

## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: 65111622-Tech Date: 11-14-22  
 Site Address: 2943 6th Street Riverside Page: 2 of 2  
 Consultant: LSI H&P Rep(s): Mike Herford  
 Consultant Rep(s): Kanood Gachoki Reviewed: MB  
 Scanned: \_\_\_\_\_

**Equipment Info**  
 Inline Gauge ID#: \_\_\_\_\_  
 Pump ID#: 2007 3040

**Purge Volume Information**  
 PV Amount: 3PV PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.  
 1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other: \_\_\_\_\_

Point ID	Sample and Summa Information					Probe Specs					Purge & Collection Information									
	Summa ID #	Sample Kit ID #	Start Time	Initial Vac (° Hg)	End / Sample Time	End Vac (° Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	Probe/Vac Hg H <sub>2</sub> O
1 VP-11-5	071	215	1120	-25	1128	0	5	1/4	12	2.25	6	2.25	6	✓	✓	1607	200	8:03	2200	-5
2 VP-10-15	046	262	1156	-27	1194	0	15	1/4	12	2.25	6	2.25	6	✓	✓	1778	200	8:54	2200	-10
3 VP-10-5	050	349	1155	-24	1156	0	5	1/4	12	2.25	6	2.25	6	✓	✓	1607	200	8:03	2200	-5
4 VP-17-15	072	213	1227	-29	1230	0	15	1/4	12	2.25	6	2.25	6	✓	✓	1778	200	8:54	2200	-25
5 VP-17-5	007	126	1226	-27	1229	0	5	1/4	12	2.25	6	2.25	6	✓	✓	1607	200	8:03	2200	-10
6 VP-17-15 Dep	050	213	1251	-28	1245	0	15	1/4	12	2.25	6	2.25	6	✓	✓	2178	200	-	2200	-25
7 VP-18-15	074	386	1258	-27	1302	0	15	1/4	12	2.25	6	2.25	6	✓	✓	1778	200	8:54	2200	-10
8 VP-18-5	010	050	1257	-26	1300	0	5	1/4	12	2.25	6	2.25	6	✓	✓	1607	200	8:03	2200	-5
9																				
10																				
11																				
12																				

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):

## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: GS1111622- Tech Date: 11-17-22  
 Site Address: 2993 6th Street Riverside Page: 1 of 3  
 Consultant: GS1 H&P Rep(s): Mike Herford  
 Consultant Rep(s): Konrad Reviewed: DB  
 Scanned: \_\_\_\_\_

**Equipment Info**  
 Inline Gauge ID#: \_\_\_\_\_  
 Pump ID#: 2073040

**Purge Volume Information**  
 PV Amount: 3PV PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other:  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Point ID	Sample and Summa Information					Probe Specs					Purge & Collection Information									
	Summa ID #	Sample Kit ID #	Start Time	Initial Vac ("Hg)	End / Sample Time	End Vac ("Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand HT (in.)	Sand Dia (in.)	Dry Bent. HT (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	ProbeVac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H <sub>2</sub> O
1 VP-19-30	211	074	735	25	736	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	2200	-10
2 VP-19-15	205	396	734	25	737	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	0
3 VP-19-5	220	365	741	27	752	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-5
4 VP-20-30	471	054	824	28	827	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	2200	-15
5 VP-20-30	267	054	828	28	831	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2433	200	-	2200	-15
6 VP-20-15	192	320	823	26	826	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-5
7 VP-20-5	213	397	842	27	845	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	9:03	2200	-10
8 VP-12-30	241	383	916	27	919	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	2200	-15
9 VP-12-15	223	16A	919	26	919	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-6
10 VP-12-5	264	203	931	27	934	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-5
11 VP-13-15	740	147	953	27	956	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
12 VP-13-5	789	282	952	25	955	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-10

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):

## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: GS111622-Tech Date: 11-17-22  
 Site Address: 2993 6th Street Riverside Page: 2 of 3  
 Consultant: CSI H&P Rep(s): Mike Hemford Reviewed: [Signature]  
 Consultant Rep(s): Kentel Scanned: \_\_\_\_\_

**Equipment Info**  
 Inline Gauge ID#: \_\_\_\_\_  
 Pump ID#: 0073046

**Purge Volume Information**  
 PV Amount: SM PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other:  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Point ID	Sample and Summa Information				Probe Specs				Purge & Collection Information											
	Summa ID #	Sample Kit ID #	Start Time	Initial Vac ("Hg)	End/Vac Sample Time	End Vac ("Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	Probe/Vac <input type="checkbox"/> Hg <input type="checkbox"/> H <sub>2</sub> O
-1 VP-21-15	787	125	1020	-28	1023	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
-2 VP-21-5	789	330	1025	-29	1035	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-90
-3 VP-14-22	792	345	1058	-28	1101	0	22	23.5	1/4	12	2.25	6	2.25	✓	✓	1899	200	9:30	2200	-5
-4 VP-14-15	758	032	1057	-30†	1103	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
-5 VP-14-5	775	063	1115	-29	1118	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-5
-6 VP-14-15	786	206	1139	-28	1142	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
-7 VP-14-5	742	043	1138	-30†	1148	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-5
-8 VP-5-15	763	110	1206	-30†	1213	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
-9 VP-5-5	773	253	1205	-29	1209	-1	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-60
-10 VP-7-15	741	201	1228	-28	1231	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	2200	-10
-11 VP-7-5	774	066	1207	-30†	1232	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-5
-12 VP-6-13	734	207	1250	-27	1254	0	13	14.25	1/4	12	2.25	6	2.25	✓	✓	1745	200	8:44	2200	-10

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):  
 High vac, but has flow. Turned the pump on/off to wait for dissipation to complete the purge

## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: 651111622-Jeh Date: 11-17-22  
 Site Address: 2993 6<sup>th</sup> Street Riverside Page: 3 of 3  
 Consultant: LSI H&P Rep(s): Nick Herzfeld  
 Consultant Rep(s): Konrad Reviewed: NB  
 Scanned: \_\_\_\_\_

**Equipment Info**  
 Inline Gauge ID#: \_\_\_\_\_  
 Pump ID#: 0073040

**Purge Volume Information**  
 PV Amount: 5PV PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 1,1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other:  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Point ID	Sample and Summa Information				Probe Specs				Purge & Collection Information											
	Summa ID #	Sample Kit ID #	Start Time	Initial Vac ("Hg)	End / Sample Time	End Vac ("Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	Probe/Vac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H <sub>2</sub> O
1 VP-6-5	746	270	1249	-27	1252	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	2200	-15
2 VP-16-15	735	131	1314	-28	1319	9	15	1/4	12	2.25	6	2.25	2.25	✓	✓	1778	200	8:54	2200	-10
3 VP-16-5	738	293	1313	-30	1320	0	5	1/4	12	2.25	6	2.25	2.25	✓	✓	1607	206	8:03	2200	-10
4 VP-8-15	619	411	1341	-27	1345	0	15	1/4	12	2.25	6	2.25	2.25	✓	✓	1778	200	8:54	2200	-45
5 VP-8-5	730	022	1340	-27	1344	0	5	1/4	12	2.25	6	2.25	2.25	✓	✓	1607	200	8:03	2200	-5
6 VP-15-5	633	021	1400	-27	1403	0	5	1/4	12	2.25	6	2.25	2.25	✓	✓	1607	200	9:03	2200	-25
7																				
8																				
9																				
10																				
11																				
12																				

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):

## APPENDIX B

### Boring Logs



GSI Environmental  
 19200 Von Karman Ave. Suite 800  
 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-1

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:11 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine sand, medium stiff		ML					0		Temporary soil vapor probes installed at 5', 15' and 30' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 30' Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		
	~10% fine to coarse sand		ML							
			ML							



GSI Environmental  
 19200 Von Karman Ave. Suite 800  
 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-1

CLIENT Iron Lofts PROJECT NAME Iron Lofts  
 GSI JOB NUMBER 6239 PROJECT LOCATION Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/ 6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes	
	Continued	[Lithology Column]	ML					0			
25									0		
30										0	

Total Depth = 30.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:11 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ



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 Telephone: 949-679-1070

# Log of Soil Boring: VP-2

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:11 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15	Slight increase in fine sand							0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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 Telephone: 949-679-1070

# Log of Soil Boring: VP-3

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:11 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~90% fines, ~10% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5	~95% fines, ~5% sand		ML					0		
15	WELL GRADED SAND WITH SILT (SW-SM): dark yellowish brown (10YR 4/6), ~90% fine to coarse sand, ~10% fines		SW-SM					0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-4

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and Silt mix									Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
	SILT (ML): dark brown (10YR 3/3), moist, ~95% fines, ~5% fine to coarse sand		ML							
	Dark yellowish brown (10YR 4/6), moist		ML					0.1		
5										
10								0		
15	SILT WITH SAND dark yellowish brown (10YR 4/6), moist, ~85% fines, ~15% fine to coarse sand		ML					0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.





GSI Environmental  
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 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-6

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/Silt **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and silt mix									
	Crushed concrete									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 13' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 13' Yellow - 5'
5								0		
10								0		
15								0		collapsed at depth, attempted to drill to 15.5'. Refusal at 13.5'

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-7

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and Silt mix									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5	Increase in coarse sand and fine gravel		ML					0.1		
			ML							
15	SILT WITH SAND dark yellowish brown (10YR 4/6), moist, ~85% fines, ~15% fine to coarse sand		ML					0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-8

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 6600 **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and silt mix									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

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# Log of Soil Boring: VP-9

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	GRAVEL									
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML					0		Temporary soil vapor probes installed at 5', 15' and 30' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 30' Blue - 15' Yellow - 5'
10								0		
15								0		
	SILTY SAND (SM): dark yellowish brown (10YR 4/6), moist, ~80% sand, ~20% fines		SM							
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML							



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# Log of Soil Boring: VP-9

CLIENT Iron Lofts PROJECT NAME Iron Lofts  
 GSI JOB NUMBER 6239 PROJECT LOCATION Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/ 6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	Continued		ML					0		
25								0		
	POORLY GRADED SAND (SP-SM): dark yellowish brown (10YR 4/6), moist, ~95% fine sand, ~10% fines		SP-SM							
30	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine sand		ML					0		

Total Depth = 30.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

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# Log of Soil Boring: VP-10

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-11

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

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Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5	Crushed gray rock							0		
15								0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-12

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/ Debris **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Mix of gravel and debris (plastic, glass, and other material fragments)									Temporary soil vapor probes installed at 5', 15' and 30' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 30' Blue - 15' Yellow - 5'
	Mix of gravel and silt fill material									
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML					0		
10								0		
15								0		
	SILT WITH SAND (ML): dark yellowish brown (10YR 4/6), moist, ~85% fines, ~5% fine to medium sand		ML							



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# Log of Soil Boring: VP-12

CLIENT Iron Lofts PROJECT NAME Iron Lofts  
 GSI JOB NUMBER 6239 PROJECT LOCATION Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/ 6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	Continue		ML					0		
25								0		
	WELL GRADED SAND WITH SILT (SW-SM): dark yellowish brown (10YR 4/6), moist, ~90% fine to coarse sand, ~10% fines		SW-SM							
30	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine sand		ML					0		

Total Depth = 30.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

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# Log of Soil Boring: VP-13

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/ Debris **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

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Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel mixed with debris (plastic, glass, and wood fragments)									
	SILT (ML): dark brown (10YR 3/3), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
	Dark yellowish brown (10YR 4/6), moist, ~5% fine to medium sand		ML					0		
5										
								0		
								0		
								0		
	SILT WITH SAND dark yellowish brown (10YR 4/6), moist, ~85% fines, ~15% fine to coarse sand		ML							
15										

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-14

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

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Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and mix of broken glass, wood and other debris									
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML					0		Temporary soil vapor probes installed at 5', 15' and 22' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 22' Blue - 15' Yellow - 5'
10								0		
15	WELL GRADED SAND WITH SILT (SW-SM): dark yellowish brown (10YR 4/6), ~90% fine to coarse sand, ~10% fines		SW-SC					0		
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML							



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# Log of Soil Boring: VP-14

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type			PID (ppm)	Water Level	Notes
				Blows/ 6 inches	Recovery	Lab Sample			
							0		
									Refusal at 22.5' after multiple attempts

Total Depth = 22.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

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# Log of Soil Boring: VP-15

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 6600 **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/ Silt/ Debris **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

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Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel, silt, and debris mix (broken glass, concrete, metal, and plastic fragments)									Filled bottom of borehole with hydrated bentonite to 5.5'. Temporary soil vapor probes installed at 5' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack. Probe Depth Color Codes Yellow - 5'  Refusal at ~1.5' at first attempt. Step out 1' to south refusal at 8' at step-out location.
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML					0		
	Total Depth = 8.0 feet.									

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-16

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 6600 **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/Silt **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel, silt, and debris mix (glass, wood, metal, plastic fragments)									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-17

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Asphalt 4" **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Asphalt									
	Gravel, silt, mix debris									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflo tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



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# Log of Soil Boring: VP-18

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Concrete 7" **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Concrete									
	SILT (ML): dark yellowish brown (10YR 4/6), ~95% fines, ~5% medium to fine sands		ML							Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
5								0		
10								0		
15	Trace root matter							0		

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.



GSI Environmental  
 19200 Von Karman Ave. Suite 800  
 Irvine, CA 92612  
 Telephone: 949-679-1070

# Log of Soil Boring: VP-19

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 3 Nov 2022 **COMPLETED** 3 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	GRAVEL, SOME SILT									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML							Temporary soil vapor probes installed at 5', 15' and 30' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 30' Blue - 15' Yellow - 5'
5								0		
10								0		
15								0		



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# Log of Soil Boring: VP-19

CLIENT Iron Lofts PROJECT NAME Iron Lofts  
 GSI JOB NUMBER 6239 PROJECT LOCATION Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/ 6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	~10% fine to medium sand		ML					0		
25									0	
	SILT WITH SAND (ML): dark yellowish brown (10YR 4/6), moist, ~75% fines, ~25% fine sand		ML					0		
30								0		

Total Depth = 30.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ



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# Log of Soil Boring: VP-20

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 4 Nov 2022 **COMPLETED** 4 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 7822DT **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/ Debris **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Mix of gravel, silt, and concrete fragments									
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand		ML					0		Temporary soil vapor probes installed at 5', 15' and 30' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Red - 30' Blue - 15' Yellow - 5'
10							0			
15							0			
	WELL GRADED SAND WITH SILT (SW-SM): dark yellowish brown (10YR 4/6), moist, ~90% fine to coarse sand, ~10% fines		SW-SM							



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# Log of Soil Boring: VP-20

CLIENT Iron Lofts PROJECT NAME Iron Lofts  
 GSI JOB NUMBER 6239 PROJECT LOCATION Riverside, CA

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/ 6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	Continued		ML					0		
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% medium to fine sand		ML							
25								0		
30								0		

Total Depth = 30.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ



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# Log of Soil Boring: VP-21

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 6600 **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/Silt **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel and Silt mix									
5	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to medium sand		ML					0		Temporary soil vapor probes installed at 5' and 15' bgs. Probes constructed using 1/4" nylaflow tubing connected to a 1" porous poly probe tip centered in a 1' thick layer of #3 sand pack, followed by 6" layer of dry bentonite, then hydrated bentonite to the bottom of the next sand interval or ground surface. Probe Depth Color Codes Blue - 15' Yellow - 5'
10							0			
15	SILT WITH SAND (ML): dark yellowish brown (10YR 4/6), moist, ~85% fines, ~15% fine to coarse sand		ML				0			

Total Depth = 15.5 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ



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# Log of Soil Boring: VP-22

**CLIENT** Iron Lofts **PROJECT NAME** Iron Lofts  
**GSI JOB NUMBER** 6239 **PROJECT LOCATION** Riverside, CA  
**DATE STARTED** 7 Nov 2022 **COMPLETED** 7 Nov 2022 **GROUND ELEVATION** NA **DATUM** NA  
**DRILLING CONTRACTOR** J & H Drilling Co., Inc. / MR Drilling **TOP OF CASING ELEVATION** NA **DATUM** NA  
**DRILLING METHOD** Direct Push, Hand Auger **LATITUDE** \_\_\_\_\_ **LONGITUDE** \_\_\_\_\_  
**DRILLING EQUIPMENT** Geoprobe 6600 **LOGGED BY** Konrad K Grochocki **REVIEWED BY** Konrad K Grochocki  
**GROUND SURFACE** Gravel/ Debris **BORING DIAMETER (in)** 3.25/2.25 **APPROVED BY** \_\_\_\_\_

Depth (ft bgs)	Soil Description	Lithology	USCS	Sample Type	Blows/6 inches	Recovery	Lab Sample	PID (ppm)	Water Level	Notes
	GROUND SURFACE									
	Gravel, silt and debris mix (broken glass, plastic, wood, and other debris fragments)									
	SILT (ML): dark yellowish brown (10YR 4/6), moist, ~95% fines, ~5% fine to coarse sand, trace gravel		ML							Refusal at 7', collapsed, drilled down to 5.5' to install SV probe at 5', hole collapsed again. Performed step out ~1.5' north of location. Drilled directly down, refusal at 6'. Hole collapsed while attempting to install SV probe. No probe installation at this location. Probe Depth Color Codes
	No gravel		ML							
5								0		
								0		

Total Depth = 7.0 feet.

Note: Where soil was not recovered, geologic interpretations are based on the lithology above and/or below the no sample interval, as well as observations made in the field.

GSI - SOIL BORING - TRYTHISTEMPLATE.GDT - 12/8/22 22:12 - \\SOCAL-DC\JOBS\6201-6250\6239 IRON LOFTS FORMER RIVERSIDE SCRAP\GINT\6239.GPJ

## APPENDIX C

### Duplicate Soil Vapor Sample Evaluation

**APPENDIX C: DUPLICATE SAMPLE COMPARISON -- SOIL VAPOR**

Primary Sample ID	Sample Date	Units	Compound	Primary Sample Result	Duplicate Sample Result	Relative Percent Difference <sup>1</sup> (RPD)
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Tetrachloroethene (PCE)	<b>180</b>	<b>180</b>	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Trichloroethene (TCE)	<b>290</b>	<b>300</b>	3.4
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Chloroform	<4.9	<4.9	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	cis-1,2-Dichloroethene (cis-1,2-DCE)	<4	<4	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	trans-1,2-Dichloroethene (trans-1,2-DCE)	<8	<8	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Vinyl Chloride (VC)	<2.6	<2.6	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,1-Dichloroethene (1,1-DCE)	<4	<4	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,1-Dichloroethane (1,1-DCA)	<4.1	<4.1	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,2-Dichloroethane (1,2-DCA)	<4.1	<4.1	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Benzene	<3.2	<3.2	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Ethylbenzene	<4.4	<4.4	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Toluene	<b>6.6</b>	<b>6.7</b>	1.5
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Xylene	<8.8	<8.8	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,2,4-Trimethylbenzene	<5	<5	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Ethylbenzene	<4.4	<4.4	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,1,1-Trichloroethane	<5.5	<5.5	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	1,1,2-Trichlorotrifluoroethane (F113)	<b>49</b>	<b>51</b>	4.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	2-Butanone (MEK)	<b>39</b>	<b>74</b>	61.9
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Carbon disulfide	<b>11</b>	<b>12</b>	8.7
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Dichlorodifluoromethane (F12)	<5	<5	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Methylene chloride (Dichloromethane)	<3.5	<3.5	0.0
VP-17-15	11/16/2022	µg/m <sup>3</sup>	Trichlorofluoromethane (F11)	<b>19</b>	<b>19</b>	0.0

**Notes:**

1. The relative percent difference (RPD) was calculated for analytes detected in at least one sample using the equation below. Data is qualified with a "J" if the RPD exceeds 50%.

**Equation**

$RPD = \frac{ x_1 - x_2 }{\bar{x}} \times 100$	<p>x<sub>1</sub> = analyte concentration in primary sample</p> <p>x<sub>2</sub> = analyte concentration in duplicate sample</p> <p><math>\bar{x}</math> = average of x<sub>1</sub> and x<sub>2</sub></p>
--	--

**Abbreviations:**

**bold** values indicate analyte detected at concentration exceeding the method detection limit

shaded values are qualified based duplicate evaluation.

% = percent

µg/m<sup>3</sup> = micrograms per cubic meter

< = analyte not detected above the method detection limit shown

J = Analytical results were reported between the method detection limit and reporting limit the laboratory

## APPENDIX D

### Soil Vapor Purge Volumes

# SOIL GAS PURGING RECORD

Project Name: Iron Works - Riverside  
 Sampler(s): Milk-Harris (H&P)

Project No.: 6239  
 Site Location: 2993 6<sup>th</sup> Street, Riverside, CA

Sampling Point ID	Sample Date	Shut-In Test <sup>1</sup>				Purging							
		Start		End		Calculated One Purge Volume (mL)	# of Volume X3	Purge Rate <sup>2</sup> (mL/min)	Total Volume Purged (mL)	Vacuum <sup>3</sup> (in H <sub>2</sub> O)	Leak Check Compound <sup>4</sup>	Purge Start Time	Purge End Time
		Time	Vacuum	Time	Vacuum								
VP-1-30	11/16/22	0812	-110	0813	-110	578	1778	200	2033	-10	DFA	0813	0822
VP-1-15	11/16	0812	-110	0813	-110	593	1778	200	1778	-20	DFA	0813	0822
VP-1-5	11/16	0834	-110	0835	-110	536	1607	200	1607	-5	DFA	0835	0844
VP-9-30	11/16	0907	-110	0908	-110	578	1778	200	2033	-10	DFA	0908	0917
VP-9-15	11/16	0907	-110	0908	-110	593	1778	200	1778	-15	DFA	0908	0917
VP-9-5	11/16	0924	-110	0925	-110	536	1607	200	1607	-20	DFA	0925	0934
VP-2-15	11/16	0953	-110	0954	-110	593	1778	200	1778	-10	DFA	0954	1003
VP-2-5	11/16	0953	-110	0954	-110	536	1607	200	1607	-15	DFA	0954	1002
VP-3-15	11/16	1038	-110	1039	-110	593	1778	200	1778	-10	DFA	1039	1048
VP-3-5	11/16	1038	-110	1039	-110	536	1607	200	1607	-10	DFA	1039	1047
VP-11-15	11/16	1111	-110	1112	-110	593	1778	200	1778	-15	DFA	1112	1121
VP-11-5	11/16	1111	-110	1112	-110	536	1607	200	1607	-5	DFA	1112	1120
VP-10-15	11/16	1145	-110	1146	-110	593	1778	200	1778	-10	DFA	1146	1156
VP-10-5	11/16	1145	-110	1146	-110	536	1607	200	1607	-5	DFA	1146	1155
VP-17-15	11/16	1217	-110	1218	-110	593	1778	200	1778	-25	DFA	1218	1226
VP-17-5	11/16	1217	-110	1218	-110	536	1607	200	1607	-10	DFA	1218	1226
VP-17-15A	11/16	1230	-110	1231	-110	593	1778	200	1778	-25	DFA	1231	1236
AA	11/16	1230	-	1231	-	-	-	-	-	-	-	-	-

### SOIL GAS PURGING RECORD

Project Name:  
Sampler(s):

Iron Lofts - Riverside  
MIKE HOFFERD (L-9)

Project No.:  
Site Location:

6239  
2436th Street, Riverside, CA

Sampling Point ID	Sample Date	Shut-in Test <sup>1</sup>				Purging							
		Start		End		Calculated One Purge Volume (mL)	# of Volume	Purge Rate <sup>2</sup> (mL/min)	Total Volume Purged (mL)	Vacuum <sup>3</sup> (In H <sub>2</sub> O)	Leak Check Compound <sup>4</sup>	Purge Start Time	Purge End Time
		Time	Vacuum	Time	Vacuum								
VP-18-25	11/16	1248	-110	1249	-110	593	1778	200	1778	-10	DFA	1249	1258
VP-18-5	11/16	1248	-110	1249	-110	536	1607	200	1607	-5	DFA	1249	1257
VP-19-30	11/17	0723	-110	0724	-110	678	2033	200	2033	-10	DFA	0724	0735
VP-19-15	11/17	0723	-110	0724	-110	593	1778	200	1778	0	DFA	0724	0733
VP-19-5	11/17	0740	-110	0741	-110	536	1607	200	1607	-5	DFA	0741	0749
VP-20-30	11/17	0812	-110	0813	-110	678	2033	200	2033	-15	DFA	0813	0824
VP-20-15	11/17	0812	-110	0813	-110	593	1778	200	1778	-5	DFA	0813	0823
VP-20-5	11/17	0833	-110	0834	-110	536	1607	200	1607	-10	DFA	0834	0842
VP-20-30 Rep	11/17	0827	-110	0828	-110	678	2033	200	2433	-15	DFA	-	-
VP-12-30	11/17	904	-110	905	-110	<del>593</del>	2033	200	<del>1778</del>	-15	DFA	905	916
VP-12-15	11/17	904	-110	905	-110	593	1778	200	1778	-10	DFA	905	914
VP-12-5	11/17	922	-110	923	-110	536	1607	200	1607	-5	DFA	923	931
VP-13-15	11/17	943	-110	944	-110	593	1778	200	1778	-10	DFA	944	953
VP-13-5	11/17	943	-110	944	-110	536	1607	200	1607	-10	DFA	944	952
VP-21-15	11/17	1009	-110	1010	-110	593	1778	200	1778	-10	DFA	1010	1020
VP-21-5	11/17	1009	-110	1010	-110	536	1607	200	1607	-90	DFA	1010	1023

0733  
0733  
0734

using 450mL  
summers  
pen. for  
SV sample

increase in  
vacuum, &  
below point

### SOIL GAS PURGING RECORD

Project Name:

Iron Loft - Riverside

Sampler(s):

Mike Henke (CH&P)

Project No.:

6239

Site Location:

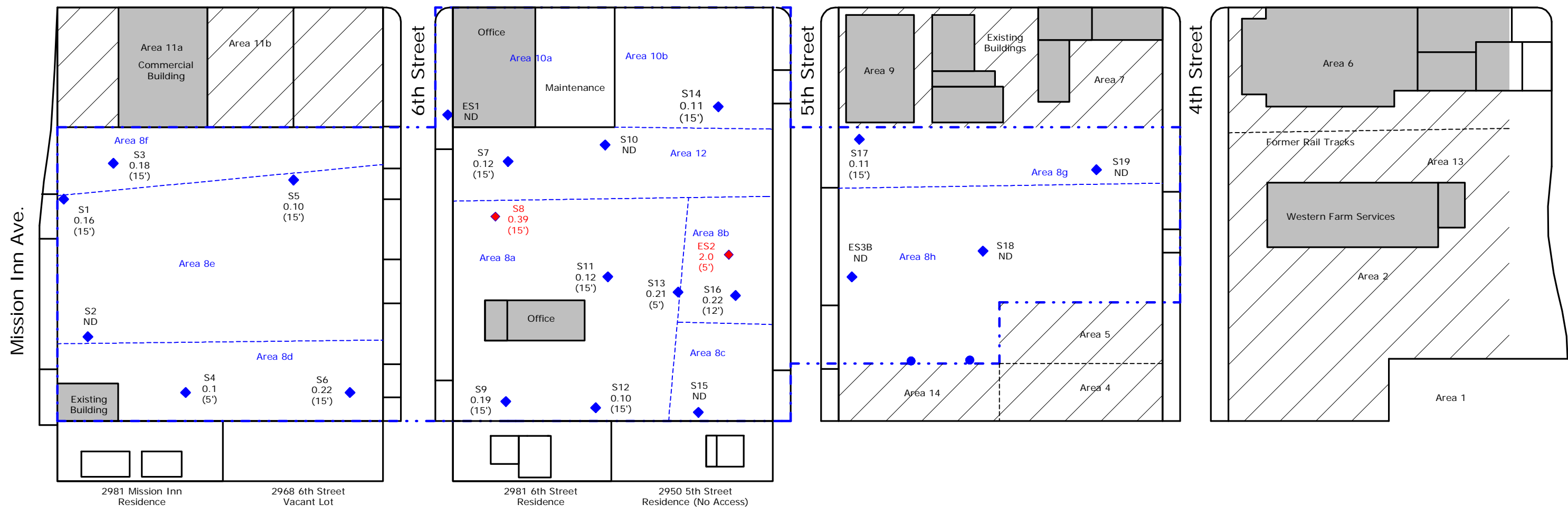
2503 6<sup>th</sup> Street, Riverside, CA

Sampling Point ID	Sample Date	Shut-In Test <sup>1</sup>				Calculated One Purge Volume (mL)	# of Volume	Purge Rate <sup>2</sup> (mL/min)	Total Volume Purged (mL)	Vacuum <sup>3</sup> (in H <sub>2</sub> O)	Leak Check Compound <sup>4</sup>	Purge Start Time	Purge End Time
		Start		End									
		Time	Vacuum	Time	Vacuum								
VP-14-22	11/17	1046	-110	1047	-110	633	1899	200	1899	-5	DFA	1047	1058
VP-14-15	11/17	1046	-110	1047	-110	593	1778	200	1778	-10	DFA	1047	1057
VP-14-5	11/17	1105	-110	1106	-110	536	1607	200	1607	-5	DFA	1106	1115
VP-13-15	11/17	1129	-110	1130	-110	593	1778	200	1778	-10	DFA	1130	1139
VP-4-5	11/17	1129	-110	1130	-110	536	1607	200	1607	-5	DFA	1130	1138
VP-5-15	11/17	1155	-110	1156	-110	593	1778	200	1778	-10	DFA	1156	1206
VP-5-5	11/17	1155	-110	1156	-110	536	1607	200	1607	-60	DFA	1156	1205
VP-7-15	11/17	1218	-110	1219	-110	593	1778	200	1778	-10	DFA	1219	1228
VP-7-5	11/17	1218	-110	1219	-110	536	1607	200	1607	-5	DFA	1219	1227
VP-6-13	11/17	1239	-110	1240	-110	582	1745	200	1745	-10	DFA	1240	1250
VP-6-5	11/17	1239	-110	1240	-110	536	1607	200	1607	-15	DFA	1240	1249
VP-16-15	11/17	1304	-110	1305	-110	593	1778	200	1778	-10	DFA	1305	1314
VP-16-5	11/17	1304	-110	1305	-110	536	1607	200	1607	-10	DFA	1305	1313
VP-8-15	11/17	1331	-110	1332	-110	593	1778	200	1778	-45	DFA	1332	1341
VP-8-5	11/17	1331	-110	1332	-110	536	1607	200	1607	-5	DFA	1332	1340
VP-15-5	11/17	1351	-110	1352	-110	536	1607	200	1607	-25	DFA	1352	1400

## APPENDIX E

### Historical Soil Vapor Data

Commerce Street

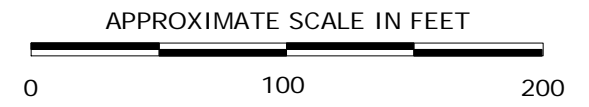


LEGEND

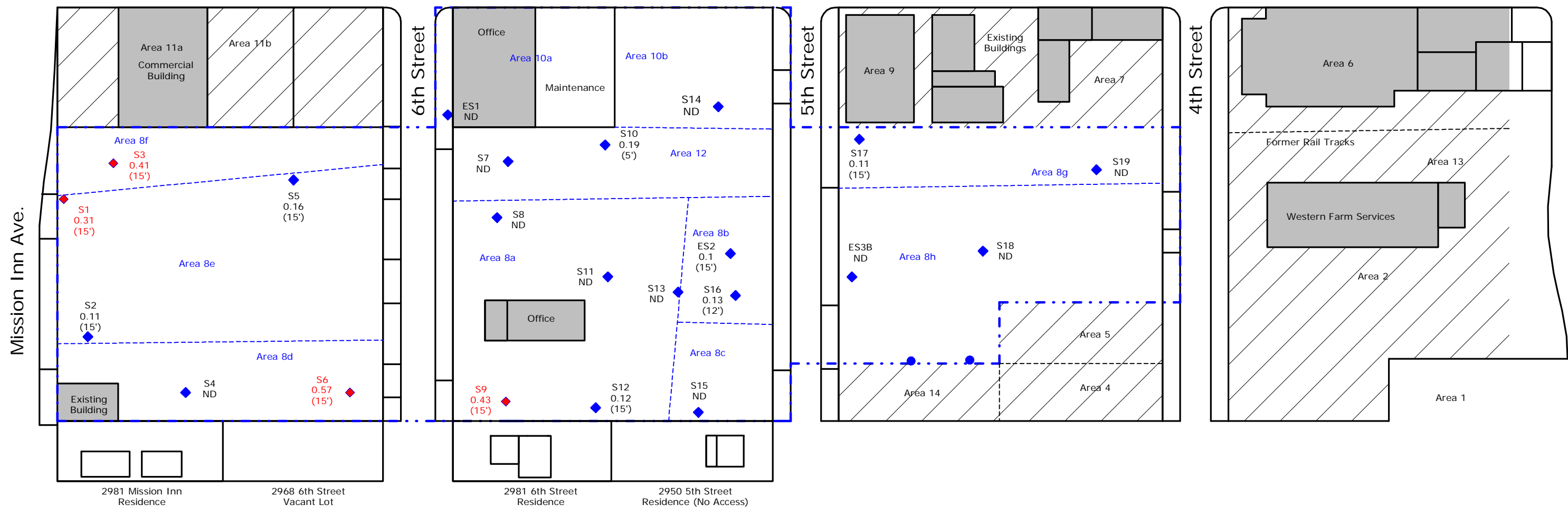
◆ Soil Gas Sampling Locations (Amec 2015)

FIGURE 9A  
 DISTRIBUTION OF PCE IN SOIL GAS  
 RIVERSIDE SCRAP IRON & METAL  
 Riverside, California

Maximum PCE Concentrations Shown in ug/L.  
 Concentrations >0.24 ug/L Shown in RED.



Commerce Street

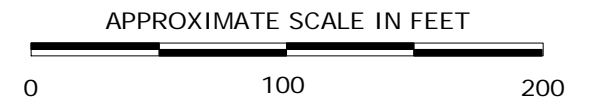


LEGEND

◆ Soil Gas Sampling Locations (Amec 2015)

**FIGURE 9B**  
**DISTRIBUTION OF TCE IN SOIL GAS**  
**RIVERSIDE SCRAP IRON & METAL**  
**Riverside, California**

Maximum TCE Concentrations Shown in ug/L.  
 Concentrations >0.24 ug/L Shown in **RED**.



**TABLE 7**

**SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) AND GASOLINE RANGE ORGANICS (GRO) IN SOIL GAS**  
 Riverside Scrap Iron & Metal Site  
 Riverside, California

Results reported in micrograms per liter (µg/L)

Soil Gas Probe Designation	Depth (feet bgs)	Purge Volume (µg/L)	Date	Chloro-methane	Freon 12	Freon 11	TCE	PCE	IPA	Gasoline Range Organics
<b>Industrial RSLs or DTSC-modified Screening Level</b>				390	440	3,100	3	2.1	880	NA
<b>Ambient Air</b>	---	---	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
	---	---	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S1</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S1</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.31</b>	<b>0.16</b>	ND<1.0	ND<10
<b>S2</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S2</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.11</b>	ND<0.10	ND<1.0	ND<10
<b>S3</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S3</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.37</b>	<b>0.17</b>	ND<1.0	ND<10
<b>S3</b>	15 Dup	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.41</b>	<b>0.18</b>	ND<1.0	ND<10
<b>S4</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	<b>0.10</b>	ND<1.0	ND<10
<b>S4</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S5</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S5</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.16</b>	<b>0.10</b>	ND<1.0	ND<10
<b>S6</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.14</b>	<b>0.14</b>	ND<1.0	ND<10
<b>S6</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.57</b>	<b>0.22</b>	ND<1.0	ND<10
<b>S7</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S7</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S8</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>0.12</b>	ND<0.10	ND<0.10	ND<1.0	ND<200
<b>S8</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>0.18</b>	ND<0.10	<b>0.39</b>	ND<1.0	ND<10
<b>S9</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S9</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.43</b>	<b>0.19</b>	ND<1.0	ND<10
<b>S10</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.21</b>	<b>0.19</b>	ND<0.10	ND<1.0	ND<10
<b>S10</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S11</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.9</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S11</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>2.6</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S11</b>	15 Dup	3	10/1/2015	ND<0.10	ND<0.10	<b>2.6</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S12</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.1</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S12</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>1.5</b>	<b>0.12</b>	<b>0.10</b>	ND<1.0	ND<10
<b>S13 (see notes)</b>	5	3	10/1/2015	<b>0.49</b>	<b>0.28</b>	<b>15</b>	ND<0.10	<b>0.21</b>	ND<1.0	ND<10
<b>S13 (See notes)</b>	15	3	10/1/2015	ND<0.10	<b>0.34</b>	<b>12</b>	ND<0.10	<b>0.18</b>	ND<1.0	ND<10
<b>S14</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.16</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S14</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.11</b>	ND<0.10	<b>0.11</b>	ND<1.0	ND<10
<b>S15</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.4</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S15</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>1.0</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S16A</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>3.5</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S16A</b>	12	3	10/2/2015	ND<0.10	ND<0.10	<b>3.0</b>	<b>0.13</b>	<b>0.22</b>	ND<1.0	ND<10
<b>S17</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S17</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.11</b>	<b>0.11</b>	ND<1.0	ND<10

**TABLE 7**

**SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) AND GASOLINE RANGE ORGANICS (GRO) IN SOIL GAS**  
 Riverside Scrap Iron & Metal Site  
 Riverside, California

Results reported in micrograms per liter (µg/L)

Soil Gas Probe Designation	Depth (feet bgs)	Purge Volume (µg/L)	Date	Chloro-methane	Freon 12	Freon 11	TCE	PCE	IPA	Gasoline Range Organics
<b>S18</b>	5	3	10/2/2015	ND<0.10UJ	ND<0.10UJ	<b>0.62J</b>	ND<0.10UJ	ND<0.10UJ	<b>3.3J</b>	ND<10
<b>S18</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.50</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S18</b>	15 Dup	3	10/2/2015	ND<0.10	ND<0.10	<b>0.46</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S19</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S19</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES1</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES1</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES2</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.78</b>	ND<0.10	<b>2.0</b>	ND<1.0	ND<10
<b>ES2</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.69</b>	<b>0.10</b>	<b>1.1</b>	ND<1.0	ND<10
<b>ES3B</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES3B</b>	5 Dup	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES3B</b>	11.25	3	10/2/2015	ND<0.10	ND<0.10	<b>0.19</b>	ND<0.10	ND<0.10	ND<1.0	ND<10

Notes and Data Qualifiers

Volatile Organic Compounds (VOCs) and Gasoline Range Organics (GRO) were analyzed using United States Environmental Protection Agency (EPA) Method 8260M. All remaining VOCs were not detected. For a complete list of EPA 8260M analytes, see laboratory reports.

The Regional Screening Levels (RSLs) are from the EPA Region 9, revised June 2015, <http://www.epa.gov/region9/superfund/prg/>. RSLs were adjusted for a default (DTSC, 2011) attenuation factor for existing commercial buildings by multiplying the air RSLs by 1000 (representing a soil vapor-to-indoor air attenuation factor of 0.001). Therefore, the soil vapor screening levels presented are protective of existing buildings. The DTSC-modified screening level (DTSC, 2015) was used for PCE (italicized) because it was more conservative than the USEPA RSL.

S13 at 5 bgs and S13 at 15 feet bgs -Freon 11 concentrations from soil vapor samples exceeded the laboratory instrument calibration range. The samples were re-run at a higher dilution rate to quantify Freon 11 concentrations.

J - The analyte was positively identified. However, the leak detection compound IPA was detected in the sample at a concentration greater than 10 times the reporting limit of target analytes and therefore, the detected value is estimated.

UJ - The analyte was reported as not detected at the laboratory reporting limit. However, the leak detection compound IPA was detected in the sample at concentration greater than 10 times the reporting limit of the target analytes and therefore, the reporting limit is estimated.

Abbreviations

bgs = Below ground surface	IPA = Isopropanol
ND = Not detected at the reporting limit shown	NA = Not available
DUP = Duplicate sample	PCE = Tetrachloroethene
DTSC = Department of Toxic Substances Control	RSL = Regional Screening Level
Freon 11 = Trichlorofluoromethane	TCE = Trichloroethene
Freon 12 = Dichlorodifluoromethane	µg/L = Micrograms per liter

References

DTSC, 2015, Human Health Risk Assessment (HHRA) Note #3, DTSC-modified Screening Levels (DTSC-SLs), Human and Ecological Risk Office (HERO), October.  
 DTSC, 2011, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, October.



# ADDENDUM TO THE RESULTS OF SOIL VAPOR INVESTIGATION

## **FORMER RIVERSIDE SCRAP IRON & METAL PROPERTY**

2993 6<sup>th</sup> Street

Riverside, California 92507

*Department of Toxic Substances Control Docket No HAS-FY21/22-032*

**Issued:** July 11, 2023

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# ADDENDUM TO THE RESULTS OF SOIL VAPOR INVESTIGATION

**FORMER RIVERSIDE SCRAP IRON & METAL PROPERTY**  
**2993 6th Street**  
**Riverside, California 92507**  
**Department of Toxic Substances Control Docket No HAS-FY21/22-032**

This Addendum to the Results of Soil Vapor Investigation was prepared by the staff of GSI Environmental Inc., under the supervision of the Engineer(s) and/or Geologist(s) whose signatures appear hereon.

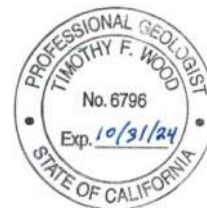
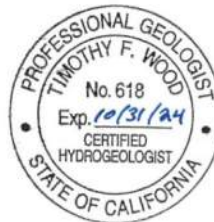
The findings, recommendations, specifications, or professional opinions were prepared in accordance with generally accepted professional engineering and/or geologic practice. No warranty is expressed or implied.

**Issued:** July 11, 2023



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**ADDENDUM TO THE RESULTS OF SOIL VAPOR INVESTIGATION**  
**Former Riverside Scrap Iron & Metal Property**  
2993 6th Street  
Riverside, California 92507

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Figure 1. Site Location Map  
Figure 2. Site Map with Sample Locations  
Figure 3. PCE and TCE Concentrations in Soil Vapor ( $\mu\text{g}/\text{m}^3$ )

**APPENDICES**

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Appendix A. 2015 Soil Vapor Data Table and Figure (AMEC, 2015)  
Appendix B. Analytical Laboratory Reports – Soil Vapor

## **ADDENDUM TO THE RESULTS OF SOIL VAPOR INVESTIGATION**

### **Former Riverside Scrap Iron & Metal Property**

2993 6th Street  
Riverside, California 92507

### **1.0 INTRODUCTION**

On behalf of Iron Lofts LLC (Iron Lofts), GSI Environmental Inc. (GSI) has prepared this Addendum to the Results of Soil Vapor Investigation (GSI, 2023; SVI Report Addendum) for the former Riverside Scrap Iron & Metal (RSIM) property located at 2993 6<sup>th</sup> Street in Riverside, California (the Site; Figures 1 and 2). This report presents the results of soil vapor sampling conducted at the Site in May 2023, and is an addendum to GSI's Soil Vapor Investigation Report (SVI Report) dated January 17, 2023, which reported the results of soil vapor sampling completed in November 2022. This SVI Report Addendum summarizes the results of a third soil vapor sampling event to further evaluate the presence of tetrachloroethene (PCE) and trichloroethene (TCE) in soil vapor.

Soil vapor sampling events conducted at the Site to date include the following:

- Soil vapor sampling event No. 1 – October 2015 (temporary probe locations)
- Soil vapor sampling event No. 2 – November 2022 (semi-permanent probe locations)
- Soil vapor sampling event No. 3 – May 2023 (subset of semi-permanent probes from soil vapor sampling event No. 2)

Semi-permanent soil vapor sample probes installed across the Site in November 2022 included locations in the vicinity of the 2015 temporary soil vapor probes that targeted potential on-Site source locations. For the May 2023 sampling event, soil vapor probes were selected for resampling based on concentrations of PCE and TCE detected in 2015 and 2022 that were higher relative to other areas of the Site. The results of the May 2023 sampling event are used to evaluate the temporal variability of PCE and TCE in soil vapor at the Site.

Additional discussion regarding the evaluation of risk to future development due to detected concentrations of VOCs in soil vapor at the Site is included in the Response Plan (GSI, 2023).

### **2.0 BACKGROUND**

Soil vapor sampling was completed at locations throughout the Site in October 2015 and November 2022 (AMEC, 2015; GSI, 2023a). Specifically, in October 2015, 44 primary soil vapor samples (and 4 duplicate soil vapor samples) were collected from 22 locations installed at depths ranging between 5 and 15 feet below grade. PCE and TCE were the primary volatile organic compounds (VOCs) detected in soil vapor samples. PCE was detected in 18 soil vapor samples, but at relatively low concentrations (up to 2,000  $\mu\text{g}/\text{m}^3$ , and less than 400  $\mu\text{g}/\text{m}^3$  in all but two samples). TCE was detected less frequently (12 samples) at generally similar concentrations (up to 570  $\mu\text{g}/\text{m}^3$ ). In general, concentrations increased with depth and no on-Site source was identified (AMEC, 2015).

In November 2022, 47 primary soil vapor samples (and 2 duplicate soil vapor samples) were collected from 21 locations installed at depths ranging between 5 and 30 feet bgs. PCE and TCE were the primary VOCs detected in soil vapor samples. PCE was detected in every soil vapor sample, but at relatively low concentrations (up to 840  $\mu\text{g}/\text{m}^3$ ). TCE was detected less frequently (43 of 49 total samples), but at slightly higher concentrations (up to 1,700  $\mu\text{g}/\text{m}^3$ ).

In general, PCE and TCE concentrations increased with depth at all soil vapor sample locations (i.e., higher concentrations were detected in deeper soil vapor samples) with the exception of two locations (VP-4 and VP-5). The highest PCE and TCE concentrations in soil vapor were observed

from soil vapor samples collected at 30 feet bgs at the southwestern and northeastern property boundary of the southern parcel and southeastern property boundary of the central parcel.

A source of PCE or TCE to soil vapor was not identified on the Site and the low concentrations of PCE and TCE detected in soil vapor samples and increasing concentrations with depth were not considered indicative of an on-Site release. As previously noted in GSI's January 2023 Soil Vapor Investigation Report, it is possible that the low concentrations are attributed to minor releases associated with historical on-Site operations and/or an off-Site release that is migrating in deeper soil vapor or groundwater to the Site.

Based on the results of the November 2022 soil vapor investigation and discussion with DTSC, the additional soil vapor sampling performed in May 2023 and described herein was collected to further evaluate concentrations of VOCs in soil vapor to support project planning for the proposed Site multi-family residential redevelopment.

### 3.0 SCOPE OF WORK

During the November 2022 soil vapor sampling event, multi-depth soil vapor probes were installed at 21 locations and 47 soil vapor samples were collected from the following depths:

- 5 feet: VP-1 through VP-21 (21 locations)
- 13 to 15 feet: VP-1 through VP-14 and VP-16 through VP-21 (20 locations)
- 22 to 30 feet: VP-1, VP-9, VP-12, VP-14, VP-19, and VP-20 (6 locations)

During the May 2023 soil vapor sampling event, a subset of 8 of the 21 previously sampled multi-depth soil vapor probe locations were resampled and analyzed for VOCs. Soil vapor probe installation and sampling was performed in accordance with the Cal-EPA July 2015 *Advisory for Active Soil Gas Investigations* (Advisory).

The results of analysis for November 2022 and May 2023 soil vapor samples are included in Table 1 and on Figure 3. The results of analysis for October 2015 soil vapor samples are included in Appendix A (AMEC, 2015).

### 3.1 Pre-field Activities

Prior to the May 2023 sampling activities, the Site-Specific Health and Safety Plan (HASP) was reviewed in accordance with the requirements of the State of California General Industry Safety Order 5192 and Title 29 of the Code of Federal Regulations, Section 1910.120. The HASP was kept on-Site during field activities.

### 3.2 Soil Vapor Sampling and Analysis

Prior to the commencement of sampling, shut-in tests were conducted on the soil vapor probes. The probe heads were attached to the sampling train assembly of tubing, valves, and fittings and connected to a purge pump. A minimum vacuum of 100 inches of water column (W.C.) was applied to the sealed sampling train and monitored for at least 1 minute. After a successful shut-in test was completed, the soil vapor probe and sampling train was purged. A total of 3 purge volumes were removed from soil vapor probes prior to sampling. Each soil vapor probe was purged at a rate of 200 milliliters per minute (mL/min) and at a vacuum less than of 100 inches W.C. One purge volume is equal to the internal sample tubing volume and volume of stagnant air within the sand pack and dry bentonite layers (assuming 40 percent porosity). During purging and sampling, 1,1-difluoroethane (DFA) was applied as a leak-check tracer gas to check for ambient air leaks near the above-ground probe tubing and sampling train.

Following the completion of purging, soil vapor samples were collected into Summa canisters through flow controllers at a rate of approximately 200 mL/min. Duplicate soil vapor samples were collected at a frequency of one per day.

Soil vapor samples were analyzed for VOCs using United States Environmental Protection Agency (USEPA) Method TO-15.

## 4.0 SOIL VAPOR SAMPLE RESULTS

This section presents the results of soil vapor sampling and analysis, including a presentation of the analytical results, and a comparison of analytical results to risk-based screening criteria. Analytical results for soil vapor samples are presented in Table 1. The analytical laboratory reports for soil vapor samples are presented in Appendix B.

### 4.1 Data Quality Summary

Analytical results for soil vapor sampling were reviewed to determine the data usability. Each laboratory data package was reviewed consistent with guidance provided by the USEPA. A sample evaluation was completed for primary and duplicate soil vapor samples and did not identify any issues. The following quality assurance/quality control (QA/QC) criteria from the analysis of the project samples were reviewed as applicable: sample preservation and holding time compliance, reporting limits and sample dilution, blank sample analysis, surrogate recovery compliance, laboratory control samples, field duplicate samples and use of laboratory data qualifiers. No data qualifiers were applied based on the results of the data validation review.

Field quality control measures included leak testing with DFA and the collection of a split-t duplicate pair of soil vapor samples. The leak test compound DFA was evaluated by comparison to an action level of 10,000  $\mu\text{g}/\text{m}^3$ , which is equivalent to 3.7 parts per million by volume (ppmv). DFA was not detected in any soil vapor samples in this sampling round.

### 4.2 Soil Vapor Results

Soil vapor samples were collected at eight locations from soil vapor probes with inlets installed at depths between 5 and 30 feet bgs in May 2023 (Figure 2).

#### **Initial Soil Vapor Data Screening**

Analytical results for soil vapor samples are evaluated by comparison to risk-based screening levels for residential and commercial/industrial Site use. Screening levels (SLs) for soil vapor are developed by applying an attenuation factor to screening levels for indoor air:

$$\text{Soil Vapor Screening Level (SL}_{sv}) = \frac{\text{SL}_{ia}}{\text{AF}}$$

Where:

SL <sub>sv</sub>	=	Soil vapor screening level ( $\mu\text{g}/\text{m}^3$ )
SL <sub>ia</sub>	=	Indoor air screening level ( $\mu\text{g}/\text{m}^3$ )
AF	=	Attenuation factor (unitless)

Soil vapor SLs were calculated using the default attenuation factor published by DTSC for residential and commercial use (0.03; DTSC & State Water Resources Control Board [SWRCB], 2023); these soil vapor SLs are referred to in this report as the “DTSC SLs.” Soil vapor data are evaluated by comparison to the DTSC SLs for an initial screening of soil vapor data.

As shown in Table 1, PCE, TCE, 1,2-dichloroethene (1,2-DCA), and chloroform were the only VOCs detected in at least one soil vapor sample at a concentration exceeding its DTSC AF SL, and the results for these VOCs are summarized below:

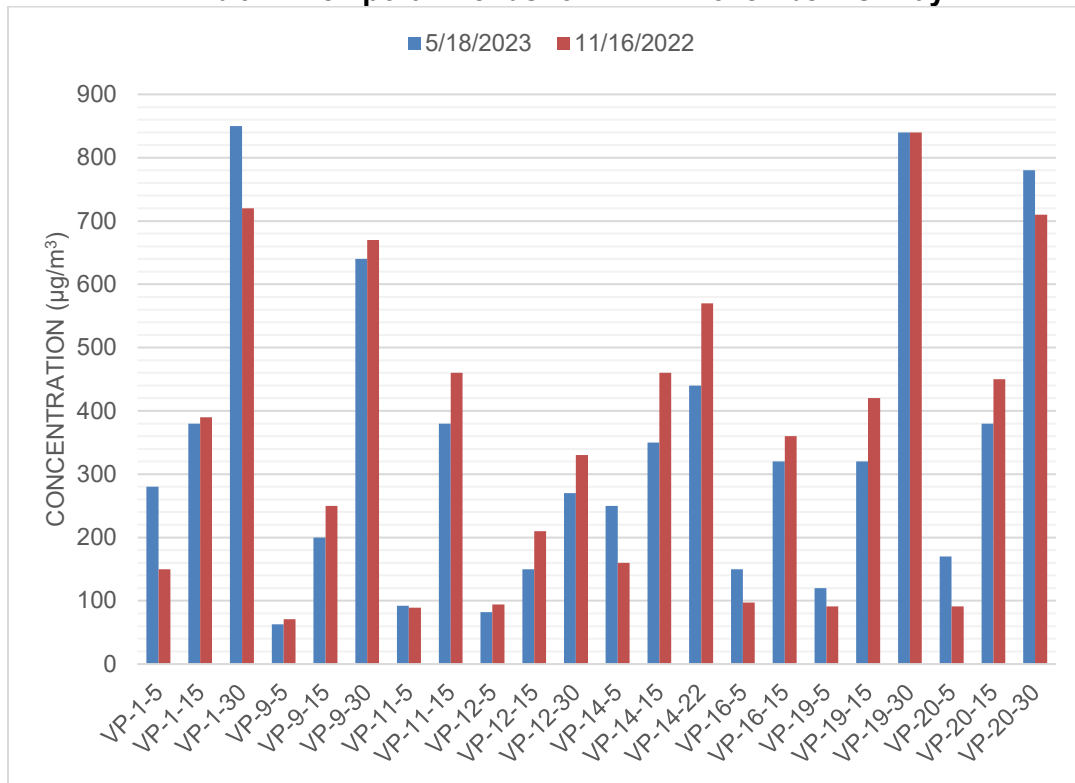
- PCE was detected in all soil vapor samples collected at concentrations ranging from 63 to 850  $\mu\text{g}/\text{m}^3$ . The highest PCE concentrations in soil vapor were observed in the soil vapor samples collected at 30 feet bgs at the southwestern and northeastern property boundary of the southern parcel (850  $\mu\text{g}/\text{m}^3$  at VP-1-30 REP, 810  $\mu\text{g}/\text{m}^3$  at VP-1-30, 640  $\mu\text{g}/\text{m}^3$  at VP-9-30, and 840  $\mu\text{g}/\text{m}^3$  at VP-19-30) and southeastern property boundary of the central parcel (780  $\mu\text{g}/\text{m}^3$  at VP-20-30). All soil vapor samples exceed the DTSC AF SL of 15  $\mu\text{g}/\text{m}^3$ .
- TCE was detected in 22 of 23 total soil vapor samples at concentrations ranging from 6 to 2,100  $\mu\text{g}/\text{m}^3$ . The highest TCE concentrations in soil vapor were also observed in the soil vapor samples with the highest PCE concentrations. Specifically, TCE was detected at the highest concentrations in the soil vapor samples collected at 30 feet bgs at the southwestern and northeastern property boundary of the southern parcel (2,000  $\mu\text{g}/\text{m}^3$  at VP-1-30 REP and 1,900  $\mu\text{g}/\text{m}^3$  at VP-1-30, 1,600  $\mu\text{g}/\text{m}^3$  at VP-9-30, and 1,700  $\mu\text{g}/\text{m}^3$  at VP-19-30) and southeastern property boundary of the central parcel (2,100  $\mu\text{g}/\text{m}^3$  at VP-20-30). All soil vapor samples with detections of TCE except for one (6  $\mu\text{g}/\text{m}^3$  at VP-9-5) exceed the DTSC AF SL of 16  $\mu\text{g}/\text{m}^3$ .
- 1,2-DCA was detected in one soil vapor samples at a concentrations of 17  $\mu\text{g}/\text{m}^3$ , which exceeds the DTSC AF SL of 3.7  $\mu\text{g}/\text{m}^3$
- Chloroform was detected in four soil vapor samples at concentrations ranging from 19 to 24  $\mu\text{g}/\text{m}^3$ , all of which exceed the DTSC AF SL of 4.0  $\mu\text{g}/\text{m}^3$ .

### ***Temporal and Spatial Variability***

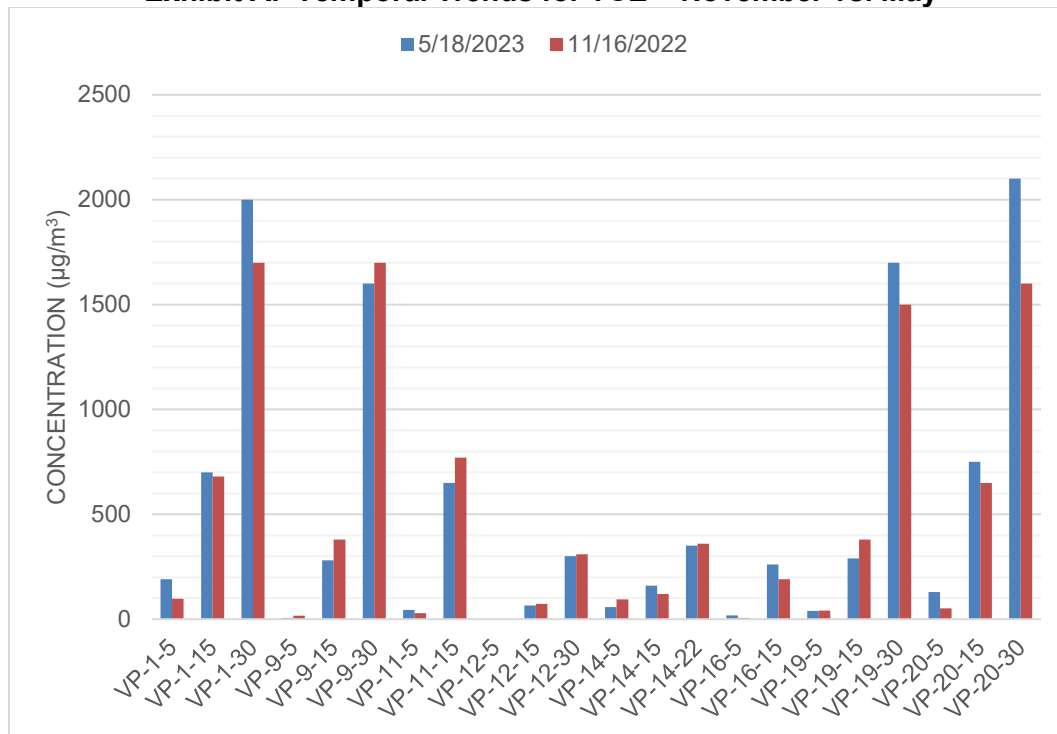
Semi-permanent soil vapor sample probes were installed and sampled across the Site in November 2022 and included locations near the 2015 temporary soil vapor probes that targeted potential on-Site source areas. For the May 2023 sampling event, soil vapor probes were selected for resampling based on concentrations of PCE and TCE in 2015 and 2022 that were higher relative to other areas of the Site, and included 2022 sampling locations with triple-nested soil vapor probes. The results of the May 2023 sampling event are used to evaluate the temporal variability of PCE and TCE in soil vapor at the Site.

Results identified in Exhibit A and B, below, and in Table 1, do not indicate any significant temporal variation in PCE or TCE concentrations between the November 2022 and May 2023.

**Exhibit A. Temporal Trends for PCE – November vs. May**



**Exhibit A. Temporal Trends for TCE – November vs. May**



Consistent with the November 2022 soil vapor sampling event, the highest PCE and TCE concentrations in soil vapor were observed from soil vapor samples collected at 30 feet bgs at the southwestern and northeastern property boundary of the southern parcel and southeastern property boundary of the central parcel. Concentrations increased with depth at all soil vapor sample locations (i.e., higher concentrations were detected in deeper soil vapor samples) with the exception of two locations (VP-4 and VP-5; Exhibit C). In October 2015, soil vapor samples were collected at 5 and 15 feet only, and also in general had higher reported soil vapor concentrations in the deeper samples.

**Exhibit C. 2022 and 2023 Maximum Concentrations of PCE and TCE by Depth ( $\mu\text{g}/\text{m}^3$ )**

	PCE	TCE
<i>Maximum Detected Concentration (All depth)</i>	850	2100
Soil Vapor Samples collected at 5 feet bgs	280	190
Soil Vapor Samples collected at 13 to 15 feet bgs	460	770
Soil Vapor Samples collected at 22 to 30 feet bgs	850	2100

## 5.0 SUMMARY AND CONCLUSIONS

Soil vapor sampling was completed throughout the Site in October 2015 (22 locations) and November 2022 (21 locations), and sampling was repeated in May 2023 at eight of the 2022 sampling locations, which are distributed across the Site and include dual- and triple-nested soil vapor probe locations.

During the first soil vapor sampling event in October 2015, 44 primary soil vapor samples were collected from 22 locations installed at depths ranging between 5 and 15 feet. During the second soil vapor sampling event in November 2022, 47 primary soil vapor samples were collected from 21 locations installed at depths ranging between 5 and 30 feet. During the third sampling event in May 2023, 23 primary soil vapor samples were collected from 8 of the locations previously identified with higher concentrations of PCE and/or TCE relative to the other probes at the Site.

The key findings of the May 2023 soil vapor sampling event are summarized below:

- PCE and TCE were the primary VOCs detected in soil vapor samples. PCE was detected in every soil vapor sample with concentrations (up to  $850 \mu\text{g}/\text{m}^3$ ) above the residential DTSC AF SL. TCE was detected in all but one sample (22 of 23 total samples), but at slightly higher concentrations (up to  $2,100 \mu\text{g}/\text{m}^3$ ).
- PCE and TCE concentrations at the resampled locations in the May 2023 sampling event all increase with depth, as seen in the November 2022 and October 2015 sampling events, and are consistent with the November 2022 and October 2015 sample results.
- PCE and TCE concentrations in soil vapor are consistent with an off-Site source.
  - A source of PCE or TCE to soil vapor was not identified on the Site.
  - Concentrations increase with depth at all resampled soil vapor sample locations (i.e., higher concentrations were detected in deeper soil vapor samples).
  - The highest PCE and TCE concentrations in soil vapor were observed from soil vapor samples collected at 30 feet bgs at the southwestern and northeastern property boundary of the southern parcel and southeastern property boundary of the central parcel.

Analysis of three rounds of soil vapor investigation does not identify a source of PCE and TCE at the Site. Additionally, no evidence of significant temporal variability in concentrations of PCE or TCE is identified in the samples analyzed from 2015 to 2023. Low concentrations of PCE and TCE detected in soil vapor samples and increasing concentrations with depth are not indicative of an on-Site release. It is possible that the low concentrations are attributed to minor releases associated with historical on-Site operations and/or an off-Site release that is migrating in deeper soil vapor or groundwater to the Site.

Based on the consistent and relatively low concentrations of VOCs in Site soil vapor over the approximately 8-year soil vapor sampling period, and the increasing concentrations with depth, no further action is recommended to support planned residential redevelopment. Additional discussion regarding the evaluation of risk to future development due to detected concentrations of VOCs in soil vapor at the Site is included in the Response Plan (GSI, 2023).

## 6.0 REFERENCES

- AMEC Foster Wheeler (AMEC), 2015, Additional Phase II Environmental Site Assessment Report, Riverside Scrap Iron & Metal Site, Riverside, California, December 9.
- California Environmental Protection Agency, 2015, Advisory – Active Soil Gas Investigations, July
- Department of Toxic Substances Control (DTSC), 2011. Guidance for the evaluation and mitigation of subsurface vapor intrusion to indoor air (vapor intrusion guidance). California Environmental Protection Agency. October.
- DTSC, 2022, DTSC Vapor Intrusion Advisory, <https://dtsc.ca.gov/wp-content/uploads/sites/31/2022/08/Vapor-Intrusion-Update-August-2022-006.pdf>, August.
- Department of Toxic Substances Control (DTSC), 2022. Human Health Risk Assessment (HHRA) Note 3, HHRA Note 3, DTSC-modified Screening Levels (DTSC-SLs). California Environmental Protection Agency. May.
- GSI, 2023, Soil Vapor Investigation Report, Former Riverside Scrap Iron & Metal Property, 2993 6th Street, Riverside, California 92507, January 17.
- United States Environmental Protection Agency (U.S. EPA). 1989. Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A). Interim Final. EPA/540/I-89/002. December.
- United States Environmental Protection Agency (U.S. EPA). 2022. Regional Screening Levels. November.

**TABLE**

Table 1. Analytical Results for Volatile Organic Compounds in Soil Vapor Samples

**TABLE 1: Volatile Organic Compounds (VOCs) in Soil Vapor <sup>1</sup>**  
Former Riverside Scrap Iron & Metal Property  
Riverside, California

Sample Location	Sample ID	Probe Depth (feet bgs)	Date Sampled	Units	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Chloroform	1,1-Dichloroethene (1,1-DCE)	1,2-Dichloroethane (1,2-DCA)	Benzene	Ethylbenzene	Toluene	Xylene	1,1,1-Trichloroethane	1,1,2-Trichloro-trifluoroethane (F113)	1,2,4-Trimethylbenzene	2-Butanone (MEK)	Carbon disulfide	Dichloro-difluoromethane (F12)	Methylene chloride (Dichloromethane)	Trichloro-fluoromethane (F11)	1,1-difluoroethane (DFA) (leak check compound)
VP-1	VP-1-5	5	11/16/2022	µg/m <sup>3</sup>	150	97	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	94	<5	<30	<6.3	<5	<3.5	22	<5.5
	VP-1-5	5	5/18/2023	µg/m <sup>3</sup>	280	190	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	170	<5	<30	<6.3	<5	<3.5	38	<5.5
	VP-1-15	15	11/16/2022	µg/m <sup>3</sup>	390	680	12	49	<4.1	25	<4.4	6.3	<8.8	<5.5	290	<5	69	69	<5	<3.5	66	<5.5
	VP-1-15	15	5/18/2023	µg/m <sup>3</sup>	380	700	<4.9	44	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	280	<5	<30	<6.3	5.4	<3.5	62	<5.5
	VP-1-30	30	11/16/2022	µg/m <sup>3</sup>	720	1700	20	120	<4.1	8.7	<4.4	4.4	<8.8	<5.5	370	<5	54	20	8.5	<3.5	85	<5.5
	VP-1-30	30	5/18/2023	µg/m <sup>3</sup>	810	1900	20	120	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	390	<5	<30	<6.3	<5	<3.5	91	<5.5
VP-1-30 REP	30	5/18/2023	µg/m <sup>3</sup>	850	2000	21	120	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	410	<5	<30	<6.3	<5	<3.5	96	<5.5	
VP-2	VP-2-5	5	11/16/2022	µg/m <sup>3</sup>	110	48	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	72	<5	<30	7.5	<5	<3.5	23	<5.5
	VP-2-15	15	11/16/2022	µg/m <sup>3</sup>	450	510	33	17	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	210	<5	<30	7.4	8.2	<3.5	56	<5.5
VP-3	VP-3-5	5	11/16/2022	µg/m <sup>3</sup>	12	28	11	<4	<4.1	6.7	<4.4	14	<8.8	<5.5	8.3	<5	<30	19	<5	9.1	5.9	14
	VP-3-15	15	11/16/2022	µg/m <sup>3</sup>	240	250	23	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	140	<5	<30	<6.3	7.9	<3.5	66	<5.5
VP-4	VP-4-5	5	11/17/2022	µg/m <sup>3</sup>	35	19	<4.9	<4	<4.1	<3.2	<4.4	11	<8.8	<5.5	15	<5	<30	67	<5	<3.5	64	<5.5
	VP-4-15	15	11/17/2022	µg/m <sup>3</sup>	180	13	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	26	<5	<30	<6.3	<5	<3.5	99	<5.5
VP-5	VP-5-5	5	11/17/2022	µg/m <sup>3</sup>	12	180	17	<4	<4.1	6.3	<4.4	23	4.9	<5.5	<7.7	<5	<30	71	<5	26	60	<5.5
	VP-5-15	15	11/17/2022	µg/m <sup>3</sup>	110	11	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	20	<5	<30	<6.3	6.7	<3.5	220	<5.5
VP-6	VP-6-5	5	11/17/2022	µg/m <sup>3</sup>	39	<5.5	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	35	<5	<30	<6.3	7.8	<3.5	91	<5.5
	VP-6-13	13	11/17/2022	µg/m <sup>3</sup>	140	32	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	39	<5	<30	73	7.2	<3.5	100	<5.5
VP-7	VP-7-5	5	11/17/2022	µg/m <sup>3</sup>	47	14	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	<7.7	<5	<30	<6.3	<5	<3.5	53	<5.5
	VP-7-15	15	11/17/2022	µg/m <sup>3</sup>	210	40	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	26	<5	<30	<6.3	6.1	<3.5	180	<5.5
VP-8	VP-8-5	5	11/17/2022	µg/m <sup>3</sup>	30	<5.5	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	<7.7	<5	<30	<6.3	<5	<3.5	14	520
	VP-8-15	15	11/17/2022	µg/m <sup>3</sup>	140	190	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	50	<5	<30	52	6.8	5.3	85	<5.5
VP-9	VP-9-5	5	11/16/2022	µg/m <sup>3</sup>	71	17	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	51	<5	<30	15	<5	<3.5	13	<5.5
	VP-9-5	5	5/18/2023	µg/m <sup>3</sup>	63	6	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	51	<5	<30	91	29	<3.5	14	<5.5
	VP-9-15	15	11/16/2022	µg/m <sup>3</sup>	250	380	6.4	6.5	<4.1	6.2	<4.4	4.7	<8.8	<5.5	230	<5	40	29	6.8	<3.5	53	<5.5
	VP-9-15	15	5/18/2023	µg/m <sup>3</sup>	200	280	<4.9	9.0	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	210	<5	<30	<6.3	<5	<3.5	48	<5.5
	VP-9-30	30	11/16/2022	µg/m <sup>3</sup>	670	1700	20	110	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	370	<5	62	12	8.4	<3.5	86	<5.5
VP-10	VP-9-30	30	5/18/2023	µg/m <sup>3</sup>	640	1600	19	100	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	350	<5	<30	<6.3	<5	<3.5	79	<5.5
	VP-10-5	5	11/16/2022	µg/m <sup>3</sup>	80	70	<4.9	<4	<4.1	3.5	<4.4	<3.8	<8.8	<5.5	37	<5	<30	8	<5	<3.5	23	<5.5
VP-11	VP-10-15	15	11/16/2022	µg/m <sup>3</sup>	270	430	<4.9	17	<4.1	<3.2	<4.4	4.3	<8.8	<5.5	99	<5	<30	13	6.3	<3.5	51	<5.5
	VP-11-5	5	11/16/2022	µg/m <sup>3</sup>	89	29	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	95	<5	<30	<6.3	5.3	<3.5	34	<5.5
VP-12	VP-11-5	5	5/18/2023	µg/m <sup>3</sup>	92	44	<4.9	<4	<4.1	<3.2	<4.4	3.9	<8.8	<5.5	180	<5	<30	<6.3	<5	<3.5	53	<5.5
	VP-11-15	15	11/16/2022	µg/m <sup>3</sup>	460	770	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	240	<5	<30	<6.3	7.9	<3.5	90	<5.5
	VP-11-15	15	5/18/2023	µg/m <sup>3</sup>	380	650	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	220	<5	<30	<6.3	<5	<3.5	78	<5.5
	VP-12-5	5	11/17/2022	µg/m <sup>3</sup>	94	<5.5	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	27	<5	<30	<6.3	<5	<3.5	68	<5.5
VP-13	VP-12-5	5	5/18/2023	µg/m <sup>3</sup>	82	<5.5	<4.9	<4	<4.1	<3.2	<4.4	4.1	<8.8	<5.5	46	<5	<30	<6.3	<5	<3.5	140	<5.5
	VP-12-15	15	11/17/2022	µg/m <sup>3</sup>	210	73	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	50	<5	<30	13	8.7	<3.5	100	<5.5
	VP-12-15	15	5/18/2023	µg/m <sup>3</sup>	150	66	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	54	<5	<30	<6.3	<5	<3.5	170	<5.5
	VP-12-30	30	11/17/2022	µg/m <sup>3</sup>	330	310	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	79	<5	32	<6.3	10	<3.5	230	<5.5
	VP-12-30	30	5/18/2023	µg/m <sup>3</sup>	270	300	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	77	<5	<30	<6.3	<5	<3.5	240	<5.5
	VP-13-5	5	11/17/2022	µg/m <sup>3</sup>	40	20	<4.9	<4	<4.1	3.4	<4.4	6.9	<8.8	<5.5	14	<5	<30	32	<5	3.6	180	<5.5
VP-14	VP-13-15	15	11/17/2022	µg/m <sup>3</sup>	120	36	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	22	<5	<30	<6.3	8.2	<3.5	410	<5.5
	VP-14-5	5	11/17/2022	µg/m <sup>3</sup>	160	94	5.9	<4	<4.1	15	6.3	77	20.1	<5.5	21	7.9	<30	120	8.4	6.2	200	<5.5
	VP-14-5	5	5/18/2023	µg/m <sup>3</sup>	250	58	<4.9	<4	<4.1	<3.2	<4.4	3.8	<8.8	<5.5	36	<5	<30	21	8.8	<3.5	410	<5.5
	VP-14-15	15	11/17/2022	µg/m <sup>3</sup>	460	120	<4.9	<4	<4.1	6.5	<4.4	27	23.4	<5.5	23	7.6	<30	<6.3	8.9	3.6	200	<5.5
	VP-14-15	15	5/18/2023	µg/m <sup>3</sup>	350	160	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	39	<5	<30	<6.3	9.1	<3.5	470	<5.5
VP-15	VP-14-22	22	11/17/2022	µg/m <sup>3</sup>	570	360	8.5	<4	<4.1	3.8	<4.4	8.7	<8.8	<5.5	51	<5	<30	16	13	<3.5	350	<5.5
	VP-14-22	22	5/18/2023	µg/m <sup>3</sup>	440	350	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	49	<5	<30	<6.3	11	<3.5	580	<5.5
VP-16	VP-15-5	5	11/17/2022	µg/m <sup>3</sup>	14	<5.5	6.9	<4	17	<3.2	<4.4	<3.8	<8.8	9.4	10	<5	<30	13	<5	<3.5	460	<5.5
	VP-16-5	5	11/17/2022	µg/m <sup>3</sup>	97	6.4	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	16	<5	<30	<6.3	<5	<3.5	23	<5.5
	VP-16-5	5	5/18/2023	µg/m <sup>3</sup>	150	18	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	13	<5	<30	<6.3	<5	<3.5	23	<5.5
	VP-16-15	15	11/17/2022	µg/m <sup>3</sup>	360	190	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	44	<5	<30	<6.3	<5	<3.5	50	<5.5
VP-16-15	15	5/18/2023	µg/m <sup>3</sup>	320	260	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	58	<5	<30	<6.3	<5	<3.5	65	<5.5	

**TABLE 1: Volatile Organic Compounds (VOCs) in Soil Vapor<sup>1</sup>**  
Former Riverside Scrap Iron & Metal Property  
Riverside, California

Sample Location	Sample ID	Probe Depth (feet bgs)	Date Sampled	Units	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Chloroform	1,1-Dichloroethene (1,1-DCE)	1,2-Dichloroethane (1,2-DCA)	Benzene	Ethylbenzene	Toluene	Xylene	1,1,1-Trichloroethane	1,1,2-Trichloro-trifluoroethane (F113)	1,2,4-Trimethylbenzene	2-Butanone (MEK)	Carbon disulfide	Dichloro-difluoromethane (F12)	Methylene chloride (Dichloromethane)	Trichloro-fluoromethane (F11)	1,1-difluoroethane (DFA) (leak check compound)
VP-17	VP-17-5	5	11/16/2022	µg/m <sup>3</sup>	76	55	<4.9	<4	<4.1	<3.2	<4.4	6.5	<8.8	<5.5	23	<5	<30	9.3	<5	<3.5	11	<5.5
	VP-17-15	15	11/16/2022	µg/m <sup>3</sup>	180	290	<4.9	<4	<4.1	<3.2	<4.4	6.6	<8.8	<5.5	49	<5	39	11	<5	<3.5	19	<5.5
	VP-17-15 Rep	15	11/16/2022	µg/m <sup>3</sup>	180	300	<4.9	<4	<4.1	<3.2	<4.4	6.7	<8.8	<5.5	51	<5	74	12	<5	<3.5	19	<5.5
VP-18	VP-18-5	5	11/16/2022	µg/m <sup>3</sup>	49	7.6	<4.9	<4	<4.1	<3.2	<4.4	4.1	<8.8	<5.5	14	<5	<30	<6.3	<5	<3.5	41	<5.5
	VP-18-15	15	11/16/2022	µg/m <sup>3</sup>	200	110	<4.9	<4	<4.1	<3.2	<4.4	6.6	<8.8	<5.5	43	<5	100	16	<5	<3.5	79	<5.5
VP-19	VP-19-5	5	11/17/2022	µg/m <sup>3</sup>	91	41	<4.9	<4	<4.1	8.1	<4.4	6.5	<8.8	<5.5	32	<5	<30	44	<5	<3.5	11	<5.5
	VP-19-5	5	5/18/2023	µg/m <sup>3</sup>	120	40	<4.9	<4	<4.1	5.6	<4.4	7.0	<8.8	<5.5	45	<5	<30	8.7	<5	<3.5	27	<5.5
	VP-19-15	15	11/17/2022	µg/m <sup>3</sup>	420	380	<4.9	<4	<4.1	4.9	<4.4	10	<8.8	<5.5	100	<5	<30	71	<5	<3.5	52	<5.5
	VP-19-15	15	5/18/2023	µg/m <sup>3</sup>	320	290	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	130	<5	<30	<6.3	<5	<3.5	58	<5.5
	VP-19-30	30	11/17/2022	µg/m <sup>3</sup>	840	1500	7.5	26	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	180	<5	<30	<6.3	<5	<3.5	64	<5.5
	VP-19-30	30	5/18/2023	µg/m <sup>3</sup>	840	1700	<4.9	27	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	160	<5	<30	<6.3	<5	<3.5	74	<5.5
VP-20	VP-20-5	5	11/17/2022	µg/m <sup>3</sup>	91	51	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	19	<5	<30	<6.3	<5	<3.5	22	<5.5
	VP-20-5	5	5/18/2023	µg/m <sup>3</sup>	170	130	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	17	<5	<30	<6.3	<5	<3.5	41	<5.5
	VP-20-15	15	11/17/2022	µg/m <sup>3</sup>	450	650	6.7	<4	<4.1	<3.2	<4.4	4.4	<8.8	<5.5	73	<5	<30	<6.3	6.9	<3.5	82	<5.5
	VP-20-15	15	5/18/2023	µg/m <sup>3</sup>	380	750	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	85	<5	<30	<6.3	<5	<3.5	150	<5.5
	VP-20-30	30	11/17/2022	µg/m <sup>3</sup>	710	1600	21	32	<4.1	<3.2	<4.4	4.3	<8.8	<5.5	130	<5	<30	<6.3	8.9	<3.5	130	<5.5
	VP-20-30 Rep	30	11/17/2022	µg/m <sup>3</sup>	750	1700	22	31	<4.1	<3.2	<4.4	5	<8.8	<5.5	140	<5	<30	<6.3	9.9	<3.5	160	<5.5
VP-21	VP-20-30	30	5/18/2023	µg/m <sup>3</sup>	780	2100	24	45	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	150	<5	<30	<6.3	<5	<3.5	250	<5.5
	VP-21-5	5	11/17/2022	µg/m <sup>3</sup>	8	<5.5	34	<4	<4.1	39	<4.4	10	<8.8	<5.5	<7.7	<5	<30	92	<5	<3.5	160	11
	VP-21-15	15	11/17/2022	µg/m <sup>3</sup>	150	<5.5	<4.9	<4	<4.1	<3.2	<4.4	<3.8	<8.8	<5.5	39	<5	<30	<6.3	7.3	<3.5	510	<5.5
<b>Maximum Detected Concentration</b>				<b>µg/m<sup>3</sup></b>	<b>850</b>	<b>2100</b>	<b>34</b>	<b>120</b>	<b>17</b>	<b>39</b>	<b>6.3</b>	<b>77</b>	<b>23</b>	<b>9.4</b>	<b>370</b>	<b>7.9</b>	<b>100</b>	<b>120</b>	<b>13</b>	<b>26</b>	<b>510</b>	<b>520</b>
<b>DTSC-recommended Screening Levels</b>																						
Commercial/Industrial Soil Vapor Screening Levels <sup>2</sup> (AF=0.03)				µg/m <sup>3</sup>	67	100	18	10,000	16	14	160	43,000	15,000	33,000	170,000	8,700	170,000	24,000	3,300	33	43,000	NA
Residential Soil Vapor Screening Levels <sup>3</sup> (AF=0.03)				µg/m <sup>3</sup>	15	16	4.0	2,400	3.7	3.2	37	10,000	3,300	150,000	730,000	2,100	730,000	100,000	14,700	400	180,000	NA

**Notes:**

<sup>1</sup> Soil vapor samples collected by H&P Mobile Geochemistry, Inc. (H&P) of Carlsbad, CA into batch-certified, 400 or 450 milliliter summa canisters under the field oversight of GSI Environmental Inc., and analyzed by H&P at a fixed laboratory using USEPA Method TO-15.

<sup>2</sup> Soil vapor results are compared to soil vapor screening levels generated by applying default attenuation factors (AF) for all buildings (0.03), as published by the USEPA (2015), to regional screening levels for indoor air under commercial land use published by the USEPA (2022) and modified by the DTSC (2022).

<sup>3</sup> Soil vapor results also are compared to soil vapor screening levels generated by applying default attenuation factors (AF) for all buildings (0.03), as published by the USEPA (2015), to regional screening levels for indoor air under residential land use published by the USEPA (2022) and modified by the DTSC (2022).

µg/m<sup>3</sup> = micrograms per cubic meter

NA = Not available

**References:**

California Environmental Protection Agency (Cal/EPA). 2011. Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance). DTSC. October.

Department of Toxic Substances Control (DTSC). 2022. Human Health Risk Assessment (HHRA) Note, HERO HHRA Note 3, DTSC-modified Screening Levels (DTSC-SLs). May.

GSI Environmental Inc. (GSI). 2019. Interim Remedial Action Plan, Former Pep Boys Property, 1721 and 1725 North Long Beach Blvd, Compton, California 90221. June.

United States Environmental Protection Agency (USEPA). 2022. Regional Screening Levels (RSLs). November.

## FIGURES

Figure 1. Site Location Map

Figure 2. Site Map with Sample Locations

Figure 3. PCE and TCE Concentrations in Soil Vapor ( $\mu\text{g}/\text{m}^3$ )



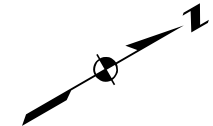
Reference map provided by Esri, 2022.



GSI Job No.	6239	Drawn by:	AV
Issued:	2-Jun-2022	Chk'd by:	SC
Revised:		Apr'd by:	TFW
Map ID:	RS6239_SLM	<b>FIGURE 1</b>	

**SITE LOCATION MAP**

Riverside Scrap Iron & Metal  
Riverside, California

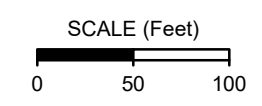


**LEGEND**

- 5 Foot Soil Vapor Probe
- ◆ 5 and 15 Foot Soil Vapor Probe
- ▲ 5, 15, and 30 Foot Soil Vapor Probe
- Site Boundary

**Notes**

- 1) Basemap downloaded from Google Earth Pro dated October 2016.
- 2) VP-6 probes were installed at 5' and 13'. VP-14 probes were installed at 5', 15', and 22'.



Projected Coordinate System  
 Datum: NAD83  
 State Plane California Zone VI  
 Units: Feet

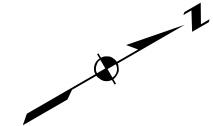
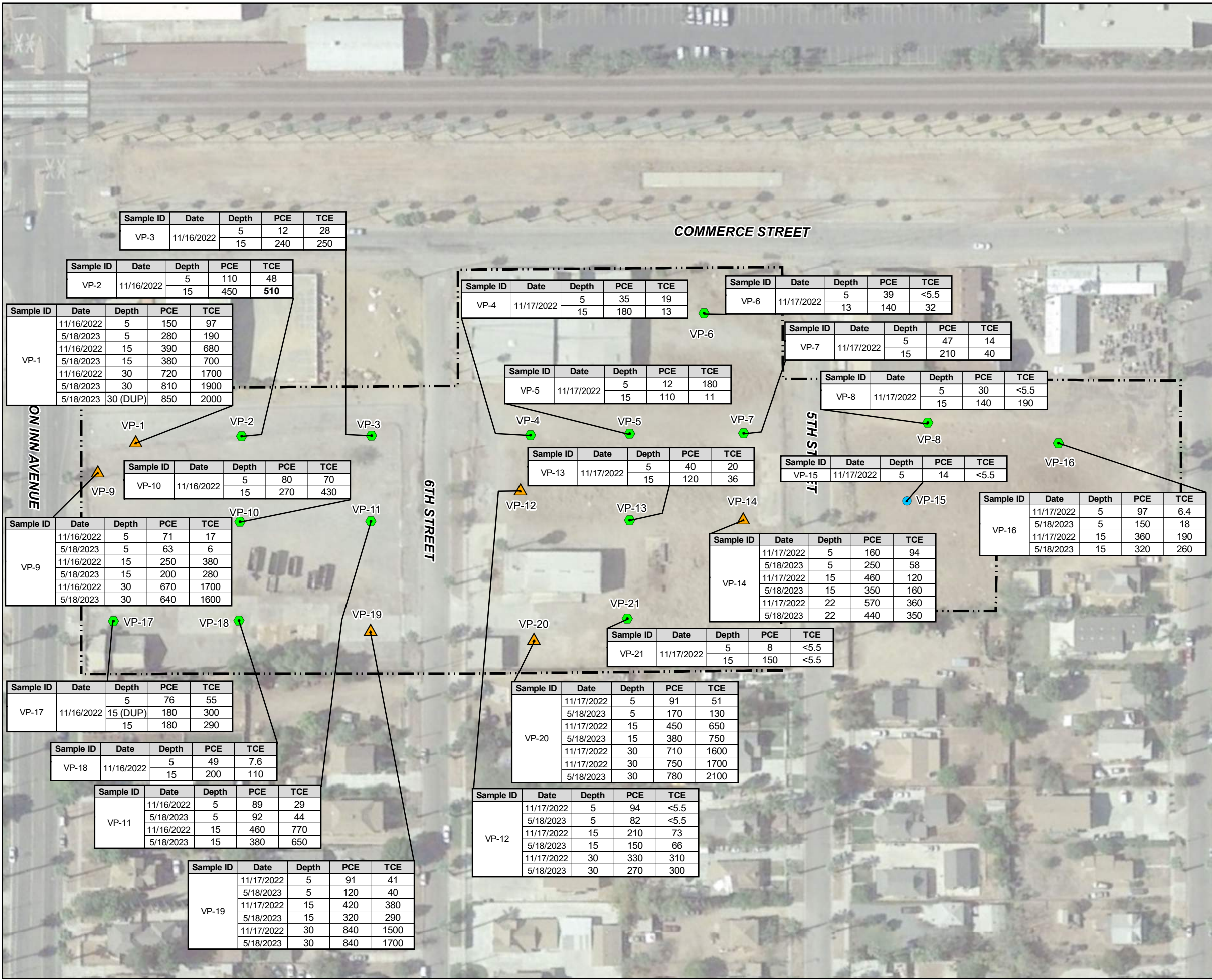


**SOIL VAPOR  
 SAMPLE LOCATIONS**

Riverside Scrap Iron & Metal  
 Riverside, California

GSI Job No.	6239	Drawn By:	AV
Issued:	22-Nov-2022	Chk'd By:	SC
Map ID:	RS6239_SVPNov22	App'd By:	SC

**FIGURE 2**

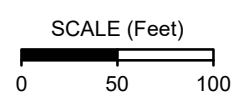


**LEGEND**

- 5 Foot Soil Vapor Probe
- ◆ 5 and 15 Foot Soil Vapor Probe
- ▲ 5, 15, and 30 Foot Soil Vapor Probe
- Site Boundary

**Notes**

- 1) Basemap downloaded from Google Earth Pro dated October 2016.
- 2) VP-6 probes were installed at 5' and 13'. VP-14 probes installed at 5', 15', and 22'.
- 3) Depth = feet below ground surface; < = not detected above the designated laboratory reporting limit; DUP = duplicate sample; PCE = tetrachloroethene; TCE = trichloroethene.
- 4) Concentrations are in micrograms per cubic meter (µg/m3)



Projected Coordinate System  
Datum: NAD83  
State Plane California Zone VI  
Units: Feet



**PCE AND TCE IN SOIL VAPOR**

Riverside Scrap Iron & Metal  
Riverside, California

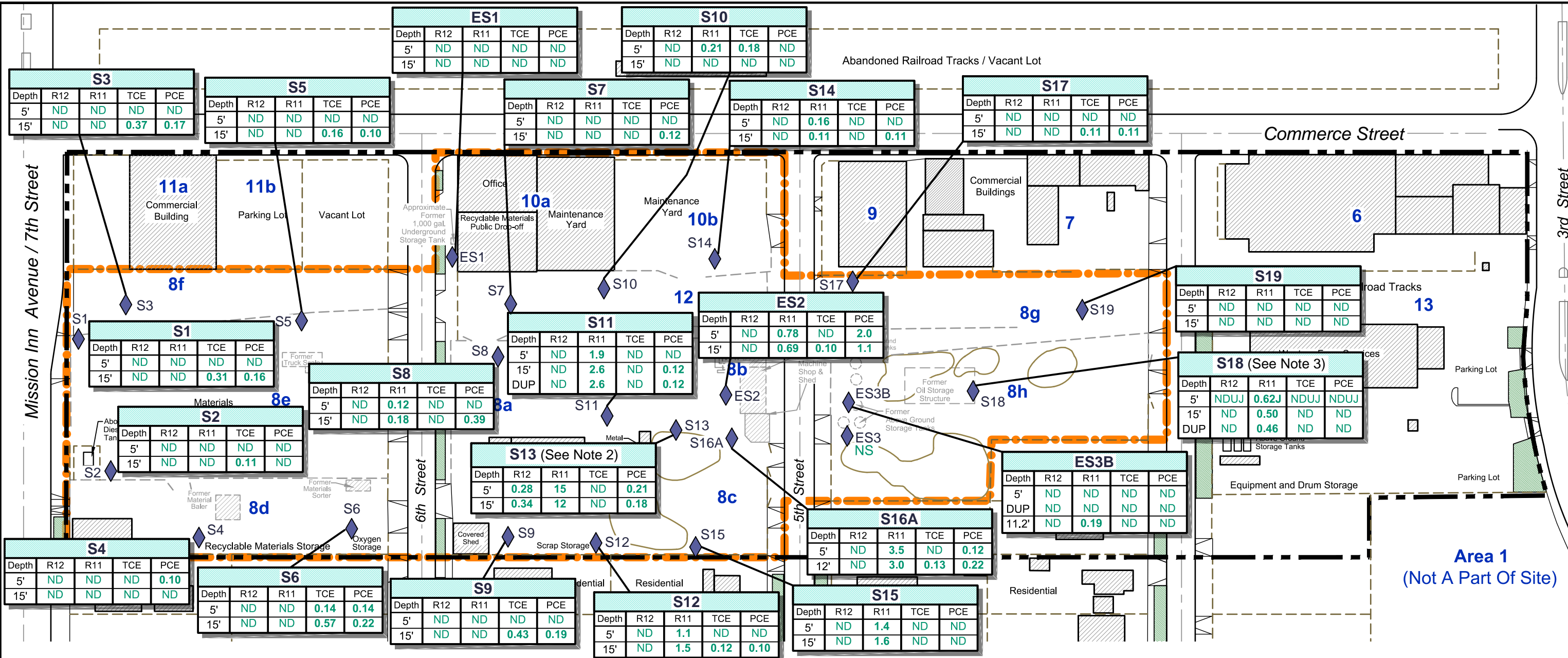
GSI Job No.	6239	Drawn By:	AV
Issued:	26-May-2023	Chk'd By:	SC
Map ID:	RS6239_SVP_PCETCE	App'd By:	SC

**FIGURE 3**

## APPENDIX A

### 2015 Data

Plot Date: 10/27/2015 9:55:10 AM, Plotted by: joanna.worker Drawing Path: W:\Projects\010468.000 (Riverside Scrap Iron)\010468.004 (RSI&M)\ACAD\Results-2015.dwg - Soil Gas



**Explanation**

S19 ◆ Soil sampling and soil gas probe location (Amec Foster Wheeler, 2015)

Sample Name				
Depth	R12	R11	TCE	PCE
5'	µg/L	µg/L	µg/L	µg/L
15'	µg/L	µg/L	µg/L	µg/L

Results at depth indicated in feet below ground surface for Volatile Organic Compounds (VOCs) in micrograms per liter (µg/L)

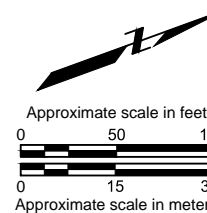
- R12 Freon 12 (dichlorodifluoromethane)
- R11 Freon 11 (trichlorofluoromethane)
- TCE Trichloroethene
- PCE Tetrachloroethene
- DUP Duplicate sample
- ND Not detected at laboratory limit of <0.10
- NS Not sampled
- J Estimated concentration based on detection of leak detection compound
- UJ Estimated reporting limit based on detection of leak detection compound

8h Site Area designation (Geomatrix, 2005)

- Building
- Former building or structure
- Former scrap heap
- Fence or wall
- Former fence or wall
- Riverside Marketplace Industrial District
- Riverside Scrap Metal & Iron Site
- Landscaped area

**Notes:**

1. All locations are approximate.
2. Chloromethane detected at 0.49 µg/L in the soil gas probe S13 at depth of 5 feet below ground surface (bgs).
3. Leak detection compound Isopropyl alcohol detected at 3.3 µg/L in the soil gas probe S18 at depth of 5 feet bgs.
4. Scrap heaps shown from locations identified in January/February 2011 field work



Basemap modified from a drawing by Ami Adini & Associates, dated April 2011, and an aerial photo by Eagle Aerials, dated February 2011.

<b>VOC CONCENTRATIONS IN SOIL GAS</b> Riverside Scrap Iron & Metal Site Riverside, California		
Date: 10/27/2015	Project No. 010468.0040	
Submitted By: grr	Drawn By: jrw	Figure <b>6</b>

TABLE 7

SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) AND GASOLINE RANGE ORGANICS (GRO) IN SOIL GAS  
 Riverside Scrap Iron & Metal Site  
 Riverside, California

Results reported in micrograms per liter (µg/L)

Soil Gas Probe Designation	Depth (feet bgs)	Purge Volume (µg/L)	Date	Chloro-methane	Freon 12	Freon 11	TCE	PCE	IPA	Gasoline Range Organics
<b>Industrial RSLs or DTSC-modified Screening Level</b>				390	440	3,100	3	2.1	880	NA
<b>Ambient Air</b>	---	---	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
	---	---	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S1</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S1</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.31</b>	<b>0.16</b>	ND<1.0	ND<10
<b>S2</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S2</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.11</b>	ND<0.10	ND<1.0	ND<10
<b>S3</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S3</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.37</b>	<b>0.17</b>	ND<1.0	ND<10
<b>S3</b>	15 Dup	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.41</b>	<b>0.18</b>	ND<1.0	ND<10
<b>S4</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	<b>0.10</b>	ND<1.0	ND<10
<b>S4</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S5</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S5</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.16</b>	<b>0.10</b>	ND<1.0	ND<10
<b>S6</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.14</b>	<b>0.14</b>	ND<1.0	ND<10
<b>S6</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.57</b>	<b>0.22</b>	ND<1.0	ND<10
<b>S7</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S7</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S8</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>0.12</b>	ND<0.10	ND<0.10	ND<1.0	ND<200
<b>S8</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>0.18</b>	ND<0.10	<b>0.39</b>	ND<1.0	ND<10
<b>S9</b>	5	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S9</b>	15	3	10/1/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.43</b>	<b>0.19</b>	ND<1.0	ND<10
<b>S10</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.21</b>	<b>0.19</b>	ND<0.10	ND<1.0	ND<10
<b>S10</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S11</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.9</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S11</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>2.6</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S11</b>	15 Dup	3	10/1/2015	ND<0.10	ND<0.10	<b>2.6</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S12</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.1</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S12</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>1.5</b>	<b>0.12</b>	<b>0.10</b>	ND<1.0	ND<10
<b>S13 (see notes)</b>	5	3	10/1/2015	<b>0.49</b>	<b>0.28</b>	<b>15</b>	ND<0.10	<b>0.21</b>	ND<1.0	ND<10
<b>S13 (See notes)</b>	15	3	10/1/2015	ND<0.10	<b>0.34</b>	<b>12</b>	ND<0.10	<b>0.18</b>	ND<1.0	ND<10
<b>S14</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.16</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S14</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.11</b>	ND<0.10	<b>0.11</b>	ND<1.0	ND<10
<b>S15</b>	5	3	10/1/2015	ND<0.10	ND<0.10	<b>1.4</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S15</b>	15	3	10/1/2015	ND<0.10	ND<0.10	<b>1.0</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S16A</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>3.5</b>	ND<0.10	<b>0.12</b>	ND<1.0	ND<10
<b>S16A</b>	12	3	10/2/2015	ND<0.10	ND<0.10	<b>3.0</b>	<b>0.13</b>	<b>0.22</b>	ND<1.0	ND<10
<b>S17</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S17</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	<b>0.11</b>	<b>0.11</b>	ND<1.0	ND<10

**TABLE 7**

**SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) AND GASOLINE RANGE ORGANICS (GRO) IN SOIL GAS**  
 Riverside Scrap Iron & Metal Site  
 Riverside, California

Results reported in micrograms per liter (µg/L)

Soil Gas Probe Designation	Depth (feet bgs)	Purge Volume (µg/L)	Date	Chloro-methane	Freon 12	Freon 11	TCE	PCE	IPA	Gasoline Range Organics
<b>S18</b>	5	3	10/2/2015	ND<0.10UJ	ND<0.10UJ	<b>0.62J</b>	ND<0.10UJ	ND<0.10UJ	<b>3.3J</b>	ND<10
<b>S18</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.50</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S18</b>	15 Dup	3	10/2/2015	ND<0.10	ND<0.10	<b>0.46</b>	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S19</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>S19</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES1</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES1</b>	15	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES2</b>	5	3	10/2/2015	ND<0.10	ND<0.10	<b>0.78</b>	ND<0.10	<b>2.0</b>	ND<1.0	ND<10
<b>ES2</b>	15	3	10/2/2015	ND<0.10	ND<0.10	<b>0.69</b>	<b>0.10</b>	<b>1.1</b>	ND<1.0	ND<10
<b>ES3B</b>	5	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES3B</b>	5 Dup	3	10/2/2015	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<1.0	ND<10
<b>ES3B</b>	11.25	3	10/2/2015	ND<0.10	ND<0.10	<b>0.19</b>	ND<0.10	ND<0.10	ND<1.0	ND<10

Notes and Data Qualifiers

Volatile Organic Compounds (VOCs) and Gasoline Range Organics (GRO) were analyzed using United States Environmental Protection Agency (EPA) Method 8260M. All remaining VOCs were not detected. For a complete list of EPA 8260M analytes, see laboratory reports.

The Regional Screening Levels (RSLs) are from the EPA Region 9, revised June 2015, <http://www.epa.gov/region9/superfund/prg/>. RSLs were adjusted for a default (DTSC, 2011) attenuation factor for existing commercial buildings by multiplying the air RSLs by 1000 (representing a soil vapor-to-indoor air attenuation factor of 0.001). Therefore, the soil vapor screening levels presented are protective of existing buildings. The DTSC-modified screening level (DTSC, 2015) was used for PCE (italicized) because it was more conservative than the USEPA RSL.

S13 at 5 bgs and S13 at 15 feet bgs -Freon 11 concentrations from soil vapor samples exceeded the laboratory instrument calibration range. The samples were re-run at a higher dilution rate to quantify Freon 11 concentrations.

J - The analyte was positively identified. However, the leak detection compound IPA was detected in the sample at a concentration greater than 10 times the reporting limit of target analytes and therefore, the detected value is estimated.

UJ - The analyte was reported as not detected at the laboratory reporting limit. However, the leak detection compound IPA was detected in the sample at concentration greater than 10 times the reporting limit of the target analytes and therefore, the reporting limit is estimated.

Abbreviations

bgs = Below ground surface	IPA = Isopropanol
ND = Not detected at the reporting limit shown	NA = Not available
DUP = Duplicate sample	PCE = Tetrachloroethene
DTSC = Department of Toxic Substances Control	RSL = Regional Screening Level
Freon 11 = Trichlorofluoromethane	TCE = Trichloroethene
Freon 12 = Dichlorodifluoromethane	µg/L = Micrograms per liter

References

DTSC, 2015, Human Health Risk Assessment (HHRA) Note #3, DTSC-modified Screening Levels (DTSC-SLs), Human and Ecological Risk Office (HERO), October.  
 DTSC, 2011, Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, October.

## APPENDIX B

### Analytical Laboratory Reports – Soil Vapor

25 May 2023

Samantha Curtis  
GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

H&P Project: GSI051923-10  
Client Project: 6239 / 2993 6th St

Dear Samantha Curtis:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 18-May-23 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,



Lisa Eminhizer  
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP and the National Environmental Laboratory Accreditation Conference (NELAC) for the fields of proficiency and analytes listed on those certificates. H&P is approved as an Environmental Testing Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs for the fields of proficiency and analytes included in the certification process and to the extent offered by the accreditation agency. Unless otherwise noted, accreditation certificate numbers, expiration of certificates, and scope of accreditation can be found at: [www.handpmg.com/about/certifications](http://www.handpmg.com/about/certifications). Fields of services and analytes contained in this report that are not listed on the certificates should be considered uncertified or unavailable for certification.



NELAP Accredited  
TNI Cert #04138  
Agency Interest #136158



Accreditation #69070

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VP-1-15	E305052-01	Vapor	18-May-23	18-May-23
VP-1-30	E305052-02	Vapor	18-May-23	18-May-23
VP-1-30 REP	E305052-03	Vapor	18-May-23	18-May-23
VP-1-5	E305052-04	Vapor	18-May-23	18-May-23
VP-9-5	E305052-05	Vapor	18-May-23	18-May-23
VP-9-15	E305052-06	Vapor	18-May-23	18-May-23
VP-9-30	E305052-07	Vapor	18-May-23	18-May-23
VP-11-5	E305052-08	Vapor	18-May-23	18-May-23
VP-11-15	E305052-09	Vapor	18-May-23	18-May-23
VP-19-5	E305052-10	Vapor	18-May-23	18-May-23
VP-19-15	E305052-11	Vapor	18-May-23	18-May-23
VP-19-30	E305052-12	Vapor	18-May-23	18-May-23
VP-12-5	E305052-13	Vapor	18-May-23	18-May-23
VP-12-15	E305052-14	Vapor	18-May-23	18-May-23
VP-12-30	E305052-15	Vapor	18-May-23	18-May-23
VP-20-5	E305052-16	Vapor	18-May-23	18-May-23
VP-20-15	E305052-17	Vapor	18-May-23	18-May-23
VP-20-30	E305052-18	Vapor	18-May-23	18-May-23
VP-14-5	E305052-19	Vapor	18-May-23	18-May-23
VP-14-15	E305052-20	Vapor	18-May-23	18-May-23
VP-14-22	E305052-21	Vapor	18-May-23	18-May-23
VP-16-5	E305052-22	Vapor	18-May-23	18-May-23
VP-16-15	E305052-23	Vapor	18-May-23	18-May-23

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**DETECTIONS SUMMARY**

Sample ID: **VP-1-15**

Laboratory ID: **E305052-01**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Dichlorodifluoromethane (F12)	5.4	5.0		ug/m3	EPA TO-15	
Trichlorofluoromethane (F11)	62	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	44	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	280	7.7		ug/m3	EPA TO-15	
Trichloroethene	700	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	380	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-1-30**

Laboratory ID: **E305052-02**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	91	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	120	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	390	7.7		ug/m3	EPA TO-15	
Chloroform	20	4.9		ug/m3	EPA TO-15	
Trichloroethene	1900	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	810	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-1-30 REP**

Laboratory ID: **E305052-03**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	96	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	120	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	410	7.7		ug/m3	EPA TO-15	
Chloroform	21	4.9		ug/m3	EPA TO-15	
Trichloroethene	2000	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	850	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-1-5**

Laboratory ID: **E305052-04**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	38	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	170	7.7		ug/m3	EPA TO-15	
Trichloroethene	190	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	280	6.9		ug/m3	EPA TO-15	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
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Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

Sample ID: **VP-9-5**

Laboratory ID: **E305052-05**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Dichlorodifluoromethane (F12)	29	5.0		ug/m3	EPA TO-15	
Trichlorofluoromethane (F11)	14	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	51	7.7		ug/m3	EPA TO-15	
Carbon disulfide	91	6.3		ug/m3	EPA TO-15	
Trichloroethene	6.0	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	63	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-9-15**

Laboratory ID: **E305052-06**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	48	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	9.0	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	210	7.7		ug/m3	EPA TO-15	
Trichloroethene	280	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	200	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-9-30**

Laboratory ID: **E305052-07**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	79	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	100	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	350	7.7		ug/m3	EPA TO-15	
Chloroform	19	4.9		ug/m3	EPA TO-15	
Trichloroethene	1600	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	640	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-11-5**

Laboratory ID: **E305052-08**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	53	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	180	7.7		ug/m3	EPA TO-15	
Trichloroethene	44	5.5		ug/m3	EPA TO-15	
Toluene	3.9	3.8		ug/m3	EPA TO-15	
Tetrachloroethene	92	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-11-15**

Laboratory ID: **E305052-09**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	78	5.6		ug/m3	EPA TO-15	

GSI Environmental, Inc  
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Project Manager: Samantha Curtis

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25-May-23 08:23

Sample ID: **VP-11-15**

Laboratory ID: **E305052-09**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
1,1,2-Trichlorotrifluoroethane (F113)	220	7.7		ug/m3	EPA TO-15	
Trichloroethene	650	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	380	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-19-5**

Laboratory ID: **E305052-10**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	27	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	45	7.7		ug/m3	EPA TO-15	
Carbon disulfide	8.7	6.3		ug/m3	EPA TO-15	
Benzene	5.6	3.2		ug/m3	EPA TO-15	
Trichloroethene	40	5.5		ug/m3	EPA TO-15	
Toluene	7.0	3.8		ug/m3	EPA TO-15	
Tetrachloroethene	120	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-19-15**

Laboratory ID: **E305052-11**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	58	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	130	7.7		ug/m3	EPA TO-15	
Trichloroethene	290	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	320	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-19-30**

Laboratory ID: **E305052-12**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	74	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	27	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	160	7.7		ug/m3	EPA TO-15	
Trichloroethene	1700	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	840	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-12-5**

Laboratory ID: **E305052-13**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	140	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	46	7.7		ug/m3	EPA TO-15	
Toluene	4.1	3.8		ug/m3	EPA TO-15	
Tetrachloroethene	82	6.9		ug/m3	EPA TO-15	

GSI Environmental, Inc  
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Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

Sample ID: **VP-12-15**

Laboratory ID: **E305052-14**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	170	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	54	7.7		ug/m3	EPA TO-15	
Trichloroethene	66	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	150	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-12-30**

Laboratory ID: **E305052-15**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	240	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	77	7.7		ug/m3	EPA TO-15	
Trichloroethene	300	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	270	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-20-5**

Laboratory ID: **E305052-16**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	41	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	17	7.7		ug/m3	EPA TO-15	
Trichloroethene	130	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	170	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-20-15**

Laboratory ID: **E305052-17**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	150	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	85	7.7		ug/m3	EPA TO-15	
Trichloroethene	750	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	380	6.9		ug/m3	EPA TO-15	

Sample ID: **VP-20-30**

Laboratory ID: **E305052-18**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	250	5.6		ug/m3	EPA TO-15	
1,1-Dichloroethene	45	4.0		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	150	7.7		ug/m3	EPA TO-15	
Chloroform	24	4.9		ug/m3	EPA TO-15	
Trichloroethene	2100	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	780	6.9		ug/m3	EPA TO-15	

GSI Environmental, Inc  
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Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

Sample ID: VP-14-5

Laboratory ID: E305052-19

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Dichlorodifluoromethane (F12)	8.8	5.0		ug/m3	EPA TO-15	
Trichlorofluoromethane (F11)	410	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	36	7.7		ug/m3	EPA TO-15	
Carbon disulfide	21	6.3		ug/m3	EPA TO-15	
Trichloroethene	58	5.5		ug/m3	EPA TO-15	
Toluene	3.8	3.8		ug/m3	EPA TO-15	
Tetrachloroethene	250	6.9		ug/m3	EPA TO-15	

Sample ID: VP-14-15

Laboratory ID: E305052-20

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Dichlorodifluoromethane (F12)	9.1	5.0		ug/m3	EPA TO-15	
Trichlorofluoromethane (F11)	470	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	39	7.7		ug/m3	EPA TO-15	
Trichloroethene	160	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	350	6.9		ug/m3	EPA TO-15	

Sample ID: VP-14-22

Laboratory ID: E305052-21

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Dichlorodifluoromethane (F12)	11	5.0		ug/m3	EPA TO-15	
Trichlorofluoromethane (F11)	580	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	49	7.7		ug/m3	EPA TO-15	
Trichloroethene	350	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	440	6.9		ug/m3	EPA TO-15	

Sample ID: VP-16-5

Laboratory ID: E305052-22

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	23	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	13	7.7		ug/m3	EPA TO-15	
Trichloroethene	18	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	150	6.9		ug/m3	EPA TO-15	

Sample ID: VP-16-15

Laboratory ID: E305052-23

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichlorofluoromethane (F11)	65	5.6		ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	58	7.7		ug/m3	EPA TO-15	

GSI Environmental, Inc  
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Irvine, CA 92618

Project: GSI051923-10  
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Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

Sample ID: **VP-16-15**

Laboratory ID: **E305052-23**

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Trichloroethene	260	5.5		ug/m3	EPA TO-15	
Tetrachloroethene	320	6.9		ug/m3	EPA TO-15	

GSI Environmental, Inc  
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Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
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Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-15 (E305052-01) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
<b>Dichlorodifluoromethane (F12)</b>	<b>5.4</b>	5.0	"	"	"	"	"	"	"
Chloromethane	ND	2.1	"	"	"	"	"	"	"
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	"
Vinyl chloride	ND	2.6	"	"	"	"	"	"	"
Bromomethane	ND	16	"	"	"	"	"	"	"
Chloroethane	ND	8.0	"	"	"	"	"	"	"
<b>Trichlorofluoromethane (F11)</b>	<b>62</b>	5.6	"	"	"	"	"	"	"
<b>1,1-Dichloroethene</b>	<b>44</b>	4.0	"	"	"	"	"	"	"
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>280</b>	7.7	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	"
Carbon disulfide	ND	6.3	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	"
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	"
Chloroform	ND	4.9	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	"
Benzene	ND	3.2	"	"	"	"	"	"	"
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	"
<b>Trichloroethene</b>	<b>700</b>	5.5	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	"
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
Toluene	ND	3.8	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	"
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	"
<b>Tetrachloroethene</b>	<b>380</b>	6.9	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	"
Chlorobenzene	ND	4.7	"	"	"	"	"	"	"
Ethylbenzene	ND	4.4	"	"	"	"	"	"	"
m,p-Xylene	ND	8.8	"	"	"	"	"	"	"
Styrene	ND	4.3	"	"	"	"	"	"	"

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-15 (E305052-01) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

111 % 76-134 " " " "  
101 % 78-125 " " " "  
88.1 % 77-127 " " " "

**VP-1-30 (E305052-02) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>91</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>120</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>390</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>Chloroform</b>	<b>20</b>	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-30 (E305052-02) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>1900</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>810</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
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Surrogate: 1,2-Dichloroethane-d4		112 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.0 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-30 REP (E305052-03) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>96</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>120</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>410</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>Chloroform</b>	<b>21</b>	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>2000</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>850</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
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Project: GSI051923-10  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-30 REP (E305052-03) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

116 % 76-134 " " " "  
97.9 % 78-125 " " " "  
89.2 % 77-127 " " " "

**VP-1-5 (E305052-04) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>38</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>170</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-1-5 (E305052-04) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>190</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>280</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
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Surrogate: 1,2-Dichloroethane-d4		113 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.7 %		77-127	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-9-5 (E305052-05) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
<b>Dichlorodifluoromethane (F12)</b>	<b>29</b>	5.0	"	"	"	"	"	"	"
Chloromethane	ND	2.1	"	"	"	"	"	"	"
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	"
Vinyl chloride	ND	2.6	"	"	"	"	"	"	"
Bromomethane	ND	16	"	"	"	"	"	"	"
Chloroethane	ND	8.0	"	"	"	"	"	"	"
<b>Trichlorofluoromethane (F11)</b>	<b>14</b>	5.6	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	"
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>51</b>	7.7	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	"
<b>Carbon disulfide</b>	<b>91</b>	6.3	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	"
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	"
Chloroform	ND	4.9	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	"
Benzene	ND	3.2	"	"	"	"	"	"	"
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	"
<b>Trichloroethene</b>	<b>6.0</b>	5.5	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	"
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
Toluene	ND	3.8	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	"
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	"
<b>Tetrachloroethene</b>	<b>63</b>	6.9	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	"
Chlorobenzene	ND	4.7	"	"	"	"	"	"	"
Ethylbenzene	ND	4.4	"	"	"	"	"	"	"
m,p-Xylene	ND	8.8	"	"	"	"	"	"	"
Styrene	ND	4.3	"	"	"	"	"	"	"

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-9-5 (E305052-05) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

112 % 76-134 " " " "  
99.8 % 78-125 " " " "  
88.0 % 77-127 " " " "

**VP-9-15 (E305052-06) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>48</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>9.0</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>210</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-9-15 (E305052-06) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>280</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>200</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		113 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		100 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.4 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-9-30 (E305052-07) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>79</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>100</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>350</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>Chloroform</b>	<b>19</b>	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>1600</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>640</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

GSI Environmental, Inc  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-9-30 (E305052-07) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

113 % 76-134  
99.5 % 78-125  
86.3 % 77-127

" " "  
" " "  
" " "

**VP-11-5 (E305052-08) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>53</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>180</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-11-5 (E305052-08) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>44</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
<b>Toluene</b>	<b>3.9</b>	<b>3.8</b>	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>92</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		115 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		102 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.3 %		77-127	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-11-15 (E305052-09) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>78</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>220</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>650</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>380</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-11-15 (E305052-09) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

115 % 76-134 " " " "  
98.8 % 78-125 " " " "  
85.2 % 77-127 " " " "

**VP-19-5 (E305052-10) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>27</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>45</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
<b>Carbon disulfide</b>	<b>8.7</b>	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
<b>Benzene</b>	<b>5.6</b>	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-19-5 (E305052-10) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>40</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
<b>Toluene</b>	<b>7.0</b>	<b>3.8</b>	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>120</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		114 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.6 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-19-15 (E305052-11) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>58</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>130</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>290</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>320</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

GSI Environmental, Inc  
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Project: GSI051923-10  
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Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-19-15 (E305052-11) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	23-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

117 % 76-134  
99.5 % 78-125  
84.6 % 77-127

" " "  
" " "  
" " "

**VP-19-30 (E305052-12) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>74</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>27</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>160</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-19-30 (E305052-12) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>1700</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>840</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>113 %</i>		<i>76-134</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: Toluene-d8</i>		<i>102 %</i>		<i>78-125</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Surrogate: 4-Bromofluorobenzene</i>		<i>86.2 %</i>		<i>77-127</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-12-5 (E305052-13) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>140</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>46</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
<b>Toluene</b>	<b>4.1</b>	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>82</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-12-5 (E305052-13) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

117 % 76-134  
99.7 % 78-125  
88.6 % 77-127

" " "  
" " "  
" " "

**VP-12-15 (E305052-14) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>170</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>54</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-12-15 (E305052-14) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>66</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>150</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		113 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-12-30 (E305052-15) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>240</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>77</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>300</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>270</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-12-30 (E305052-15) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

112 % 76-134  
100 % 78-125  
90.8 % 77-127

" " "  
" " "  
" " "

**VP-20-5 (E305052-16) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>41</b>	<b>5.6</b>	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>17</b>	<b>7.7</b>	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-20-5 (E305052-16) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>130</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>170</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		112 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		100 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.1 %		77-127	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-20-15 (E305052-17) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>150</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>85</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>750</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>380</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-20-15 (E305052-17) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

112 % 76-134 " " " "  
101 % 78-125 " " " "  
86.2 % 77-127 " " " "

**VP-20-30 (E305052-18) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>250</b>	5.6	"	"	"	"	"	"	
<b>1,1-Dichloroethene</b>	<b>45</b>	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>150</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>Chloroform</b>	<b>24</b>	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-20-30 (E305052-18) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>2100</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>780</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		114 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.7 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-14-5 (E305052-19) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
<b>Dichlorodifluoromethane (F12)</b>	<b>8.8</b>	5.0	"	"	"	"	"	"	"
Chloromethane	ND	2.1	"	"	"	"	"	"	"
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	"
Vinyl chloride	ND	2.6	"	"	"	"	"	"	"
Bromomethane	ND	16	"	"	"	"	"	"	"
Chloroethane	ND	8.0	"	"	"	"	"	"	"
<b>Trichlorofluoromethane (F11)</b>	<b>410</b>	5.6	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	"
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>36</b>	7.7	"	"	"	"	"	"	"
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	"
<b>Carbon disulfide</b>	<b>21</b>	6.3	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	"
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	"
Chloroform	ND	4.9	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	"
Benzene	ND	3.2	"	"	"	"	"	"	"
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	"
<b>Trichloroethene</b>	<b>58</b>	5.5	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	"
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	"
<b>Toluene</b>	<b>3.8</b>	3.8	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	"
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	"
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	"
<b>Tetrachloroethene</b>	<b>250</b>	6.9	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	"
Chlorobenzene	ND	4.7	"	"	"	"	"	"	"
Ethylbenzene	ND	4.4	"	"	"	"	"	"	"
m,p-Xylene	ND	8.8	"	"	"	"	"	"	"
Styrene	ND	4.3	"	"	"	"	"	"	"

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Project: GSI051923-10  
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Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-14-5 (E305052-19) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

109 % 76-134  
102 % 78-125  
92.1 % 77-127

" " "  
" " "  
" " "

**VP-14-15 (E305052-20) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
<b>Dichlorodifluoromethane (F12)</b>	<b>9.1</b>	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>470</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>39</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

GSI Environmental, Inc  
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-14-15 (E305052-20) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>160</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>350</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		114 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.9 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-14-22 (E305052-21) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
<b>Dichlorodifluoromethane (F12)</b>	<b>11</b>	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>580</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>49</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>350</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>440</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-14-22 (E305052-21) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

117 % 76-134 " " " "  
105 % 78-125 " " " "  
89.9 % 77-127 " " " "

**VP-16-5 (E305052-22) Vapor Sampled: 18-May-23 Received: 18-May-23**

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>23</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>13</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	

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**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-16-5 (E305052-22) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
<b>Trichloroethene</b>	<b>18</b>	<b>5.5</b>	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>150</b>	<b>6.9</b>	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
Surrogate: 1,2-Dichloroethane-d4		108 %		76-134	"	"	"	"	
Surrogate: Toluene-d8		101 %		78-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %		77-127	"	"	"	"	

GSI Environmental, Inc  
7595 Irvine Center Dr, Ste 250  
Irvine, CA 92618

Project: GSI051923-10  
Project Number: 6239 / 2993 6th St  
Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-16-15 (E305052-23) Vapor Sampled: 18-May-23 Received: 18-May-23</b>									
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
<b>Trichlorofluoromethane (F11)</b>	<b>65</b>	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
<b>1,1,2-Trichlorotrifluoroethane (F113)</b>	<b>58</b>	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>260</b>	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>320</b>	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	

GSI Environmental, Inc  
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Project Manager: Samantha Curtis

Reported:  
25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15**

**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
<b>VP-16-15 (E305052-23) Vapor    Sampled: 18-May-23    Received: 18-May-23</b>									
o-Xylene	ND	4.4	ug/m3	1	EE32309	23-May-23	24-May-23	EPA TO-15	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
<hr/>									
<i>Surrogate: 1,2-Dichloroethane-d4</i>		112 %		76-134	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		103 %		78-125	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.6 %		77-127	"	"	"	"	

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15 - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE32309 - TO-15**

**Blank (EE32309-BLK1)**

Prepared & Analyzed: 23-May-23

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3							
Dichlorodifluoromethane (F12)	ND	5.0	"							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
1,1-Dichloroethene	ND	4.0	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							
1,1-Dichloroethane	ND	4.1	"							
2-Butanone (MEK)	ND	30	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Chloroform	ND	4.9	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
Benzene	ND	3.2	"							
Carbon tetrachloride	ND	6.4	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							
trans-1,3-Dichloropropene	ND	4.6	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							
2-Hexanone (MBK)	ND	8.3	"							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15 - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE32309 - TO-15**

**Blank (EE32309-BLK1)**

Prepared & Analyzed: 23-May-23

Chlorobenzene	ND	4.7	ug/m3							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
4-Ethyltoluene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
1,4-Dichlorobenzene	ND	12	"							
1,2-Dichlorobenzene	ND	12	"							
1,2,4-Trichlorobenzene	ND	38	"							
Hexachlorobutadiene	ND	54	"							

Surrogate: 1,2-Dichloroethane-d4	232		"	214		109	76-134			
Surrogate: Toluene-d8	215		"	208		103	78-125			
Surrogate: 4-Bromofluorobenzene	319		"	363		88.0	77-127			

**Blank (EE32309-BLK2)**

Prepared: 23-May-23 Analyzed: 24-May-23

1,1-Difluoroethane (LCC)	ND	5.5	ug/m3							
Dichlorodifluoromethane (F12)	ND	5.0	"							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
1,1-Dichloroethene	ND	4.0	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							

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**Volatile Organic Compounds by EPA TO-15 - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE32309 - TO-15**

Prepared: 23-May-23 Analyzed: 24-May-23

**Blank (EE32309-BLK2)**

1,1-Dichloroethane	ND	4.1	ug/m3							
2-Butanone (MEK)	ND	30	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Chloroform	ND	4.9	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
Benzene	ND	3.2	"							
Carbon tetrachloride	ND	6.4	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							
trans-1,3-Dichloropropene	ND	4.6	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							
2-Hexanone (MBK)	ND	8.3	"							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							
Chlorobenzene	ND	4.7	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
4-Ethyltoluene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
1,4-Dichlorobenzene	ND	12	"							
1,2-Dichlorobenzene	ND	12	"							

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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15 - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE32309 - TO-15**

**Blank (EE32309-BLK2)**

Prepared: 23-May-23 Analyzed: 24-May-23

1,2,4-Trichlorobenzene	ND	38	ug/m3							
Hexachlorobutadiene	ND	54	"							

<i>Surrogate: 1,2-Dichloroethane-d4</i>	235		"	214		110	76-134			
<i>Surrogate: Toluene-d8</i>	208		"	208		100	78-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	314		"	363		86.6	77-127			

**LCS (EE32309-BS1)**

Prepared: 23-May-23 Analyzed: 24-May-23

Dichlorodifluoromethane (F12)	110	5.0	ug/m3	101		113	59-128			
Vinyl chloride	61	2.6	"	52.0		117	64-127			
Chloroethane	56	8.0	"	53.6		104	63-127			
Trichlorofluoromethane (F11)	140	5.6	"	113		127	62-126			QL-1H
1,1-Dichloroethene	83	4.0	"	80.8		103	61-133			
1,1,2-Trichlorotrifluoroethane (F113)	160	7.7	"	155		102	66-126			
Methylene chloride (Dichloromethane)	70	3.5	"	70.8		99.4	62-115			
trans-1,2-Dichloroethene	77	8.0	"	80.8		95.7	67-124			
1,1-Dichloroethane	82	4.1	"	82.4		98.9	68-126			
cis-1,2-Dichloroethene	77	4.0	"	80.0		96.7	70-121			
Chloroform	100	4.9	"	99.2		105	68-123			
1,1,1-Trichloroethane	110	5.5	"	111		99.3	68-125			
1,2-Dichloroethane (EDC)	94	4.1	"	82.4		114	65-128			
Benzene	58	3.2	"	64.8		89.7	69-119			
Carbon tetrachloride	120	6.4	"	128		95.2	68-132			
Trichloroethene	120	5.5	"	110		105	71-123			
Toluene	71	3.8	"	76.8		91.9	66-119			
1,1,2-Trichloroethane	110	5.5	"	111		98.1	73-119			
Tetrachloroethene	130	6.9	"	138		91.6	66-124			
1,1,1,2-Tetrachloroethane	120	7.0	"	140		82.3	67-129			
Ethylbenzene	71	4.4	"	88.4		80.3	70-124			
m,p-Xylene	72	8.8	"	88.4		80.9	61-134			
o-Xylene	71	4.4	"	88.4		80.3	67-125			
1,1,2,2-Tetrachloroethane	120	7.0	"	140		83.1	65-127			

<i>Surrogate: 1,2-Dichloroethane-d4</i>	247		"	214		116	76-134			
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25-May-23 08:23

**Volatile Organic Compounds by EPA TO-15 - Quality Control**  
**H&P Mobile Geochemistry, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EE32309 - TO-15**

**LCS (EE32309-BS1)**

Prepared: 23-May-23 Analyzed: 24-May-23

Surrogate: Toluene-d8	211		ug/m3	208		102	78-125			
Surrogate: 4-Bromofluorobenzene	337		"	363		92.8	77-127			

**LCS (EE32309-BS2)**

Prepared: 23-May-23 Analyzed: 24-May-23

Dichlorodifluoromethane (F12)	130	5.0	ug/m3	101		128	59-128			QL-1H
Vinyl chloride	68	2.6	"	52.0		130	64-127			QL-1H
Chloroethane	59	8.0	"	53.6		111	63-127			
Trichlorofluoromethane (F11)	170	5.6	"	113		147	62-126			QL-1H
1,1-Dichloroethene	92	4.0	"	80.8		114	61-133			
1,1,2-Trichlorotrifluoroethane (F113)	170	7.7	"	155		110	66-126			
Methylene chloride (Dichloromethane)	81	3.5	"	70.8		115	62-115			
trans-1,2-Dichloroethene	82	8.0	"	80.8		101	67-124			
1,1-Dichloroethane	85	4.1	"	82.4		103	68-126			
cis-1,2-Dichloroethene	80	4.0	"	80.0		100	70-121			
Chloroform	110	4.9	"	99.2		112	68-123			
1,1,1-Trichloroethane	120	5.5	"	111		109	68-125			
1,2-Dichloroethane (EDC)	100	4.1	"	82.4		121	65-128			
Benzene	61	3.2	"	64.8		93.4	69-119			
Carbon tetrachloride	130	6.4	"	128		104	68-132			
Trichloroethene	120	5.5	"	110		107	71-123			
Toluene	74	3.8	"	76.8		96.7	66-119			
1,1,2-Trichloroethane	120	5.5	"	111		104	73-119			
Tetrachloroethene	130	6.9	"	138		96.7	66-124			
1,1,1,2-Tetrachloroethane	120	7.0	"	140		84.3	67-129			
Ethylbenzene	71	4.4	"	88.4		80.3	70-124			
m,p-Xylene	73	8.8	"	88.4		82.1	61-134			
o-Xylene	72	4.4	"	88.4		81.8	67-125			
1,1,2,2-Tetrachloroethane	120	7.0	"	140		84.0	65-127			
Surrogate: 1,2-Dichloroethane-d4	260		"	214		122	76-134			
Surrogate: Toluene-d8	222		"	208		107	78-125			
Surrogate: 4-Bromofluorobenzene	333		"	363		91.7	77-127			

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25-May-23 08:23

### Notes and Definitions

- QL-1H The LCS and/or LCSD recoveries fell above the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased high.
- LCC Leak Check Compound
- ND Analyte NOT DETECTED at or above the reporting limit
- MDL Method Detection Limit
- %REC Percent Recovery
- RPD Relative Percent Difference

All soil results are reported in wet weight.

### Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs through PJLA, accreditation number 69070 for EPA Method TO-15 and H&P 8260SV.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification number 2741.

H&P is approved by the State of Louisiana Department of Environmental Quality under the National Environmental Laboratory Accreditation Conference (NELAC) certification number 04138

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at [www.handpmg.com/about/certifications](http://www.handpmg.com/about/certifications).

Lab Client and Project Information	
Lab Client/Consultant: <u>GSI</u>	Project Name / #: <u>6239</u>
Lab Client Project Manager: <u>SAMANTHA CURTIS</u>	Project Location: <u>2993 WTH ST</u>
Lab Client Address: <u>7595 IRVINE CENTRE DR SUITE 250</u>	Report E-Mail(s): <u>SECRET</u>
Lab Client City, State, Zip: <u>IRVINE CA 92618</u>	<u>KK@ROCHOCKI @GSI-NET.COM</u>
Phone Number: <u>949 892 5239</u>	
Reporting Requirements	Turnaround Time
<input checked="" type="checkbox"/> Standard Report <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input checked="" type="checkbox"/> Excel EDD <input type="checkbox"/> Other EDD: _____ <input type="checkbox"/> CA Geotracker Global ID: _____	<input checked="" type="checkbox"/> Standard (7 days for preliminary report, 10 days for final report) <input type="checkbox"/> Rush (specify): _____
Sampler Information Sampler(s): <u>C. WHITE</u> Signature: <u>C. White</u> Date: <u>5/18/23</u>	

Sample Receipt (Lab Use Only)	
Date Rec'd: <u>5/19/23</u>	Control #: <u>23024802</u>
H&P Project #: <u>651051523-10</u>	
Lab Work Order #: <u>E305052</u>	
Sample In tact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Notes Below	
Receipt Gauge ID: <u>60206</u>	Temp: <u>RT</u>
Outside Lab:	
Receipt Notes/Tracking #: _____	
Lab PM Initials: <u>MS for SM</u>	

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mmi/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa, Tedlar, Tube, etc.	CONTAINER ID (#)	Lab use only: Receipt Vac	VOCs Standard Full List		VOCs Short List / Project List		Oxygenates		Naphthalene		TPHv as Gas		Aromatic/Aliphatic Fractions		Leak Check Compound		Methane by EPA 8015m		Fixed Gases by ASTM D1945		
								<input type="checkbox"/> 8260SV	<input checked="" type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV	<input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV	<input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV	<input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SVm	<input type="checkbox"/> TO-15m	<input type="checkbox"/> 8260SVm	<input type="checkbox"/> TO-15m	<input checked="" type="checkbox"/> DFA	<input type="checkbox"/> IPA	<input type="checkbox"/> He	<input type="checkbox"/> CO2	<input type="checkbox"/> O2	<input type="checkbox"/> N2	
VP-1-15		05/18/23	0802	SV	400	607	-	X																		
VP-1-30			0800			603	-1	X																		
VP-1-30 REF			0807			602	-1	X																		
VP-1-5			0800			608	-1	X																		
VP-9-5			0846			609	-2	X																		
VP-9-15			0846			610	-2	X																		
VP-9-30			0844			611	-1	X																		
VP-11-5			0917			613	-1	X																		
VP-11-15			0917			614	-2	X																		
VP-19-5			1140			616	-8	X																		

Approved/Relinquished by: <u>[Signature]</u>	Date: <u>5/18/23</u>	Time: <u>1500</u>	Company: <u>GSI</u>
Approved/Relinquished by: _____	Date: _____	Time: _____	Company: _____
Approved/Relinquished by: _____	Date: _____	Time: _____	Company: _____
Received by: <u>C. WHITE</u>	Date: _____	Time: _____	Company: _____
Received by: _____	Date: _____	Time: _____	Company: _____
Received by: _____	Date: _____	Time: _____	Company: _____

\*Approval constitutes as authorization to proceed with analysis and acceptance of conditions on back

Lab Client and Project Information	
Lab Client/Consultant: <u>GSI</u>	Project Name / #: <u>6239</u>
Lab Client Project Manager: <u>SAMANTHA CURTIS</u>	Project Location: <u>2993 6TH ST</u>
Lab Client Address: <u>7595 IRVINE CENTER DR SUITE 250</u>	Report E-Mail(s): <u>SCURTIS@GSI-NET.COM</u>
Lab Client City, State, Zip: <u>IRVINE CA 92618</u>	
Phone Number: <u>949 892 5239</u>	
Reporting Requirements	Turnaround Time
<input checked="" type="checkbox"/> Standard Report <input type="checkbox"/> Level III <input type="checkbox"/> Level IV	<input checked="" type="checkbox"/> Standard (7 days for preliminary report, 10 days for final report)
<input checked="" type="checkbox"/> Excel EDD <input type="checkbox"/> Other EDD: _____	<input type="checkbox"/> Rush (specify): _____
<input type="checkbox"/> CA Geotracker Global ID: _____	
Sampler Information	
Sampler(s): <u>C. WHITE</u>	
Signature: <u>C. White</u>	
Date: <u>5/18/23</u>	

Sample Receipt (Lab Use Only)	
Date Rec'd: <u>5/19/23</u>	Control #: <u>230248.02</u>
H&P Project #: <u>GSI051923-10</u>	
Lab Work Order #: <u>6 E305052</u>	
Sample In tact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Notes Below	
Receipt Gauge ID: <u>60206</u>	Temp: <u>RT</u>
Outside Lab: _____	
Receipt Notes/Tracking #: _____	Lab PM Initials: <u>MSR SM</u>

SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	SAMPLE TYPE Indoor Air (IA), Ambient Air (AA), Subslab (SS), Soil Vapor (SV)	CONTAINER SIZE & TYPE 400mL/1L/6L Summa, Tedlar, Tube, etc.	CONTAINER ID (#)	Lab use only: Receipt Vac	VOCs Standard Full List		VOCs Short List / Project List		Oxygenates		Naphthalene		TPHv as Gas		Aromatic/Aliphatic Fractions		Leak Check Compound		Methane by EPA 8015m		Fixed Gases by ASTM D1945	
								<input type="checkbox"/> 8260SV <input checked="" type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2				
VP-19-15		05/18/23	0959	SV	400 mL	615	-2	X	<input type="checkbox"/> 8260SV <input checked="" type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input checked="" type="checkbox"/> DFA <input type="checkbox"/> IPA <input type="checkbox"/> He	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-19-30			0959			612	-2	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-12-5			1230			623	-3	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-12-15			1230			617	-3	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-12-30			1230			624	-2	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-20-5			1306			619	-2	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-20-15			1306			626	-3	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-20-30			1306			618	-2	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-14-5			1344			630	-3	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
VP-14-15			1344			622	-3	X	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> 8260SV <input type="checkbox"/> TO-15	<input type="checkbox"/> CO2 <input type="checkbox"/> O2 <input type="checkbox"/> N2					
Approved/Relinquished by: <u>[Signature]</u>								Date: <u>5/18/23</u>	Time: <u>1500</u>	Company: <u>GSI</u>		Received by: <u>C. WHITE</u>		Date: <u>5/18/23</u>	Time: <u>1500</u>	Company: <u>H&amp;P</u>									
Approved/Relinquished by: _____								Date: _____	Time: _____	Company: _____		Received by: _____		Date: _____	Time: _____	Company: _____									
Approved/Relinquished by: _____								Date: _____	Time: _____	Company: _____		Received by: _____		Date: _____	Time: _____	Company: _____									

Additional Instructions to Laboratory:

\* Preferred VOC units (please choose one):  
 µg/L  µg/m<sup>3</sup>  ppbv  ppmv



## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: 951051823-TECH Date: 5/18/23  
 Site Address: 2993 16TH ST Page: 1 of 2  
 Consultant: GSI H&P Rep(s): C. WHITE  
 Consultant Rep(s): KONRAD

Reviewed: EC  
 Scanned: [Signature]

**Equipment Info**  
 Inline Gauge ID#: -  
 Pump ID#: 015, 039, 012

**Purge Volume Information**  
 PV Amount: 3PV PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 1,1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other:  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Point ID	Sample and Summa Information				Probe Specs				Purge & Collection Information											
	Summa ID #	Sample Kit ID #	Start Time	Initial Vac ("Hg)	End / Sample Time	End Vac ("Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	ProbeVac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H <sub>2</sub> O
1	607	059	0754	-29	0802	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	200	-60
2	603	334	0754	-28	0800	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	200	-10
3	602	334	0803	-26	0807	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2433	200	-	200	-10
4	608	156	0754	-29	0800	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	200	-5
5	609	002	0840	-26	0846	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	200	-80
6	610	115	0840	-30	0846	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	200	-85
7	611	317	0840	-27	0844	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	200	-5
8	613	160	0913	-30	0917	0	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	200	-5
9	614	081	0913	-30	0917	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	200	-15
10	616	211	1113	-30	1140	-5	5	6	1/4	12	2.25	6	2.25	✓	✓	1607	200	8:03	200	-95
11	615	032	0956	-30	0959	0	15	16.25	1/4	12	2.25	6	2.25	✓	✓	1778	200	8:54	200	-25
12	612	071	0956	-26	0959	0	30	31.5	1/4	12	2.25	6	2.25	✓	✓	2033	200	10:10	200	-15

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):  
 Y1W SHALLOW  
 BLUE MID  
 RED DEEP  
 (10) - 100 AFTER 1 MINUTE OF PURGE. START/SOP AND PAUSE TO MAINTAIN <100"  
 PARTIAL COLLECTION

## Log Sheet: Soil Vapor Sampling with Summa

H&P Project #: GS1051823-TECH Date: 5/18/23  
 Site Address: 2993 6TH ST Page: 2 of 2  
 Consultant: GS1 H&P Rep(s): C. WHITE  
 Consultant Rep(s): KONRAD

Reviewed: EC  
Scanned: JB

**Equipment Info**  
 Inline Gauge ID#: ---  
 Pump ID#: 015,039,012

**Purge Volume Information**  
 PV Amount: 3PV PV Includes:  Tubing  
 Sand 40%  
 Dry Bent 50%

**Leak Check Compound**  
 1,1-DFA  
 1,1,1,2-TFA  
 IPA  
 Other:  
 A cloth saturated with LCC is placed around tubing connections and probe seal. This is done for all samples unless otherwise noted.

Sample and Summa Information				Probe Specs				Purge & Collection Information												
Point ID	Summa ID #	Sample Kit ID #	Start Time	Initial Vac (" Hg)	End / Sample Time	End Vac (" Hg)	Probe Depth (ft)	Tubing Length (ft)	Tubing OD (in.)	Sand Ht (in.)	Sand Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Shut In Test 60 sec (✓)	Leak Check (✓)	Purge Vol (mL)	Purge Flow Rate (mL/min)	Pump Time (min:sec)	Sample Flow Rate (mL/min)	Probe Vac <input type="checkbox"/> Hg <input checked="" type="checkbox"/> H <sub>2</sub> O
1	VP-12-5	623	108	1226	-28	1230	0	6	1/4	12	2.25	6	2.25	X	X	1607	200	8:03	200	-15
2	VP-12-15	617	292	1226	-29	1230	0	16.25	1/4	12	2.25	6	2.25	X	X	1778	200	8:54	200	-5
3	VP-12-30	624	123	1226	-26	1230	0	31.5	1/4	12	2.25	6	2.25	X	X	2033	200	10:10	200	-5
4	VP-20-5	619	383	1302	-29	1306	0	6	1/4	12	2.25	6	2.25	X	X	1607	200	8:03	200	-5
5	VP-20-15	626	234	1302	-26	1306	0	16.25	1/4	12	2.25	6	2.25	X	X	1778	200	8:54	200	-10
6	VP-20-30	618	182	1302	-27	1306	0	31.5	1/4	12	2.25	6	2.25	X	X	2033	200	10:10	200	-10
7	VP-14-5	630	042	1339	-26	1344	0	6	1/4	12	2.25	6	2.25	X	X	1607	200	9:03	200	-5
8	VP-14-15	622	152	1339	-28	1344	0	16.25	1/4	12	2.25	6	2.25	X	X	1778	200	8:54	200	-5
9	VP-14-22	621	147	1339	-25	1344	0	23.5	1/4	12	2.25	6	2.25	X	X	1607	200	8:03	200	-15
10	VP-16-5	620	289	1428	-26	1432	0	6	1/4	12	2.25	6	2.25	X	X	1607	200	8:03	200	-15
11	VP-16-15	628	387	1428	-29	1432	0	16.25	1/4	12	2.25	6	2.25	X	X	1778	200	8:54	200	-5
12																				

Site Notes such as weather, visitors, scope deviations, health & safety issues, etc. (When making sample specific notes, reference the line number above):