs

Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/8/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD07

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD07	0.0	1.0	brown	wet	Silty clay, trace fine sand, high plasticity.
SD07	1.0	2.0	black	wet	Clayey silt, trace fine sand, high organic content.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/8/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD08

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD08	0.0	1.0	gray-brown	wet	Silty clay, high organics
SD08	1.0	2.0	gray-brown	wet	Silty clay, high organics

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/8/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD09

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD09	0.0	1.0	brown	wet	Clayey silt, high organics, soft.
SD09	1.0	2.0	gray-brown	wet	Clayey silt, some fine sand.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD10

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD10	0.0	1.0	brown	wet	Clayey silt, with fine sand, organics, roots, soft
SD10	1.0	2.0	black	wet	Peat, organics, roots, chemical odors

Photo Field

SD10 0-1

SD10 0-2

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD11

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD11	0.0	1.0	gray-brown	wet	Clayey silt, organics, soft
SD11	1.0	2.0	gray-brown	wet	Clayey silt, fine sand, organics, soft

Photo Field

SD11 0-1

SD11 1-2

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD12

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD12	0.0	2.0	black-brown	wet	Clayey silt, with fine sand, organics, soft

Photo Field

SD12 0-1

SD12 1-2

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD13

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD13	0.0	1.0	gray-brown	wet	Clayey silt, saturated, roots. PID =0.8
SD13	1.0	2.0	gray-green	wet	Clayey silt black and grey with roots. PID = 6.1

Photo Field	
0-1	1-2

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD14

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD14	0.0	1.0	gray-brown	wet	Clayey silt with roots grey with black saturated
SD14	1.0	2.0	gray-brown	wet	same as above

Photo Field	
0-1'	1-2'

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD15

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD15	0.0	1.0	gray-brown	wet	Clayey silt, grey and black with roots, saturated. pid =1.3
SD15	1.0	2.0	gray-brown	wet	same as above, pid= 1.1 Note: samples submitted to the lab were subsequently canceled, as we moved location north and re-sampled SD16 on 11/1/16.

Photo Field	
0-1'	1-2'

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
11/1/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD15

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD15	0.0	1.0	black-brown	wet	Black and gray silty clay. Organic matter and plant roots
SD15	1.0	2.0	gray-brown	wet	Note: 2 samples submitted and analyzed for SD15. Lab analyses for previous SD15 collected on 10/26/16 were canceled.

Photo Field

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/10/2016

Sampler:
D. Chamberland

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD16

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD16	0.0	1.0			
SD16	1.0	2.0			

Photo Field	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD17

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD17	0.0	1.0	black-brown	wet	Silty clay with sand and roots, saturated, very dark brown, PID = 1.4
SD17	1.0	2.0	black-brown	wet	Same as above, PID = 1.1

Photo Field	
0-1	1-2

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/10/2016

Sampler:
D. Chamberland

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD18

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD18	0.0	1.0			
SD18	1.0	2.0			

Photo Field	

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/10/2016

Sampler:
D. Chamberland

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD19

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD19	0.0	1.0			
SD19	1.0	2.0			

Photo Field	

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD20

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	
2-5'				X					

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD20	0.0	1.0	black	wet	Clayey silt, with fine sand, organics, roots, soft
SD20	1.0	2.0	black-brown	wet	Clayey silt, with fine sand, organics, soft
SD20	2.0	4.5	black-brown	wet	Clayey silt, with fine sand, soft
SD20	4.5	5.0	black	wet	Fine sand, soft

Photo Field

0-1

2-5

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Southern Wetlands	SD21

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	
2-5'				X					

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD21	0.0	2.0	black	wet	Clayey silt, fine sand, organics, soft, sheen, chemical odors
SD21	2.0	5.0	black	wet	Fine sand with silt and clayey, organics, slight chemicals odors

Photo Field

SD21 0-1

SD21 2-5

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/27/2016

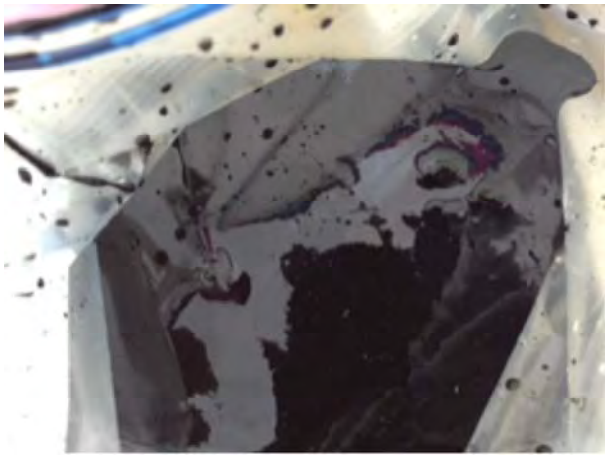
Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD22

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD22	0.0	1.0	black	wet	Silty sandy muck, black, roots , no trash/fill DTB =9'. PID =6.3

Photo Field	
	
0-1'	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/31/2016

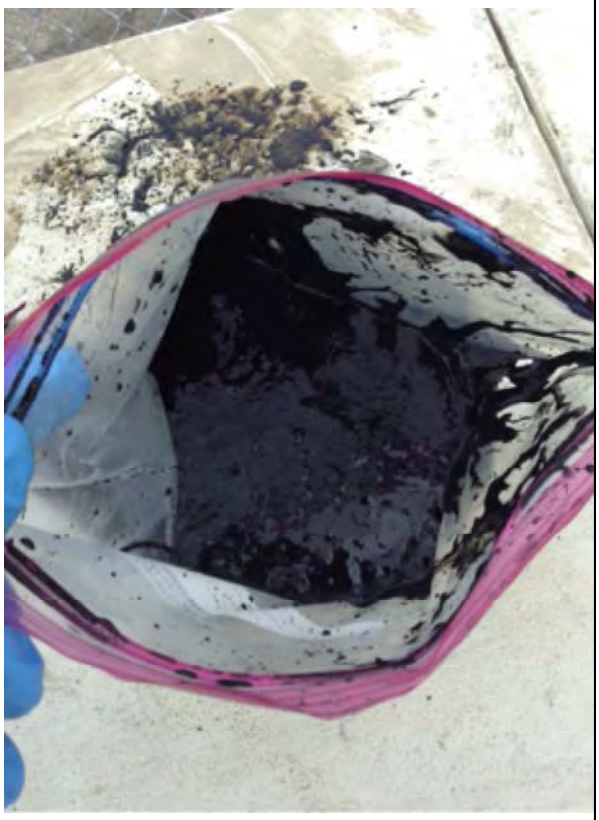
Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD23

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD23	0.0	1.0	black	wet	Smooth texture, Dark black,Organics, few roots, sarurated PID=0.1

Photo Field


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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/31/2016

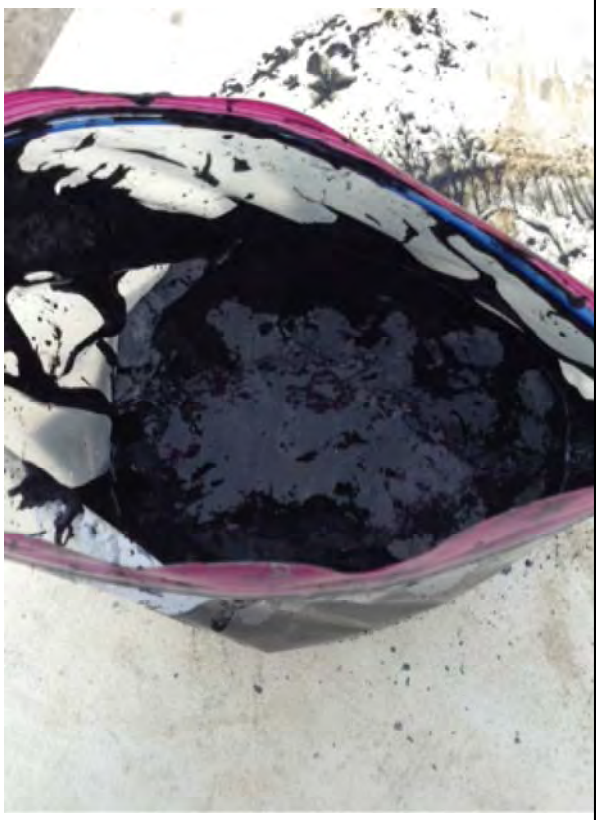
Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD24

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD24	0.0	1.0	black	wet	PID=1.1. Dark black with some gray mixed in. Smooth texture. Signs of clay. Roots and organic materials

Photo Field


Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
11/1/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD25

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD25	0.0	0.5	black	wet	Dark black. Organics, some roots, minimal vegetation. Silty with fine sands.
SD25	0.5	1.0	black	wet	Fine sillty sand with some clay. Minimal vegetation.

Photo Field

0-0.5 feet

0.5-1 feet

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
11/1/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD26

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD26	0.0	1.0	black	wet	Foot of vegetative cover above sediment surface. Clayey silt with some fine sands. Roots and organics.

Photo Field

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
11/1/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD27

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD27	0.0	1.0	black	wet	Organics with silt , coarse sand , some clay and gravel. Rocks observed. About 1 foot of vegetation above hard surface

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
11/1/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD28

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
1-2'	X	X	X	X	X	X	X	X	
0-1'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD28	0.0	1.0	black	wet	Clayey silt with some coarse sand. Organics and roots. Gray clay as depth increases. 0.5 feet of vegetation covering solid surface.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/27/2016

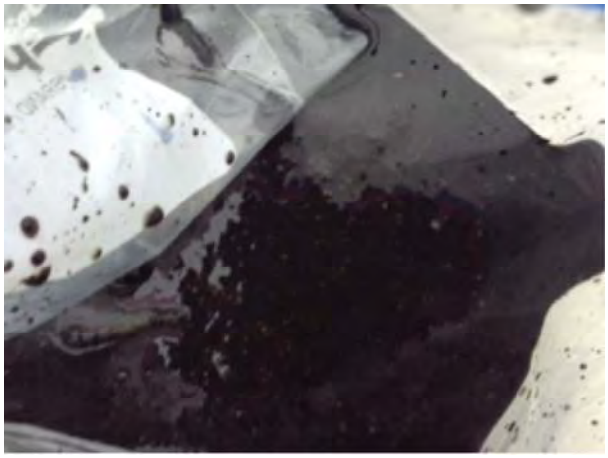
Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD29

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD29	0.0	1.0	black	wet	Silty sandy muck, black, no roots or trash, PID=6.9

Photo Field


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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/27/2016

Sampler:
F. Savin

Project Number:
449595

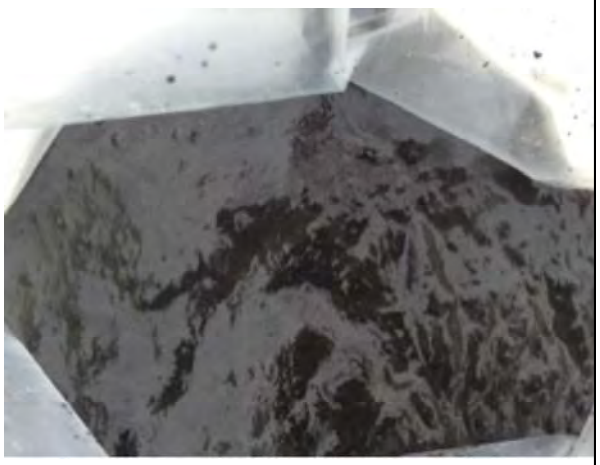
Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD30

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD30	0.0	1.0	black	wet	Silty sand muck with roots fill/trash present on bottom. A lot of hard objects can't get past in these conditions. DTB = 4'.
SD30	1.0	2.0	black	wet	Same as above. PID = 0.9

Photo Field

Sample collection



0-1'

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
10/27/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Northern Pond	SD31

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-1'	X	X	X	X	X	X	X	X	
1-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD31	0.0	1.0	black	wet	Depth of water =4'. Plant roots no trash. Silty sand muck black

Photo Field	
0-1'	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/14/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Offsite Pond	SD90

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD90			black	wet	Black sand, wet, organics, roots.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
9/14/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Sediment	Offsite Pond	SD91

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-2'	X	X	X	X	X	X	X	X	

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SD91	0.0	2.0	black	wet	Black fine sand, organics, roots

Photo Field
SD91, offsite background pond

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Surface Water Logs

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/28/16

Time:
09:22:23

Sample Information

Sample Location:
SW02

Total Pond Depth (ft):
22

Conductivity (µS/cm):
6550

Dissolved Oxygen (mg/L):
0.60

Turbidity (NTUs):
38.7

Oxidation Reduction Potential (mV):
161

pH:
8.71

Comments:

Location

Latitude (deg):
41.616767

Longitude (deg):
-87.427653

Altitude (m):
174.800000

Timestamp:
2016-10-28T09:24:17

Accuracy (m):
5.000000

Photos

Caption:

SW02looking south

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/28/16

Time:

Sample Information

Sample Location:
SW03

Total Pond Depth (ft):
9

Conductivity (µS/cm):
6550

Dissolved Oxygen (mg/L):
0.84

Turbidity (NTUs):
38.1

Oxidation Reduction Potential (mV):
160

pH:
8.7

Comments:

Location

Latitude (deg):
41.616640

Longitude (deg):
-87.425612

Altitude (m):
172.300000

Timestamp:
2016-10-28T08:53:58

Accuracy (m):
5.000000

Photos

Caption:

SW03 looking west

Caption:

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
11/2/16

Time:
09:20:02

Sample Information

Sample Location:
SW04

Total Pond Depth (ft):
30

Conductivity (µS/cm):
6460

Dissolved Oxygen (mg/L):
0.04

Turbidity (NTUs):
35.0

Oxidation Reduction Potential (mV):
-132

pH:
8.7

Comments:
Deep sample. 10-12 feet
Shallow sample taken at 940

Secondary Sample Information

Depth (ft):
1

Conductivity µS/cm):
.00646

Dissolved Oxygen (mg/L):
4.42

Turbidity (NTUs):
31.5

Oxidation Reduction Potential (mV):
74

pH:
8.75

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
11/1/16

Time:
13:30:58

Sample Information

Sample Location:
SW05

Total Pond Depth (ft):

Conductivity (µS/cm):
6390

Dissolved Oxygen (mg/L):
3.61

Turbidity (NTUs):
32.3

Oxidation Reduction Potential (mV):
158

pH:
8.76

Comments:

Location

Latitude (deg):
41.616575

Longitude (deg):
-87.427237

Altitude (m):
165.700000

Timestamp:
2016-10-28T10:20:15

Accuracy (m):
5.000000

Photos

Caption:

Looking west

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/28/16

Time:
08:30:13

Sample Information

Sample Location:
SW06

Total Pond Depth (ft):
11

Conductivity (µS/cm):
6540

Dissolved Oxygen (mg/L):
1.73

Turbidity (NTUs):
63.2

Oxidation Reduction Potential (mV):
1.69

pH:
8.69

Comments:

Location

Latitude (deg):
41.616243

Longitude (deg):
-87.428097

Altitude (m):
174.700000

Timestamp:
2016-10-28T08:27:40

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/28/16

Time:
09:50:30

Sample Information

Sample Location:
SW07

Total Pond Depth (ft):
6.5

Conductivity (µS/cm):
6530

Dissolved Oxygen (mg/L):
0.31

Turbidity (NTUs):
38.6

Oxidation Reduction Potential (mV):
161

pH:
8.72

Comments:

Location

Latitude (deg):
41.616623

Longitude (deg):
-87.429050

Altitude (m):
168.600000

Timestamp:
2016-10-28T09:50:21

Accuracy (m):
5.000000

Photos

Caption:

SW07 looking east

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Time:
09:20:26

Sample Information

Sample Location:
SW90

Total Pond Depth (ft):
2.5

Conductivity (µS/cm):
456

Dissolved Oxygen (mg/L):
6.73

Turbidity (NTUs):
0

Oxidation Reduction Potential (mV):
192

pH:
8.61

Comments:
Temperature: 23.35

Location

Latitude (deg):
41.613913

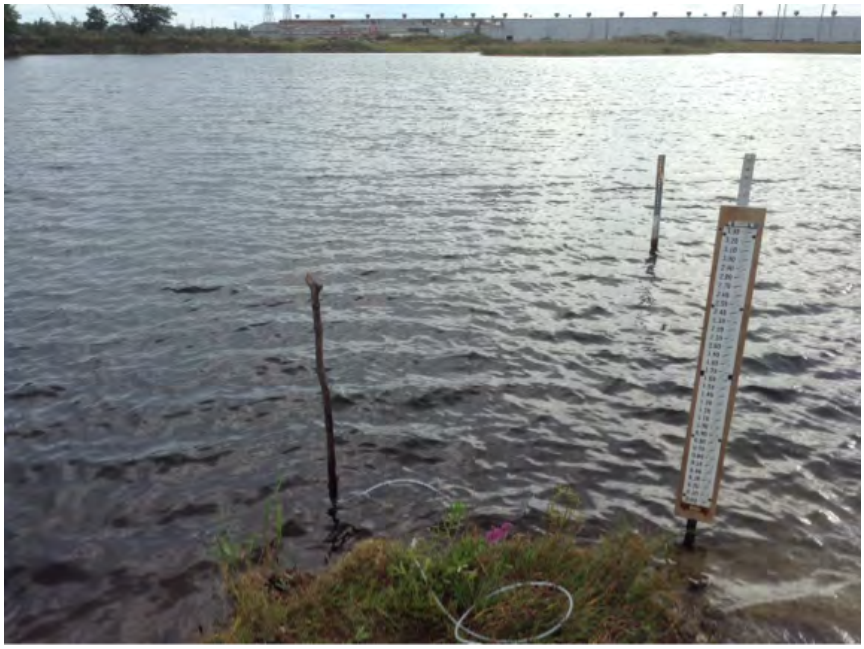
Longitude (deg):
-87.384015

Altitude (m):
160.400000

Timestamp:
2016-09-14T09:10:46

Accuracy (m):
5.000000

Photos



Caption:

SW90; View from west

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Time:
10:50:50

Sample Information

Sample Location:
SW91

Total Pond Depth (ft):
2.5

Conductivity (µS/cm):
458

Dissolved Oxygen (mg/L):
5.95

Turbidity (NTUs):
0

Oxidation Reduction Potential (mV):
149

pH:
8.84

Comments:
Temperature 24.1

Location

Latitude (deg):
41.614995

Longitude (deg):
-87.383972

Altitude (m):
174.600000

Timestamp:
2016-09-14T10:45:51

Accuracy (m):
5.000000

Photos

Caption:

SW91; View from north

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
7/25/2017

Time:
15:20

Sample Information

Sample Location:
SW03

Total Pond Depth (ft):

Conductivity (µS/cm):
5520

Dissolved Oxygen (mg/L):
7.04

Turbidity (NTUs):
354

Oxidation Reduction Potential (mV):
26

pH:
6.87

Comments:
Lat 41.616424, Long -87.425565

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
7/25/2017

Time:
15:30

Sample Information

Sample Location:
SW06

Total Pond Depth (ft):

Conductivity (µS/cm):
2720

Dissolved Oxygen (mg/L):
6.91

Turbidity (NTUs):
275

Oxidation Reduction Potential (mV):
43

pH:
7.12

Comments:
Lat 41.61642, Long -87.428296

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
07:45

Sample Information

Sample Location:
SW10

Total Pond Depth (ft):

Conductivity (µS/cm):

Dissolved Oxygen (mg/L):

Turbidity (NTUs):

Oxidation Reduction Potential (mV):

pH:

Comments:
easternmost sample from wetlands. Lat. = 41.611195, Long = -87.423284

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
09:30

Sample Information

Sample Location:
SW11

Total Pond Depth (ft):
0

Conductivity (µS/cm):
2860

Dissolved Oxygen (mg/L):
10.15

Turbidity (NTUs):
152

Oxidation Reduction Potential (mV):
-80

pH:
6.55

Comments:
SW-11, middle wetland sample. Lat = 41.61211 Long = -87.42533

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
11:00

Sample Information

Sample Location:
SW12

Total Pond Depth (ft):
0.1

Conductivity (µS/cm):
502

Dissolved Oxygen (mg/L):
11.04

Turbidity (NTUs):
272

Oxidation Reduction Potential (mV):
66

pH:
6.50

Comments:
Location: SW12 in wetlands

Location

Latitude (deg):
41.612358

Longitude (deg):
-87.427002

Altitude (m):
158.200000

Timestamp:
2017-10-12T11:07:37

Accuracy (m):
5.000000

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
07:05

Sample Information

Sample Location:
SW13

Total Pond Depth (ft):

Conductivity (µS/cm):

Dissolved Oxygen (mg/L):

Turbidity (NTUs):

Oxidation Reduction Potential (mV):

pH:

Comments:
Grand Cal river, easternmost. Lat = 41.611181, Long = -87.423318

Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
12:15

Sample Information

Sample Location:
SW14

Total Pond Depth (ft):
0.1

Conductivity (µS/cm):
513

Dissolved Oxygen (mg/L):
9.44

Turbidity (NTUs):
40.4

Oxidation Reduction Potential (mV):
19

pH:
6.77

Comments:
Location: SW14, Grand Cal river (middle station)

Location

Latitude (deg):
41.612648

Longitude (deg):
-87.428205

Altitude (m):
169.200000

Timestamp:
2017-10-12T12:11:36

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Gary Development Landfill Surface Water Log

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
10/12/2017

Time:
12:50

Sample Information

Sample Location:
SW15

Total Pond Depth (ft):

Conductivity (µS/cm):

Dissolved Oxygen (mg/L):

Turbidity (NTUs):

Oxidation Reduction Potential (mV):

pH:

Comments:
SW15 Grand Cal river (Cline Ave Bridge gauging station), no readings, probe could not reach river safely

Location

Latitude (deg):
41.613373

Longitude (deg):
-87.432582

Altitude (m):
172.000000

Timestamp:
2017-10-12T12:44:50

Accuracy (m):
5.000000

Soil Vapor Logs

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV01

Start Time:
08:54:54

End Time:
09:03:42

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
57

Sample Information

CGA Methane (%):
0.7

CO2 (%):
0.2

CO (ppm):
0

O2 (%):
21.2

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):
5

Vent Exhaust Height (ft):
1.95

Vent Velocity (fpm):
0

Vent Temperature (°F):
15.8

Comments:
DTW 8.83
DTB 13.79

GPS Location

Latitude (deg):
0.000000

Longitude (deg):
0.000000

Altitude (m):
0.000000

Timestamp:
(null)

Accuracy (m):
0.000000

Photos

Caption:

View from south

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV02

Start Time:
09:13:47

End Time:
09:21:47

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
58

Sample Information

CGA Methane (%):
0.6

CO2 (%):
0.1

CO (ppm):
0

O2 (%):
21

H2S (ppm):
0

PID VOCs (ppm):
6.1

Vent Diameter (in):
6

Vent Exhaust Height (ft):
3.4

Vent Velocity (fpm):
0.12

Vent Temperature (°F):
16.8

Comments:
DTW 25.43
DTB 43.0

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking east

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV03

Start Time:
09:31:52

End Time:
09:36:39

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
58

Sample Information

CGA Methane (%):
0

CO2 (%):
0.1

CO (ppm):
0

O2 (%):
21.1

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
3.1

Vent Velocity (fpm):
0

Vent Temperature (°F):
64.5

Comments:
DTW 25.17
DTB 35.8

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:

Location Information

Sample Location:
GV04

Start Time:
09:43:29

End Time:

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
8.4

CO2 (%):
0.41

CO (ppm):
0

O2 (%):
15.75

H2S (ppm):
82

PID VOCs (ppm):
8.1

Vent Diameter (in):
6

Vent Exhaust Height (ft):
1.48

Vent Velocity (fpm):
0

Vent Temperature (°F):
66.5

Comments:
DTW 18.42
DTB 41.1

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV05

Start Time:
09:55:59

End Time:
10:00:45

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
64

Sample Information

CGA Methane (%):
0.1

CO2 (%):
0.2

CO (ppm):
0

O2 (%):
21.1

H2S (ppm):
2

PID VOCs (ppm):
0.1

Vent Diameter (in):
5

Vent Exhaust Height (ft):
1

Vent Velocity (fpm):
0.02

Vent Temperature (°F):
64

Comments:
DTW 14.71
DTB 18.41

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV06

Start Time:
10:04:57

End Time:
10:12:11

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
64

Sample Information

CGA Methane (%):
56.7

CO2 (%):
17.7

CO (ppm):
0

O2 (%):
6

H2S (ppm):
3

PID VOCs (ppm):
0.7

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1

Vent Velocity (fpm):
0

Vent Temperature (°F):
64

Comments:
DTW 15.5
DTB 39.7

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking nortth

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV07

Start Time:
10:12:37

End Time:
10:25:02

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
65

Sample Information

CGA Methane (%):
69.5

CO2 (%):
20.2

CO (ppm):
0

O2 (%):
2.5

H2S (ppm):
1

PID VOCs (ppm):
1

Vent Diameter (in):
6

Vent Exhaust Height (ft):
1.1

Vent Velocity (fpm):
0

Vent Temperature (°F):
65

Comments:
DTW 19.26
DTB 48.2

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV08

Start Time:
10:26:49

End Time:
10:33:36

Wind (mph):
0

Barometric Pressure (inches Hg):
30.03

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
77.2

CO2 (%):
22.9

CO (ppm):
0

O2 (%):
0

H2S (ppm):
16

PID VOCs (ppm):
0.6

Vent Diameter (in):
6

Vent Exhaust Height (ft):
3

Vent Velocity (fpm):
0

Vent Temperature (°F):
66.6

Comments:
DTW 18.53
DTB 47.8

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV09

Start Time:
10:35:12

End Time:
10:44:51

Wind (mph):
0

Barometric Pressure (inches Hg):
29.35

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
0.3

CO2 (%):
0.3

CO (ppm):
0

O2 (%):
20.7

H2S (ppm):
1

PID VOCs (ppm):
0

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1.1

Vent Velocity (fpm):
0

Vent Temperature (°F):
67.2

Comments:
DTW 10.17
DTB 47.76

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV10

Start Time:
10:46:48

End Time:
10:54:50

Wind (mph):
0

Barometric Pressure (inches Hg):
29.34

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
73.9

CO2 (%):
25.9

CO (ppm):
1

O2 (%):
0.03

H2S (ppm):
56

PID VOCs (ppm):
4.6

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
3.58

Vent Velocity (fpm):
0.02

Vent Temperature (°F):
67.4

Comments:
DTW 24.38
DTB 48.0

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV11

Start Time:
10:57:39

End Time:
11:04:01

Wind (mph):
0

Barometric Pressure (inches Hg):
29.35

Ambient Temperature (°F):
66

Sample Information

CGA Methane (%):
65.6

CO2 (%):
34.6

CO (ppm):
0

O2 (%):
0

H2S (ppm):
100

PID VOCs (ppm):
5.1

Vent Diameter (in):
6

Vent Exhaust Height (ft):
4.5

Vent Velocity (fpm):
0

Vent Temperature (°F):
66

Comments:
DTW 19.85
DTB 52

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV12

Start Time:
11:05:23

End Time:
11:12:05

Wind (mph):
0

Barometric Pressure (inches Hg):
29.34

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
70.5

CO2 (%):
28.4

CO (ppm):
1

O2 (%):
0.7

H2S (ppm):
176

PID VOCs (ppm):
7.4

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1.76

Vent Velocity (fpm):
0.01

Vent Temperature (°F):
66.6

Comments:
DTW 23.32
DTB 49.51

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV13

Start Time:
11:16:33

End Time:

Wind (mph):
0

Barometric Pressure (inches Hg):
29.34

Ambient Temperature (°F):
67

Sample Information

CGA Methane (%):
67.4

CO2 (%):
32.8

CO (ppm):
1

O2 (%):
0

H2S (ppm):
52

PID VOCs (ppm):
6.9

Vent Diameter (in):

Vent Exhaust Height (ft):
3.3

Vent Velocity (fpm):
0

Vent Temperature (°F):
66.3

Comments:
DTW 25.1
DTB 44.0

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV14

Start Time:
11:24:00

End Time:
11:29:19

Wind (mph):
0

Barometric Pressure (inches Hg):
29.34

Ambient Temperature (°F):
668

Sample Information

CGA Methane (%):
76.4

CO2 (%):
23.5

CO (ppm):
1

O2 (%):
0

H2S (ppm):
51

PID VOCs (ppm):
12.5

Vent Diameter (in):
6

Vent Exhaust Height (ft):
2.3

Vent Velocity (fpm):
0.99

Vent Temperature (°F):
66.8

Comments:
DTW 28.25
DTB 82.0

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV15

Start Time:
11:33:26

End Time:
11:42:33

Wind (mph):
0

Barometric Pressure (inches Hg):
29.34

Ambient Temperature (°F):
69

Sample Information

CGA Methane (%):
75.4

CO2 (%):
24.7

CO (ppm):
2

O2 (%):
0

H2S (ppm):
485

PID VOCs (ppm):
21.2

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
2.79

Vent Velocity (fpm):
0

Vent Temperature (°F):
69.2

Comments:
DTW 28.54
DTB 47.7

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV16

Start Time:
11:44:56

End Time:
11:49:55

Wind (mph):
0

Barometric Pressure (inches Hg):
29.35

Ambient Temperature (°F):
18

Sample Information

CGA Methane (%):
76.8

CO2 (%):
23.1

CO (ppm):
30

O2 (%):
0

H2S (ppm):
53

PID VOCs (ppm):
10

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
2.11

Vent Velocity (fpm):
0

Vent Temperature (°F):
70.7

Comments:
DTW 24.51
DTB 39.4

GPS Location

Latitude (deg):

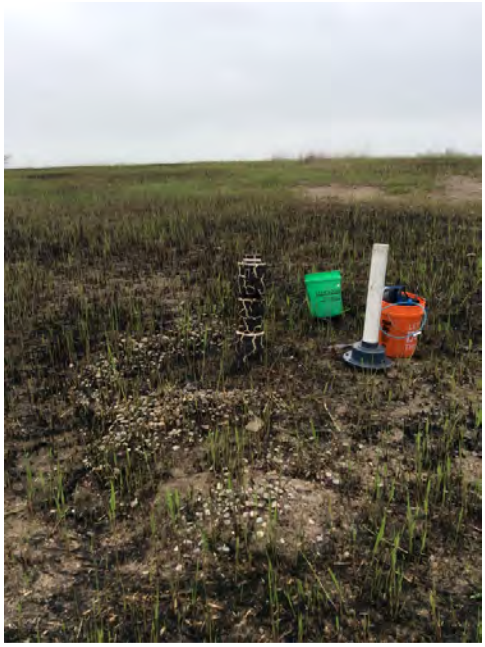
Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos



Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV17

Start Time:
11:52:35

End Time:
12:00:38

Wind (mph):
0

Barometric Pressure (inches Hg):
29.35

Ambient Temperature (°F):
70

Sample Information

CGA Methane (%):
13.7

CO2 (%):
4.5

CO (ppm):
0

O2 (%):
17.4

H2S (ppm):
6

PID VOCs (ppm):
9.1

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1

Vent Velocity (fpm):
1.08

Vent Temperature (°F):
69.6

Comments:
DTW 19.9
DTB 41.2

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/11/16

Location Information

Sample Location:
GV18

Start Time:
12:02:20

End Time:
12:07:20

Wind (mph):
0

Barometric Pressure (inches Hg):
29.35

Ambient Temperature (°F):
70

Sample Information

CGA Methane (%):
74.1

CO2 (%):
25.8

CO (ppm):
1

O2 (%):
0.1

H2S (ppm):
22

PID VOCs (ppm):
4.9

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1.5

Vent Velocity (fpm):
0.01

Vent Temperature (°F):
70

Comments:
DTW 19.88
DTB 38.6

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

Looking north

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Location Information

Sample Location:
AS02

Start Time:
09:11:39

End Time:
09:37:16

Wind (mph):
NE 7

Barometric Pressure (inches Hg):
30.17

Ambient Temperature (°F):
66

Sample Information

CGA Methane (%):
71.1

CO2 (%):
28.5

CO (ppm):
0

O2 (%):
0.4

H2S (ppm):
22

PID VOCs (ppm):
13.8

Vent Diameter (in):
0.25

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Can# 7703
Reg# 7546

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

AS1

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Location Information

Sample Location:
AS05

Start Time:
10:23:00

End Time:
10:47:29

Wind (mph):
N 3

Barometric Pressure (inches Hg):
30.18

Ambient Temperature (°F):
71

Sample Information

CGA Methane (%):
24.8

CO2 (%):
7.1

CO (ppm):
1

O2 (%):
0.4

H2S (ppm):
3

PID VOCs (ppm):
69.4

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Can# 34002111
Reg# 7502

GPS Location

Latitude (deg):
0.000000

Longitude (deg):
0.000000

Altitude (m):
0.000000

Timestamp:
(null)

Accuracy (m):
0.000000

Photos

Caption:

AS5 NE corner of site

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/15/16

Location Information

Sample Location:
GV02

Start Time:
08:59:31

End Time:
09:28:40

Wind (mph):
ESE 6

Barometric Pressure (inches Hg):
30.27

Ambient Temperature (°F):
65

Sample Information

CGA Methane (%):
3.6

CO2 (%):
0.5

CO (ppm):
2

O2 (%):
18.9

H2S (ppm):
0

PID VOCs (ppm):
13

Vent Diameter (in):
6

Vent Exhaust Height (ft):
3.4

Vent Velocity (fpm):
42

Vent Temperature (°F):
77.7

Comments:
Canister#34000277
Flow controller ID#8585

GPS Location

Latitude (deg):
41.613035

Longitude (deg):
-87.423692

Altitude (m):
185.600000

Timestamp:
2016-09-15T09:41:36

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/15/16

Location Information

Sample Location:
GV06

Start Time:
10:22:45

End Time:
10:46:27

Wind (mph):
ESE 13

Barometric Pressure (inches Hg):
30.26

Ambient Temperature (°F):
73

Sample Information

CGA Methane (%):
16.5

CO2 (%):
4.1

CO (ppm):
2

O2 (%):
16.6

H2S (ppm):
16

PID VOCs (ppm):
1.6

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1

Vent Velocity (fpm):
71

Vent Temperature (°F):
87.2

Comments:
Canister ID#34000470
Flow Controller# 8470

GPS Location

Latitude (deg):
41.615465

Longitude (deg):
-87.427113

Altitude (m):
185.100000

Timestamp:
2016-09-15T10:30:54

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Location Information

Sample Location:
GV14

Start Time:
11:47:08

End Time:
12:13:47

Wind (mph):
N 5

Barometric Pressure (inches Hg):
30.19

Ambient Temperature (°F):
74

Sample Information

CGA Methane (%):
25.2

CO2 (%):
6

CO (ppm):
6

O2 (%):
14.3

H2S (ppm):
14

PID VOCs (ppm):
43

Vent Diameter (in):
6

Vent Exhaust Height (ft):
2.5

Vent Velocity (fpm):
316

Vent Temperature (°F):
81.3

Comments:
Can# 3400167
Reg# 7781

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

GV14

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/14/16

Location Information

Sample Location:
GV15

Start Time:
14:25:49

End Time:
14:52:02

Wind (mph):
N 3

Barometric Pressure (inches Hg):
30.16

Ambient Temperature (°F):
75

Sample Information

CGA Methane (%):
29.9

CO2 (%):
8

CO (ppm):
10

O2 (%):
14.5

H2S (ppm):
148

PID VOCs (ppm):
50.9

Vent Diameter (in):
6

Vent Exhaust Height (ft):
3

Vent Velocity (fpm):
176

Vent Temperature (°F):
78.2

Comments:
Can# 34000889
Reg# 7222

GPS Location

Latitude (deg):
41.613352

Longitude (deg):
-87.427125

Altitude (m):
185.600000

Timestamp:
2016-09-14T14:28:12

Accuracy (m):
5.000000

Photos

Caption:

GV15

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/15/16

Location Information

Sample Location:
GV16

Start Time:
11:36:42

End Time:
12:02:33

Wind (mph):
SSW 3

Barometric Pressure (inches Hg):
30.26

Ambient Temperature (°F):
76

Sample Information

CGA Methane (%):
28.2

CO2 (%):
6.3

CO (ppm):
124

O2 (%):
14.7

H2S (ppm):
10

PID VOCs (ppm):
23.2

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
2.11

Vent Velocity (fpm):
118

Vent Temperature (°F):
91

Comments:
Canister ID#34000835
Flow Controller ID#7312

GPS Location

Latitude (deg):
41.613053

Longitude (deg):
-87.427068

Altitude (m):
184.100000

Timestamp:
2016-09-15T11:38:34

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
9/15/16

Location Information

Sample Location:
GV17

Start Time:
13:40:52

End Time:
14:25:10

Wind (mph):
E 10

Barometric Pressure (inches Hg):
30.20

Ambient Temperature (°F):
77

Sample Information

CGA Methane (%):
21.3

CO2 (%):
5.8

CO (ppm):
21

O2 (%):
21

H2S (ppm):
7

PID VOCs (ppm):
11.7

Vent Diameter (in):
5.5

Vent Exhaust Height (ft):
1

Vent Velocity (fpm):
149

Vent Temperature (°F):
94.2

Comments:
Canister ID#34001202
Flow Controller ID#7101

GPS Location

Latitude (deg):
41.612957

Longitude (deg):
-87.427303

Altitude (m):
189.000000

Timestamp:
2016-09-15T13:45:32

Accuracy (m):
5.000000

Photos

Caption:

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/5/16

Location Information

Sample Location:
AM02

Start Time:
09:30:08

End Time:
10:00:09

Wind (mph):
SSW 6

Barometric Pressure (inches Hg):
29.52

Ambient Temperature (°F):
34

Sample Information

CGA Methane (%):
0.1

CO2 (%):
0

CO (ppm):
0

O2 (%):
20.6

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 4452
Regulator 7444

GPS Location

Latitude (deg):
41.615882

Longitude (deg):
-87.428785

Altitude (m):
185.800000

Timestamp:
2016-12-05T09:33:49

Accuracy (m):
5.000000

Photos

Caption:

Ambient Sample

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/5/16

Location Information

Sample Location:
AS01

Start Time:
14:24:35

End Time:
14:57:16

Wind (mph):
S 13

Barometric Pressure (inches Hg):
29.42

Ambient Temperature (°F):
28

Sample Information

CGA Methane (%):
0.2

CO2 (%):
7.7

CO (ppm):
3

O2 (%):
10.7

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 10570
Regulator 7130

GPS Location

Latitude (deg):
41.611508

Longitude (deg):
-87.423660

Altitude (m):
180.500000

Timestamp:
2016-12-05T14:20:03

Accuracy (m):
5.000000

Photos

Caption:

AS01

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/5/16

Location Information

Sample Location:
AS03

Start Time:
09:21:56

End Time:
10:14:07

Wind (mph):
SSW 6

Barometric Pressure (inches Hg):
29.52

Ambient Temperature (°F):
34

Sample Information

CGA Methane (%):
70.1

CO2 (%):
19.8

CO (ppm):
0

O2 (%):
0

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 10001
Regulator 8472

GPS Location

Latitude (deg):
41.615753

Longitude (deg):
-87.428990

Altitude (m):
179.200000

Timestamp:
2016-12-05T09:38:33

Accuracy (m):
5.000000

Photos

Caption:

AS03 and Duplicate

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/5/16

Location Information

Sample Location:
AS04

Start Time:
11:17:17

End Time:
11:43:31

Wind (mph):
S 11

Barometric Pressure (inches Hg):
29.54

Ambient Temperature (°F):
30

Sample Information

CGA Methane (%):
0.2

CO2 (%):
1.3

CO (ppm):
0

O2 (%):
18.7

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 4470
Regulator 7098

GPS Location

Latitude (deg):
41.616720

Longitude (deg):
-87.425060

Altitude (m):
179.000000

Timestamp:
2016-12-05T11:17:12

Accuracy (m):
5.000000

Photos

Caption:

AS04

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/5/16

Location Information

Sample Location:
AS06

Start Time:
12:07:08

End Time:
12:30:48

Wind (mph):
S 10

Barometric Pressure (inches Hg):
29.52

Ambient Temperature (°F):
30

Sample Information

CGA Methane (%):
0.2

CO2 (%):
0.2

CO (ppm):
1

O2 (%):
20

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 9880
Regulator 7609

GPS Location

Latitude (deg):
41.613687

Longitude (deg):
-87.423430

Altitude (m):
177.400000

Timestamp:
2016-12-05T12:00:37

Accuracy (m):
5.000000

Photos

Caption:

AS06

PARSONS

Air Sampling Form

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
12/6/16

Location Information

Sample Location:
AS07

Start Time:
09:02:11

End Time:
09:30:13

Wind (mph):
NE 3

Barometric Pressure (inches Hg):
29.19

Ambient Temperature (°F):
34

Sample Information

CGA Methane (%):
0.8

CO2 (%):
10.3

CO (ppm):
0

O2 (%):
1.4

H2S (ppm):
0

PID VOCs (ppm):
0

Vent Diameter (in):

Vent Exhaust Height (ft):

Vent Velocity (fpm):

Vent Temperature (°F):

Comments:
Canister 10189
Regulator 7310

GPS Location

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Photos

Caption:

AS07

Surface Soil Logs

Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/16/2016

Sampler:
G. Hintz

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS01

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS01	0.0	0.5	brown	moist	Fill, medium sand, some fine gravel.
SS02	0.5	2.0	black-brown	moist	Fill, fine to medium sand, some medium to coarse gravel.

Photo Field

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/25/2016

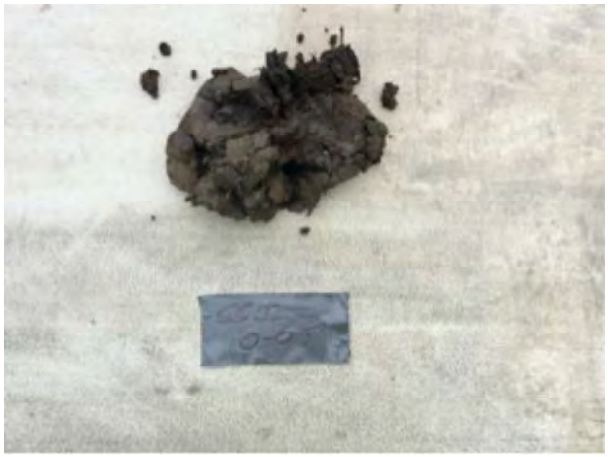
Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS02

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS02	0.0	1.0	gray	moist	Silty clay, soft, roots.
SS02	1.0	2.0	gray-brown	moist	Silty clay, medium stiff, roots, wet at 2 ft.

Photo Field	
	
SS02 0-0.5'	SS02 0.5-2'

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS03

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS03	0.0	0.5	gray-brown	moist	Silty clay, medium stiff.
SS03	0.5	1.5	gray-brown	dry	Silty clay, medium stiff.
SS03	1.5	2.0	gray-brown	dry	Silty clay, medium stiff, roots.

Photo Field	
SS03 0-0.5'	

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/24/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS04

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS04	0.0	0.5	brown	moist	Silty clay, low plasticity.
SS04	0.5	1.0	brown	moist	Silty clay, low plasticity.
SS04	1.0	2.0	brown	moist	Fill/waste, paper, wood, plastic, clay.

Photo Field

Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/24/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS05

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS05	0.0	0.5	gray-brown	moist	Silty clay, some organics, low plasticity.
SS05	0.5	2.0	gray-brown	moist	Silty clay, low plasticity, some medium gravel.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/24/2016

Sampler:
K. Thompson

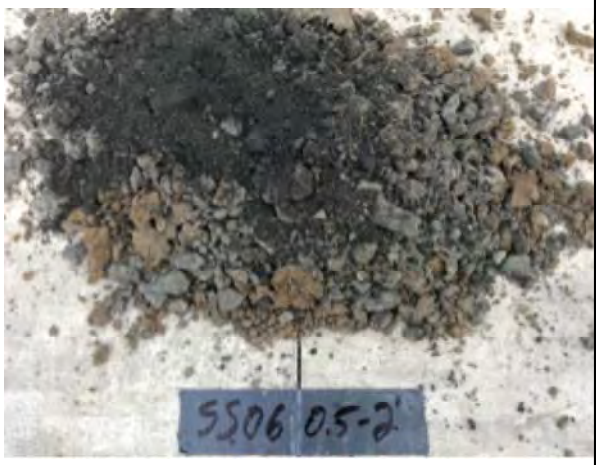
Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS06

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS06	0.0	0.5	brown	dry	Silty clay, low plasticity.
SS06	0.5	2.0	gray-brown	dry	Silty clay, low plasticity.

Photo Field



Parsons PLUS
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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/24/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS07

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS07	0.0	0.5	brown	dry	Silty clay, low plasticity.
SS07	0.5	2.0	gray-brown	moist	Silty clay, low plasticity.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/24/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS08

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS08	0.0	0.5	brown	dry	Silty clay, low plasticity.
SS08	0.5	2.0	brown	moist	Silty clay, low plasticity.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/16/2016

Sampler:
G. Hintz

Project Number:
449595

Soil/Sediment Form:	*Site Location:*	*Location ID:*
Soil	Perimeter Surface Soil	SS09

Sampling Analysis									
Depth (ft)	*VOC*	*SVOC*	*PEST*	*PCB*	*METALS*	*Hg*	*Cn*	*pH*	*ASBESTOS*
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	*Start Depth (ft)*	*End Depth (ft)*	*Color*	*Moisture Content*	*Description*
SS09	0.0	0.5	brown	moist	Silty clay, some fine sand, some organics.
SS09	0.5	2.0	brown	moist	Silty clay, low plasticity, trace organics.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/16/2016

Sampler:
K. Thompson

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS10

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS10	0.0	0.5	brown	moist	Fill, Silty clay, low plasticity, some organics.
SS10	0.5	2.0	brown	moist	Fill, silty clay, low plasticity, trace organics.

Photo Field

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS11

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS11	0.0	2.0	black	moist	Top soil, organics, roots.

Photo Field	
SS11 0-2	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS12

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS12	0.0	1.25	black-brown	moist	Top soil, silty clay, soft.
SS12	1.25	2.0	brown	dry	Silty clay, rocks, roots.

Photo Field	
SS12 0-2	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/25/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS13

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS13	0.0	2.0	black-brown	moist	Top soil, gravel, rocks, waste (plastic, rubber, paper)

Photo Field	
SS13 0-2'	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS14

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS14	0.0	1.0	brown	moist	Top soil, silty clay, roots.
SS14	1.0	2.0	gray-brown	moist	Silty clay, roots, rocks, gravel.

Photo Field	
SS14 0-2'	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS15

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS15	0.0	1.5	gray-brown	moist	Top soil, silty clay, medium stiff, roots.
SS15	1.5	2.0	black	moist	Sand, medium, loose, rocks.

Photo Field	
SS15 0-2	

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Gary Development Landfill Soil and Sediment Sampling Log

Date:
8/26/2016

Sampler:
F. Savin

Project Number:
449595

Soil/Sediment Form:	Site Location:	Location ID:
Soil	Perimeter Surface Soil	SS16

Sampling Analysis									
Depth (ft)	VOC	SVOC	PEST	PCB	METALS	Hg	Cn	pH	ASBESTOS
0-0.5'	X	X	X	X	X	X	X	X	
0.5-2'	X	X	X	X	X	X	X	X	
0-2' comp									X

Location ID	Start Depth (ft)	End Depth (ft)	Color	Moisture Content	Description
SS16	0.0	2.0	brown	moist	Silty clay, soft, roots, rocks.

Photo Field	
SS16 0-2	

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Test Pit Logs

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	1/10/2017	1:10:18 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP01	Backhoe	RW Collins
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Keith Thompson	16	Vegetation
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
140	3	6
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular	4	2-5

Test Pit Comments:
North end of trench at original proposed location - waste encountered at 5' depth (trash and general debris, rubber, scrap metal) Down gradient the waste moves closer to the surface to 2' depth (brick, cinders, brick, concrete,hoses, rubber tire). Very hard material that thins to 1-2 foot depth interval with fine sand underlying at 125' south of initial proposed location. The waste continues to thin out and is delineated just to the north of the southern access road at 140' south of initial proposed pit location. Excavated a small pit to 5' depth to the south of the road - No waste. Rip rap and concrete cobbles only.

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.612733	-87.428342
Altitude (m):	**Timestamp:**
171.300000	2017-01-10T13:22:04
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-5	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

North end of trench only.

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	Waste	0

Color:	Moisture:
Black	Wet

Depth Comments:

North end of trench only.

Photos

North end of trench. Waste present at 5' depth.

Middle of trench. Waste present at 3' depth.

90' down gradient from initial proposed location. Waste still present at 2' depth. Cinders, brick, very hard.

South end of trench. Waste thinning out. Waste present at 1-2 feet depth interval with sand below it then thinning out and delineated just north of southern access road.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/9/17

Time:
09:38:55

Test Pit Information

Test Pit Number:
TP02

Excavation Method:
Backhoe

Excavation Completed By:
Raw Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
14

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
0.5

Waste Depth (ft):
2

Test Pit Comments:
Encountered waste at 2' depth. Excavated out to property line until delineated. Waste delineated approximately 14' east of property line.

Edge of Landfill

Latitude (deg):
41.613340

Longitude (deg):
-87.429258

Altitude (m):
183.900000

Timestamp:
2017-01-09T09:55:14

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	O

Color:	Moisture:
Brown	Wet

Depth Comments:

Clay with high organic, wet, high plasticity.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	SP	0

Color:	Moisture:
Black	Wet

Depth Comments:

Waste at the ENE side of trench which tapers off to fine sand to the WSW side of the trench.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-6	SP	0

Color:	Moisture:
Black	Wet

Depth Comments:

Waste on the ENE end of trench that tappers off to sand on the WSW end of trench.

Photos

TP02 ENE end of trench.

TP02 WSW end of trench at property line.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/9/17

Time:
11:11:36

Test Pit Information

Test Pit Number:
TP03

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
20

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
0

Waste Depth (ft):
2.5

Test Pit Comments:
Waste is 12' from property line.

Edge of Landfill

Latitude (deg):
41.614007

Longitude (deg):
-87.429368

Altitude (m):
175.200000

Timestamp:
2017-01-09T11:22:31

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	SC	0

Color:	Moisture:
Gray	Wet

Depth Comments:

Sandy clay high organics, wet.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	Waste	0

Color:	Moisture:
Black	Wet

Depth Comments:

Waste on the east end of trench tapering to clay on the west end.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-6	Waste	0

Color:	Moisture:
Black	Wet

Depth Comments:

Waste on the east end of trench tapering to clay on the west end.

Photos

East end of trench.

West side of trench.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/9/17

Time:
12:59:29

Test Pit Information

Test Pit Number:
TP04

Excavation Method:
Backhoe

Excavation Completed By:
Raw Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
20

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
0

Waste Depth (ft):
5

Test Pit Comments:
Waste delineated 12' from property line. Observed gas bubbling through groundwater at 6' depth on the east side of trench.

Edge of Landfill

Latitude (deg):
41.614545

Longitude (deg):
-87.429353

Altitude (m):
169.000000

Timestamp:
2017-01-09T13:08:21

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Brown	Wet

Depth Comments:

Silty clay, high organics, high plasticity.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	CL	0

Color:	Moisture:
Brown-Gray	Wet

Depth Comments:

Sixty clay, high plasticity.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-5	CL	0

Color:	Moisture:
Gray	Wet

Depth Comments:

SAA

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	Waste	3.4

Color:	Moisture:
Black	Wet

Depth Comments:

Waste on the east end of trench tapering to the west. Delineated 12' from property line.

Photos

East side of trench.

West side of trench.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/9/17

Time:
13:45:50

Test Pit Information

Test Pit Number:
TP05

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
30

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
0

Waste Depth (ft):
5

Test Pit Comments:
Waste delineared 16.5' from property line.

Edge of Landfill

Latitude (deg):
41.615162

Longitude (deg):
-87.429392

Altitude (m):
177.500000

Timestamp:
2017-01-09T13:54:21

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Gray	Wet

Depth Comments:

Silty clay with high organics, high plasticity.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	CL	0

Color:	Moisture:
Gray	Wet

Depth Comments:

SAA.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-5	CL	1.3

Color:	Moisture:
Dark gray	Wet

Depth Comments:

SAA

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	Waste	3.2

Color:	Moisture:
Black	Wet

Depth Comments:

Waste at 5' depth on the east end transitioning to fine sand to the west. Waste delineated 16.5 ft from property line.

Photos

East end of trench.

West end of trench.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/9/17

Time:
14:36:45

Test Pit Information

Test Pit Number:
TP06

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
20

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
0

Waste Depth (ft):
5

Test Pit Comments:
Waste delineated 23' from property line.

Edge of Landfill

Latitude (deg):
41.615650

Longitude (deg):
-87.429420

Altitude (m):
189.400000

Timestamp:
2017-01-09T14:43:33

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Brown-gray	Wet

Depth Comments:

Silty clay, high organics.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	CL	0

Color:	Moisture:
Gray	Wet

Depth Comments:

Silty clay, high plasticity.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-5	CL	0

Color:	Moisture:
Gray	Wet

Depth Comments:

SAA

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	Waste	0

Color:	Moisture:
Black	Wet

Depth Comments:

Waste on the east end of trench tapering to clay to the west.

Photos

East end of trench. Waste covered by water infiltration.

West end f trench.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	1/10/2017	8:02:02 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP07	Backhoe	RW Collins
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Keith Thompson	20	Soil
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
10	3	3
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular	Not encountered.	1

Test Pit Comments:

Edge of waste not delineated. Excavation was 5' pond edge. Observed waste at surface at pond edge. Could not safely excavate closer to pond. Waste encountered within 1' of surface. Did not excavate deeper or closer to the pond due to steep slope excavator was working on up gradient from pit.

Edge of Landfill

Latitude (deg):	Longitude (deg):
Altitude (m):	**Timestamp:**
Accuracy (m):	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	0

Color:	Moisture:
Brown	Wet

Depth Comments:

Clay with some waste mixed in.

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-3	Waste	0

Color:	Moisture:
Dark brown/black	Wet

Depth Comments:

Photos

Waste present mixed with clay at surface. With a greater concentration of waste below 1'.

Pit dug approximately 5' from pond edge.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	3/9/2017	2:04:00 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP08	Other	EFS via hand auger
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		Vegetation
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
		6
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular	2.5	

Test Pit Comments:

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.616855	-87.427750
Altitude (m):	**Timestamp:**
175.600000	2017-03-09T14:08:28
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	SW	0.1

Color:	Moisture:
Darkbrn	Moist

Depth Comments:

With roots

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SW	0.0

Color:	Moisture:
Turning lighter brown	Moist

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SW	0.1

Color:	Moisture:
Brn	Wet

Depth Comments:

Wet at 2.5'

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	SW	0.0

Color:	Moisture:
Brn	Wet

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	SW	0.0

Color:	Moisture:
Brn	Wet

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	SW	0.0

Color:	Moisture:
Dark brn	Wet

Depth Comments:

Sand caving in

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/10/17

Time:
08:59:00

Test Pit Information

Test Pit Number:
TP09

Excavation Method:
Backhoe

Excavation Completed By:
RW collins

Test Pit Logged By:
Keith Thompson

Slope (%):
16

Surface Classification:
Vegetation

Test Pit Length (ft):
10

Test Pit Width (ft):
3

Test Pit Depth (ft):
3

Topography:
Irregular

Water Depth (ft):
0

Waste Depth (ft):
2

Test Pit Comments:
Waste not delineated. Completed pit within 2' of pond edge.

Edge of Landfill

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Brown	Wet

Depth Comments:

Clay with highorgncs.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	Waste	3.2

Color:	Moisture:
Black	Wet

Depth Comments:

Photos

Waste present at 2' depth.

Waste present at pond edge.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	3/9/2017	2:32:10 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP10	Other	EFS via hand auger
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		Vegetation
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
		5
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular	3	

Test Pit Comments:
Phragmites

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.616800	-87.426320
Altitude (m):	**Timestamp:**
172.600000	2017-03-09T14:55:44
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	SW	0.0

Color: Brn

Moisture: Moist

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SW	0.0

Color: Brn

Moisture: Moist

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SW	0.0

Color: Brn

Moisture: Moist

Depth Comments:

Wet 3'

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	SW	0.0

Color: Brn

Moisture: Wet

Depth Comments:

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	SW	0.0

Color:	Moisture:
Brn	Wet

Depth Comments:

Boring cave in, end of boring

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
08:15:09

Test Pit Information

Test Pit Number:
TP11

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
15

Surface Classification:
Vegetation

Test Pit Length (ft):
40

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
1

Test Pit Comments:
Waste not delineated. The excavation was completed to the pond.

Edge of Landfill

Latitude (deg):
41.616515

Longitude (deg):
-87.425615

Altitude (m):
178.300000

Timestamp:
2017-01-11T08:24:18

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6	Waste	0

Color:	Moisture:
Black to Gray	Moist

Depth Comments:

Waste not delineated. Concrete blocks, rusted metal.

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Clay with organics. Concrete blocks.

Photos

TP11 view from west

TP11 view from east

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
09:16:37

Test Pit Information

Test Pit Number:
TP12

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
0

Surface Classification:
Vegetation

Test Pit Length (ft):
25

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):

Waste Depth (ft):
1

Test Pit Comments:
Waste was delineated. 24.5 ft from the northern property line (tape measure)

Edge of Landfill

Latitude (deg):
41.616618

Longitude (deg):
-87.424722

Altitude (m):
187.400000

Timestamp:
2017-01-11T09:05:08

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6 north	SM	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Fine sand on first 10 ft from the north

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6 south	Waste	0

Color:	Moisture:
Black	Moist

Depth Comments:

Waste, concrete blocks

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Brown	

Depth Comments:

Clay with organics

Photos

TP12 view from north

TP12 view from south

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
10:32:19

Test Pit Information

Test Pit Number:
TP13

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
10

Surface Classification:
Vegetation

Test Pit Length (ft):
29

Test Pit Width (ft):
3

Test Pit Depth (ft):
7

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
1

Test Pit Comments:
Waste delineated. 29 f from the northern property line (tape measure)

Edge of Landfill

Latitude (deg):
41.616182

Longitude (deg):
-87.424078

Altitude (m):
176.200000

Timestamp:
2017-01-11T10:18:40

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-7 north	SM	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Fine silty sand on the northern side of the excavation

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Clay with high organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-7 south	Waste	1.6

Color:	Moisture:
Black to Brown	Moist

Depth Comments:

Waste delineated

Photos

TP13 view from north

TP13 view from the south

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
11:42:36

Test Pit Information

Test Pit Number:
TP14

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
12

Surface Classification:
Vegetation

Test Pit Length (ft):
26

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
1

Test Pit Comments:
Waste delineated (1 ft from the property boundary)

Edge of Landfill

Latitude (deg):
41.615630

Longitude (deg):
-87.423525

Altitude (m):
177.700000

Timestamp:
2017-01-11T11:18:33

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Clay with organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6 north	SM	0

Color:	Moisture:
Brown to gray	Moist

Depth Comments:

Silty sand

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6 south	Waste	0

Color:	Moisture:
Black to gray	Moist

Depth Comments:

Waste delineated

Photos

TP14 view from north

View from the south

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
13:23:43

Test Pit Information

Test Pit Number:
TP15

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
30

Surface Classification:
Vegetation

Test Pit Length (ft):
16

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
2-3

Test Pit Comments:
Waste not delineated by property line.
The property line very close to the top of he slope (5 ft)

Edge of Landfill

Latitude (deg):
41.614868

Longitude (deg):
-87.423328

Altitude (m):
179.300000

Timestamp:
2017-01-11T13:12:40

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Clay with organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-6	Waste	0.2

Color:	Moisture:
Black to brown	Moist

Depth Comments:

Waste not delineated

Photos

TP15 view from the east

TO15 view from west

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
13:47:03

Test Pit Information

Test Pit Number:
TP16

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
45

Surface Classification:
Vegetation

Test Pit Length (ft):
17

Test Pit Width (ft):
3

Test Pit Depth (ft):
5-6

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
1-2

Test Pit Comments:
Waste not delineated at the property boundary. Property boundary approximately 6 ft from the top of the slope

Edge of Landfill

Latitude (deg):
41.613953

Longitude (deg):
-87.423298

Altitude (m):
181.000000

Timestamp:
2017-01-11T13:46:50

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Clay with organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-6	Waste	0

Color:	Moisture:
Black to gray	Moist

Depth Comments:

Waste not delineated

Photos

TP16 view from west

TP16 view from east

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/11/17

Time:
14:33:56

Test Pit Information

Test Pit Number:
TP17

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Florin Savin

Slope (%):
60

Surface Classification:
Vegetation

Test Pit Length (ft):
18

Test Pit Width (ft):
3

Test Pit Depth (ft):
9

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
2

Test Pit Comments:
Waste not delineated to the property boundary.

Edge of Landfill

Latitude (deg):
41.612850

Longitude (deg):
-87.423253

Altitude (m):
192.300000

Timestamp:
2017-01-11T14:29:04

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	

Color:	Moisture:
Brown to gray	Dry

Depth Comments:

Clay with organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-9	Waste	

Color:	Moisture:
Gray to black	Moist

Depth Comments:

Photos

TP17 view from east

TP17 view from west

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/12/17

Time:
08:55:29

Test Pit Information

Test Pit Number:
TP18

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
20

Surface Classification:
Vegetation

Test Pit Length (ft):
25

Test Pit Width (ft):
3

Test Pit Depth (ft):
8

Topography:
Irregular

Water Depth (ft):
Not encountered

Waste Depth (ft):
5

Test Pit Comments:
Excavated from 5' inside property line into site through sandy Clay berm. Wast emcountered near initial proposed location for TP18 at 5'.

Edge of Landfill

Latitude (deg):
41.611768

Longitude (deg):
-87.423277

Altitude (m):
179.600000

Timestamp:
2017-01-12T09:01:45

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-5	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Sandy Clay.

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-8	Waste	0

Color:	Moisture:
Dark brown	

Depth Comments:

Waste (concrete, stone, cobbles, plastic, scrap metal) mixed with sandy Clay.

Photos

Waste mixed with sandy Clay.

Waste mixed with sandy Clay at 5' depth.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	1/12/2017	10:02:55 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP19	Backhoe	RW Collins
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Keith Thompson	25	Vegetation
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
50	3	8
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular	3	3-7

Test Pit Comments:
Excavated trench from top of landfill to the south/ downgradient to near the toe. Very steep slope. Waste encountered (brick, rubber, trash, plastic) at 7' depth at the top. Groundwater not encountered at the top. At the toe, waste was encountered at 3' depth. Groundwater at 3'. Unable to excavate closer to property line due to safety concerns. It's a very steep slope that drops into a wetland. Waste not delineated.

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.611780	-87.424407
Altitude (m):	**Timestamp:**
175.100000	2017-01-12T10:14:05
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-7	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Sandy clay

Depth (ft):	USCS Classification:	PID Reading (ppm):
7-8	Waste	0

Color:	Moisture:
Black	Moist

Depth Comments:

Waste at 7' depth at north end of trench/ up gradient. South end / Down gradient waste is at 3' depth.

Photos

Looking up gradient. Waste present at the toe of slope.

Near the toe of slope. Waste still present.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/12/17

Time:
10:57:35

Test Pit Information

Test Pit Number:
TP20

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
20

Surface Classification:
Vegetation

Test Pit Length (ft):
25

Test Pit Width (ft):
3

Test Pit Depth (ft):
5

Topography:
Irregular

Water Depth (ft):
0-4

Waste Depth (ft):
3

Test Pit Comments:
Excavated trench to the south down gradient. Waste present at 3' depth at he top. Delineated waste in wetland approximately 10' south from the toe of the landfill.

Edge of Landfill

Latitude (deg):
41.612227

Longitude (deg):
-87.425318

Altitude (m):
176.500000

Timestamp:
2017-01-12T11:03:46

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-3	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Sandy Clay berm material.

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-5	Waste	0

Color:	Moisture:
Black	

Depth Comments:

Waste material (plastic,brick,trash,rubber) which is delineated 10'south of the toe.

Photos

Looking north / up gradient.

Southern extent. Waste delineated.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/12/17

Time:
12:50:06

Test Pit Information

Test Pit Number:
TP21

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
2

Surface Classification:
Vegetation

Test Pit Length (ft):
20

Test Pit Width (ft):
3

Test Pit Depth (ft):
7

Topography:
Smooth

Water Depth (ft):
2

Waste Depth (ft):
3

Test Pit Comments:
Waste delineated to the south of the access road. Oily sheen present in groundwater. Strong odor present.

Edge of Landfill

Latitude (deg):
41.612230

Longitude (deg):
-87.426538

Altitude (m):
175.600000

Timestamp:
2017-01-12T12:57:11

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2	CL	0

Color:	Moisture:
Brown	Wet

Depth Comments:

Silty Clay with high organics.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	ML	3.5

Color:	Moisture:
Brown	Wet

Depth Comments:

Silt with some sand.

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	Waste	4.5

Color:	Moisture:
Black	

Depth Comments:

Waste (paper, plastic, brick).

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-7	SP	6.7

Color:	Moisture:
Gray	Wet

Depth Comments:

Sand, fine.

Photos

Looking north /up gradient.

Edge of waste layer at 3'. Oily sheen in ground water. Strong odor present.

South end of trench. Waste delineated. Oily sheen in groundwater. Strong odor present.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
1/12/17

Time:
13:29:13

Test Pit Information

Test Pit Number:
TP22

Excavation Method:
Backhoe

Excavation Completed By:
RW Collins

Test Pit Logged By:
Keith Thompson

Slope (%):
2

Surface Classification:
Vegetation

Test Pit Length (ft):
25

Test Pit Width (ft):
3

Test Pit Depth (ft):
6

Topography:
Smooth

Water Depth (ft):
2.5

Waste Depth (ft):
3

Test Pit Comments:
Excavated south of acces road. Waste delineated. Oily layer present at 2.5' to 3' depth. Strong odor.

Edge of Landfill

Latitude (deg):
41.612467

Longitude (deg):
-87.427505

Altitude (m):
166.600000

Timestamp:
2017-01-12T13:39:09

Accuracy (m):
5.000000

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-2.5	CL	0

Color:	Moisture:
Brown	Moist

Depth Comments:

Sandy silty Clay.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-4	Waste	10.5

Color:	Moisture:
Dark brown	Wet

Depth Comments:

Waste (wood cross ties, paper, trash) mixed with fine sand. Oily layer present at 2.5 to 3' depth. Strong odor present. Waste thins out to the south and is delineated.

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-6	SP	6.7

Color:	Moisture:
Gray	Wet

Depth Comments:

Fine sand.

Photos

Looking up gradient to th north at edge of waste.

Oily layer present at 2.5-3'.

Downgradient to the south. Waste delineated. Oily layer at 2.5-3' still present.

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	10:21:13 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP23	Other	
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**

Test Pit Comments:
No waste located. Typical surrounding sand, cinder fill. 10 feet west of tracks

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.614828	-87.423282
Altitude (m):	**Timestamp:**
175.400000	2017-05-18T13:32:50
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	SC	

Color: Dark brown

Moisture: Moist

Depth Comments:

Clayey sand fill with gravel, cinder

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SP	

Color: Brown

Moisture: Moist

Depth Comments:

Fill sand with little gravel and cinder

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SP	

Color: Brown

Moisture: Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	GP	

Color: Dark brown

Moisture: Wet

Depth Comments:

Fill gravel and cinder with brick and sand. Wet at 3.5'

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	GP	

Color:	Moisture:
Dark brown	Wet

Depth Comments:

As above. End hand auger 5'

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/18/2017

Time:

Test Pit Information

Test Pit Number:
TP24

Excavation Method:
Other

Excavation Completed By:

Test Pit Logged By:
Garett Hintz

Slope (%):

Surface Classification:
Vegetation

Test Pit Length (ft):

Test Pit Width (ft):

Test Pit Depth (ft):

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
2'

Test Pit Comments:
Concrete refusal. 14 feet west of tracks

Edge of Landfill

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	SP	

Color:	Moisture:
Brown	Moist

Depth Comments:

Brown sand fill with little gravel and cinder

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SP	

Color:	Moisture:
Brown sand turning lighter	Moist

Depth Comments:

Fill, Brown fine sand with little concrete. Refusal at 2' concrete

Depth (ft):	USCS Classification:	PID Reading (ppm):

Color:	Moisture:

Depth Comments:

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:
449595

Date:
5/18/2017

Time:
10:48:40 AM

Test Pit Information

Test Pit Number:
TP25

Excavation Method:

Excavation Completed By:
EFS

Test Pit Logged By:
Garett Hintz

Slope (%):

Surface Classification:
Vegetation

Test Pit Length (ft):

Test Pit Width (ft):

Test Pit Depth (ft):

Topography:
Irregular

Water Depth (ft):

Waste Depth (ft):
2'

Test Pit Comments:
21' west of tracks. Plastic garbage debri at 2'

Edge of Landfill

Latitude (deg):

Longitude (deg):

Altitude (m):

Timestamp:

Accuracy (m):

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Gray/brown	Moist

Depth Comments:

Fill Gray/brown silty clay, moist, medium plasticity

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	CL	

Color:	Moisture:
Gray/brown	Moist

Depth Comments:

As above. Plastic garbage/ debris at 2'. Refusal at 2' debri.

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	11:24:09 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP26	Other	EFS
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		Soil
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Smooth		No waste

Test Pit Comments:

Typical area fill along railroad tracks. 12' west of tracks

Edge of Landfill

Latitude (deg):	Longitude (deg):
Altitude (m):	**Timestamp:**
Accuracy (m):	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	SP	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

Fill. Dark gray fine sand with little gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SP	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SP	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	SP	

Color:	Moisture:
Light brown	Moist

Depth Comments:

Light brown fine sand

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	SP	

Color: Light brown

Moisture: Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	SP	

Color: Light brown

Moisture:

Depth Comments:

As above. End boring 6'. No waste located

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	11:35:13 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP27	Other	

Test Pit Logged By:	Slope (%):	Surface Classification:
Garett Hintz		Vegetation

Test Pit Length (ft):	Test Pit Width (ft):	Test Pit Depth (ft):

Topography:	Water Depth (ft):	Waste Depth (ft):
Irregular		

Test Pit Comments:
21' from tracks. Typical surrounding fill

Edge of Landfill

Latitude (deg):	Longitude (deg):

Altitude (m):	Timestamp:

Accuracy (m):

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Dark gray/brown	Moist

Depth Comments:

Fill Dark gray/brown mottled silty clay, trace gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	ML	

Color:	Moisture:
Gray	Moist

Depth Comments:

Fill Gray clayey silt

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	ML	

Color:	Moisture:
Gray	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	ML	

Color:	Moisture:
Gray	Moist

Depth Comments:

As above, with gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	SC	

Color: Brown and gray mottled

Moisture: Moist

Depth Comments:

Brown and gray mottled silty clay with roots/organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	GP	

Color: Dark gray/blk

Moisture: Moist

Depth Comments:

Dark gray/black sand with cinder, gravel. End hand auger 6'

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	11:55:06 AM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP28	Other	EFS
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		Vegetation
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular		

Test Pit Comments:
26' west of tracks. Surrounding area fill

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.613917	-87.423283
Altitude (m):	**Timestamp:**
178.000000	2017-05-18T13:26:33
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Dark gray and brown mottled	Moist

Depth Comments:

Fill Dark gray and brown mottled silty clay

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	CL	

Color:	Moisture:
Dark gray and brown mottled	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	CL	

Color:	Moisture:
Dark gray and brown mottled	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	CL	

Color:	Moisture:
Dark gray and brown mottled	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):

4-5	CL	

Color: Dark gray and brown mottled

Moisture: Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-6	SP	

Color: Dark gray/black

Moisture: Moist

Depth Comments:

Dark gray/black fine sand. End hand auger 6'

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	12:10:07 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP29	Other	

Test Pit Logged By:	Slope (%):	Surface Classification:
Garett Hintz		Vegetation

Test Pit Length (ft):	Test Pit Width (ft):	Test Pit Depth (ft):

Topography:	Water Depth (ft):	Waste Depth (ft):
Irregular		3'

Test Pit Comments:
31' w st of tracks. Garbage/ fabric debri at 3'

Edge of Landfill

Latitude (deg):	Longitude (deg):

Altitude (m):	Timestamp:

Accuracy (m):

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Gray and brown mottled	Moist

Depth Comments:

Fill gray and brown mottled silty clay.

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	CL	

Color:	Moisture:
Gray and brown mottled	Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SC	

Color:	Moisture:
	Moist

Depth Comments:

Fill dark gray sandy clay with gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):
3-4	SP	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

Dark gray sand with gravel. Fabric/garbage. End hand auger at 3'

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	12:46:33 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP30		EFS
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
Irregular		2'

Test Pit Comments:
Garbage/plastic bags at 2' 29' west of tracks

Edge of Landfill

Latitude (deg):	Longitude (deg):
Altitude (m):	**Timestamp:**
Accuracy (m):	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-1	CL	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

Fill Dark gray silty clay with gravel, roots/organics

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	CL	

Color:	Moisture:
Dark gray	Moist

Depth Comments:

As above. Plastic bag/garbage at 2'. End hand auger 2'

Photos

PARSONS

Gary Development Landfill Test Pit

Project Information

Location:
Gary Development Landfill Superfund Site, Gary, Indiana

Project Number:	Date:	Time:
449595	5/18/2017	1:02:23 PM

Test Pit Information

Test Pit Number:	Excavation Method:	Excavation Completed By:
TP31	Other	EFS
Test Pit Logged By:	**Slope (%):**	**Surface Classification:**
Garett Hintz		
Test Pit Length (ft):	**Test Pit Width (ft):**	**Test Pit Depth (ft):**
Topography:	**Water Depth (ft):**	**Waste Depth (ft):**
		No waste

Test Pit Comments:
Typical surrounding fill. Sand/gravel/ cinder. 26' west of tracks

Edge of Landfill

Latitude (deg):	Longitude (deg):
41.612795	-87.423208
Altitude (m):	**Timestamp:**
176.900000	2017-05-18T13:19:52
Accuracy (m):	
5.000000	

Depth Measurements

Depth (ft):	USCS Classification:	PID Reading (ppm):
0-6"	GP	

Color:	Moisture:
Gray	Moist

Depth Comments:

Fill gray sandy gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):
6-12"	CL	

Color:	Moisture:
Dark brown	Moist

Depth Comments:

Fill silty clay with gravel

Depth (ft):	USCS Classification:	PID Reading (ppm):
1-2	SC	

Color:	Moisture:
Gray	Moist

Depth Comments:

Fill Gray clayey sand with wood chips.

Depth (ft):	USCS Classification:	PID Reading (ppm):
2-3	SP	

Color:	Moisture:
Light brown	Moist

Depth Comments:

Light brown fine sand

Depth (ft):	USCS Classification:	PID Reading (ppm):

3-4	SP	

Color: Light brown

Moisture: Moist

Depth Comments:

As above

Depth (ft):	USCS Classification:	PID Reading (ppm):
4-5	GP	

Color: Brown

Moisture: Moist

Depth Comments:

Fill brown sandy gravel with cinder

Depth (ft):	USCS Classification:	PID Reading (ppm):
5-5.9	GP	

Color: Dark gray

Moisture: Moist

Depth Comments:

Fill Dark gray/black sandy gravel with cinder

Depth (ft):	USCS Classification:	PID Reading (ppm):
6'	SP	

Color: Gray

Moisture:

Depth Comments:

Gray fine sand. End boring 6'

Photos