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Organization:	DayZenLLC
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Appendix A

Air Quality Analysis Technical Appendices (AQ 1 through AQ 5)

Appendix AQ1
Emissions Support Data

Table AQ1-1 Walsh Data Center Engine Emissions Estimates

Fuel Data

Spec	Wt., lbs/gal	btu/gal	%S wt.	lbs S/10^3 gals	Lbs SO2/10^3 gals
ULSD	7.05	139000	0.0015	0.10575	0.2115

Note 1 - fuel density and heat content values are EPA defaults.
Note 2 - fuel Sulfur % value is CA std.

Engine Specification Data

Model QSK95 # of Engines: 32

BHP	Kwe	Load%	RPM	Fuel Use, gph	Stack Ht, ft.	Stack Diam, in	Stack Temp, deg F	ACFM	Stack Area, ft^2	Velocity, ft/sec	mmbtu/hr
4307	3212	100	1800	208	TBD	22	830	23365	2.64	147.52	28.912
3256	2430	75	1800	160	TBD	22	714	19695	2.64	124.35	22.24
2206	1645	50	1800	118	TBD	22	670	16018	2.64	101.13	16.402
1155	861	25	1800	68	TBD	22	630	10028	2.64	63.31	9.452
Model	QSK60		# of Engines:	1							
2922	2180	100	1800	141	TBD	20	859	15602	2.18	119.19	19.599
2192	1635	75	1800	106	TBD	20	775	12637	2.18	96.54	14.734
1461	1090	50	1800	76	TBD	20	727	9992	2.18	76.33	10.564
731	545	25	1800	44	TBD	20	674	6508	2.18	49.72	6.116

Model #	EPA Tier	Controls
QSK95	Tier 2	with DPF, turbocharged, aftercooled, O2 controls
QSK60	Tier 2	with DPF, turbocharged, aftercooled, O2 controls

Emissions Factors

Model	NOx g/bhp-hr	CO g/bhp-hr	VOC g/bhp-hr	SO2 g/bhp-hr	PM10 g/bhp-hr	PM2.5 g/bhp-hr	CO2 lb/mmbtu	CH4 lb/mmbtu	N2O lb/mmbtu	CO2e lb/mmbtu
QSK95	4.5	2.6	0.3	0.005	0.010	0.010	163.052	0.00661	0.001323	163.6009
QSK60	4.5	2.6	0.3	0.005	0.010	0.010	163.052	0.00661	0.001323	163.6009
						CARB GWP	1	21	310	

Note 1 - GHG GWP values from CARB, Title 17 CCR, Subchapter 10, Article 2.
Note 2 - SO2 emissions factor is the average value for all loads.
Note 3 - PM10 emissions will represent DPM surrogate emissions for HRA purposes.

QSK95 EMISSIONS SCENARIO RESULTS

Scenario 1 - 100% Load Full Standby Operations (Emergency Operations Only)

Hours/Day/Engine: 24
Hours/Yr/Engine: 100

Scenario 1 emissions are exempt from the permitting analysis.

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	42.73	24.69	2.85	0.047	0.095	0.095	4730
lbs/day	1025.50	592.51	68.37	1.14	2.28	2.28	113521
lbs/yr	4272.91	2468.79	284.86	4.75	9.50	9.50	473003
tons/yr	2.14	1.23	0.14	0.002	0.005	0.005	237

32 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	1367.3	790.0	91.2	1.5	3.0	3.0	151361.0
lbs/day	32816.0	18960.3	2187.7	36.5	72.9	72.9	3632663.3
tons/yr	68.4	39.5	4.6	0.08	0.15	0.15	7568.0

Scenario 2 - 100% Load Readiness Testing (Full Standby Operation - 15 Minute Test)

Hours/Day/Engine:	0.25
Hours/Yr/Engine:	50
Max Units Tested/Day:	10 non-concurrent operation

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	10.68	6.17	0.71	0.012	0.024	0.024	1182.51
lbs/day	10.68	6.17	0.71	0.012	0.024	0.024	1182.51

10 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/day	106.82	61.72	7.12	0.119	0.237	0.237	11825.08

Single Engine (using max hourly emissions at 50 hrs/yr)

tons/yr	1.068	0.617	0.071	0.001	0.002	0.002	118.25

32 Engines (using max hourly emissions at 50 hours/yr)

tons/yr	34.18	19.75	2.28	0.038	0.076	0.076	3784.0

Scenario 3 - Quarterly Testing (100% Load - 30 Minute Test)

Hours/Day/Engine:	0.5
Max Units Tested/Day:	10 non-concurrent operation

Single Engine

	NOX	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	21.36	12.34	1.42	0.024	0.047	0.047	2365
lbs/day	21.36	12.34	1.42	0.024	0.047	0.047	2365

10 Engines

	NOX	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/day	213.65	123.44	14.24	0.237	0.475	0.475	23650

Scenario 4 - Semi Annual Testing (100% Load - 1 Hour Test)

Hours/Day/Engine:	1
Max Units Tested/Day:	10 non-concurrent operation

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	42.73	24.69	2.85	0.047	0.095	0.095	4730
lbs/day	42.73	24.69	2.85	0.047	0.095	0.095	4730

10 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/day	427.29	246.88	28.49	0.475	0.950	0.950	47300

Scenario 5 - 5 Year Pull the Plug Tests (1 Hour Test)

Hours/Day/Engine:	1	
Max Units Tested/Day:	4	non-concurrent operation

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	42.73	24.69	2.85	0.047	0.095	0.095	4730.03
lbs/day	42.73	24.69	2.85	0.047	0.095	0.095	4730.03

4 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/day	170.92	98.75	11.39	0.190	0.380	0.380	18920.12

Additional Load Cases for the QSK95 Engine

Scenario 6 - 75% Load Case

Hours/Day/Engine:	1	
Max Units Tested/Day:	10	non-concurrent operation
Hours/Yr/Engine:	50	

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	32.30	18.66	2.15	0.036	0.072	0.072	3638
tons/yr	0.81	0.47	0.05	0.001	0.002	0.002	91

10 Engines

lbs/day	323.02	186.64	21.53	0.359	0.718	0.718	36385

32 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
tons/yr	25.84	14.93	1.72	0.029	0.057	0.057	2911

Scenario 7 - 50% Load Case

Hours/Day/Engine:	1	
Max Units Tested/Day:	10	non-concurrent operation
Hours/Yr/Engine:	50	

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	21.89	12.64	1.46	0.024	0.049	0.049	2683
tons/yr	0.55	0.32	0.04	0.001	0.001	0.001	67

10 Engines

lbs/day	218.85	126.45	14.59	0.243	0.486	0.486	26834

32 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
tons/yr	17.51	10.12	1.17	0.019	0.039	0.039	2147

Scenario 8 - 25% Load Case

Hours/Day/Engine:	1	
Max Units Tested/Day:	10	non-concurrent operation
Hours/Yr/Engine:	50	

Single Engine

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	11.46	6.62	0.76	0.013	0.025	0.025	1546
tons/yr	0.29	0.17	0.02	0.0003	0.001	0.001	39

10 Engines

lbs/day	114.59	66.21	7.64	0.127	0.255	0.255	15464

32 Engines

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
tons/yr	9.17	5.30	0.61	0.010	0.020	0.020	1237

Scenario 9 - Commissioning Emissions Estimates

# Engines Commissioned per day:	0	
# Engines:	0	

Commissioning Load and Ops Data

				Full Stndby
Load	25%	50%	75%	100%
BHP at 1800 rpm	1155	2206	3258	4307
Fuel Consumption, gal/hr	68	118	160	208
Exhaust, acfm	10028	16018	19695	23365
Exhaust, deg F	630	670	714	830
NOx, g/bhp-hr	4.500	4.500	4.500	4.500
VOC, g/bhp-hr	0.300	0.300	0.300	0.300
CO, g/bhp-hr	2.600	2.600	2.600	2.600
PM10, g/bhp-hr	0.010	0.010	0.010	0.010
SOx, g/bhp-hr	0.005	0.005	0.005	0.005
# Hrs at each load point:	0.0	0.0	0.0	0.0

Commissioning Emissions per Engine

NOx, lbs per load point	0.00	0.00	0.00	0.00
VOC, lbs per load point	0.00	0.00	0.00	0.00
CO, lbs per load point	0.00	0.00	0.00	0.00
PM10, lbs per load point	0.00	0.00	0.00	0.00
SOx, lbs per load point	0.00	0.00	0.00	0.00

Total Commissioning Emissions

	lbs/day per Engine	Total lbs all Engines	Total tons all Engines
NOx	0.00	0.0	0.00
VOC	0.00	0.0	0.00
CO	0.00	0.0	0.00
PM10	0.00	0.0	0.00
SOx	0.00	0.0	0.00

QSK60 EMISSIONS SCENARIO RESULTS

Hours/Day/Engine: 1 **100% Load Case**
Hours/Yr/Engine: 50

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	28.99	16.75	1.93	0.032	0.064	0.064	3206
lbs/day	28.99	16.75	1.93	0.032	0.064	0.064	3206
tons/yr	0.72	0.42	0.05	0.001	0.002	0.002	80

Hours/Day/Engine: 1 **75% Load Case**
Hours/Yr/Engine: 50

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	21.75	12.56	1.45	0.024	0.048	0.048	2410
lbs/day	21.75	12.56	1.45	0.024	0.048	0.048	2410
tons/yr	0.54	0.31	0.04	0.001	0.001	0.001	60

Hours/Day/Engine: 1 **50% Load Case**
Hours/Yr/Engine: 50

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	14.49	8.37	0.97	0.016	0.032	0.032	1728
lbs/day	14.49	8.37	0.97	0.016	0.032	0.032	1728
tons/yr	0.36	0.21	0.024	0.0004	0.0008	0.0008	43

Hours/Day/Engine: 1 **25% Load Case**
Hours/Yr/Engine: 50

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/hr	7.25	4.19	0.48	0.008	0.016	0.016	1001
lbs/day	7.25	4.19	0.48	0.008	0.016	0.016	1001
tons/yr	0.18	0.10	0.012	0.0002	0.0004	0.0004	25

Annual Emissions Summary from the Proposed Composite Load Scenario

NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
tpy	tpy	tpy	tpy	tpy	tpy	tpy
19.57	11.31	1.30	0.022	0.043	0.043	2313

EMISSIONS SUMMARY

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
Max lbs/hr	42.73	24.69	2.85	0.047	0.095	0.093	4730
Max lbs/day	427.29	246.88	28.49	0.475	0.950	0.950	47300
Max tons/yr	19.57	11.31	1.30	0.022	0.043	0.043	2313

BAAQMD Significance Thresholds

	NOx	CO	VOC	SO2	PM10	PM2.5	CO2e
lbs/day	54	NA	54	NA	82	54	NA
Exceeded	***Yes***	*NA*	***No***	*NA*	***No***	***No***	*NA*
TPY	10	NA	10	NA	15	10	11023
Exceeded	***Yes***	*NA*	***No***	*NA*	***No***	***No***	*No*

Table AQ1-2 Composite Load Operation and Emissions Scenario for WDC

These composite emissions factors were developed for WDC for use in the calculation of annual emissions due to runtime and load data supplied by the Applicant.

Engine		25% Load	50% Load	75% Load	100% Load
QSK95	Hrs/Yr	15	15	15	5
QSK60	Hrs/Yr	15	15	15	5

		25% Load	50% Load	75% Load	100% Load
QSK95	HP	1155	2206	3256	4307
QSK60	HP	731	1461	2192	2922
QSK95	mmbtu/hr	9.452	16.402	22.24	28.912
QSK60	mmbtu/hr	6.116	10.564	14.734	19.599

NSPS Efs	g/bhp-hr
NOx	4.5
CO	2.6
VOC	0.3
PM10/2.5	0.15
SO2	0.005

	lb/mmbtu
CO2e	163.6009

		g/bhp-hr				Composite EFs g/bhp-hr	
		25% Load	50% Load	75% Load	100% Load	QSK95	QSK60
QSK95	Nox	4.5	4.5	4.5	4.5	4.5	4.5
	CO	2.6	2.6	2.6	2.6	2.6	2.6
	VOC	0.3	0.3	0.3	0.3	0.3	0.3
	PM10/2.5	0.01	0.01	0.01	0.01	0.01	0.01
	SO2	0.005	0.005	0.005	0.005	0.005	0.005
QSK60	Nox	4.5	4.5	4.5	4.5		
	CO	2.6	2.6	2.6	2.6		
	VOC	0.3	0.3	0.3	0.3		
	PM10/2.5	0.01	0.01	0.01	0.01		
	SO2	0.005	0.005	0.005	0.005		

QSK95 Emissions

	25% Load	50% Load	75% Load	100% Load	Single Engine Total	Total	32 Engines
	lbs/yr	lbs/yr	lbs/yr	lbs/yr	**lbs/yr**	**tpy**	**Total TPY**
Nox	171.88	328.28	484.53	213.65	1198.34	0.599	19.17
CO	99.31	189.67	279.95	123.44	692.37	0.346	11.08
VOC	11.46	21.89	32.30	14.24	79.89	0.040	1.28
PM10/2.5	0.382	0.730	1.077	0.475	2.66	0.0013	0.0426
SO2	0.191	0.365	0.538	0.237	1.33	0.0007	0.021
CO2e	23195	40251	54577	23650	141673	71	2267

QSK60 Emissions

	25% Load	50% Load	75% Load	100% Load	Total	Total
	lbs/yr	lbs/yr	lbs/yr	lbs/yr	**lbs/yr**	**tpy**
Nox	108.78	217.42	326.20	144.94	797.34	0.399
CO	62.85	125.62	188.47	83.75	460.68	0.230
VOC	7.25	14.49	21.75	9.66	53.16	0.027
PM10/2.5	0.242	0.483	0.725	0.322	1.77	0.00089
SO2	0.121	0.242	0.362	0.161	0.89	0.0004
CO2e	15009	25924	36157	16032	93122	47

Total Annual Emissions (Tons/yr) from Both Types of Engines for the Testing Load Composite Scenario

Nox	CO	VOC	PM10/2.5	SO2	CO2e
19.57	**11.31**	**1.30**	**0.043**	**0.022**	**2313**

Appendix AQ2
Engine Specifications

Specification sheet

Diesel Generator set QSK95 series engine

2500 kW-3500 kW 60 Hz
EPA Tier 2 emissions regulated

Description

Cummins Power Generation commercial generator sets are fully integrated power generation systems providing optimum performance, fuel economy, reliability and versatility for stationary standby, prime and continuous power applications.

Features

Cummins® heavy-duty engine - Rugged 4-cycle, industrial diesel delivers reliable power, low emissions and fast response to load changes.

Alternator - Several alternator sizes offer selectable motor starting capability with low reactance windings, low waveform distortion with non-linear loads and fault clearing short-circuit capability.

Control system - The PowerCommand® digital control is standard equipment and provides total genset system integration including automatic remote starting/stopping, precise frequency and voltage regulation, alarm and status message display, AmpSentry™ protective relay, output metering and auto-shutdown.

Cooling system - Standard and enhanced integral set-mounted radiator systems, designed and tested for rated ambient temperatures, simplifies facility design requirements for rejected heat. Also optional remote cooled configuration for non-factory supplied cooling systems.

Warranty and service - Backed by a comprehensive warranty and worldwide distributor network.

NFPA - The generator set accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

	Standby rating	Prime rating	Continuous rating	Emissions compliance	Data sheets
Model	60 Hz kW (kVA)	60 Hz kW (kVA)	60 Hz kW (kVA)	EPA	60 Hz
C3000 D6e	3000 (3750)	2750 (3438)	2500 (3125)	EPA Tier 2	NAD-5942-EN
C3250 D6e	3250 (4063)	3000 (3750)	2500 (3125)	EPA Tier 2	NAD-3527-EN
C3500 D6e	3500 (4375)	3000 (3750)	2750 (3438)	EPA Tier 2	NAD-5917-EN

Note: All ratings include radiator fan losses.

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Generator set specifications

Governor regulation class	ISO 8528 Part 1 Class G3
Voltage regulation, no load to full load	± 0.5%
Random voltage variation	± 0.5%
Frequency regulation	Isochronous
Random frequency variation	± 0.25%
Radio frequency emissions compliance	47 CFR FCC PART 15 Subpart B (Class A for industrial)

Engine specifications

Bore	190 mm (7.48 in)
Stroke	210 mm (8.27 in)
Displacement	95.3 litres (5815 in^3)
Configuration	Cast iron, V 16 cylinder
Battery capacity	6 x 1400 amps minimum at ambient temperature of -18 °C (0 °F)
Battery charging alternator	145 amps
Starting voltage	24 volt, negative ground
Fuel system	Cummins Modular Common Rail System
Fuel filter	On engine triple element, 5 micron primary filtration with water separators, 3 micron/2 micron (filter in filter design) secondary filtration
Fuel transfer pump	Electronic variable speed priming and lift pump
Breather	Cummins impactor breather system
Air cleaner type	Unhoused dry replaceable element
Lube oil filter type(s)	Spin-on combination full flow filter and bypass filters
Standard cooling system	High ambient cooling system (ship loose)

Alternator specifications

Design	Brushless, 4 pole, drip proof, revolving field
Stator	Optimal
Rotor	Two bearing, flexible coupling
Insulation system	Class H on low and medium voltage, Class F on high voltage
Standard temperature rise	125 ºC standby / 105 ºC prime
Exciter type	Optimal
Phase rotation	A (U), B (V), C (W)
Alternator cooling	Direct drive centrifugal blower fan
AC waveform total harmonic distortion	< 5% no load to full linear load, < 3% for any single harmonic
Telephone influence factor (TIF)	< 50 per NEMA MG1-22.43
Telephone harmonic factor (THF)	< 3
Anti-condensation heater	1400 watt

Available voltages

60 Hz line-neutral/line-line

- 220/380
- 240/416
- 255/440
- 7200/12470
- 277/480
- 347/600
- 2400/4160
- 7620/13200
- 7970/13800

Note: Consult factory for other voltages.

Generator set options and accessories

Engine

- ☐ 480 V thermostatically controlled coolant heater for ambient above 4.5 °C (40 °F)
- ☐ Heavy duty air cleaner
- ☐ Redundant fuel filter
- ☐ Air starter
- ☐ Redundant electric starting ☐ Eliminator oil filter system
- ☐ Lube oil make up
- ☐ Impactor breather filter

Alternator

- ☐ 80 °C rise
- ☐ 105 °C rise
- ☐ 125 °C rise
- ☐ 150 °C rise
- ☐ Differential current transformers

Cooling system

- ☐ Enhanced high ambient cooling system (ship loose)
- ☐ Remote cooled configuration

Control panel

- ☐ Multiple language support
- ☐ Ground fault indication
- ☐ Remote annunciator panel
- ☐ Paralleling and shutdown alarm relay package
- ☐ Floor mounted pedestal installed control panel

Generator set

- ☐ Battery
- ☐ Battery charger
- ☐ LV and MV entrance box
- ☐ Spring isolators
- ☐ Factory witness tests
- ☐ IBC, OSHPD, IEEE seismic certification

Warranty

- ☐ 3, 5, or 10 years for standby including parts (labor and travel optional)
- ☐ 2 or 3 years for prime including parts, labor and travel

Note: Some options may not be available on all models - consult factory for availability.

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PowerCommand 3.3 Control System

An integrated microprocessor based generator set control system providing voltage regulation, engine protection, alternator protection, operator interface and isochronous governing. Refer to document S-1570 for more detailed information on the control.
AmpSentry – Includes integral AmpSentry protection, which provides a full range of alternator protection functions that are matched to the alternator provided.
Power management – Control function provides battery monitoring and testing features and smart starting control system.
Advanced control methodology – Three phase sensing, full wave rectified voltage regulation, with a PWM output for stable operation with all load types.
Communications interface – Control comes standard with PCCNet and Modbus interface.
Regulation compliant – Prototype tested: UL, CSA and CE compliant.
Service - InPower™ PC-based service tool available for detailed diagnostics, setup, data logging and fault simulation.
Easily upgradeable – PowerCommand controls are designed with common control interfaces.
Reliable design – The control system is designed for reliable operation in harsh environment.
Multi-language support

Operator panel features

Operator/display functions
- Displays paralleling breaker status
- Provides direct control of the paralleling breaker
- 320 x 240 pixels graphic LED backlight LCD
- Auto, manual, start, stop, fault reset and lamp test/panel lamp switches
- Alpha-numeric display with pushbuttons
- LED lamps indicating genset running, remote start, not in auto, common shutdown, common warning, manual run mode, auto mode and stop

Paralleling control functions
- First Start Sensor System selects first genset to close to bus
- Phase Lock Loop Synchronizer with voltage matching
- Sync check relay
- Isochronous kW and kVar load sharing
- Load govern control for utility paralleling
- Extended Paralleling (baseload/peak shave) Mode
- Digital power transfer control, for use with a breaker pair to provide open transition, closed transition, ramping closed transition, peaking and base load functions.

Other control features
- 150 watt anti-condensation heater
- DC distribution panel
- AC auxiliary distribution panel

Alternator data
- Line-to-neutral and line-to-line AC volts
- 3-phase AC current
- Frequency
- kW, kvar, power factor kVA (three phase and total)
- Winding temperature
- Bearing temperature

Engine data
- DC voltage
- Engine speed
- Lube oil pressure and temperature
- Coolant temperature
- Comprehensive FAE data (where applicable)

Other data
- Genset model data
- Start attempts, starts, running hours, kW hours
- Load profile (operating hours at % load in 5% increments)
- Fault history
- Data logging and fault simulation (requires InPower)
- Air cleaner restriction indication
- Exhaust temperature in each cylinder

Standard control functions

Digital governing
- Integrated digital electronic isochronous governor
- Temperature dynamic governing

Digital voltage regulation
- Integrated digital electronic voltage regulator
- 3-phase, 4-wire line-to-line sensing
- Configurable torque matching

AmpSentry AC protection
- AmpSentry protective relay
- Over current and short circuit shutdown
- Over current warning
- Single and three phase fault regulation
- Over and under voltage shutdown
- Over and under frequency shutdown
- Overload warning with alarm contact
- Reverse power and reverse var shutdown
- Field overload shutdown

Engine protection
- Battery voltage monitoring, protection and testing
- Overspeed shutdown
- Low oil pressure warning and shutdown
- High coolant temperature warning and shutdown
- Low coolant level warning or shutdown
- Low coolant temperature warning
- Fail to start (overcrank) shutdown
- Fail to crank shutdown
- Cranking lockout
- Sensor failure indication
- Low fuel level warning or shutdown
- Fuel-in-rupture-basin warning or shutdown
- Full authority electronic engine protection

Control functions
- Time delay start and cool down
- Real time clock for fault and event time stamping
- Exerciser clock and time of day start/stop
- Data logging
- Cycle cranking
- Load shed
- Configurable inputs and outputs (20)
- Remote emergency stop

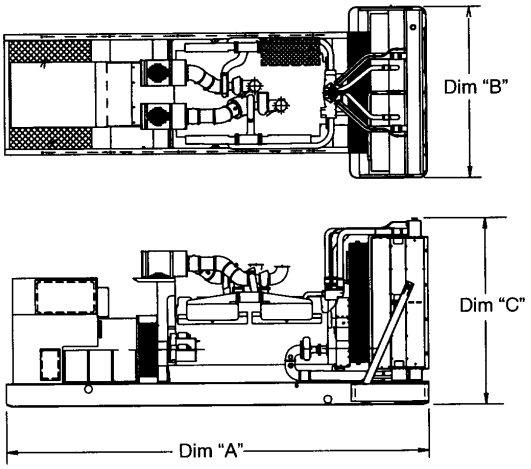
Ratings definitions

Emergency standby power (ESP):
Applicable for supplying power to varying electrical loads for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Limited-time running power (LTP):
Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.

Prime power (PRP):
Applicable for supplying power to varying electrical loads for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

Base load (continuous) power (COP):
Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.



This outline drawing is for reference only. See PowerSuite Library for specific model outline drawing number.

Do not use for installation design

Model	Dim "A"* mm (in.)	Dim "B"* mm (in.)	Dim "C"* mm (in.)	Set Weight* dry kg (lbs)	Set Weight* wet kg (lbs)
C3000 D6e	7902 (311)	3028 (119)	3663 (144)	29526 (65092)	31194 (68771)
C3250 D6e	7902 (311)	3028 (119)	3663 (144)	29526 (65092)	31194 (68771)
C3500 D6e	7902 (311)	3028 (119)	3663 (144)	29526 (65092)	31194 (68771)

* Weights and dimensions represent a set with standard features and alternator frame P80X. See outline drawing for weights and dimensions of other configurations.

Codes and standards

Codes or standards compliance may not be available with all model configurations – consult factory for availability.

ISO 9001	This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002.	UL	The generator set is available listed to UL 2200, Stationary Engine Generator Assemblies for all 60 Hz low voltage models. The PowerCommand control is Listed to UL 508 - Category NITW7 for U.S. and Canadian usage.
PTS	The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins Power Generation products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems.	**U.S. EPA**	Engine certified to Stationary Emergency U.S. EPA New Source Performance Standards, 40 CFR 60 subpart IIII Tier 2 exhaust emission levels. U.S. applications must be applied per this EPA regulation.
CSA	All models are CSA certified to product class 4215-01.		

Cummins Power Generation

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Fax 65 6417 2399

Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.

Our energy working for you.™

NAS-5849b-EN (8/15)

Power Generation

power.cummins.com

Generator Set Data Sheet

Power Generation

Model: C3000 D6e
Frequency: 60 Hz
Fuel type: Diesel
kW rating: 3000 standby
2750 prime
2500 continuous
Emissions level: EPA NSPS Stationary Emergency Tier 2

Fuel consumption

	Standby kW (kVA)				Prime kW (kVA)				Continuous kW (kVA)			
Ratings	3000 (3750)				2750 (3438)				2500 (3125)			
Ratings without fan[1]	3075 (3844)				2826 (3532)				2576 (3220)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
US gph	67	113	158	203	63	104	145	187	59	97	134	172
L/hr	254	428	598	768	238	394	549	708	223	367	507	651

[1]Ratings for reference with the optional remote radiator cooling configuration. See note 1 under “Alternator data” section.

Engine

	Standby rating	Prime rating	Continuous rating
Engine model	QSK95-G9		
Configuration	Cast iron, Vee, 16 cylinder		
Aspiration	Turbocharged and Aftercooled		
Gross engine power output, kWm (bhp)	3213 (4307)	2923 (3918)	2665 (3572)
BMEP at set rated load, kPa (psi)	2248 (326)	2041 (296)	1862 (270)
Bore, mm (in)	190.0 (7.48)		
Stroke, mm (in)	210.1 (8.27)		
Rated speed, rpm	1800		
Piston speed, m/s (ft/min)	12.6 (2480)		
Compression ratio	15.5:1		
Lube oil capacity, L (qt)	647 (684)		
Overspeed limit, rpm	2070		
Regenerative power, kW	321		

Fuel flow

Maximum fuel flow, L/hr (US gph)	1601.1 (423)
Maximum fuel inlet restriction with clean filter, kPa (inHg)	13.5 (4)
Maximum fuel return line restriction, kPa (inHg)	34 (10)
Maximum fuel inlet temperature, °C (°F)	71.1 (160)
Maximum fuel outlet temperature, °C (°F)	92.2 (198)

Air

Combustion air, m^3/min (scfm)	270 (9550)	265 (9350)	260 (9170)
Maximum air cleaner restriction with clean filter, mmH_2O (inH_2O)	457 (18)		
Alternator cooling air, m^3/min (scfm)	255 (9005)		

Exhaust

Exhaust flow at set rated load, m^3/min (cfm)	641 (22630)	605 (21370)	573 (20250)
Exhaust temperature at set rated load, °C (°F)	441 (825)	414 (778)	392 (737)
Maximum back pressure, kPa (inH_2O)	7 (28)		

Standard set-mounted radiator cooling	Standby rating	Prime rating	Continuous rating
Ambient design, °C (°F)	48 (118)		
Fan load, kWm (HP)	78 (105)		
Coolant capacity (with radiator), L (US gal)	1120 (296)		
Cooling system air flow, m^3/min (scfm)	3135 (110700)		
Maximum cooling air flow static restriction, kPa (inH_2O)	0.12 (0.5)		

Optional set-mounted radiator cooling

Ambient design, °C (°F)	50 (122)		
Fan load, kWm (HP)	78 (105)		
Coolant capacity (with radiator), L (US gal)	1120 (296)		
Cooling system air flow, m^3/min (scfm)	3135 (110700)		
Maximum cooling air flow static restriction, kPa (inH_2O)	0.12 (0.5)		

Optional remote radiator cooling

Engine coolant capacity, L (US gal)	379 (100)		
Max flow rate at max friction head, jacket water circuit, L/min (US gal/min)	3081 (814)		
Max flow rate at max friction head, aftercooler circuit, L/min (US gal/min)	651 (172)		
Heat rejected, jacket water circuit, MJ/min (Btu/min)	90 (85280)	81.60 (77310)	74.10 (70230)
Heat rejected, aftercooler circuit, MJ/min (Btu/min)	21.30 (20190)	20.20 (19110)	19.10 (18150)
Heat rejected, fuel circuit, MJ/min (Btu/min)	0.26 (248)	0.23 (222)	0.21 (199)
Total heat radiated to room, MJ/min (Btu/min)	24.70 (23380)	22.60 (21390)	20.60 (19570)
Maximum friction head, jacket water circuit, kPa (psi)	83 (12)		
Maximum friction head, aftercooler circuit, kPa (psi)	83 (12)		
Maximum static head above engine crank centerline, jacket water circuit, m (ft)	18 (60)		
Maximum static head above engine crank centerline, aftercooler circuit, m (ft)	18 (60)		
Maximum jacket water outlet temp, °C (°F)	104.4 (220)	100 (212)	100 (212)
Maximum aftercooler inlet temp, °C (°F)	71.1 (160)	68 (155)	68 (155)
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient, °C (°F)	46.1 (115)		

Note: For non-standard remote installations contact your local Cummins Power Generation representative.

Weights

Unit dry weight kg (lb)	29500 (65092)
Unit wet weight kg (lb)	31200 (68771)

Note: Weights represent a set with standard features and alternator frame P80X. See outline drawing for weights of other configurations.

Derating factors

Standby	Full genset power available up to 1917 m (6289 ft) at ambient temperatures up to 40 °C (104 °F) and 1410 m (4626 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 3.6% per 305 m (1000 ft) and 4% per 10 °C (18 °F).
Prime	Full genset power available up to 2051 m (6729 ft) at ambient temperatures up to 40 °C (104 °F) and 1644 m (5394 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 3.4% per 305 m (1000 ft) and 8% per 10 °C (18 °F).
Continuous	Full genset power available up to 1628 m (5341 ft) at ambient temperatures up to 40 °C (104 °F) and 885 m (2904 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 3.4% per 305 m (1000 ft) and 6% per 10 °C (18 °F).

Ratings definitions

Emergency standby power (ESP)	Limited-time running power (LTP)	Prime power (PRP)	Base load (continuous) power (COP)
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

2017 EPA Tier 2 Exhaust Emission Compliance Statement
C3000 D6e
Stationary Emergency
60 Hz Diesel Generator Set

Compliance Information:

The engine used in this generator set complies with Tier 2 emissions limit of U.S. EPA New Source Performance Standards for stationary emergency engines under the provisions of 40 CFR 60 Subpart IIII when tested per ISO8178 D2.

Engine Manufacturer:	Cummins Inc
EPA Certificate Number:	HCEXL95.0AAA-028
Effective Date:	11/17/2016
Date Issued:	11/17/2016
EPA Engine Family (Cummins Emissions Family):	HCEXL95.0AAA (A0M3)

Engine Information:

Model:	QSK95-G9	Bore:	7.48 in. (190 mm)
Engine Nameplate HP:	5051	Stroke:	8.27 in. (210 mm)
Type:	4 Cycle, Vee, 16 Cylinder Diesel	Displacement:	5816 cu. in. (95.3 liters)
Aspiration:	Turbocharged and Aftercooled	Compression Ratio:	15.5:1
Emission Control Device:	Turbocharger and Aftercooled	Exhaust Stack Diameter:	14 in.

Diesel Fuel Emission Limits

D2 Cycle Exhaust Emissions

	Grams per BHP-hr			Grams per kWm-hr		
	NOx + NMHC	CO	PM	NOx + NMHC	CO	PM
EPA Emissions Limit	4.8	2.6	0.15	6.4	3.5	0.20
Test Results - Diesel Fuel (<15 ppm Sulfur)	4.62	0.52	0.11	6.2	0.7	0.15

The CARB emission values are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.
Test Methods: EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A for Constant Speed Engines (ref. ISO8178-4, D2)

Diesel Fuel Specifications: Cetane Number: 40-48. Reference: ASTM D975 No. 2-D.
Reference Conditions: Air Inlet Temperature: 25°C (77°F), Fuel Inlet Temperature: 40°C (104°F). Barometric Pressure: 100 kPa (29.53 in Hg), Humidity: 10.7 g/kg (75 grains H2O/lb) of dry air; required for NOx correction, Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to a maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.
Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.

Exhaust Emission Data Sheet
C3000 D6e
60 Hz Diesel Generator Set
Tier 2

Engine Information:

Model:	Cummins Inc. QSK95-G9	Bore:	7.48 in. (190 mm)
Type:	4 Cycle, VEE, 16 Cylinder Diesel	Stroke:	8.27 in. (210 mm)
Aspiration:	Turbocharged and Aftercooled	Displacement:	5816 cu. in. (95.3 liters)
Compression Ratio:	15.5:1		
Emission Control Device:	Turbocharger and Aftercooled.		
Emission Level:	Stationary Emergency Emission-Nonroad		

	1/4	1/2	3/4	Full	Full	Full
PERFORMANCE DATA	**Standby**	**Standby**	**Standby**	**Standby**	**Prime**	**Continuous**
BHP @ 1800 RPM (60 Hz)	1155	2206	3256	4307	3918	3572
Fuel Consumption (Gal/Hr)	68	118	160	208	190	174
Exhaust Gas Flow (CFM)	10028	16018	19695	23365	21993	20776
Exhaust Gas Temperature (°F)	630	670	714	830	783	745
EXHAUST EMISSION DATA						
HC (Total Unburned Hydrocarbons)	0.30	0.18	0.10	0.07	0.08	0.09
NOx (Oxides of Nitrogen as NO2)	3.44	3.26	4.23	5.23	4.86	4.54
CO (Carbon Monoxide)	0.46	0.23	0.14	0.21	0.18	0.16
PM (Particulate Matter)	0.207	0.100	0.058	0.045	0.049	0.053
SO2 (Sulfur Dioxide)	0.006	0.005	0.005	0.005	0.005	0.005
Smoke (FSN)	0.92	0.61	0.46	0.44	0.44	0.45

All Values are Grams/HP-Hour

TEST CONDITIONS

Steady-State emissions recorded per ISO8178-1 during operation at rated engine speed (+/-2%) and stated constant load (+/-2%) with engine temperatures, pressures and emission rates stabilized.

Fuel Specification:	40-48 Cetane Number, 0.03 -0.05 Wt.% Sulfur; Reference ISO8178-5, 40CFR86, 1313--98 Type 2-D and ASTM D975 No. 2-D.
Air Inlet Temperature :	25°C (77°F)
Fuel Inlet Temperature:	40°C (104°F)
Barometric Pressure:	100 kPa (29.53 in Hg)
Humidity:	NOx measurement corrected to 10.7 g/kg (75 grains H2O/lb) of dry air
Intake Restriction:	set to maximum allowable limit for clean filter
Exhaust Back Pressure:	Set to maximum allowable limit.

The NOx, HC, CO and PM emission data tabulated here are representative of test data taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine-to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may results in elevated emission levels.

Exhaust emission data sheet 2000DQKAE

60 Hz Diesel generator set
EPA NSPS stationary emergency

Engine information:

Model:	Cummins Inc. QSK60-G6 NR2	Bore:	6.25 in. (159 mm)
Type:	4 Cycle, 60° V, 16 cylinder diesel	Stroke:	7.48 in. (190 mm)
Aspiration:	Turbocharged and low temperature after-cooled (2 pump/2 loop)	Displacement:	3673 cu. in. (60.1 liters)
Compression ratio:	14.5:1		
Emission control device:	Electronic control		

Performance data	1/4 Standby	1/2 Standby	3/4 Standby	Full Standby	Full Prime
BHP @ 1800 RPM (60 Hz)	731	1461	2192	2922	2647
Fuel consumption (Gal/Hr)	44	76	106	141	126
Exhaust gas flow (CFM)	6508	9992	12637	15602	14314
Exhaust gas temperature (°F)	674	727	775	859	822
Exhaust emission data					
HC (Total unburned hydrocarbons)	0.28	0.15	0.1	0.08	0.09
NOx (Oxides of nitrogen as NO2)	3.36	3.54	4.95	5.6	5.61
CO (Carbon monoxide)	0.57	0.22	0.13	0.32	0.13
PM (Particular matter)	0.2	0.08	0.02	0.03	0.02
SO2 (Sulfur dioxide)	0.01	0.01	0.01	0.01	0.004
Smoke (Bosch)	0.59	0.32	0.1	0.16	0.1

All values are Grams per HP-Hour

Test conditions

Data is representative of steady-state engine speed (± 25 RPM) at designated genset loads. Pressures, temperatures, and emission rates were stabilized.

Fuel specification:	ASTM D975 No. 2-D diesel fuel with ULSD, and 40-48 cetane number.
Fuel temperature	99 ± 9 °F (at fuel pump inlet)
Intake air temperature:	77 ± 9 °F
Barometric pressure:	29.6 ± 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H2O/lb dry air
Reference standard:	ISO 8178

The NOx, HC, CO and PM emission data tabulated here are representative of test data taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine-to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may results in elevated emission levels.

Appendix AQ3
Modeling Support Data

Table AQ3-1 **DLR 651 Walsh Data Center Screening Analysis**

QSK95 Engines (32) - Upper Tier (16)

Emergency Generator*	**EG01**	**EG02**	**EG03**	**EG04**	**EG05**	**EG06**	**EG07**	**EG08**	**EG09**
Load %	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
bhp	4307	4307	4307	4307	4307	4307	4307	4307	4307
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12
Stack Exit Temp (deg.F)	830	830	830	830	830	830	830	830	830
Volumetric Flowrate ACFM	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365
Stack Velocity (ft/sec)	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03
Stack Exit Temp (deg.K)	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48
Stack Exit Velocity (m/s)	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	Short-term Screening Emissions (lb/hr/engine) and Unitized Screening Impacts (ug/m3 for 1.0 g/s/engine)								
NOx (lb/hr/engine)	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73
CO (lb/hr/engine)	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69
SO2 (lb/hr/engine)	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
PM (lb/hr/engine)	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
1-Hr Unitized Conc (ug/m3)	135.79302	147.09412	145.61922	145.07310	141.18597	139.02821	112.64346	123.23210	138.29549
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6
YYMMDDHH	14123109	13042210	13011408	13011408	14123109	15121017	17032409	14112015	14112015
3-Hr Unitized Conc (ug/m3)	101.75723	108.19995	109.90192	113.30826	114.62486	115.71674	64.87416	66.76700	63.15689
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593245.5	593260.0	593260.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136470.6	4136440.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.7	12.6	12.5
YYMMDDHH	17041312	17041312	17041312	17041315	17041315	17041315	13112115	13112115	13112115
8-Hr Unitized Conc (ug/m3)	77.74533	84.26517	84.90355	79.94546	75.88738	76.00704	44.43402	43.54423	42.46096
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593300.0	593300.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.5	12.5	12.1
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17041316	16041216	16041216	16041216
24-Hr Unitized Conc (ug/m3)	27.28826	29.29242	29.74497	26.65010	25.29715	25.33674	17.96071	17.74356	17.11301
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593340.0	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136480.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.1	12.1	12.1
YYMMDDHH	16052024	16052024	16052024	17041324	17041324	17041324	13022024	13022024	13022024
	Short-term Pollutant Emissions (g/s/engine) and Pollutant Screening Impacts (ug/m3/engine)								
NOx (g/s/engine)	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839
CO (g/s/engine)	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107
SO2 (g/s/engine)	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060
PM (g/s/engine)	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120
1-Hour NOx (ug/m3)	731.096	791.940	783.999	781.059	760.131	748.514	606.461	663.469	744.569
1-Hour CO (ug/m3)	422.411	457.566	452.978	451.279	439.187	432.475	350.400	383.338	430.196
8-Hour CO (ug/m3)	241.842	262.124	264.109	248.686	236.063	236.435	138.221	135.453	132.083
1-Hour SO2 (ug/m3)	0.815	0.883	0.874	0.870	0.847	0.834	0.676	0.739	0.830
3-Hour SO2 (ug/m3)	0.611	0.649	0.659	0.680	0.688	0.694	0.389	0.401	0.379
24-Hour SO2 (ug/m3)	0.164	0.176	0.178	0.160	0.152	0.152	0.108	0.106	0.103
24-Hour PM (ug/m3)	0.327	0.352	0.357	0.320	0.304	0.304	0.216	0.213	0.205

Worst-Case Engine for THIS load bolded Worst-Case Engine for ALL loads highlighted

*Emergency Generator stacks are numbered from west to east, first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-1

DLR 651 Walsh Data Center Scr

QSK95 Engines (32) - Lower Tie

Emergency Generator*	**EG10**	**EG11**	**EG12**	**EG13**	**EG14**	**EG15**	**EG16**	**EG17**	**EG18**
Load %	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
bhp	4307	4307	4307	4307	4307	4307	4307	4307	4307
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	830	830	830	830	830	830	830	830	830
Volumetric Flowrate ACFM	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365
Stack Velocity (ft/sec)	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	16.03	13.87	13.87
Stack Exit Temp (deg.K)	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48
Stack Exit Velocity (m/s)	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
								Short-term Screening Emission	
NOx (lb/hr/engine)	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73
CO (lb/hr/engine)	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69
SO2 (lb/hr/engine)	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
PM (lb/hr/engine)	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
1-Hr Unitized Conc (ug/m3)	147.39325	144.26441	148.37892	147.84592	148.55042	148.69805	129.63031	142.54815	143.67139
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593273.4	593273.4
Y(m)	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136616.9	4136621.7	4136621.7
Z(m)	12.6	12.6	12.6	12.6	12.6	12.6	12.3	11.9	11.9
YYMMDDHH	14112015	16122517	16122517	16122517	16122517	16122517	17112608	13042210	13042210
3-Hr Unitized Conc (ug/m3)	59.38631	55.25243	54.07310	86.96850	84.95043	82.22740	93.05515	99.99895	105.53076
X(m)	593261.5	593261.5	593146.2	593140.0	593140.0	593140.0	593140.0	593273.4	593273.4
Y(m)	4136472.1	4136472.1	4136580.1	4136600.0	4136600.0	4136600.0	4136620.0	4136621.7	4136621.7
Z(m)	12.5	12.5	12.6	12.7	12.7	12.7	12.1	11.9	11.9
YYMMDDHH	13112115	13112115	15031109	17011009	17011009	17011009	15122115	17041312	17041312
8-Hr Unitized Conc (ug/m3)	41.26205	39.57526	38.25252	36.74604	36.27896	39.64140	79.69520	78.77362	83.46991
X(m)	593340.0	593277.5	593340.0	593340.0	593140.0	593146.2	593146.2	593273.4	593273.4
Y(m)	4136460.0	4136473.7	4136460.0	4136460.0	4136600.0	4136616.9	4136616.9	4136621.7	4136621.7
Z(m)	12.1	12.4	12.1	12.1	12.7	12.3	12.3	11.9	11.9
YYMMDDHH	16041216	17121716	14062416	14062416	16011616	16031316	15122116	17041316	17041316
24-Hr Unitized Conc (ug/m3)	16.70518	16.47723	16.10769	15.56009	15.05376	15.36121	32.40666	27.60385	29.42996
X(m)	593340.0	593340.0	593340.0	593340.0	593140.0	593140.0	593146.2	593273.4	593273.4
Y(m)	4136460.0	4136460.0	4136460.0	4136460.0	4136600.0	4136620.0	4136616.9	4136621.7	4136621.7
Z(m)	12.1	12.1	12.1	12.1	12.7	12.1	12.3	11.9	11.9
YYMMDDHH	16083124	16083124	16083124	16083124	15020624	15122124	15122124	16052024	16052024
								Short-term Pollutant Emissions	
NOx (g/s/engine)	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839
CO (g/s/engine)	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107
SO2 (g/s/engine)	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060
PM (g/s/engine)	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120
1-Hour NOx (ug/m3)	793.551	776.705	798.857	795.988	799.781	800.575	697.917	767.465	773.512
1-Hour CO (ug/m3)	458.496	448.763	461.562	459.904	462.096	462.555	403.241	443.425	446.919
8-Hour CO (ug/m3)	128.354	123.107	118.992	114.306	112.853	123.313	247.908	245.041	259.650
1-Hour SO2 (ug/m3)	0.884	0.866	0.890	0.887	0.891	0.892	0.778	0.855	0.862
3-Hour SO2 (ug/m3)	0.356	0.332	0.324	0.522	0.510	0.493	0.558	0.600	0.633
24-Hour SO2 (ug/m3)	0.100	0.099	0.097	0.093	0.090	0.092	0.194	0.166	0.177
24-Hour PM (ug/m3)	0.200	0.198	0.193	0.187	0.181	0.184	0.389	0.331	0.353

Worst-Case Engine for THIS loa

*Emergency Generator stacks a

Table AQ3-1 **eening Analysis**
r (16)

Emergency Generator*	**EG19**	**EG20**	**EG21**	**EG22**	**EG23**	**EG24**	**EG25**	**EG26**	**EG27**
Load %	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
bhp	4307	4307	4307	4307	4307	4307	4307	4307	4307
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	830	830	830	830	830	830	830	830	830
Volumetric Flowrate ACFM	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365	23,365
Stack Velocity (ft/sec)	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52	147.52
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22
Stack Height (m)	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48	716.48
Stack Exit Velocity (m/s)	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96	44.96
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	s (lb/hr/engine) and Unitized Screening Impacts (ug/m3 for 1.0 g/s/engine)								
NOx (lb/hr/engine)	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73	42.73
CO (lb/hr/engine)	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69	24.69
SO2 (lb/hr/engine)	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
PM (lb/hr/engine)	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
1-Hr Unitized Conc (ug/m3)	143.64743	141.74093	141.08373	138.18359	135.69726	128.91208	140.51057	140.91297	145.44797
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6
YYMMDDHH	13011408	13011408	15121017	15121017	15121017	16052012	14112015	16122517	16122517
3-Hr Unitized Conc (ug/m3)	107.85894	112.03476	115.91296	116.74661	118.06812	116.03645	108.09084	57.34248	81.64701
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593261.5	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136472.1	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.5	12.3
YYMMDDHH	17041315	17041315	17041315	17041315	17041315	17041315	17041315	13112115	17011009
8-Hr Unitized Conc (ug/m3)	84.16999	86.17664	87.47063	77.76178	77.30635	73.96752	67.32880	39.70659	38.03516
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593277.5	593277.5
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136473.7	4136473.7
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.4	12.4
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17041316	17041316	17121716	17121716
24-Hr Unitized Conc (ug/m3)	30.14934	31.13776	31.95201	25.92565	25.77308	24.65895	22.44503	16.05869	15.74509
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136460.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	11.9	12.1	12.1
YYMMDDHH	16052024	16052024	16052024	17041324	17041324	17041324	17041324	16083124	16083124
	(g/s/engine) and Pollutant Screening Impacts (ug/m3/engine)								
NOx (g/s/engine)	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839	5.3839
CO (g/s/engine)	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107	3.1107
SO2 (g/s/engine)	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060	0.0060
PM (g/s/engine)	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120	0.0120
1-Hour NOx (ug/m3)	773.383	763.119	759.581	743.967	730.580	694.050	756.495	758.661	783.077
1-Hour CO (ug/m3)	446.844	440.914	438.869	429.848	422.113	401.007	437.086	438.338	452.445
8-Hour CO (ug/m3)	261.828	268.070	**272.095**	241.894	240.477	230.091	209.440	123.515	118.316
1-Hour SO2 (ug/m3)	0.862	0.850	0.847	0.829	0.814	0.773	0.843	0.845	0.873
3-Hour SO2 (ug/m3)	0.647	0.672	0.695	0.700	**0.708**	0.696	0.649	0.344	0.490
24-Hour SO2 (ug/m3)	0.181	0.187	0.192	0.156	0.155	0.148	0.135	0.096	0.094
24-Hour PM (ug/m3)	0.362	0.374	0.383	0.311	0.309	0.296	0.269	0.193	0.189

d bolded Worst-Case Engine for ALL loads highlighted

're numbered from west to east, first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-1

Emergency Generator*	**EG28**	**EG29**	**EG30**	**EG31**	**EG32**		
Load %	**100%**	**100%**	**100%**	**100%**	**100%**		
bhp	4307	4307	4307	4307	4307		
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12		
Stack Exit Temp (deg.F)	830	830	830	830	830		
Volumetric Flowrate ACFM	23,365	23,365	23,365	23,365	23,365		
Stack Velocity (ft/sec)	147.52	147.52	147.52	147.52	147.52		
Stack Diameter (inches)	22	22	22	22	22		
Stack Height (m)	13.87	13.87	13.87	13.87	13.87		
Stack Exit Temp (deg.K)	716.48	716.48	716.48	716.48	716.48		
Stack Exit Velocity (m/s)	44.96	44.96	44.96	44.96	44.96		
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588		
NOx (lb/hr/engine)	42.73	42.73	42.73	42.73	42.73		
CO (lb/hr/engine)	24.69	24.69	24.69	24.69	24.69		
SO2 (lb/hr/engine)	0.047	0.047	0.047	0.047	0.047		
PM (lb/hr/engine)	0.095	0.095	0.095	0.095	0.095		
1-Hr Unitized Conc (ug/m3)	149.79121	151.81028	149.10893	147.81381	144.72229		
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2		
Y(m)	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5		
Z(m)	12.6	12.6	12.6	12.6	12.6		
YYMMDDHH	16122517	16122517	16122517	16122517	16122517		
3-Hr Unitized Conc (ug/m3)	79.52568	82.28621	96.64377	96.86526	98.94903		
X(m)	593146.2	593140.0	593140.0	593146.2	593160.0		
Y(m)	4136598.5	4136600.0	4136620.0	4136616.9	4136640.0		
Z(m)	12.6	12.7	12.1	12.3	12.2		
YYMMDDHH	14112212	17011009	15122115	16080912	14020912		
8-Hr Unitized Conc (ug/m3)	36.33528	39.65311	81.79657	80.83936	84.24192		
X(m)	593340.0	593185.9	593146.2	593146.2	593160.0		
Y(m)	4136460.0	4136621.8	4136616.9	4136616.9	4136640.0		
Z(m)	12.1	12.2	12.3	12.3	12.2		
YYMMDDHH	14062416	14020216	15122116	15122116	15122116		
24-Hr Unitized Conc (ug/m3)	15.25315	15.79400	32.26371	32.78102	33.95540		
X(m)	593340.0	593140.0	593146.2	593146.2	593146.2		
Y(m)	4136460.0	4136620.0	4136616.9	4136616.9	4136616.9		
Z(m)	12.1	12.1	12.3	12.3	12.3		
YYMMDDHH	16083124	15020624	15122124	15122124	15122124		
NOx (g/s/engine)	5.3839	5.3839	5.3839	5.3839	5.3839		
CO (g/s/engine)	3.1107	3.1107	3.1107	3.1107	3.1107		
SO2 (g/s/engine)	0.0060	0.0060	0.0060	0.0060	0.0060		
PM (g/s/engine)	0.0120	0.0120	0.0120	0.0120	0.0120		
1-Hour NOx (ug/m3)	806.461	**817.331**	802.788	795.815	779.170	**817.331**	817.331
1-Hour CO (ug/m3)	465.956	**472.236**	463.833	459.804	450.188	**472.236**	472.236
8-Hour CO (ug/m3)	113.028	123.349	254.445	251.467	262.051	**272.095**	272.095
1-Hour SO2 (ug/m3)	0.899	**0.911**	0.895	0.887	0.868	**0.911**	0.911
3-Hour SO2 (ug/m3)	0.477	0.494	0.580	0.581	0.594	**0.708**	0.708
24-Hour SO2 (ug/m3)	0.092	0.095	0.194	0.197	**0.204**	**0.204**	0.204
24-Hour PM (ug/m3)	0.183	0.190	0.387	0.393	**0.407**	**0.407**	0.407

Table AQ3-2 **DLR 651 Walsh Data Center Screening Analysis**

QSK95 Engines (32) - Upper Tier (16)

Emergency Generator*	**EG01**	**EG02**	**EG03**	**EG04**	**EG05**	**EG06**	**EG07**	**EG08**	**EG09**	**EG10**
Load %	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**
bhp	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12
Stack Exit Temp (deg.F)	714	714	714	714	714	714	714	714	714	714
Volumetric Flowrate ACFM	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695
Stack Velocity (ft/sec)	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03
Stack Exit Temp (deg.K)	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04
Stack Exit Velocity (m/s)	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	Short-term Screening Emissions (lb/hr/engine) and Unitized Screening Impacts (ug/m3 for 1.0 g/s/engine)									
NOx (lb/hr/engine)	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30
CO (lb/hr/engine)	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66
SO2 (lb/hr/engine)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
PM (lb/hr/engine)	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
1-Hr Unitized Conc (ug/m3)	150.65650	162.13098	162.28197	162.30392	157.68690	154.10030	122.74404	142.22399	157.12023	165.45243
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6	12.6
YYMMDDHH	14123109	13042210	13011408	13011408	13011408	15121017	17032409	14112015	14112015	14112015
3-Hr Unitized Conc (ug/m3)	111.71699	118.55850	120.98283	121.36784	122.99817	124.47752	70.05228	65.38445	62.67442	60.04047
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593245.5	593260.0	593260.0	593261.5
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136470.6	4136440.0	4136460.0	4136472.1
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.7	12.6	12.5	12.5
YYMMDDHH	17041312	17041312	17041312	17041315	17041315	17041315	13112115	13112115	13112115	13112115
8-Hr Unitized Conc (ug/m3)	84.17092	91.26443	92.07733	86.68930	82.30545	82.45621	47.50854	46.51745	45.13484	44.56381
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593300.0	593300.0	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136460.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.5	12.5	12.1	12.1
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17041316	16041216	16041216	16041216	16041216
24-Hr Unitized Conc (ug/m3)	29.03644	31.25068	31.83307	28.89826	27.43672	27.48667	19.02437	18.64936	18.43068	17.69571
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593340.0	593340.0	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136480.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.1	12.1	12.1	12.1
YYMMDDHH	16052024	16052024	16052024	17041324	17041324	17041324	13022024	13022024	13022024	16083124
	Short-term Pollutant Emissions (g/s/engine) and Pollutant Screening Impacts (ug/m3/engine)									
NOx (g/s/engine)	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701
CO (g/s/engine)	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516
SO2 (g/s/engine)	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045
PM (g/s/engine)	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090
1-Hour NOx (ug/m3)	613.187	659.889	660.504	660.593	641.801	627.204	499.581	578.866	639.495	673.408
1-Hour CO (ug/m3)	354.284	381.267	381.622	381.674	370.817	362.382	288.645	334.454	369.484	389.078
8-Hour CO (ug/m3)	197.936	214.617	216.529	203.859	193.549	193.904	111.721	109.390	106.139	104.796
1-Hour SO2 (ug/m3)	0.678	0.730	0.730	0.730	0.710	0.693	0.552	0.640	0.707	0.745
3-Hour SO2 (ug/m3)	0.503	0.534	0.544	0.546	0.553	0.560	0.315	0.294	0.282	0.270
24-Hour SO2 (ug/m3)	0.131	0.141	0.143	0.130	0.123	0.124	0.086	0.084	0.083	0.080
24-Hour PM (ug/m3)	0.261	0.281	0.286	0.260	0.247	0.247	0.171	0.168	0.166	0.159

Worst-Case Engine for THIS load bolded Worst-Case Engine for ALL loads highlighted

*Emergency Generator stacks are numbered from west to east, first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-2

DLR 651 Walsh Data Center Screening Analysis
QSK95 Engines (32) - Lower Tier (16)

Emergency Generator*	**EG11**	**EG12**	**EG13**	**EG14**	**EG15**	**EG16**	**EG17**	**EG18**	**EG19**	**EG20**
Load %	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**
bhp	3256	3256	3256	3256	3256	3256	3256	3256	3256	3256
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	714	714	714	714	714	714	714	714	714	714
Volumetric Flowrate ACFM	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695
Stack Velocity (ft/sec)	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04
Stack Exit Velocity (m/s)	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
							Short-term Screening Emissions (lb/hr/engine) and Unitized Sc			
NOx (lb/hr/engine)	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30
CO (lb/hr/engine)	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66
SO2 (lb/hr/engine)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
PM (lb/hr/engine)	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
1-Hr Unitized Conc (ug/m3)	160.21231	170.59925	164.22659	164.96449	164.40864	148.65832	156.03818	159.56770	158.93846	158.83699
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.6	12.6	12.6	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16122517	17012908	16122517	16122517	16122517	16042708	13042210	13042210	13011408	13011408
3-Hr Unitized Conc (ug/m3)	56.74970	60.18771	94.94573	92.44364	89.53421	109.91534	108.50807	114.88920	117.57318	119.74099
X(m)	593146.2	593146.2	593140.0	593140.0	593140.0	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136598.5	4136580.1	4136600.0	4136600.0	4136600.0	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.7	12.7	12.7	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	14112212	15031109	17011009	17011009	17011009	16080912	17041312	17041312	17041312	17041315
8-Hr Unitized Conc (ug/m3)	42.51686	40.20263	38.44721	46.01652	43.45912	86.68721	84.72153	89.77557	90.94628	93.42722
X(m)	593340.0	593340.0	593340.0	593146.2	593140.0	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136460.0	4136460.0	4136460.0	4136598.5	4136620.0	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.1	12.6	12.1	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16041216	14062416	14062416	16031316	16031316	15122116	17041316	17041316	17041316	17041316
24-Hr Unitized Conc (ug/m3)	17.27610	16.89984	16.44506	16.48714	16.63166	35.24588	29.33263	31.21248	32.03395	33.28677
X(m)	593340.0	593340.0	593340.0	593146.2	593140.0	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136460.0	4136460.0	4136460.0	4136598.5	4136620.0	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.1	12.6	12.1	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16083124	16083124	16083124	16031324	15122124	15122124	16052024	16052024	16052024	16052024
							Short-term Pollutant Emissions (g/s/engine) and Pollutant Scre			
NOx (g/s/engine)	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701
CO (g/s/engine)	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516
SO2 (g/s/engine)	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045
PM (g/s/engine)	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090
1-Hour NOx (ug/m3)	652.080	694.356	668.419	671.422	669.160	605.054	635.091	649.456	646.895	646.482
1-Hour CO (ug/m3)	376.755	401.181	386.195	387.930	386.623	349.585	366.939	375.239	373.760	373.521
8-Hour CO (ug/m3)	99.983	94.541	90.412	108.212	102.198	203.854	199.231	211.116	213.869	219.703
1-Hour SO2 (ug/m3)	0.721	0.768	0.739	0.742	0.740	0.669	0.702	0.718	0.715	0.715
3-Hour SO2 (ug/m3)	0.255	0.271	0.427	0.416	0.403	0.495	0.488	0.517	0.529	0.539
24-Hour SO2 (ug/m3)	0.078	0.076	0.074	0.074	0.075	0.159	0.132	0.140	0.144	0.150
24-Hour PM (ug/m3)	0.155	0.152	0.148	0.148	0.150	0.317	0.264	0.281	0.288	0.300

Worst-Case Engine for THIS load bolded Worst-Case Eng

*Emergency Generator stacks are numbered from west to east,

Table AQ3-2

Emergency Generator*	**EG21**	**EG22**	**EG23**	**EG24**	**EG25**	**EG26**	**EG27**	**EG28**	**EG29**
Load %	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**	**75%**
bhp	3256	3256	3256	3256	3256	3256	3256	3256	3256
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	714	714	714	714	714	714	714	714	714
Volumetric Flowrate ACFM	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695	19,695
Stack Velocity (ft/sec)	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35	124.35
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22
Stack Height (m)	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04	652.04
Stack Exit Velocity (m/s)	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90	37.90
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	reening Impacts (ug/m3 for 1.0 g/s/engine)								
NOx (lb/hr/engine)	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30	32.30
CO (lb/hr/engine)	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66	18.66
SO2 (lb/hr/engine)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
PM (lb/hr/engine)	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072
1-Hr Unitized Conc (ug/m3)	155.92674	152.80917	149.90396	144.35629	159.04434	158.26658	161.74267	170.35011	180.83405
X(m)	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	12.6	12.6	12.6	12.6	12.6	12.6
YYMMDDHH	13011408	15121017	15121017	14112015	14112015	16122517	16122517	17012908	17012908
3-Hr Unitized Conc (ug/m3)	124.18205	125.69650	127.73270	126.42772	119.80072	64.10704	89.37336	87.99993	89.71341
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593146.2	593146.2	593140.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136616.9	4136598.5	4136600.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.3	12.6	12.7
YYMMDDHH	17041315	17041315	17041315	17041315	17041315	17052515	17011009	14112212	17011009
8-Hr Unitized Conc (ug/m3)	95.33332	87.78636	84.29351	81.79323	75.44821	47.66249	48.65545	49.45945	49.16875
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17052516	17052516	17052516	17052516
24-Hr Unitized Conc (ug/m3)	34.29243	29.26805	28.10275	27.26826	25.15208	18.22819	18.92648	19.05811	19.01334
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1
YYMMDDHH	16052024	17041324	17041324	17041324	17041324	17052524	17052524	17052524	17052524
	eening Impacts (ug/m3/engine)								
NOx (g/s/engine)	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701	4.0701
CO (g/s/engine)	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516	2.3516
SO2 (g/s/engine)	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045
PM (g/s/engine)	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090
1-Hour NOx (ug/m3)	634.637	621.949	610.124	587.545	647.326	644.161	658.309	693.342	**736.013**
1-Hour CO (ug/m3)	366.677	359.346	352.514	339.468	374.009	372.180	380.354	400.595	**425.249**
8-Hour CO (ug/m3)	**224.186**	206.438	198.225	192.345	177.424	112.083	114.418	116.309	115.625
1-Hour SO2 (ug/m3)	0.702	0.688	0.675	0.650	0.716	0.712	0.728	0.767	**0.814**
3-Hour SO2 (ug/m3)	0.559	0.566	**0.575**	0.569	0.539	0.288	0.402	0.396	0.404
24-Hour SO2 (ug/m3)	0.154	0.132	0.126	0.123	0.113	0.082	0.085	0.086	0.086
24-Hour PM (ug/m3)	0.309	0.263	0.253	0.245	0.226	0.164	0.170	0.172	0.171

ine for ALL loads highlighted

first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-2

Emergency Generator*	**EG30**	**EG31**	**EG32**		
Load %	**75%**	**75%**	**75%**		
bhp	3256	3256	3256		
Stack Height (ft)	45 6/12	45 6/12	45 6/12		
Stack Exit Temp (deg.F)	714	714	714		
Volumetric Flowrate ACFM	19,695	19,695	19,695		
Stack Velocity (ft/sec)	124.35	124.35	124.35		
Stack Diameter (inches)	22	22	22		
Stack Height (m)	13.87	13.87	13.87		
Stack Exit Temp (deg.K)	652.04	652.04	652.04		
Stack Exit Velocity (m/s)	37.90	37.90	37.90		
Stack Inside Diameter (m)	0.5588	0.5588	0.5588		
NOx (lb/hr/engine)	32.30	32.30	32.30		
CO (lb/hr/engine)	18.66	18.66	18.66		
SO2 (lb/hr/engine)	0.036	0.036	0.036		
PM (lb/hr/engine)	0.072	0.072	0.072		
1-Hr Unitized Conc (ug/m3)	174.01535	163.19209	159.71839		
X(m)	593146.2	593146.2	593146.2		
Y(m)	4136598.5	4136598.5	4136598.5		
Z(m)	12.6	12.6	12.6		
YYMMDDHH	17012908	16122517	16122517		
3-Hr Unitized Conc (ug/m3)	107.38150	106.82354	107.10951		
X(m)	593146.2	593146.2	593160.0		
Y(m)	4136616.9	4136616.9	4136640.0		
Z(m)	12.3	12.3	12.2		
YYMMDDHH	16080912	16080912	14020912		
8-Hr Unitized Conc (ug/m3)	89.36064	87.80173	91.18247		
X(m)	593146.2	593146.2	593160.0		
Y(m)	4136616.9	4136616.9	4136640.0		
Z(m)	12.3	12.3	12.2		
YYMMDDHH	15122116	15122116	15122116		
24-Hr Unitized Conc (ug/m3)	35.23236	35.65203	36.65972		
X(m)	593146.2	593146.2	593146.2		
Y(m)	4136616.9	4136616.9	4136616.9		
Z(m)	12.3	12.3	12.3		
YYMMDDHH	15122124	15122124	15122124		
NOx (g/s/engine)	4.0701	4.0701	4.0701		
CO (g/s/engine)	2.3516	2.3516	2.3516		
SO2 (g/s/engine)	0.0045	0.0045	0.0045		
PM (g/s/engine)	0.0090	0.0090	0.0090		
1-Hour NOx (ug/m3)	708.260	664.208	650.070	**736.013**	817.331
1-Hour CO (ug/m3)	409.214	383.763	375.594	**425.249**	472.236
8-Hour CO (ug/m3)	210.140	206.475	214.425	**224.186**	272.095
1-Hour SO2 (ug/m3)	0.783	0.734	0.719	**0.814**	0.911
3-Hour SO2 (ug/m3)	0.483	0.481	0.482	**0.575**	0.708
24-Hour SO2 (ug/m3)	0.159	0.160	**0.165**	**0.165**	0.204
24-Hour PM (ug/m3)	0.317	0.321	**0.330**	**0.330**	0.407

Table AQ3-3 **DLR 651 Walsh Data Center Screening Analysis**

QSK95 Engines (32) - Upper Tier (16)

Emergency Generator*	**EG01**	**EG02**	**EG03**	**EG04**	**EG05**	**EG06**	**EG07**	**EG08**	**EG09**	**EG10**
Load %	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
bhp	2206	2206	2206	2206	2206	2206	2206	2206	2206	2206
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12
Stack Exit Temp (deg.F)	670	670	670	670	670	670	670	670	670	670
Volumetric Flowrate ACFM	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018
Stack Velocity (ft/sec)	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03
Stack Exit Temp (deg.K)	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59
Stack Exit Velocity (m/s)	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	Short-term Screening Emissions (lb/hr/engine) and Unitized Screening Impacts (ug/m3 for 1.0 g/s/engine)									
NOx (lb/hr/engine)	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89
CO (lb/hr/engine)	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64
SO2 (lb/hr/engine)	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
PM (lb/hr/engine)	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049
1-Hr Unitized Conc (ug/m3)	167.22415	180.54009	180.86255	181.51014	177.23965	171.32526	141.19238	161.58944	177.03396	188.09351
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6	12.6
YYMMDDHH	14123109	13042210	13011408	13011408	13011408	14123109	14112015	14112015	14112015	16011310
3-Hr Unitized Conc (ug/m3)	122.94544	130.14807	133.26886	130.57824	132.61714	134.89041	69.92486	65.08694	67.67353	66.92823
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593245.5	593260.0	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136470.6	4136440.0	4136580.1	4136580.1
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.7	12.6	12.6	12.6
YYMMDDHH	17041312	17041312	17041312	17041315	17041315	17041315	13112115	13112115	17110912	17110912
8-Hr Unitized Conc (ug/m3)	91.49400	98.99770	100.22165	94.02083	92.85211	90.07918	50.01249	49.02573	47.87883	47.01926
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593300.0	593300.0	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136460.0	4136460.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.5	12.5	12.1	12.1
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17041316	16041216	16041216	16041216	16041216
24-Hr Unitized Conc (ug/m3)	31.10954	33.46652	34.15266	31.34238	30.95254	30.02783	20.14828	19.69075	19.38977	18.98712
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593340.0	593340.0	593340.0	593340.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136480.0	4136480.0	4136480.0	4136480.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.1	12.1	12.1	12.1
YYMMDDHH	16052024	16052024	16052024	17041324	17041324	17041324	13022024	13022024	13022024	13022024
	Short-term Pollutant Emissions (g/s/engine) and Pollutant Screening Impacts (ug/m3/engine)									
NOx (g/s/engine)	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576
CO (g/s/engine)	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933
SO2 (g/s/engine)	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031
PM (g/s/engine)	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061
1-Hour NOx (ug/m3)	461.137	497.857	498.747	500.532	488.756	472.447	389.352	445.599	488.189	518.687
1-Hour CO (ug/m3)	266.438	287.655	288.168	289.200	282.396	272.973	224.962	257.460	282.068	299.689
8-Hour CO (ug/m3)	145.777	157.733	159.683	149.803	147.941	143.523	79.685	78.113	76.285	74.916
1-Hour SO2 (ug/m3)	0.518	0.560	0.561	0.563	0.549	0.531	0.438	0.501	0.549	0.583
3-Hour SO2 (ug/m3)	0.381	0.403	0.413	0.405	0.411	0.418	0.217	0.202	0.210	0.207
24-Hour SO2 (ug/m3)	0.096	0.104	0.106	0.097	0.096	0.093	0.062	0.061	0.060	0.059
24-Hour PM (ug/m3)	0.190	0.204	0.208	0.191	0.189	0.183	0.123	0.120	0.118	0.116

Worst-Case Engine for THIS load bolded Worst-Case Engine for ALL loads highlighted

*Emergency Generator stacks are numbered from west to east, first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-3

DLR 651 Walsh Data Center Screening Analysis
QSK95 Engines (32) - Lower Tier (16)

Emergency Generator*	**EG11**	**EG12**	**EG13**	**EG14**	**EG15**	**EG16**	**EG17**	**EG18**	**EG19**	**EG20**
Load %	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
bhp	2206	2206	2206	2206	2206	2206	2206	2206	2206	2206
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	670	670	670	670	670	670	670	670	670	670
Volumetric Flowrate ACFM	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018
Stack Velocity (ft/sec)	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59
Stack Exit Velocity (m/s)	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
							Short-term Screening Emissions (lb/hr/engine) and Unitized Sc			
NOx (lb/hr/engine)	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89
CO (lb/hr/engine)	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64
SO2 (lb/hr/engine)	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
PM (lb/hr/engine)	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049
1-Hr Unitized Conc (ug/m3)	179.95362	192.12670	196.75897	183.49085	182.87037	168.96482	170.64133	177.07640	176.61741	176.67928
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.6	12.6	12.6	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16122517	17012908	17012908	16122517	16122517	16042708	13042210	13042210	13011408	13011408
3-Hr Unitized Conc (ug/m3)	71.30385	67.21788	103.95542	101.10196	97.76577	123.19193	117.90973	124.04652	128.04733	131.80717
X(m)	593146.2	593146.2	593140.0	593140.0	593140.0	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136580.1	4136580.1	4136600.0	4136600.0	4136600.0	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.7	12.7	12.7	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	17110912	15031109	17011009	17011009	17011009	16080912	14111612	17041312	17041312	17041312
8-Hr Unitized Conc (ug/m3)	45.61536	42.12115	42.37068	51.41826	47.50456	94.48956	90.80412	95.93777	97.58402	101.22021
X(m)	593340.0	593340.0	593140.0	593146.2	593146.2	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136460.0	4136460.0	4136600.0	4136598.5	4136616.9	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.7	12.6	12.3	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16041216	16041216	16011616	16031316	16031316	15122116	17041316	17041316	17041316	17041316
24-Hr Unitized Conc (ug/m3)	18.24415	17.69989	17.82071	18.38827	18.09032	38.43206	31.01655	32.89905	33.79679	35.41752
X(m)	593340.0	593340.0	593146.2	593146.2	593166.1	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136460.0	4136460.0	4136598.5	4136598.5	4136619.4	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.6	12.6	12.4	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	16083124	16083124	17012324	16031324	15122124	15122124	13102824	16052024	16052024	16052024
							Short-term Pollutant Emissions (g/s/engine) and Pollutant Scre			
NOx (g/s/engine)	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576
CO (g/s/engine)	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933
SO2 (g/s/engine)	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031
PM (g/s/engine)	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061
1-Hour NOx (ug/m3)	496.240	529.809	542.583	505.994	504.283	465.937	470.561	488.306	487.040	487.211
1-Hour CO (ug/m3)	286.720	306.115	313.496	292.356	291.367	269.212	271.883	282.136	281.405	281.503
8-Hour CO (ug/m3)	72.679	67.112	67.509	81.925	75.689	150.550	144.678	152.858	155.481	161.274
1-Hour SO2 (ug/m3)	0.558	0.596	0.610	0.569	0.567	0.524	0.529	0.549	0.548	0.548
3-Hour SO2 (ug/m3)	0.221	0.208	0.322	0.313	0.303	0.382	0.366	0.385	0.397	0.409
24-Hour SO2 (ug/m3)	0.057	0.055	0.055	0.057	0.056	0.119	0.096	0.102	0.105	0.110
24-Hour PM (ug/m3)	0.111	0.108	0.109	0.112	0.110	0.234	0.189	0.201	0.206	0.216

Worst-Case Engine for THIS load bolded Worst-Case Eng

*Emergency Generator stacks are numbered from west to east,

Table AQ3-3

Emergency Generator*	**EG21**	**EG22**	**EG23**	**EG24**	**EG25**	**EG26**	**EG27**	**EG28**	**EG29**	**EG30**
Load %	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**	**50%**
bhp	2206	2206	2206	2206	2206	2206	2206	2206	2206	2206
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	670	670	670	670	670	670	670	670	670	670
Volumetric Flowrate ACFM	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018	16,018
Stack Velocity (ft/sec)	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13	101.13
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59	627.59
Stack Exit Velocity (m/s)	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	reening Impacts (ug/m3 for 1.0 g/s/engine)									
NOx (lb/hr/engine)	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89	21.89
CO (lb/hr/engine)	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64	12.64
SO2 (lb/hr/engine)	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
PM (lb/hr/engine)	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049
1-Hr Unitized Conc (ug/m3)	174.21387	168.47900	166.80127	165.65880	178.09985	176.20363	180.30610	191.37448	200.64804	203.84604
X(m)	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	12.6	12.6	12.6	12.6	12.6	12.6	12.6
YYMMDDHH	13011408	14123109	15121017	14112015	14112015	16122517	16122517	17012908	17012908	15020908
3-Hr Unitized Conc (ug/m3)	133.63815	135.44892	138.80639	138.57239	132.72544	77.52584	98.46317	97.65769	97.71201	118.37523
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593140.0	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136580.1	4136616.9	4136598.5	4136600.0	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	12.6	12.3	12.6	12.7	12.3
YYMMDDHH	17041312	17041315	17041315	17041315	17041315	17110912	17011009	14112212	17011009	16080912
8-Hr Unitized Conc (ug/m3)	104.04841	96.26850	92.35196	90.33055	84.10934	62.01257	63.26708	63.61769	63.76603	97.57172
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1	12.3
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17052516	17052516	17052516	17052516	15122116
24-Hr Unitized Conc (ug/m3)	36.72781	32.09617	30.78982	30.11489	28.03983	23.92093	24.44288	24.43909	24.62361	38.45382
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1	12.3
YYMMDDHH	16052024	17041324	17041324	17041324	17041324	17052524	17052524	17052524	17052524	15122124
	eening Impacts (ug/m3/engine)									
NOx (g/s/engine)	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576	2.7576
CO (g/s/engine)	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933	1.5933
SO2 (g/s/engine)	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031	0.0031
PM (g/s/engine)	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061	0.0061
1-Hour NOx (ug/m3)	480.412	464.598	459.971	456.821	491.128	485.899	497.212	527.734	553.307	562.126
1-Hour CO (ug/m3)	277.575	268.438	265.764	263.944	283.766	280.745	287.282	304.917	319.693	324.788
8-Hour CO (ug/m3)	**165.780**	153.385	147.144	143.924	134.011	98.805	100.803	101.362	101.598	155.461
1-Hour SO2 (ug/m3)	0.540	0.522	0.517	0.514	0.552	0.546	0.559	0.593	0.622	0.632
3-Hour SO2 (ug/m3)	0.414	0.420	**0.430**	0.430	0.411	0.240	0.305	0.303	0.303	0.367
24-Hour SO2 (ug/m3)	0.114	0.099	0.095	0.093	0.087	0.074	0.076	0.076	0.076	0.119
24-Hour PM (ug/m3)	0.224	0.196	0.188	0.184	0.171	0.146	0.149	0.149	0.150	0.235

ine for ALL loads highlighted

first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-3

Emergency Generator*	**EG31**	**EG32**		
Load %	**50%**	**50%**		
bhp	2206	2206		
Stack Height (ft)	45 6/12	45 6/12		
Stack Exit Temp (deg.F)	670	670		
Volumetric Flowrate ACFM	16,018	16,018		
Stack Velocity (ft/sec)	101.13	101.13		
Stack Diameter (inches)	22	22		
Stack Height (m)	13.87	13.87		
Stack Exit Temp (deg.K)	627.59	627.59		
Stack Exit Velocity (m/s)	30.82	30.82		
Stack Inside Diameter (m)	0.5588	0.5588		
NOx (lb/hr/engine)	21.89	21.89		
CO (lb/hr/engine)	12.64	12.64		
SO2 (lb/hr/engine)	0.024	0.024		
PM (lb/hr/engine)	0.049	0.049		
1-Hr Unitized Conc (ug/m3)	205.01178	174.87061		
X(m)	593146.2	593146.2		
Y(m)	4136598.5	4136598.5		
Z(m)	12.6	12.6		
YYMMDDHH	17012908	16122517		
3-Hr Unitized Conc (ug/m3)	117.45429	115.53419		
X(m)	593146.2	593160.0		
Y(m)	4136616.9	4136640.0		
Z(m)	12.3	12.2		
YYMMDDHH	16080912	14020912		
8-Hr Unitized Conc (ug/m3)	94.32726	98.31361		
X(m)	593146.2	593160.0		
Y(m)	4136616.9	4136640.0		
Z(m)	12.3	12.2		
YYMMDDHH	15122116	15122116		
24-Hr Unitized Conc (ug/m3)	38.39357	39.88929		
X(m)	593146.2	593160.0		
Y(m)	4136616.9	4136640.0		
Z(m)	12.3	12.2		
YYMMDDHH	15122124	17032024		
NOx (g/s/engine)	2.7576	2.7576		
CO (g/s/engine)	1.5933	1.5933		
SO2 (g/s/engine)	0.0031	0.0031		
PM (g/s/engine)	0.0061	0.0061		
1-Hour NOx (ug/m3)	**565.340**	482.223	**565.340**	817.331
1-Hour CO (ug/m3)	**326.645**	278.621	**326.645**	472.236
8-Hour CO (ug/m3)	150.292	156.643	**165.780**	272.095
1-Hour SO2 (ug/m3)	**0.636**	0.542	**0.636**	0.911
3-Hour SO2 (ug/m3)	0.364	0.358	**0.430**	0.708
24-Hour SO2 (ug/m3)	0.119	**0.124**	**0.124**	0.204
24-Hour PM (ug/m3)	0.234	**0.243**	**0.243**	0.407

Table AQ3-4

Table AQ-6 DLR 651 Walsh Data Center Screening Analysis
QSK95 Engines (32) - Upper Tier (16)

Emergency Generator*	**EG01**	**EG02**	**EG03**	**EG04**	**EG05**	**EG06**	**EG07**	**EG08**	**EG09**	**EG10**
Load %	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**
bhp	1155	1155	1155	1155	1155	1155	1155	1155	1155	1155
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12
Stack Exit Temp (deg.F)	630	630	630	630	630	630	630	630	630	630
Volumetric Flowrate ACFM	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028
Stack Velocity (ft/sec)	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03
Stack Exit Temp (deg.K)	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37
Stack Exit Velocity (m/s)	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	Short-term Screening Emissions (lb/hr/engine) and Unitized Screening Impacts (ug/m3 for 1.0 g/s/engine)									
NOx (lb/hr/engine)	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46
CO (lb/hr/engine)	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62
SO2 (lb/hr/engine)	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
PM (lb/hr/engine)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
1-Hr Unitized Conc (ug/m3)	213.44642	221.10569	224.14047	225.95913	222.62150	215.31629	190.42858	210.43699	225.77914	242.20687
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6	12.6
YYMMDDHH	13011408	13011408	13011408	13011408	13011408	13011408	14112015	14112015	14112015	16011310
3-Hr Unitized Conc (ug/m3)	155.30867	160.48064	162.66981	149.11982	152.41583	155.54869	73.74715	77.13375	94.09858	106.01567
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593261.5	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136472.1	4136580.1	4136580.1	4136580.1
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.5	12.6	12.6	12.6
YYMMDDHH	14111612	14111612	14111612	17041315	17041315	17041315	16121115	17110912	17110912	17110912
8-Hr Unitized Conc (ug/m3)	106.24515	114.96380	116.99002	109.45742	109.14939	105.39406	64.56584	65.75289	65.94604	67.52725
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593205.7	593205.7	593205.7	593220.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136624.2	4136624.2	4136624.2	4136640.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.0	12.0	12.0	11.7
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17041316	17052516	17052516	17052516	17052516
24-Hr Unitized Conc (ug/m3)	36.04077	38.32426	38.99958	36.48851	36.38550	35.13332	24.77227	25.34485	25.41956	25.76513
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593273.4	593205.7	593205.7	593205.7	593220.0
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136624.2	4136624.2	4136624.2	4136640.0
Z(m)	11.9	11.9	11.9	11.9	11.9	11.9	12.0	12.0	12.0	11.7
YYMMDDHH	13102824	17041324	17041324	17041324	17041324	17041324	17052524	17052524	17052524	17052524
	Short-term Pollutant Emissions (g/s/engine) and Pollutant Screening Impacts (ug/m3/engine)									
NOx (g/s/engine)	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438
CO (g/s/engine)	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342
SO2 (g/s/engine)	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016
PM (g/s/engine)	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032
1-Hour NOx (ug/m3)	308.174	319.232	323.614	326.240	321.421	310.874	274.941	303.829	325.980	349.698
1-Hour CO (ug/m3)	178.057	184.446	186.978	188.495	185.711	179.617	158.856	175.547	188.345	202.049
8-Hour CO (ug/m3)	88.630	95.903	97.593	91.309	91.052	87.920	53.861	54.851	55.012	56.331
1-Hour SO2 (ug/m3)	0.342	0.354	0.359	0.362	0.356	0.345	0.305	0.337	0.361	0.388
3-Hour SO2 (ug/m3)	0.248	0.257	**0.260**	0.239	0.244	0.249	0.118	0.123	0.151	0.170
24-Hour SO2 (ug/m3)	0.058	0.061	0.062	0.058	0.058	0.056	0.040	0.041	0.041	0.041
24-Hour PM (ug/m3)	0.115	0.123	0.125	0.117	0.116	0.112	0.079	0.081	0.081	0.082

Worst-Case Engine for THIS load bolded Worst-Case Engine for ALL loads highlighted

*Emergency Generator stacks are numbered from west to east, first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-4

DLR 651 Walsh Data Center Screening Analysis
QSK95 Engines (32) - Lower Tier (16)

Emergency Generator*	**EG11**	**EG12**	**EG13**	**EG14**	**EG15**	**EG16**	**EG17**	**EG18**	**EG19**	**EG20**
Load %	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**
bhp	1155	1155	1155	1155	1155	1155	1155	1155	1155	1155
Stack Height (ft)	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	52 7/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	630	630	630	630	630	630	630	630	630	630
Volumetric Flowrate ACFM	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028
Stack Velocity (ft/sec)	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	16.03	16.03	16.03	16.03	16.03	16.03	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37
Stack Exit Velocity (m/s)	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
							Short-term Screening Emissions (lb/hr/engine) and Unitized Sc			
NOx (lb/hr/engine)	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46
CO (lb/hr/engine)	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62
SO2 (lb/hr/engine)	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
PM (lb/hr/engine)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
1-Hr Unitized Conc (ug/m3)	230.97165	243.79589	248.39396	253.79265	255.52565	210.35206	200.89058	212.17807	215.40399	218.37624
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.6	12.6	12.6	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	17012908	17012908	15020908	15020908	17012908	17040610	13011408	13011408	13011408	13011408
3-Hr Unitized Conc (ug/m3)	115.19368	121.33550	127.12062	127.67651	120.72596	152.06807	143.12755	148.24481	149.96275	154.14512
X(m)	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136580.1	4136580.1	4136580.1	4136580.1	4136598.5	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.6	12.6	12.6	12.6	12.6	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	17110912	17110912	17110912	17110912	16011212	16041115	14111612	14111612	14111612	17041312
8-Hr Unitized Conc (ug/m3)	68.05521	68.56603	68.95536	69.20816	70.25106	111.42662	102.47550	107.20479	109.47260	114.62858
X(m)	593225.6	593225.6	593237.6	593237.6	593237.6	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136626.7	4136626.7	4136627.1	4136627.1	4136627.1	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.1	12.1	12.1	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	17052516	17052516	17052516	17052516	17052516	15122116	17041316	17041316	17041316	17041316
24-Hr Unitized Conc (ug/m3)	26.02336	26.30032	26.45567	26.56038	26.91960	45.36279	36.55117	35.74520	37.16302	38.71133
X(m)	593225.6	593225.6	593237.6	593237.6	593237.6	593146.2	593273.4	593273.4	593273.4	593273.4
Y(m)	4136626.7	4136626.7	4136627.1	4136627.1	4136627.1	4136616.9	4136621.7	4136621.7	4136621.7	4136621.7
Z(m)	12.1	12.1	12.1	12.1	12.1	12.3	11.9	11.9	11.9	11.9
YYMMDDHH	17052524	17052524	17052524	17052524	17052524	15122124	13102824	13102824	13102824	16052024
							Short-term Pollutant Emissions (g/s/engine) and Pollutant Scre			
NOx (g/s/engine)	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438
CO (g/s/engine)	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342
SO2 (g/s/engine)	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016
PM (g/s/engine)	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032
1-Hour NOx (ug/m3)	333.477	351.993	358.631	366.426	**368.928**	303.706	290.046	306.343	311.000	315.292
1-Hour CO (ug/m3)	192.677	203.375	207.210	211.714	**213.159**	175.476	167.583	176.999	179.690	182.169
8-Hour CO (ug/m3)	56.772	57.198	57.523	57.733	58.603	92.952	85.485	89.430	91.322	95.623
1-Hour SO2 (ug/m3)	0.370	0.390	0.397	0.406	**0.409**	0.337	0.321	0.339	0.345	0.349
3-Hour SO2 (ug/m3)	0.184	0.194	0.203	0.204	0.193	0.243	0.229	0.237	0.240	0.247
24-Hour SO2 (ug/m3)	0.042	0.042	0.042	0.042	0.043	0.073	0.058	0.057	0.059	0.062
24-Hour PM (ug/m3)	0.083	0.084	0.085	0.085	0.086	0.145	0.117	0.114	0.119	0.124

Worst-Case Engine for THIS load bolded Worst-Case Eng

*Emergency Generator stacks are numbered from west to east,

Table AQ3-4

Emergency Generator*	**EG21**	**EG22**	**EG23**	**EG24**	**EG25**	**EG26**	**EG27**	**EG28**	**EG29**	**EG30**
Load %	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**	**25%**
bhp	1155	1155	1155	1155	1155	1155	1155	1155	1155	1155
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12	45 6/12
Stack Exit Temp (deg.F)	630	630	630	630	630	630	630	630	630	630
Volumetric Flowrate ACFM	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028	10,028
Stack Velocity (ft/sec)	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31	63.31
Stack Diameter (inches)	22	22	22	22	22	22	22	22	22	22
Stack Height (m)	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
Stack Exit Temp (deg.K)	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37	605.37
Stack Exit Velocity (m/s)	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30	19.30
Stack Inside Diameter (m)	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
	reening Impacts (ug/m3 for 1.0 g/s/engine)									
NOx (lb/hr/engine)	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46	11.46
CO (lb/hr/engine)	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62	6.62
SO2 (lb/hr/engine)	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
PM (lb/hr/engine)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
1-Hr Unitized Conc (ug/m3)	218.70202	210.29452	202.58358	212.56893	225.88888	220.02819	229.34113	240.37248	249.06109	251.49012
X(m)	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5	4136598.5
Z(m)	11.9	11.9	11.9	12.6	12.6	12.6	12.6	12.6	12.6	12.6
YYMMDDHH	13011408	13011408	15121017	14112015	14112015	16122517	17012908	17012908	17012908	15020908
3-Hr Unitized Conc (ug/m3)	160.29265	153.70290	160.28760	162.36900	160.06456	101.60388	119.67349	118.52583	122.77189	151.62772
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593146.2	593146.2	593146.2	593146.2	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136580.1	4136598.5	4136598.5	4136580.1	4136598.5
Z(m)	11.9	11.9	11.9	11.9	11.9	12.6	12.6	12.6	12.6	12.6
YYMMDDHH	17041312	17041315	17041315	17041315	17041315	17110912	14112212	14112212	17110912	14081912
8-Hr Unitized Conc (ug/m3)	119.95869	112.79168	108.86227	108.11240	104.19077	89.95181	91.25855	91.72020	89.64624	110.81174
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1	12.3
YYMMDDHH	17041316	17041316	17041316	17041316	17041316	17052516	17052516	17052516	17052516	15122116
24-Hr Unitized Conc (ug/m3)	40.73889	37.60601	36.29543	36.04380	34.73500	33.98168	34.54575	34.45653	33.90810	43.77842
X(m)	593273.4	593273.4	593273.4	593273.4	593273.4	593220.0	593225.6	593225.6	593237.6	593146.2
Y(m)	4136621.7	4136621.7	4136621.7	4136621.7	4136621.7	4136640.0	4136626.7	4136626.7	4136627.1	4136616.9
Z(m)	11.9	11.9	11.9	11.9	11.9	11.7	12.1	12.1	12.1	12.3
YYMMDDHH	16052024	17041324	17041324	17041324	17041324	17052524	17052524	17052524	17052524	15122124
	ɛening Impacts (ug/m3/engine)									
NOx (g/s/engine)	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438	1.4438
CO (g/s/engine)	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342	0.8342
SO2 (g/s/engine)	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016
PM (g/s/engine)	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032
1-Hour NOx (ug/m3)	315.762	303.623	292.490	306.907	326.138	317.677	331.123	347.050	359.594	363.101
1-Hour CO (ug/m3)	182.441	175.428	168.995	177.325	188.437	183.548	191.316	200.519	207.767	209.793
8-Hour CO (ug/m3)	**100.070**	94.091	90.813	90.187	86.916	75.038	76.128	76.513	74.783	92.439
1-Hour SO2 (ug/m3)	0.350	0.336	0.324	0.340	0.361	0.352	0.367	0.385	0.398	0.402
3-Hour SO2 (ug/m3)	0.256	0.246	0.256	0.260	0.256	0.163	0.191	0.190	0.196	0.243
24-Hour SO2 (ug/m3)	0.065	0.060	0.058	0.058	0.056	0.054	0.055	0.055	0.054	0.070
24-Hour PM (ug/m3)	0.130	0.120	0.116	0.115	0.111	0.109	0.111	0.110	0.109	0.140

ine for ALL loads highlighted

first with the upper tier (EG01-EG16), then the lower tier (EG17-EG32).

Table AQ3-4

Emergency Generator*	**EG31**	**EG32**		
Load %	**25%**	**25%**		
bhp	1155	1155		
Stack Height (ft)	45 6/12	45 6/12		
Stack Exit Temp (deg.F)	630	630		
Volumetric Flowrate ACFM	10,028	10,028		
Stack Velocity (ft/sec)	63.31	63.31		
Stack Diameter (inches)	22	22		
Stack Height (m)	13.87	13.87		
Stack Exit Temp (deg.K)	605.37	605.37		
Stack Exit Velocity (m/s)	19.30	19.30		
Stack Inside Diameter (m)	0.5588	0.5588		
NOx (lb/hr/engine)	11.46	11.46		
CO (lb/hr/engine)	6.62	6.62		
SO2 (lb/hr/engine)	0.013	0.013		
PM (lb/hr/engine)	0.025	0.025		
1-Hr Unitized Conc (ug/m3)	254.35772	244.29451		
X(m)	593146.2	593146.2		
Y(m)	4136598.5	4136598.5		
Z(m)	12.6	12.6		
YYMMDDHH	15020908	17012908		
3-Hr Unitized Conc (ug/m3)	149.03577	141.65085		
X(m)	593146.2	593146.2		
Y(m)	4136598.5	4136616.9		
Z(m)	12.6	12.3		
YYMMDDHH	14081912	16041115		
8-Hr Unitized Conc (ug/m3)	106.75672	114.04110		
X(m)	593146.2	593160.0		
Y(m)	4136616.9	4136640.0		
Z(m)	12.3	12.2		
YYMMDDHH	15122116	17032016		
24-Hr Unitized Conc (ug/m3)	43.62899	46.69137		
X(m)	593146.2	593160.0		
Y(m)	4136616.9	4136640.0		
Z(m)	12.3	12.2		
YYMMDDHH	15122124	17032024		
NOx (g/s/engine)	1.4438	1.4438		
CO (g/s/engine)	0.8342	0.8342		
SO2 (g/s/engine)	0.0016	0.0016		
PM (g/s/engine)	0.0032	0.0032		
1-Hour NOx (ug/m3)	367.242	352.712	**368.928**	817.331
1-Hour CO (ug/m3)	212.185	203.790	**213.159**	472.236
8-Hour CO (ug/m3)	89.056	95.133	**100.070**	272.095
1-Hour SO2 (ug/m3)	0.407	0.391	**0.409**	0.911
3-Hour SO2 (ug/m3)	0.238	0.227	**0.260**	0.708
24-Hour SO2 (ug/m3)	0.070	**0.075**	**0.075**	0.204
24-Hour PM (ug/m3)	0.140	**0.149**	**0.149**	0.407

Table AQ3-5 **DLR 651 Walsh Data Center Screening Analysis**

Smaller QSK60 Engine (1)

Emergency Generator	**EG33**	**EG33**	**EG33**	**EG33**	
Load %	**100%**	**75%**	**50%**	**25%**	
bhp	2922	2192	1461	731	
Stack Height (ft)	45 6/12	45 6/12	45 6/12	45 6/12	
Stack Exit Temp (deg.F)	859	775	727	674	
Volumetric Flowrate ACFM	15,602	12,637	9,992	6,508	
Stack Velocity (ft/sec)	119.19	96.54	76.33	49.72	
Stack Diameter (inches)	20	20	20	20	
Stack Height (m)	13.87	13.87	13.87	13.87	
Stack Exit Temp (deg.K)	732.59	685.93	659.26	629.82	
Stack Exit Velocity (m/s)	36.33	29.43	23.27	15.15	
Stack Inside Diameter (m)	0.5080	0.5080	0.5080	0.5080	
Short-term Screening Emissions (lb/hr) & Unitized Screening Impacts (ug/m3 for 1.0 g/s)					
NOx (lb/hr)	28.99	21.75	14.49	7.25	
CO (lb/hr)	16.75	12.56	8.37	4.19	
SO2 (lb/hr)	0.032	0.024	0.016	0.008	
PM (lb/hr)	0.064	0.048	0.032	0.016	
1-Hr Unitized Conc (ug/m3)	145.11439	159.34468	178.57018	218.28121	
X(m)	593146.2	593146.2	593146.2	593146.2	
Y(m)	4136616.9	4136616.9	4136616.9	4136616.9	
Z(m)	12.3	12.3	12.3	12.3	
YYMMDDHH	16042708	15020709	17040610	15122908	
3-Hr Unitized Conc (ug/m3)	103.28606	115.35783	129.09764	149.35034	
X(m)	593140.0	593146.2	593146.2	593146.2	
Y(m)	4136620.0	4136616.9	4136616.9	4136616.9	
Z(m)	12.1	12.3	12.3	12.3	
YYMMDDHH	16080912	16041115	16041115	16041115	
8-Hr Unitized Conc (ug/m3)	89.13563	96.12458	103.12404	114.81851	
X(m)	593160.0	593160.0	593160.0	593160.0	
Y(m)	4136640.0	4136640.0	4136640.0	4136640.0	
Z(m)	12.2	12.2	12.2	12.2	
YYMMDDHH	15122116	15122116	15122116	15122116	
24-Hr Unitized Conc (ug/m3)	34.68525	37.69574	40.74229	46.50307	
X(m)	593160.0	593160.0	593160.0	593160.0	
Y(m)	4136640.0	4136640.0	4136640.0	4136640.0	
Z(m)	12.2	12.2	12.2	12.2	
YYMMDDHH	17032024	17032024	17032024	14121724	
Short-term Pollutant Emissions (g/s) and Pollutant Screening Impacts (ug/m3)					
NOx (g/s)	3.6526	2.7401	1.8263	0.9138	
CO (g/s)	2.1104	1.5831	1.0552	0.5280	
SO2 (g/s)	0.0041	0.0030	0.0020	0.0010	
PM (g/s)	0.0081	0.0061	0.0041	0.0020	
1-Hour NOx (ug/m3)	**530.045**	436.620	326.123	199.465	**530.045**
1-Hour CO (ug/m3)	**306.249**	252.259	188.427	115.252	**306.249**
8-Hour CO (ug/m3)	**188.112**	152.175	108.816	60.624	**188.112**
1-Hour SO2 (ug/m3)	**0.595**	0.478	0.357	0.218	**0.595**
3-Hour SO2 (ug/m3)	**0.423**	0.346	0.258	0.149	**0.423**
24-Hour SO2 (ug/m3)	**0.142**	0.113	0.081	0.047	**0.142**
24-Hour PM (ug/m3)	**0.281**	0.230	0.167	0.093	**0.281**

Worst-Case Load bolded

Figure AQ3-1 Building Data used in BPIP-PRIME

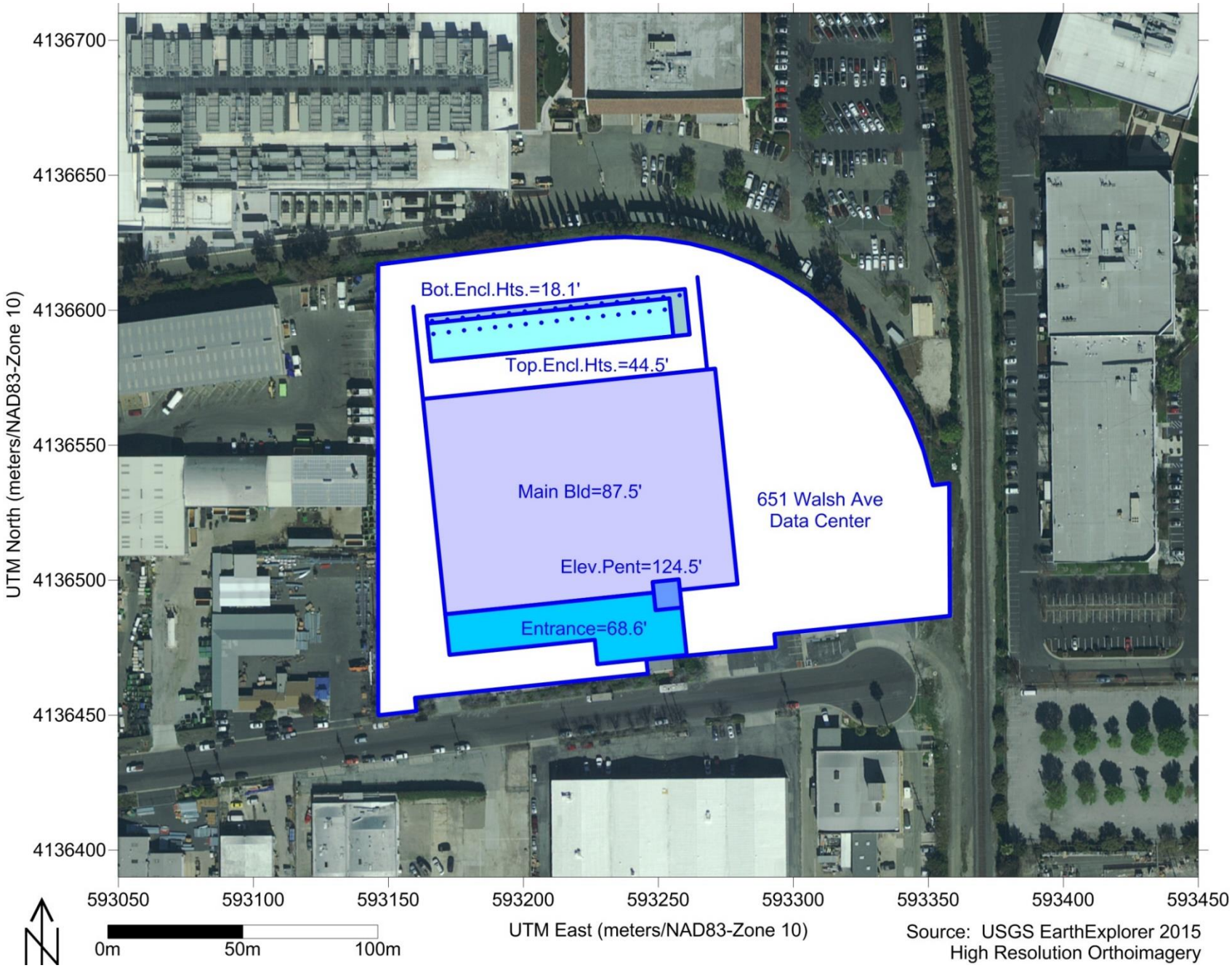


Figure AQ3-2
San Jose International Airport Annual Wind Rose
2013-2017

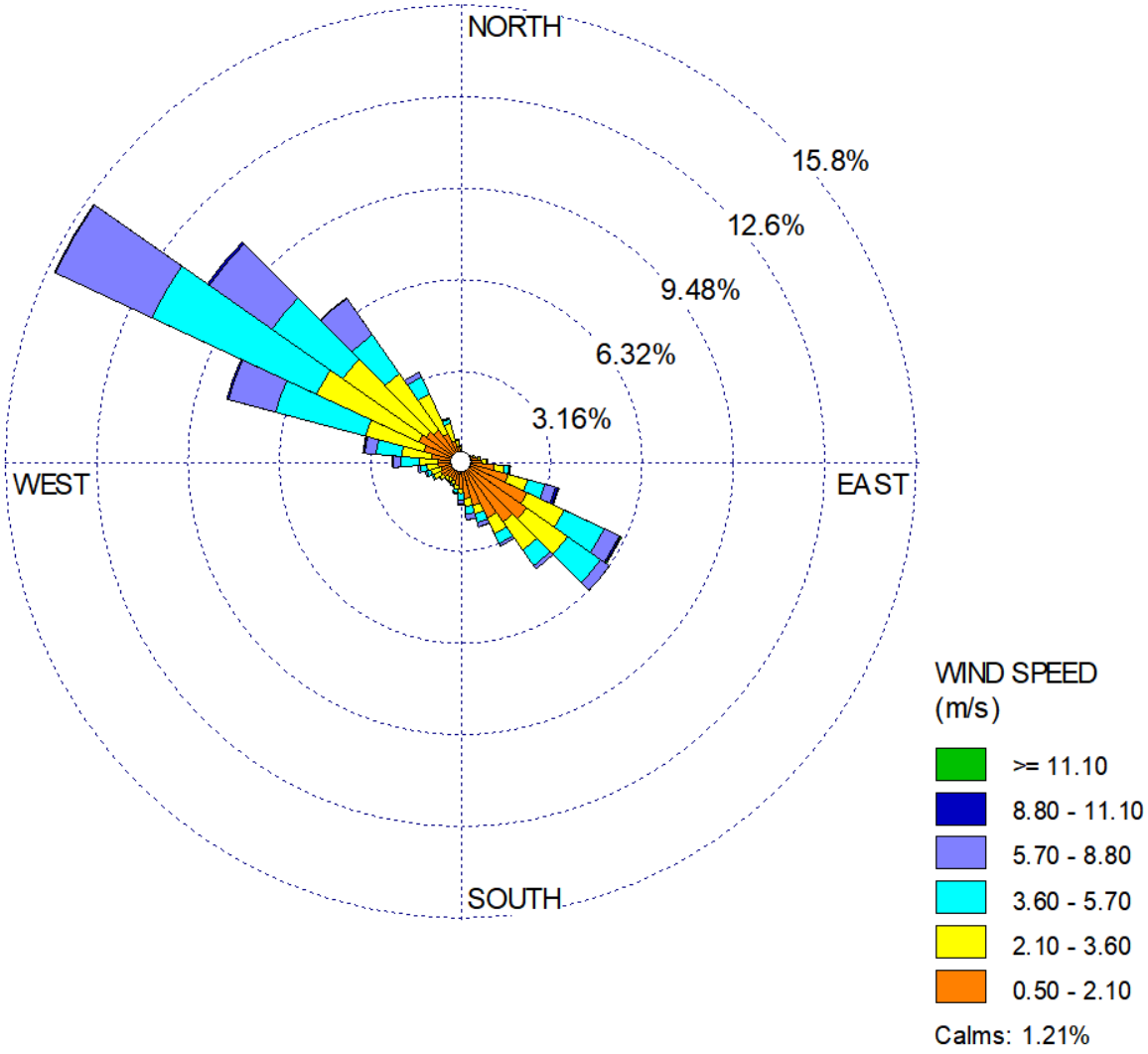


Figure AQ3-3
San Jose International Airport Winter Wind Rose
2013-2017

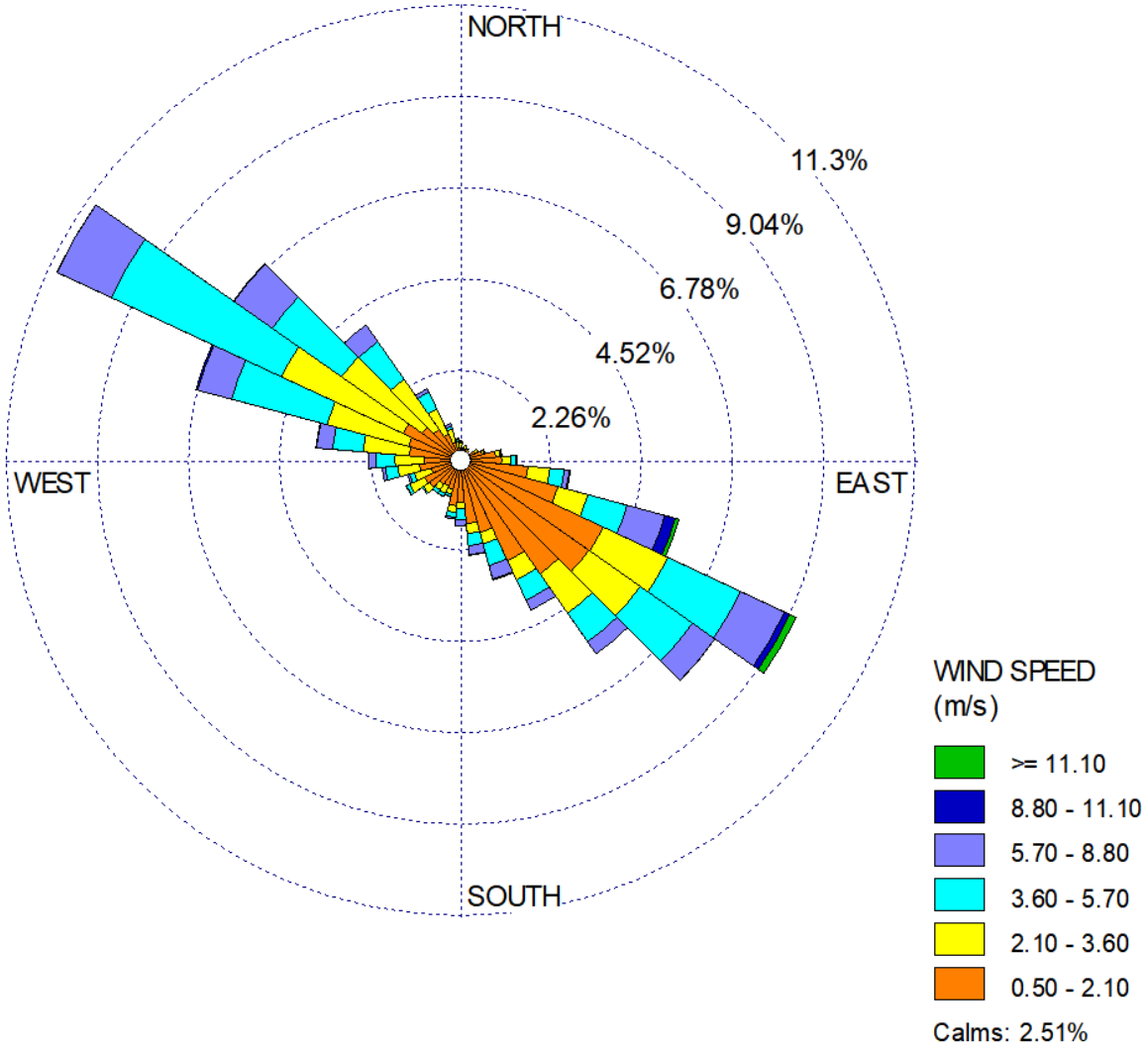


Figure AQ3-4
San Jose International Airport Spring Wind Rose
2013-2017

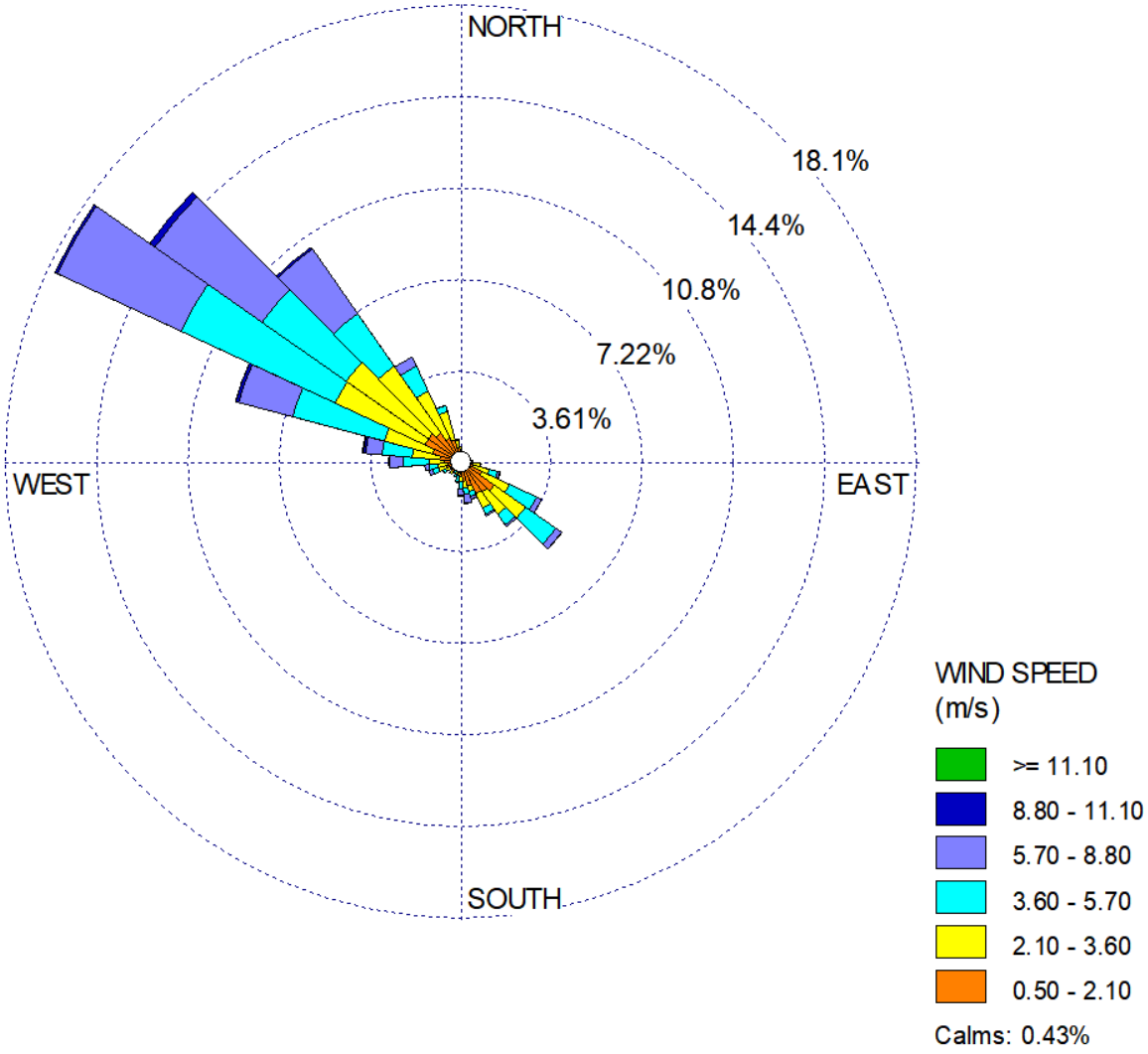


Figure AQ3-5
San Jose International Airport Summer Wind Rose
2013-2017

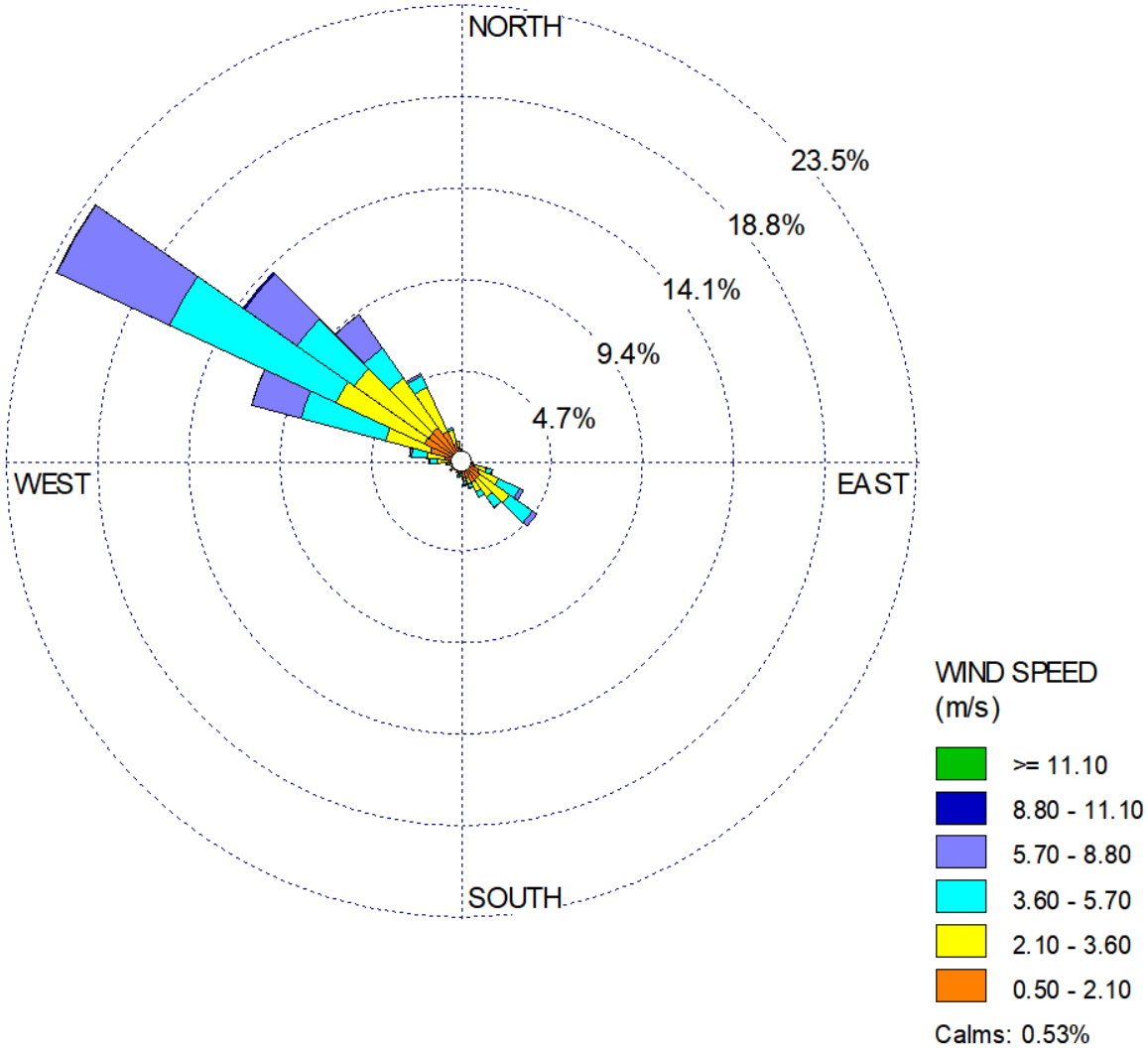
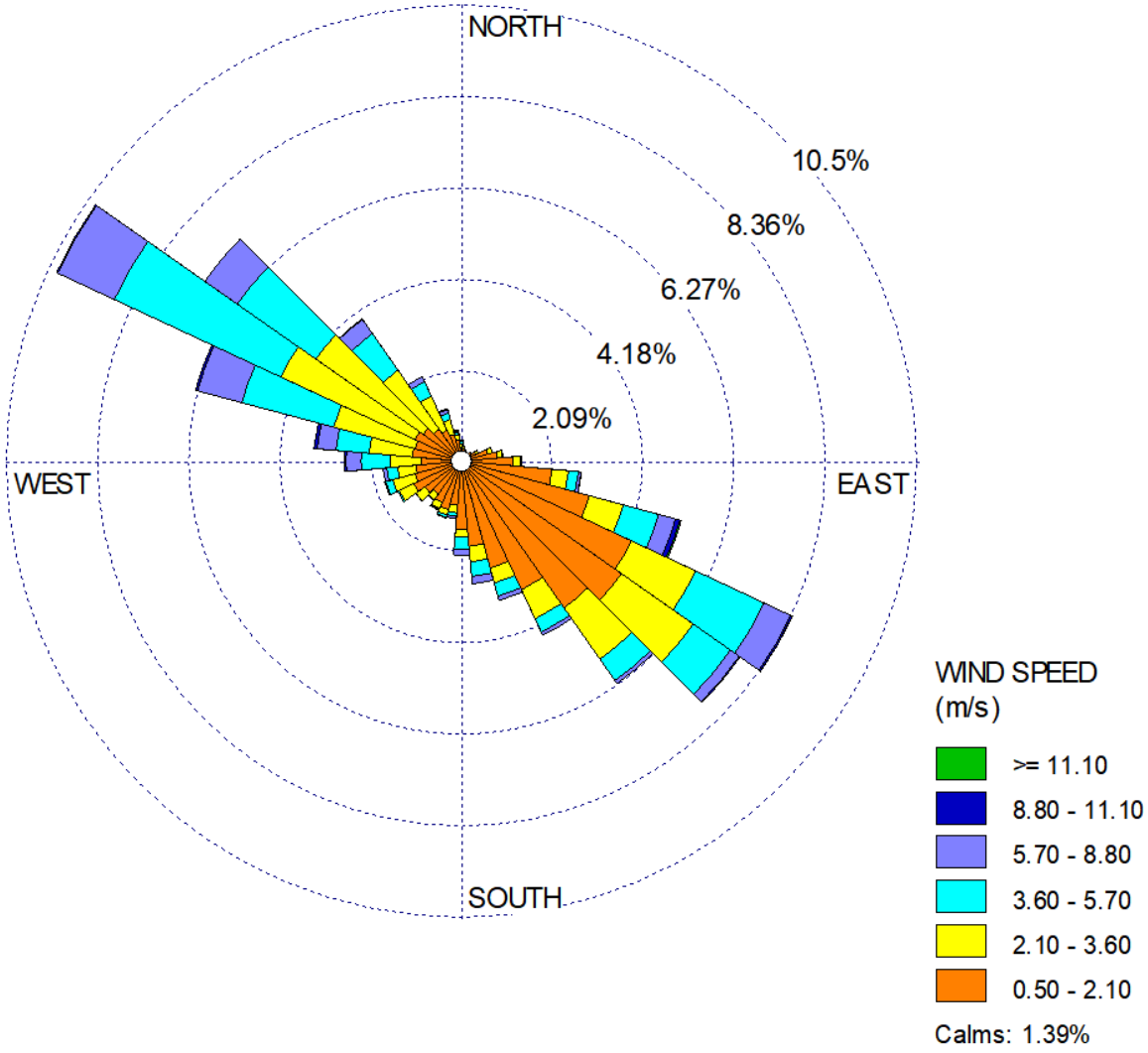


Figure AQ3-6
San Jose International Airport Fall Wind Rose
2013-2017



Appendix AQ4
Construction Emissions

651 Walsh Existing - Santa Clara County, Annual

651 Walsh Existing

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	171.26	1000sqft	3.93	171,259.00	0
Parking Lot	3.00	Acre	3.00	130,680.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E Existing Rate

Land Use - Existing Lane Use

Construction Phase - Existing Land Use

Off-road Equipment - Exsting No Equipment

Trips and VMT - Existing no trips

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	1.00

tblConstructionPhase	PhaseEndDate	11/25/2019	11/12/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	380

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7695	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Energy	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	143.7984	143.7984	9.1600e-003	2.3500e-003	144.7281
Mobile	0.0727	0.3230	0.9259	3.3400e-003	0.3124	2.8000e-003	0.3152	0.0836	2.6100e-003	0.0862	0.0000	305.6033	305.6033	9.8800e-003	0.0000	305.8504
Waste						0.0000	0.0000		0.0000	0.0000	32.6775	0.0000	32.6775	1.9312	0.0000	80.9571
Water						0.0000	0.0000		0.0000	0.0000	12.5645	36.9373	49.5017	1.2933	0.0311	91.0888
Total	**0.8454**	**0.3521**	**0.9519**	**3.5100e-003**	**0.3124**	**5.0200e-003**	**0.3174**	**0.0836**	**4.8300e-003**	**0.0885**	**45.2420**	**486.3421**	**531.5840**	**3.2435**	**0.0334**	**622.6277**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7695	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003

Energy	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	143.7984	143.7984	9.1600e-003	2.3500e-003	144.7281
Mobile	0.0727	0.3230	0.9259	3.3400e-003	0.3124	2.8000e-003	0.3152	0.0836	2.6100e-003	0.0862	0.0000	305.6033	305.6033	9.8800e-003	0.0000	305.8504
Waste						0.0000	0.0000		0.0000	0.0000	32.6775	0.0000	32.6775	1.9312	0.0000	80.9571
Water						0.0000	0.0000		0.0000	0.0000	12.5645	36.9373	49.5017	1.2933	0.0311	91.0888
Total	**0.8454**	**0.3521**	**0.9519**	**3.5100e-003**	**0.3124**	**5.0200e-003**	**0.3174**	**0.0836**	**4.8300e-003**	**0.0885**	**45.2420**	**486.3421**	**531.5840**	**3.2435**	**0.0334**	**622.6277**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0727	0.3230	0.9259	3.3400e-003	0.3124	2.8000e-003	0.3152	0.0836	2.6100e-003	0.0862	0.0000	305.6033	305.6033	9.8800e-003	0.0000	305.8504
Unmitigated	0.0727	0.3230	0.9259	3.3400e-003	0.3124	2.8000e-003	0.3152	0.0836	2.6100e-003	0.0862	0.0000	305.6033	305.6033	9.8800e-003	0.0000	305.8504

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	287.72	287.72	287.72	839,987	839,987

Total	287.72	287.72	287.72	839,987	839,987

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Unrefrigerated Warehouse-No Rail	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.0860	112.0860	8.5500e-003	1.7700e-003	112.8272
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	112.0860	112.0860	8.5500e-003	1.7700e-003	112.8272
NaturalGas Mitigated	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7124	31.7124	6.1000e-004	5.8000e-004	31.9009
NaturalGas Unmitigated	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7124	31.7124	6.1000e-004	5.8000e-004	31.9009

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	594269	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7124	31.7124	6.1000e-004	5.8000e-004	31.9009
Total		**3.2000e-003**	**0.0291**	**0.0245**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7124**	**31.7124**	**6.1000e-004**	**5.8000e-004**	**31.9009**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	594269	3.2000e-003	0.0291	0.0245	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7124	31.7124	6.1000e-004	5.8000e-004	31.9009
Total		**3.2000e-003**	**0.0291**	**0.0245**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7124**	**31.7124**	**6.1000e-004**	**5.8000e-004**	**31.9009**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Parking Lot	45738	7.8836	6.0000e-004	1.2000e-004	7.9358
Unrefrigerated Warehouse-No Rail	604544	104.2023	7.9500e-003	1.6500e-003	104.8914
Total		**112.0860**	**8.5500e-003**	**1.7700e-003**	**112.8272**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	45738	7.8836	6.0000e-004	1.2000e-004	7.9358
Unrefrigerated Warehouse-No Rail	604544	104.2023	7.9500e-003	1.6500e-003	104.8914
Total		**112.0860**	**8.5500e-003**	**1.7700e-003**	**112.8272**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7695	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Unmitigated	0.7695	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0920					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Total	**0.7695**	**1.0000e-005**	**1.6000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1100e-003**	**3.1100e-003**	**1.0000e-005**	**0.0000**	**3.3200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0920					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6000e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.1100e-003	3.1100e-003	1.0000e-005	0.0000	3.3200e-003
Total	**0.7695**	**1.0000e-005**	**1.6000e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.1100e-003**	**3.1100e-003**	**1.0000e-005**	**0.0000**	**3.3200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	49.5017	1.2933	0.0311	91.0888
Unmitigated	49.5017	1.2933	0.0311	91.0888

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	39.6039 / 0	49.5017	1.2933	0.0311	91.0888
Total		**49.5017**	**1.2933**	**0.0311**	**91.0888**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	39.6039 / 0	49.5017	1.2933	0.0311	91.0888
Total		**49.5017**	**1.2933**	**0.0311**	**91.0888**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	32.6775	1.9312	0.0000	80.9571
Unmitigated	32.6775	1.9312	0.0000	80.9571

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Unrefrigerated Warehouse-No Rail	160.98	32.6775	1.9312	0.0000	80.9571
Total		**32.6775**	**1.9312**	**0.0000**	**80.9571**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	160.98	32.6775	1.9312	0.0000	80.9571
Total		**32.6775**	**1.9312**	**0.0000**	**80.9571**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Project Name: 651 Walsh

Project Size

_____	Dwelling Units	7.9	total project acres disturbed
_____	s.f. residential	_____	s.f. retail
65000	s.f. office/commercial	435,050	s.f. other, specify: Data Center/Office
370000	s.f. other, specify: (Data Center)		
0	s.f. parking garage	_____	spaces
16000	s.f. parking lot	156	spaces

Construction Hours 5 am to 5 pm

Complete ALL Portions in Yellow

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Comments
	Demolition	**Start Date:**	**10/15/2019**	**Total phase:**	**67**		**Overall Import/Export Volumes**
		End Date:	**1/15/2020**				
1	Concrete/Industrial Saws	81	0.73	8	10	1.2	**Demolition Volume**
2	Excavators	162	0.38	10	30	4.5	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	255	0.4	10	10	1.5	(*or* total tons to be hauled)
2	Tractors/Loaders/Backhoes	97	0.37	10	30	4.5	**_171,259_** square feet *or*
							_?_ Hauling volume (tons)
	Site Preperation	**Start Date:**	**1/1/2020**	**Total phase:**	**11**		Any pavement demolished and hauled? **_?_ tons**
		End Date:	**1/15/2020**				**Soil Hauling Volume**
1	Graders	174	0.41	10	5	4.5	
1	Rubber Tired Dozers	255	0.4	10	5	4.5	Export volume = **_?_** cubic yards?
2	Tractors/Loaders/Backhoes	97	0.37	10	10	9.1	Import volume = **_?_** cubic yards?
	Grading / Excavation	**Start Date:**	**1/15/2020**	**Total phase:**	**13**		
		End Date:	**1/31/2020**				**Soil Hauling Volume**
1	Scrapers	**361**	**0.48**	0	5	0.0	
2	Excavators	162	0.38	10	10	7.7	Export volume = **_51,000_** cubic yards?
1	Graders	174	0.41	10	5	3.8	Import volume = **_60,000_** cubic yards?
1	Rubber Tired Dozers	255	0.4	10	5	3.8	
2	Tractors/Loaders/Backhoes	97	0.37	10	10	7.7	
	Other Equipment?						
	Trenching	**Start Date:**	**1/15/2020**	**Total phase:**	**131**		
		End Date:	**7/15/2020**				
1	Tractor/Loader/Backhoe	97	0.37	4	30	0.9	
1	Excavators	162	0.38	4	30	0.9	
	Other Equipment?						
	Building - Exterior	**Start Date:**	**11/1/2020**	**Total phase:**	**96**		**Cement Trucks? _400 to 500_ Total Round-Trips**
		End Date:	**3/15/2021**				
2	Cranes	226	0.29	12	60	7.5	Electric? (Y/N) _N__ Otherwise assumed diesel
4	Forklifts	89	0.2	8	90	7.5	Liquid Propane (LPG)? (Y/N) _N__ Otherwise Assumed diesel
2	Generator Sets	84	0.74	4	20	0.8	Or temporary line power? (Y/N) _Y__
1	Tractors/Loaders/Backhoes	97	0.37	4	20	0.8	otherwise, assume diesel generator
3	Welders	46	0.45	12	30	3.8	
	Other Equipment?					0.0	
rior/Architectural Coating		**Start Date:**	**3/15/2021**	**Total phase:**	**188**		
		End Date:	**12/1/2021**				
1	Air Compressors	78	0.48	8	20	0.9	
1	Aerial Lift	62	0.31	8	120	5.1	
	Other Equipment?						
	Paving	**Start Date:**	**3/1/2021**	**Total phase:**	**67**		
		Start Date:	**6/1/2021**				
1	Cement and Mortar Mixers	9	0.56	4	20	1.2	
1	Pavers	125	0.42	2	20	0.6	**Asphalt? _200__ cubic yards or ____ round trips?**
1	Paving Equipment	130	0.36	1	20	0.3	
1	Rollers	80	0.38	1	20	0.3	
1	Tractors/Loaders/Backhoes	97	0.37	1	20	0.3	
	Other Equipment?						

Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate
Modify horepower or load factor, as appropriate

Typical Equipment Type & Load Factors

OFFROAD Equipment Type	HP	Load Factor
Aerial Lifts	62	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	205	0.5
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	226	0.29
Crawler Tractors	208	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	162	0.38
Forklifts	89	0.2
Generator Sets	84	0.74
Graders	174	0.41
Off-Highway Tractors	122	0.44
Off-Highway Trucks	400	0.38
Other Construction Equipment	171	0.42
Other General Industrial Equipment	150	0.34
Other Material Handling Equipment	167	0.4
Pavers	125	0.42
Paving Equipment	130	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.2
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.4
Rubber Tired Dozers	255	0.4
Rubber Tired Loaders	199	0.36
Scrapers	361	0.48
Signal Boards	6	0.82
Skid Steer Loaders	64	0.37
Surfacing Equipment	253	0.3
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	80	0.5
Welders	46	0.45

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18-119 651 Walsh Ave Data Center, Santa Clara

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	435.05	1000sqft	6.50	435,050.00	0
Parking Lot	156.00	Space	1.40	16,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SVCW 380

Land Use - Applicant provided land uses

Construction Phase - Applicant Provided construction schedule, added trenching

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Off-road Equipment - Applicant provided equipment and hours

Trips and VMT - Applicant provided trips, 1,000 one way cement trip construction, 400 one way asphalt trip paving

Demolition - Applicant provided demo = 171,259sf

Grading - Applicant provide hauling volumes duirng grading, import 60,000cy export 51,000

Vehicle Trips - Data center Trip rate = 0.99

Energy Use - 58,923.2 @ 80%

Water And Wastewater - 1M sewer, 3M water, 100% aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	188.00
tblConstructionPhase	NumDays	230.00	96.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	10.00	11.00
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	NT24E	3.70	1,186.45
tblEnergyUse	T24E	1.48	0.00
tblGrading	AcresOfGrading	9.26	7.90
tblGrading	AcresOfGrading	3.09	0.00
tblGrading	MaterialExported	0.00	51,000.00
tblGrading	MaterialImported	0.00	60,000.00
tblLandUse	LandUseSquareFeet	62,400.00	16,000.00
tblLandUse	LotAcreage	9.99	6.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	0.90
tblOffRoadEquipment	UsageHours	8.00	1.20
tblOffRoadEquipment	UsageHours	7.00	7.50
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOffRoadEquipment	UsageHours	8.00	7.70
tblOffRoadEquipment	UsageHours	8.00	7.50
tblOffRoadEquipment	UsageHours	8.00	0.80
tblOffRoadEquipment	UsageHours	8.00	3.80
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	0.30
tblOffRoadEquipment	UsageHours	8.00	1.50
tblOffRoadEquipment	UsageHours	8.00	3.80
tblOffRoadEquipment	UsageHours	8.00	4.50
tblOffRoadEquipment	UsageHours	7.00	0.80
tblOffRoadEquipment	UsageHours	8.00	7.70
tblOffRoadEquipment	UsageHours	8.00	9.10
tblOffRoadEquipment	UsageHours	8.00	3.80
tblProjectCharacteristics	CO2IntensityFactor	641.35	380
tblTripsAndVMT	HaulingTripNumber	0.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblVehicleTrips	ST_TR	1.32	0.99

tblVehicleTrips	SU_TR	0.68	0.99
tblVehicleTrips	WD_TR	6.97	0.99
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	100,605,312.50	1,000,000.00
tblWater	OutdoorWaterUseRate	0.00	2,000,000.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0279	0.3391	0.2451	6.2000e-004	0.0801	0.0135	0.0936	0.0133	0.0125	0.0257	0.0000	57.7165	57.7165	0.0101	0.0000	57.9687
2020	0.1544	2.9975	1.0993	7.3900e-003	0.2400	0.0440	0.2840	0.0726	0.0411	0.1137	0.0000	703.1887	703.1887	0.0510	0.0000	704.4644
2021	2.3644	0.8445	0.6918	2.2700e-003	0.0943	0.0258	0.1201	0.0254	0.0241	0.0495	0.0000	207.0822	207.0822	0.0224	0.0000	207.6433
Maximum	**2.3644**	**2.9975**	**1.0993**	**7.3900e-003**	**0.2400**	**0.0440**	**0.2840**	**0.0726**	**0.0411**	**0.1137**	**0.0000**	**703.1887**	**703.1887**	**0.0510**	**0.0000**	**704.4644**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0279	0.3391	0.2451	6.2000e-004	0.0801	0.0135	0.0936	0.0133	0.0125	0.0257	0.0000	57.7164	57.7164	0.0101	0.0000	57.9687
2020	0.1544	2.9975	1.0993	7.3900e-003	0.2400	0.0440	0.2840	0.0726	0.0411	0.1137	0.0000	703.1886	703.1886	0.0510	0.0000	704.4643
2021	2.3644	0.8445	0.6918	2.2700e-003	0.0943	0.0258	0.1201	0.0254	0.0241	0.0495	0.0000	207.0822	207.0822	0.0224	0.0000	207.6432
Maximum	**2.3644**	**2.9975**	**1.0993**	**7.3900e-003**	**0.2400**	**0.0440**	**0.2840**	**0.0726**	**0.0411**	**0.1137**	**0.0000**	**703.1886**	**703.1886**	**0.0510**	**0.0000**	**704.4643**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**10-15-2019**	**1-14-2020**	0.5068	0.5068
2	**1-15-2020**	**4-14-2020**	2.1226	2.1226
3	**4-15-2020**	**7-14-2020**	0.0191	0.0191
4	**7-15-2020**	**10-14-2020**	0.0002	0.0002
5	**10-15-2020**	**1-14-2021**	0.8722	0.8722
6	**1-15-2021**	**4-14-2021**	0.9584	0.9584
7	**4-15-2021**	**7-14-2021**	0.8521	0.8521
8	**7-15-2021**	**9-30-2021**	0.6973	0.6973
		Highest	2.1226	2.1226

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Area	1.9278	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113
Energy	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	89,582.2460	89,582.2460	6.8015	1.4160	90,174.2568
Mobile	0.1088	0.4835	1.3860	5.0000e-003	0.4676	4.1900e-003	0.4718	0.1252	3.9100e-003	0.1291	0.0000	457.4775	457.4775	0.0148	0.0000	457.8474
Waste						0.0000	0.0000		0.0000	0.0000	109.5055	0.0000	109.5055	6.4716	0.0000	271.2953
Water						0.0000	0.0000		0.0000	0.0000	0.3538	2.1392	2.4930	1.3800e-003	8.0000e-004	2.7669
Total	**2.0985**	**1.0461**	**1.8640**	**8.3800e-003**	**0.4676**	**0.0470**	**0.5146**	**0.1252**	**0.0467**	**0.1719**	**109.8593**	**90,041.8732**	**90,151.7325**	**13.2893**	**1.4168**	**90,906.1776**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9278	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113
Energy	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	89,582.2460	89,582.2460	6.8015	1.4160	90,174.2568
Mobile	0.1088	0.4835	1.3860	5.0000e-003	0.4676	4.1900e-003	0.4718	0.1252	3.9100e-003	0.1291	0.0000	457.4775	457.4775	0.0148	0.0000	457.8474
Waste						0.0000	0.0000		0.0000	0.0000	109.5055	0.0000	109.5055	6.4716	0.0000	271.2953
Water						0.0000	0.0000		0.0000	0.0000	0.3538	2.1392	2.4930	1.3800e-003	8.0000e-004	2.7669
Total	**2.0985**	**1.0461**	**1.8640**	**8.3800e-003**	**0.4676**	**0.0470**	**0.5146**	**0.1252**	**0.0467**	**0.1719**	**109.8593**	**90,041.8732**	**90,151.7325**	**13.2893**	**1.4168**	**90,906.1776**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/15/2019	1/15/2020	5	67	
2	Site Preparation	Site Preparation	1/1/2020	1/15/2020	5	11	
3	Grading	Grading	1/15/2020	1/31/2020	5	13	
4	Trenching	Trenching	1/15/2020	7/15/2020	5	131	
5	Building Construction	Building Construction	11/1/2020	3/15/2021	5	96	
6	Paving	Paving	3/1/2021	6/1/2021	5	67	
7	Architectural Coating	Architectural Coating	3/15/2021	12/1/2021	5	188	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.9

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 652,575; Non-Residential Outdoor: 217,525; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	1.20	81	0.73
Demolition	Excavators	2	4.50	158	0.38
Demolition	Rubber Tired Dozers	1	1.50	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	4.50	97	0.37
Site Preparation	Graders	1	4.50	187	0.41
Site Preparation	Rubber Tired Dozers	1	4.50	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	9.10	97	0.37
Grading	Excavators	2	7.70	158	0.38
Grading	Graders	1	3.80	187	0.41
Grading	Rubber Tired Dozers	1	3.80	247	0.40
Grading	Scrapers	1	3.80	367	0.48
Grading	Tractors/Loaders/Backhoes	2	7.70	97	0.37
Trenching	Excavators	1	0.90	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	0.90	97	0.37

Building Construction	Cranes	2	7.50	231	0.29
Building Construction	Forklifts	4	7.50	89	0.20
Building Construction	Generator Sets	2	0.80	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	0.80	97	0.37
Building Construction	Welders	3	3.80	46	0.45
Paving	Cement and Mortar Mixers	1	1.20	9	0.56
Paving	Pavers	1	0.60	130	0.42
Paving	Paving Equipment	1	0.30	132	0.36
Paving	Rollers	1	0.30	80	0.38
Paving	Tractors/Loaders/Backhoes	1	0.30	97	0.37
Architectural Coating	Aerial Lifts	1	5.10	63	0.31
Architectural Coating	Air Compressors	1	0.90	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	779.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	13,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	189.00	74.00	1,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0705	0.0000	0.0705	0.0107	0.0000	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0234	0.2366	0.2134	3.3000e-004		0.0130	0.0130		0.0121	0.0121	0.0000	29.6792	29.6792	8.8300e-003	0.0000	29.9001
Total	**0.0234**	**0.2366**	**0.2134**	**3.3000e-004**	**0.0705**	**0.0130**	**0.0835**	**0.0107**	**0.0121**	**0.0228**	**0.0000**	**29.6792**	**29.6792**	**8.8300e-003**	**0.0000**	**29.9001**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9600e-003	0.1014	0.0200	2.6000e-004	6.3300e-003	3.9000e-004	6.7200e-003	1.7200e-003	3.7000e-004	2.0900e-003	0.0000	25.0885	25.0885	1.1800e-003	0.0000	25.1179
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	1.1400e-003	0.0117	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.9488	2.9488	8.0000e-005	0.0000	2.9508
Total	**4.4900e-003**	**0.1025**	**0.0318**	**2.9000e-004**	**9.6600e-003**	**4.1000e-004**	**0.0101**	**2.6100e-003**	**3.9000e-004**	**3.0000e-003**	**0.0000**	**28.0373**	**28.0373**	**1.2600e-003**	**0.0000**	**28.0687**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0705	0.0000	0.0705	0.0107	0.0000	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0234	0.2366	0.2134	3.3000e-004		0.0130	0.0130		0.0121	0.0121	0.0000	29.6792	29.6792	8.8300e-003	0.0000	29.9000
Total	**0.0234**	**0.2366**	**0.2134**	**3.3000e-004**	**0.0705**	**0.0130**	**0.0835**	**0.0107**	**0.0121**	**0.0228**	**0.0000**	**29.6792**	**29.6792**	**8.8300e-003**	**0.0000**	**29.9000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9600e-003	0.1014	0.0200	2.6000e-004	6.3300e-003	3.9000e-004	6.7200e-003	1.7200e-003	3.7000e-004	2.0900e-003	0.0000	25.0885	25.0885	1.1800e-003	0.0000	25.1179
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	1.1400e-003	0.0117	3.0000e-005	3.3300e-003	2.0000e-005	3.3500e-003	8.9000e-004	2.0000e-005	9.1000e-004	0.0000	2.9488	2.9488	8.0000e-005	0.0000	2.9508
Total	**4.4900e-003**	**0.1025**	**0.0318**	**2.9000e-004**	**9.6600e-003**	**4.1000e-004**	**0.0101**	**2.6100e-003**	**3.9000e-004**	**3.0000e-003**	**0.0000**	**28.0373**	**28.0373**	**1.2600e-003**	**0.0000**	**28.0687**

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0138	0.0000	0.0138	2.1000e-003	0.0000	2.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0424	0.0416	7.0000e-005		2.2800e-003	2.2800e-003		2.1100e-003	2.1100e-003	0.0000	5.7131	5.7131	1.7300e-003	0.0000	5.7564
Total	**4.2700e-003**	**0.0424**	**0.0416**	**7.0000e-005**	**0.0138**	**2.2800e-003**	**0.0161**	**2.1000e-003**	**2.1100e-003**	**4.2100e-003**	**0.0000**	**5.7131**	**5.7131**	**1.7300e-003**	**0.0000**	**5.7564**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3000e-004	0.0186	3.8000e-003	5.0000e-005	5.2200e-003	6.0000e-005	5.2800e-003	1.3100e-003	6.0000e-005	1.3700e-003	0.0000	4.8774	4.8774	2.2000e-004	0.0000	4.8829
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0600e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5611	0.5611	1.0000e-005	0.0000	0.5615
Total	**8.0000e-004**	**0.0188**	**5.8600e-003**	**6.0000e-005**	**5.8700e-003**	**6.0000e-005**	**5.9400e-003**	**1.4800e-003**	**6.0000e-005**	**1.5500e-003**	**0.0000**	**5.4385**	**5.4385**	**2.3000e-004**	**0.0000**	**5.4444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0138	0.0000	0.0138	2.1000e-003	0.0000	2.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0424	0.0416	7.0000e-005		2.2800e-003	2.2800e-003		2.1100e-003	2.1100e-003	0.0000	5.7131	5.7131	1.7300e-003	0.0000	5.7564
Total	**4.2700e-003**	**0.0424**	**0.0416**	**7.0000e-005**	**0.0138**	**2.2800e-003**	**0.0161**	**2.1000e-003**	**2.1100e-003**	**4.2100e-003**	**0.0000**	**5.7131**	**5.7131**	**1.7300e-003**	**0.0000**	**5.7564**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	5.3000e-004	0.0186	3.8000e-003	5.0000e-005	5.2200e-003	6.0000e-005	5.2800e-003	1.3100e-003	6.0000e-005	1.3700e-003	0.0000	4.8774	4.8774	2.2000e-004	0.0000	4.8829
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.0000e-004	2.0600e-003	1.0000e-005	6.5000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5611	0.5611	1.0000e-005	0.0000	0.5615
Total	**8.0000e-004**	**0.0188**	**5.8600e-003**	**6.0000e-005**	**5.8700e-003**	**6.0000e-005**	**5.9400e-003**	**1.4800e-003**	**6.0000e-005**	**1.5500e-003**	**0.0000**	**5.4385**	**5.4385**	**2.3000e-004**	**0.0000**	**5.4444**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0186	0.0000	0.0186	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4300e-003	0.0810	0.0469	9.0000e-005		4.0100e-003	4.0100e-003		3.6900e-003	3.6900e-003	0.0000	7.5400	7.5400	2.4400e-003	0.0000	7.6009
Total	**7.4300e-003**	**0.0810**	**0.0469**	**9.0000e-005**	**0.0186**	**4.0100e-003**	**0.0226**	**0.0102**	**3.6900e-003**	**0.0139**	**0.0000**	**7.5400**	**7.5400**	**2.4400e-003**	**0.0000**	**7.6009**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3741	0.3741	1.0000e-005	0.0000	0.3743
Total	**1.8000e-004**	**1.3000e-004**	**1.3800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3741**	**0.3741**	**1.0000e-005**	**0.0000**	**0.3743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0186	0.0000	0.0186	0.0102	0.0000	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4300e-003	0.0810	0.0469	9.0000e-005		4.0100e-003	4.0100e-003		3.6900e-003	3.6900e-003	0.0000	7.5399	7.5399	2.4400e-003	0.0000	7.6009
Total	**7.4300e-003**	**0.0810**	**0.0469**	**9.0000e-005**	**0.0186**	**4.0100e-003**	**0.0226**	**0.0102**	**3.6900e-003**	**0.0139**	**0.0000**	**7.5399**	**7.5399**	**2.4400e-003**	**0.0000**	**7.6009**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3741	0.3741	1.0000e-005	0.0000	0.3743
Total	**1.8000e-004**	**1.3000e-004**	**1.3800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3741**	**0.3741**	**1.0000e-005**	**0.0000**	**0.3743**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0291	0.0000	0.0291	0.0116	0.0000	0.0116	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0136	0.1473	0.1108	2.0000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	17.3175	17.3175	5.6000e-003	0.0000	17.4576
Total	**0.0136**	**0.1473**	**0.1108**	**2.0000e-004**	**0.0291**	**6.8800e-003**	**0.0359**	**0.0116**	**6.3300e-003**	**0.0180**	**0.0000**	**17.3175**	**17.3175**	**5.6000e-003**	**0.0000**	**17.4576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0577	2.0132	0.4123	5.4700e-003	0.1176	6.5400e-003	0.1241	0.0323	6.2600e-003	0.0386	0.0000	529.1287	529.1287	0.0242	0.0000	529.7338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.8000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7958	0.7958	2.0000e-005	0.0000	0.7963
Total	**0.0580**	**2.0134**	**0.4152**	**5.4800e-003**	**0.1185**	**6.5500e-003**	**0.1251**	**0.0326**	**6.2700e-003**	**0.0388**	**0.0000**	**529.9244**	**529.9244**	**0.0242**	**0.0000**	**530.5300**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0291	0.0000	0.0291	0.0116	0.0000	0.0116	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0136	0.1473	0.1108	2.0000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	17.3175	17.3175	5.6000e-003	0.0000	17.4575
Total	**0.0136**	**0.1473**	**0.1108**	**2.0000e-004**	**0.0291**	**6.8800e-003**	**0.0359**	**0.0116**	**6.3300e-003**	**0.0180**	**0.0000**	**17.3175**	**17.3175**	**5.6000e-003**	**0.0000**	**17.4575**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0577	2.0132	0.4123	5.4700e-003	0.1176	6.5400e-003	0.1241	0.0323	6.2600e-003	0.0386	0.0000	529.1287	529.1287	0.0242	0.0000	529.7338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.8000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7958	0.7958	2.0000e-005	0.0000	0.7963
Total	**0.0580**	**2.0134**	**0.4152**	**5.4800e-003**	**0.1185**	**6.5500e-003**	**0.1251**	**0.0326**	**6.2700e-003**	**0.0388**	**0.0000**	**529.9244**	**529.9244**	**0.0242**	**0.0000**	**530.5300**

3.5 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3500e-003	0.0333	0.0409	6.0000e-005		1.8400e-003	1.8400e-003		1.6900e-003	1.6900e-003	0.0000	5.3538	5.3538	1.7300e-003	0.0000	5.3971
Total	**3.3500e-003**	**0.0333**	**0.0409**	**6.0000e-005**		**1.8400e-003**	**1.8400e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**5.3538**	**5.3538**	**1.7300e-003**	**0.0000**	**5.3971**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.8000e-004	8.2000e-003	2.0000e-005	2.6000e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2275	2.2275	5.0000e-005	0.0000	2.2289
Total	**1.0900e-003**	**7.8000e-004**	**8.2000e-003**	**2.0000e-005**	**2.6000e-003**	**2.0000e-005**	**2.6100e-003**	**6.9000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.2275**	**2.2275**	**5.0000e-005**	**0.0000**	**2.2289**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3500e-003	0.0333	0.0409	6.0000e-005		1.8400e-003	1.8400e-003		1.6900e-003	1.6900e-003	0.0000	5.3538	5.3538	1.7300e-003	0.0000	5.3971
Total	**3.3500e-003**	**0.0333**	**0.0409**	**6.0000e-005**		**1.8400e-003**	**1.8400e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**5.3538**	**5.3538**	**1.7300e-003**	**0.0000**	**5.3971**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	7.8000e-004	8.2000e-003	2.0000e-005	2.6000e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.2275	2.2275	5.0000e-005	0.0000	2.2289
Total	**1.0900e-003**	**7.8000e-004**	**8.2000e-003**	**2.0000e-005**	**2.6000e-003**	**2.0000e-005**	**2.6100e-003**	**6.9000e-004**	**2.0000e-005**	**7.1000e-004**	**0.0000**	**2.2275**	**2.2275**	**5.0000e-005**	**0.0000**	**2.2289**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0435	0.3986	0.2614	4.8000e-004		0.0210	0.0210		0.0196	0.0196	0.0000	40.9776	40.9776	0.0116	0.0000	41.2664
Total	**0.0435**	**0.3986**	**0.2614**	**4.8000e-004**		**0.0210**	**0.0210**		**0.0196**	**0.0196**	**0.0000**	**40.9776**	**40.9776**	**0.0116**	**0.0000**	**41.2664**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-003	0.0665	0.0136	1.8000e-004	7.3200e-003	2.2000e-004	7.5400e-003	1.9100e-003	2.1000e-004	2.1200e-003	0.0000	17.4787	17.4787	8.0000e-004	0.0000	17.4987
Vendor	6.4500e-003	0.1854	0.0494	4.4000e-004	0.0107	9.2000e-004	0.0116	3.1000e-003	8.8000e-004	3.9700e-003	0.0000	42.5629	42.5629	1.9500e-003	0.0000	42.6117
Worker	0.0138	9.9200e-003	0.1041	3.1000e-004	0.0330	2.1000e-004	0.0332	8.7700e-003	2.0000e-004	8.9700e-003	0.0000	28.2806	28.2806	6.9000e-004	0.0000	28.2980
Total	**0.0222**	**0.2618**	**0.1671**	**9.3000e-004**	**0.0510**	**1.3500e-003**	**0.0524**	**0.0138**	**1.2900e-003**	**0.0151**	**0.0000**	**88.3222**	**88.3222**	**3.4400e-003**	**0.0000**	**88.4084**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0435	0.3986	0.2614	4.8000e-004		0.0210	0.0210		0.0196	0.0196	0.0000	40.9776	40.9776	0.0116	0.0000	41.2664
Total	**0.0435**	**0.3986**	**0.2614**	**4.8000e-004**		**0.0210**	**0.0210**		**0.0196**	**0.0196**	**0.0000**	**40.9776**	**40.9776**	**0.0116**	**0.0000**	**41.2664**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-003	0.0665	0.0136	1.8000e-004	7.3200e-003	2.2000e-004	7.5400e-003	1.9100e-003	2.1000e-004	2.1200e-003	0.0000	17.4787	17.4787	8.0000e-004	0.0000	17.4987
Vendor	6.4500e-003	0.1854	0.0494	4.4000e-004	0.0107	9.2000e-004	0.0116	3.1000e-003	8.8000e-004	3.9700e-003	0.0000	42.5629	42.5629	1.9500e-003	0.0000	42.6117
Worker	0.0138	9.9200e-003	0.1041	3.1000e-004	0.0330	2.1000e-004	0.0332	8.7700e-003	2.0000e-004	8.9700e-003	0.0000	28.2806	28.2806	6.9000e-004	0.0000	28.2980
Total	**0.0222**	**0.2618**	**0.1671**	**9.3000e-004**	**0.0510**	**1.3500e-003**	**0.0524**	**0.0138**	**1.2900e-003**	**0.0151**	**0.0000**	**88.3222**	**88.3222**	**3.4400e-003**	**0.0000**	**88.4084**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0463	0.4287	0.2993	5.7000e-004		0.0217	0.0217		0.0202	0.0202	0.0000	48.4262	48.4262	0.0135	0.0000	48.7640
Total	**0.0463**	**0.4287**	**0.2993**	**5.7000e-004**		**0.0217**	**0.0217**		**0.0202**	**0.0202**	**0.0000**	**48.4262**	**48.4262**	**0.0135**	**0.0000**	**48.7640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1200e-003	0.0724	0.0158	2.1000e-004	7.5000e-003	2.3000e-004	7.7300e-003	1.9800e-003	2.2000e-004	2.1900e-003	0.0000	20.3946	20.3946	9.3000e-004	0.0000	20.4178
Vendor	6.2700e-003	0.1977	0.0526	5.2000e-004	0.0127	4.4000e-004	0.0131	3.6600e-003	4.2000e-004	4.0800e-003	0.0000	49.8373	49.8373	2.1700e-003	0.0000	49.8916
Worker	0.0151	0.0105	0.1124	3.6000e-004	0.0390	2.5000e-004	0.0392	0.0104	2.3000e-004	0.0106	0.0000	32.2625	32.2625	7.3000e-004	0.0000	32.2808
Total	**0.0235**	**0.2806**	**0.1808**	**1.0900e-003**	**0.0591**	**9.2000e-004**	**0.0601**	**0.0160**	**8.7000e-004**	**0.0169**	**0.0000**	**102.4944**	**102.4944**	**3.8300e-003**	**0.0000**	**102.5901**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0463	0.4287	0.2993	5.7000e-004		0.0217	0.0217		0.0202	0.0202	0.0000	48.4261	48.4261	0.0135	0.0000	48.7639

Total	**0.0463**	**0.4287**	**0.2993**	**5.7000e-004**		**0.0217**	**0.0217**		**0.0202**	**0.0202**	**0.0000**	**48.4261**	**48.4261**	**0.0135**	**0.0000**	**48.7639**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1200e-003	0.0724	0.0158	2.1000e-004	7.5000e-003	2.3000e-004	7.7300e-003	1.9800e-003	2.2000e-004	2.1900e-003	0.0000	20.3946	20.3946	9.3000e-004	0.0000	20.4178
Vendor	6.2700e-003	0.1977	0.0526	5.2000e-004	0.0127	4.4000e-004	0.0131	3.6600e-003	4.2000e-004	4.0800e-003	0.0000	49.8373	49.8373	2.1700e-003	0.0000	49.8916
Worker	0.0151	0.0105	0.1124	3.6000e-004	0.0390	2.5000e-004	0.0392	0.0104	2.3000e-004	0.0106	0.0000	32.2625	32.2625	7.3000e-004	0.0000	32.2808
Total	**0.0235**	**0.2806**	**0.1808**	**1.0900e-003**	**0.0591**	**9.2000e-004**	**0.0601**	**0.0160**	**8.7000e-004**	**0.0169**	**0.0000**	**102.4944**	**102.4944**	**3.8300e-003**	**0.0000**	**102.5901**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0156	0.0172	3.0000e-005		8.0000e-004	8.0000e-004		7.4000e-004	7.4000e-004	0.0000	2.3495	2.3495	7.1000e-004	0.0000	2.3673
Paving	1.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4600e-003**	**0.0156**	**0.0172**	**3.0000e-005**		**8.0000e-004**	**8.0000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.3495**	**2.3495**	**7.1000e-004**	**0.0000**	**2.3673**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5700e-003	0.0535	0.0117	1.6000e-004	3.3900e-003	1.7000e-004	3.5600e-003	9.3000e-004	1.6000e-004	1.0900e-003	0.0000	15.0607	15.0607	6.8000e-004	0.0000	15.0777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3400e-003	9.3000e-004	9.9600e-003	3.0000e-005	3.4500e-003	2.0000e-005	3.4800e-003	9.2000e-004	2.0000e-005	9.4000e-004	0.0000	2.8592	2.8592	7.0000e-005	0.0000	2.8609
Total	**2.9100e-003**	**0.0544**	**0.0216**	**1.9000e-004**	**6.8400e-003**	**1.9000e-004**	**7.0400e-003**	**1.8500e-003**	**1.8000e-004**	**2.0300e-003**	**0.0000**	**17.9199**	**17.9199**	**7.5000e-004**	**0.0000**	**17.9386**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0156	0.0172	3.0000e-005		8.0000e-004	8.0000e-004		7.4000e-004	7.4000e-004	0.0000	2.3495	2.3495	7.1000e-004	0.0000	2.3673
Paving	1.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4600e-003**	**0.0156**	**0.0172**	**3.0000e-005**		**8.0000e-004**	**8.0000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.3495**	**2.3495**	**7.1000e-004**	**0.0000**	**2.3673**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	1.5700e-003	0.0535	0.0117	1.6000e-004	3.3900e-003	1.7000e-004	3.5600e-003	9.3000e-004	1.6000e-004	1.0900e-003	0.0000	15.0607	15.0607	6.8000e-004	0.0000	15.0777
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3400e-003	9.3000e-004	9.9600e-003	3.0000e-005	3.4500e-003	2.0000e-005	3.4800e-003	9.2000e-004	2.0000e-005	9.4000e-004	0.0000	2.8592	2.8592	7.0000e-005	0.0000	2.8609
Total	**2.9100e-003**	**0.0544**	**0.0216**	**1.9000e-004**	**6.8400e-003**	**1.9000e-004**	**7.0400e-003**	**1.8500e-003**	**1.8000e-004**	**2.0300e-003**	**0.0000**	**17.9199**	**17.9199**	**7.5000e-004**	**0.0000**	**17.9386**

3.8 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3300e-003	0.0575	0.0912	1.4000e-004		2.0100e-003	2.0100e-003		1.9600e-003	1.9600e-003	0.0000	12.4406	12.4406	3.1100e-003	0.0000	12.5183
Total	**2.2772**	**0.0575**	**0.0912**	**1.4000e-004**		**2.0100e-003**	**2.0100e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**12.4406**	**12.4406**	**3.1100e-003**	**0.0000**	**12.5183**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.6200e-003	0.0817	2.6000e-004	0.0283	1.8000e-004	0.0285	7.5300e-003	1.6000e-004	7.7000e-003	0.0000	23.4517	23.4517	5.3000e-004	0.0000	23.4650
Total	**0.0110**	**7.6200e-003**	**0.0817**	**2.6000e-004**	**0.0283**	**1.8000e-004**	**0.0285**	**7.5300e-003**	**1.6000e-004**	**7.7000e-003**	**0.0000**	**23.4517**	**23.4517**	**5.3000e-004**	**0.0000**	**23.4650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2719					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3300e-003	0.0575	0.0912	1.4000e-004		2.0100e-003	2.0100e-003		1.9600e-003	1.9600e-003	0.0000	12.4406	12.4406	3.1100e-003	0.0000	12.5182
Total	**2.2772**	**0.0575**	**0.0912**	**1.4000e-004**		**2.0100e-003**	**2.0100e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**12.4406**	**12.4406**	**3.1100e-003**	**0.0000**	**12.5182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.6200e-003	0.0817	2.6000e-004	0.0283	1.8000e-004	0.0285	7.5300e-003	1.6000e-004	7.7000e-003	0.0000	23.4517	23.4517	5.3000e-004	0.0000	23.4650
Total	**0.0110**	**7.6200e-003**	**0.0817**	**2.6000e-004**	**0.0283**	**1.8000e-004**	**0.0285**	**7.5300e-003**	**1.6000e-004**	**7.7000e-003**	**0.0000**	**23.4517**	**23.4517**	**5.3000e-004**	**0.0000**	**23.4650**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1088	0.4835	1.3860	5.0000e-003	0.4676	4.1900e-003	0.4718	0.1252	3.9100e-003	0.1291	0.0000	457.4775	457.4775	0.0148	0.0000	457.8474
Unmitigated	0.1088	0.4835	1.3860	5.0000e-003	0.4676	4.1900e-003	0.4718	0.1252	3.9100e-003	0.1291	0.0000	457.4775	457.4775	0.0148	0.0000	457.8474

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	430.70	430.70	430.70	1,257,432	1,257,432
Parking Lot	0.00	0.00	0.00		
Total	430.70	430.70	430.70	1,257,432	1,257,432

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Parking Lot	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	88,969.8099	88,969.8099	6.7898	1.4048	89,558.1813
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	88,969.8099	88,969.8099	6.7898	1.4048	89,558.1813
NaturalGas Mitigated	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	612.4361	612.4361	0.0117	0.0112	616.0755
NaturalGas Unmitigated	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	612.4361	612.4361	0.0117	0.0112	616.0755

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.14766e+007	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	612.4361	612.4361	0.0117	0.0112	616.0755
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0619**	**0.5626**	**0.4726**	**3.3800e-003**		**0.0428**	**0.0428**		**0.0428**	**0.0428**	**0.0000**	**612.4361**	**612.4361**	**0.0117**	**0.0112**	**616.0755**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.14766e+007	0.0619	0.5626	0.4726	3.3800e-003		0.0428	0.0428		0.0428	0.0428	0.0000	612.4361	612.4361	0.0117	0.0112	616.0755
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0619**	**0.5626**	**0.4726**	**3.3800e-003**		**0.0428**	**0.0428**		**0.0428**	**0.0428**	**0.0000**	**612.4361**	**612.4361**	**0.0117**	**0.0112**	**616.0755**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	5.16165e+008	88,968.8447	6.7897	1.4048	89,557.2097
Parking Lot	5600	0.9652	7.0000e-005	2.0000e-005	0.9716
Total		**88,969.8099**	**6.7898**	**1.4048**	**89,558.1813**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	5.16165e+008	88,968.8447	6.7897	1.4048	89,557.2097
Parking Lot	5600	0.9652	7.0000e-005	2.0000e-005	0.9716

Total		**88,969.8099**	**6.7898**	**1.4048**	**89,558.1813**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9278	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113
Unmitigated	1.9278	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113
Total	**1.9278**	**5.0000e-005**	**5.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0106**	**0.0106**	**3.0000e-005**	**0.0000**	**0.0113**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7001					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.1000e-004	5.0000e-005	5.4400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0106	0.0106	3.0000e-005	0.0000	0.0113
Total	**1.9278**	**5.0000e-005**	**5.4400e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0106**	**0.0106**	**3.0000e-005**	**0.0000**	**0.0113**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.4930	1.3800e-003	8.0000e-004	2.7669
Unmitigated	2.4930	1.3800e-003	8.0000e-004	2.7669

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1 / 2	2.4930	1.3800e-003	8.0000e-004	2.7669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.4930**	**1.3800e-003**	**8.0000e-004**	**2.7669**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1 / 2	2.4930	1.3800e-003	8.0000e-004	2.7669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.4930**	**1.3800e-003**	**8.0000e-004**	**2.7669**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	109.5055	6.4716	0.0000	271.2953
Unmitigated	109.5055	6.4716	0.0000	271.2953

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	539.46	109.5055	6.4716	0.0000	271.2953
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**109.5055**	**6.4716**	**0.0000**	**271.2953**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	539.46	109.5055	6.4716	0.0000	271.2953
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Total		**109.5055**	**6.4716**	**0.0000**	**271.2953**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix AQ5

Risk Assessment Support Data

Table AQ5-1 Sensitive Receptors and Distances from Site

(all sites and coordinates from Google Earth unless otherwise noted)

Walsh Data Center

Receptor ID		UTM Em	UTM Nm	Elev., ft.	Distance from Site meters	feet	miles	Modeling Receptor #
Site (approx middle point) *		**593206.69**	**4136594.87**	42	na	na		
School	West	590740.24	4136031.74	46	2529.9	8300.7	1.57	
School	North	593765.46	4137429.62	30	1004.5	3295.8	0.62	
Residences	South	593044.83	4135585.71	52	1022.1	3353.4	0.64	
Worker	North	593253.23	4136677.05	70	94.4	309.9	0.06	
Worker	Northeast	593403.43	4136692.71	40	219.7	720.9	0.14	
Worker	East	593396.19	4136616.07	41	190.7	625.6	0.12	
Worker	Southeast	593439.42	4136341.07	40	344.4	1129.8	0.21	
Worker	South-southeas	593314.98	4136438.44	56	190.3	624.2	0.12	
Worker	South	593255.00	4136422.37	66	179.1	587.7	0.11	
Worker	Southwest	593145.75	4136415.20	42	189.7	622.5	0.12	
Worker	West-southwest	593115.47	4136477.88	42	148.4	486.7	0.09	
Worker	West	593107.50	4136587.33	70	99.5	326.4	0.06	
Worker	Northwest	593123.66	4136683.63	78	121.5	398.8	0.08	
Worker	North-northwest	593128.16	4136781.79	67	202.7	665.2	0.13	
Worker	East	593400.61	4136545.51	67	200.1	656.5	0.12	
Worker	West	593137.00	4136535.14	61	91.8	301.1	0.06	

Receptor Count : 16

* approximate mid point between stacks

Google Image date: 8/9/18

Table AQ5-2

CONSOLIDATED TABLE OF OEHHA/ARB APPROVED RISK ASSESSMENT HEALTH VALUES[a]

Substance	Chemical[b] Abstract Number	Noncancer Effects								Cancer Risk					
		Acute Inhalation ($\mu g/m^3$)	Date[c] Value Reviewed [Added]	8-Hour Inhalation ($\mu g/m^3$)	Date[c] Value Reviewed [Added]	Chronic Inhalation ($\mu g/m^3$)	Date[c] Value Reviewed [Added]	Chronic Oral (mg/kg-d)	Date[c] Value Reviewed [Added]	Inhalation[d] Unit Risk $(\mu g/m^3)^{-1}$	Inhalation[d] Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$	Date[c] Value Reviewed [Added]	Oral Slope Factor $(mg/kg\text{-}d)^{-1}$	Date[c] Value Reviewed [Added]	MWAF[e]
PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES[TAC, i]	9901					5.0E+00 TAC	8/98			3.0E-04 TAC	1.1E+00	8/98			1
PENTACHLOROPHENOL ... (see Chlorophenols)															
PERCHLOROETHYLENE[TAC] (Tetrachloroethylene)	127-18-4	2.0E+04	4/99			3.5E+01 TAC	10/91			6.1E-06 TAC	2.1E-02	10/91			1
PHENOL	108-95-2	5.8E+03	4/99			2.0E+02	4/00								1
PHOSGENE	75-44-5	4.0E+00	4/99												1
PHOSPHINE	7803-51-2					8.0E-01	9/02								1
PHOSPHORIC ACID	7664-38-2					7.0E+00	2/00								1
PHTHALIC ANHYDRIDE	85-44-9					2.0E+01	1/01								1
PCB (POLYCHLORINATED BIPHENYLS) (unspeciated mixture) [j]	1336-36-3									2.0E-05 [lowest risk] 1.1E-04 [low risk] 5.7E-04 [high risk]	7.0E-02 [lowest risk] 4.0E-01 [low risk] 2.0E+00 [high risk]	4/99	7.0E-02 [lowest risk] 4.0E-01 [low risk] 2.0E+00 [high risk]	10/00	1
PCB (POLYCHLORINATED BIPHENYLS (speciated)[k]															
3,3',4,4'-TETRACHLOROBIPHENYL (PCB 77)	32598-13-3					4.0E-01	8/03	1.0E-04	8/03	3.8E-03	1.3E+01	8/03	1.3E+01	8/03	1
3,4,4',5-TETRACHLOROBIPHENYL (PCB 81)	70362-50-4					1.3E-01	1/11	3.3E-05	1/11	1.1E-02	3.9E+01	1/11	3.9E+01	1/11	1
2,3,3',4,4'-PENTACHLOROBIPHENYL (PCB 105)	32598-14-4					1.3E+00	1/11	3.3E-04	1/11	1.1E-03	3.9E+00	1/11	3.9E+00	1/11	1
2,3,4,4',5-PENTACHLOROBIPHENYL (PCB 114)	74472-37-0					1.3E+00	1/11	3.3E-04	1/11	1.1E-03	3.9E+00	1/11	3.9E+00	1/11	1
2,3',4,4',5-PENTACHLOROBIPHENYL (PCB 118)	31508-00-6					1.3E+00	1/11	3.3E-04	1/11	1.1E-03	3.9E+00	1/11	3.9E+00	1/11	1
2,3',4,4',5'-PENTACHLOROBIPHENYL (PCB 123)	65510-44-3					1.3E+00	1/11	3.3E-04	1/11	1.1E-03	3.9E+00	1/11	3.9E+00	1/11	1
3,3',4,4',5-PENTACHLOROBIPHENYL (PCB 126)	57465-28-8					4.0E-04	8/03	1.0E-07	8/03	3.8E+00	1.3E+04	8/03	1.3E+04	8/03	1
2,3,3',4,4',5-HEXACHLOROBIPHENYL (PCB 156)	38380-08-4					1.3E+00	1/11	3.3E-04	1/11	1.1E-03	3.9E+00	1/11	3.9E+00	1/11	1

Appendix B

Arborist Report

BAY AREA TREE SPECIALISTS

PREPARED FOR:

BEN ROSENFELD

651 Walsh Ave

Santa Clara, CA 95050

JULY 30TH, 2018

PREPARED BY:

RICHARD SMITH, CERTIFIED ARBORIST

CERTIFIED ARBORIST NO. WE-8745A

Contents

SUMMARY

I, Richard Smith, Certified Arborist No. WE-8745A was called out to assess trees located at a 651 Walsh Ave Santa Clara, CA for species type, size, health and recommendations.

PURPOSE AND USE OF THIS REPORT

The purpose of this report is to provide tree inventory, tagging, GPS, condition of trees and recommendations for removal due to construction and/or health.

ANALYSIS

The tree was measured at four and one half feet above grade **(Diameter at Breast Height) (DBH))** with Ben Meadows TM Diameter Tape, made in Germany

LIMITS OF THE ASSIGNMENT

- No aerial inspection, trenching or resistance drilling was performed.
- No Biological tests were performed.
- No tree risk assessments were performed.
- Only a visual inspection from the ground was performed.

TREE INVENTORY

TAG#	Tree Type	Diameter in inches	Height in feet	Crown Spread in feet	Overall Health	Overall Structure	Recommendation
367	Liquid Ambar	13	28	21	Poor	Poor	Not suitable for retention
368	Liquid Ambar	12	27	18	Poor	Poor	Not suitable for retention
369	Liquid Ambar	10	25	12	Poor	Poor	40% dead not suitable for retention
370	Liquid Ambar	11	28	15	Poor	Poor	Not suitable for retention
371	Liquid Ambar	10	27	14	Poor	Poor	Not suitable for retention
372	Liquid Ambar	11	28	14	Poor	Poor	Not suitable for retention
373	Liquid Ambar	10	32	13	Poor	Poor	Not suitable for retention
374	Liquid Ambar	13	38	21	Poor	Poor	Not suitable for retention
375	Liquid Ambar	9	22	13	Poor	Poor	Not suitable for retention
376	Liquid Ambar	14	42	30	Poor	Poor	Not suitable for retention
377	Liquid Ambar	13	39	21	Poor	Poor	Not suitable for retention
378	Liquid Ambar	17	38	26	Poor	Poor	Not suitable for retention
379	Liquid Ambar	14	40	25	Poor	Poor	Not suitable for retention
380	Liquid Ambar	12	30	20	Poor	Poor	Dead

381	Liquid Ambar	7	27	14	Poor	Poor	Not suitable for retention
382	Liquid Ambar	9	28	13	Poor	Poor	Dead
383	Liquid Ambar	12	26	20	Poor	Poor	Not suitable for retention
384	Ailanthis	19	46	30	Poor	Poor	Not suitable for retention
385	Ailanthis	20	45	13	Poor	Poor	Not suitable for retention
386	Ailanthis	17	37	16	Poor	Poor	Not suitable for retention
387	Ailanthis	13	30	14	Poor	Poor	Not suitable for retention
388	Ailanthis	19	34	18	Poor	Poor	Not suitable for retention
389	Ailanthis	9	20	10	Poor	Poor	Not suitable for retention
390	Walnut	19	21	30	Poor	Poor	Not suitable for retention
391	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
392	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
393	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
394	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
395	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
396	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
397	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention

398	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
399	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
400	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
183	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
184	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
185	Ailanthis	12	20	15	Poor	Poor	Not suitable for retention
186	Ailanthis	10	20	15	Poor	Poor	Not suitable for retention
187	Ailanthis	10	20	15	Poor	Poor	Not suitable for retention
No tag	Iron Bark Eucalyptus	12	27	18	Poor	Fair	Heavy lean, not suitable for retention
No tag	Iron Bark Eucalyptus	12	44	25	Poor	Fair	Growing into fence, not suitable for retention

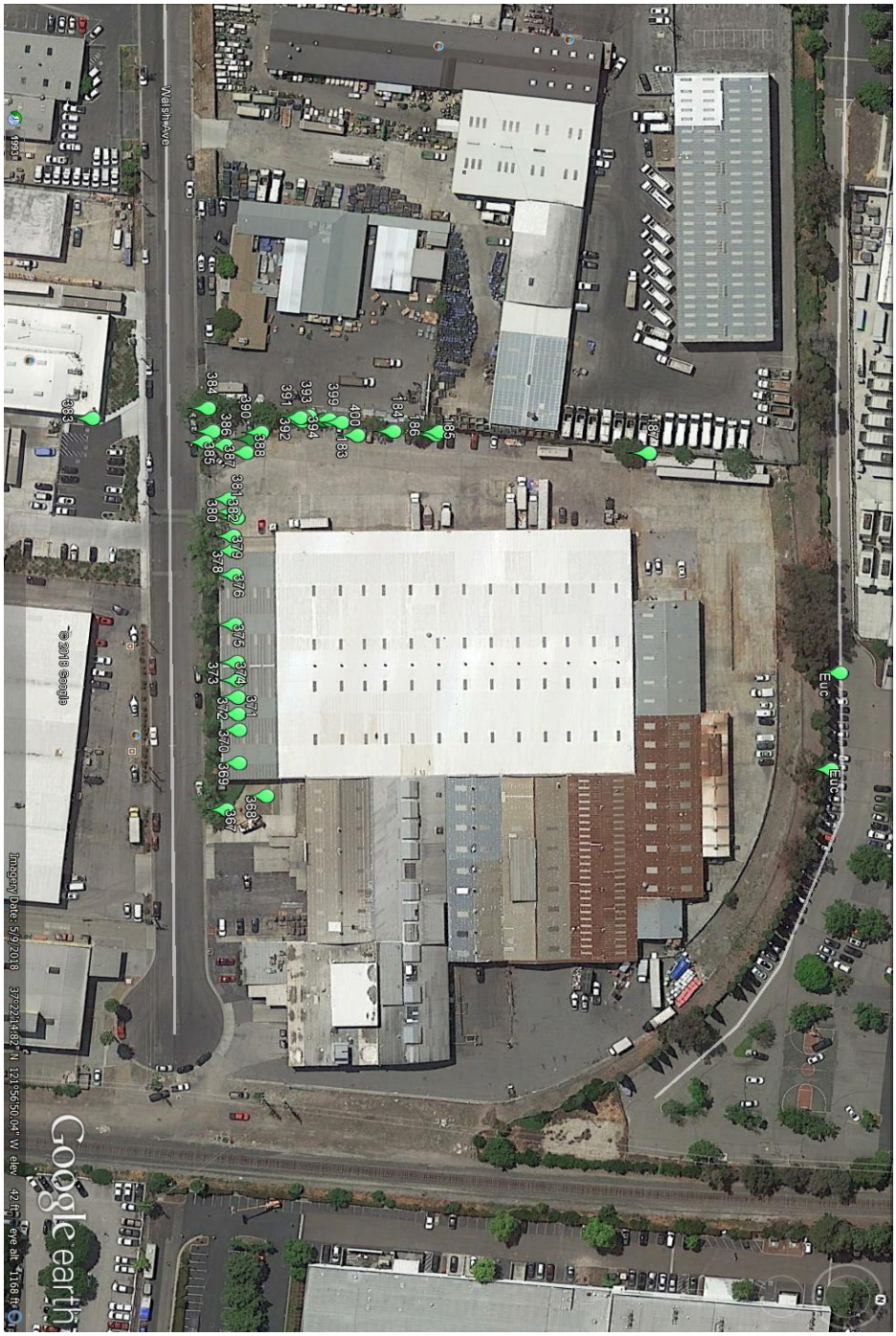
SUMMARY

All Liquid Ambar Trees are in varying stages of decline evidenced by dead tops or portions of the tree.

Ailanthis trees have been topped, poor pruning practice. Decay is also present at base of most of these trees.

All of these trees are in poor condition and should be removed and replaced per city specs.

GPS GOOGLE MAP



QUALIFICATIONS, ASSUMPTIONS, AND LIMITING CONDITIONS

Any legal description provided to the arborist is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the arborist cannot be responsible for the accuracy of information provided by others.

The arborist shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitrations, or trials by reason of this report unless subsequent contractual arraignments are made, including payment of an additional fee for such service.

This report and any appraisal value expressed herein represent the opinion of the arborist, and the arborist fee is not contingent upon the reporting of a specified appraised value, a stipulated result, or the occurrence of a subsequent event.

Sketches, drawings, and photographs in this report are intended for use as visual aids, are not necessarily to scale, and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is only for coordination and ease of reference. Inclusion of said information with any drawings or other documents does not constitute a representation as to the sufficiency or accuracy of said information.

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.

CERTFICATION OF PERFORMANCE

I, Richard Smith, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have states my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the arborist, except as indicated in the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am an I.S.A. Certified Arborist in good standing with The International Society of Arboriculture. I have been involved with the practice of Arboriculture and the care and study of trees since 2004.

Richard Smith

I.S.A. Certified Arborist WE-8745A

Appendix C

Phase I and Limited Phase II ESAs

Appendix C-1

Phase I ESA

ROSSO ENVIRONMENTAL, INC.
PHONE: 510.647.8107
PO Box 1923
Lafayette, CA | 94549-1923

November 29, 2016

Pelio & Associates
c/o Mr. Jon Shank
14573 Big Basin Way
Saratoga, California 95070

Project No. 16-0062.00

Subject: Phase I Environmental Site Assessment
601-711 Walsh Avenue
Santa Clara, Santa Clara County, California

Dear Mr. Shank:

Rosso Environmental, Inc. is pleased to present the enclosed regarding the Subject. We appreciate the opportunity to be of service. Please contact me with any questions or needs for additional assistance.

Sincerely,

Jon Rosso, PE
Principal
Rosso Environmental, Inc.
jrosso@rossoenv.com

Enclosure

ROSSO
ENVIRONMENTAL, INC.

Phase I
Environmental Site Assessment

601-711 Walsh Avenue
Santa Clara, Santa Clara County, California

November 29, 2016
Project Number 16-0062.00

Prepared for
Pelio & Associates
Saratoga, California

ASSESSMENT | INVESTIGATION | REMEDIATION | CONSULTING
PHONE: 510.647.8107 | PO Box 1923, Lafayette, CA | 94549-1923

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EXECUTIVE SUMMARY

Rosso Environmental, Inc. (REI) was retained by Pelio & Associates to conduct a Phase I Environmental Site Assessment (ESA) of real property located at 601-711 (odd) Walsh Avenue, Santa Clara, Santa Clara County, California (subject property or Site).

REI conducted this ESA in substantial conformance with ASTM Designation: E 1527-13 *Standard Practice for ESAs: Phase I ESA Process*; the ESA scope of work and terms and conditions are referenced in REI's proposal number 2016-0036 with signed authorization on November 2, 2016. Exceptions and limitations encountered during this ESA are identified in the body of this report.

The approximately 7.87-acre subject property is developed with a large warehouse building comprising several adjoining warehouse structures of various sizes that have been added to the original structure over time and have been subdivided into tenant spaces. A raised concrete loading dock extends along the west side of the building, which is adjoined by paved driveway, parking and loading areas. A second raised concrete loading dock with ramp extends around the curvilinear northeastern to northern perimeter of the subject property, along an unpaved former railroad spur alignment. Smaller concrete raised loading docks or ramps and asphalt-paved parking areas are located on the south side of the building, with an additional loading dock on the northeast corner of the building. Driveway, parking and outdoor storage areas on the east side of the building are asphalt-paved. A landscaped strip extends along a portion of the Walsh Avenue frontage of the property. The subject building is primarily utilized for general warehousing and miscellaneous industrial shop activities.

REI identified obvious subject property uses from the present back to 1939, at which time it appears to have been in agricultural use as a hay or grain field. By 1946, the subject property was developed with an industrial building, a portion of the existing building, for wire manufacturing. The building was served by railroad spurs that branched from mainline railroad tracks passing northward along the eastern property boundary. The building was expanded to its current size by the addition of several adjoining warehouses over the approximate period 1950 to 1982. Wire manufacturing appears to have ceased by 1984. Between approximately 1984 and 1986, the building was renovated for multi-tenant occupancy, which has continued through the present. Uses of the subject building by historical and current tenants appear to have consisted primarily of warehousing and small industrial shops.

Adjoining properties were also in general agricultural use as fields in 1939. Since the late 1940s, the vicinity of the subject property has been developed as an industrial tract that extended northward from the town site of Santa Clara along the axis of Lafayette Street to the Central Expressway and beyond. In the 1990s, the northern adjoining industrial property was redeveloped for office/light industrial uses, and the remaining agricultural land on the eastern adjoining property was similarly developed with an office/light industrial park.

This ESA has revealed no evidence of recognized environmental conditions (RECs) in connection with the subject property, except as follows:

- Historical use of the subject property for wire manufacturing with residual contamination from lead and zinc remaining in soils, and additional areas where no investigation is known to have been

performed, including a volatile chemicals storage shed, a plating shop with boiler room, and a machine shop, is a REC.

- Fill of unknown origin beneath the subject building is a REC.
- Historical development of the subject property with rail spurs and for agricultural use is a REC.
- Groundwater impacts originating on the property located at 750 Walsh Avenue, which appear to have overlapped onto the upgradient margins of the subject property, represent a REC.
- Known contamination of groundwater with chlorinated solvents and petroleum hydrocarbons in the immediate vicinity of the subject property is a REC.

1.0 INTRODUCTION

Rosso Environmental, Inc. (REI) was retained by Pelio & Associates to conduct a Phase I Environmental Site Assessment (ESA) of real property located at 601-711 (odd) Walsh Avenue, Santa Clara, Santa Clara County, California (subject property or Site). Figures 1 and 2 show the approximate subject property location and a site plan, respectively.

1.1 PURPOSE

One purpose of this ESA is to permit a user to satisfy one of the requirements to qualify for landowner liability protections (under CERCLA). This ESA may also help a user better understand business environmental risks. Towards these ends and consistent with good commercial and customary practice, this ESA is designed to identify recognized environmental conditions (RECs) as well as *de minimis* conditions in connection with the subject property by performing all appropriate inquiry into subject property ownership and use as well as into uses of adjoining properties and surrounding areas within approximate minimum search distances from the subject property.

1.2 METHODOLOGY

REI conducted this ESA in substantial conformance with ASTM Designation: E 1527-13 Standard Practice for ESAs: Phase I ESA Process; the ESA scope of work and terms and conditions are referenced in REI's proposal number 2016-0036. Qualified personnel working under the responsible charge of an environmental professional conducted this ESA (Appendix A). This ESA includes these parts: reconnaissance, interviews, records review, and evaluation.

1.3 LIMITATIONS

REI obtained information for this ESA from various sources (Appendix B), and to the extent it was relied on to form our opinion, this information is assumed to be correct and complete. REI is not responsible for the quality or content of information from these sources. REI encountered no data gaps or limitations, except:

- REI identified obvious subject property uses from the present back to 1939, at which time it was in use as an agricultural field cultivated with hay or grain. This constitutes data failure because REI did not establish the history of subject property use since 1940 or first development, whichever is earlier. Based on REI's experience, information about prior subject property uses is not reasonably ascertainable or likely to be useful. This data failure is not a significant data gap because the subject property uses were likely undeveloped or agricultural prior to 1939, and therefore not likely to present additional concern.
- REI requested records from the Santa Clara Fire Department (SCFD) on November 2, 2016. REI made several follow up attempts by telephone, email, and in person to obtain information related to the subject property. As of the date of this ESA, REI has not been provided access to subject property records. The SCFD is the Certified Unified Program Agency (CUPA), related to hazardous materials, spills, underground tanks, and cleanup activities. This is data failure, and represents a significant data gap, based on other records reviewed that identify chemical use and storage at the subject property. Lack of response from this agency impeded REI's ability to understand environmental conditions on the subject property.

- REI was not able to inspect the floor areas of several of the tenant spaces, as they were used for warehouse or materials storage and were therefore inaccessible. This represents a data failure. However, this data failure is not considered significant, based on an interview with the property owner representatives and tenants who did not identify known in-ground features. No opinion can be formed regarding floor surface areas that were not visually accessible.

The information and opinions rendered in this report are exclusively for use by W. Leslie Pelio, Pelio & Associates and a future partner to be named. REI will not distribute or publish this report without consent except as required by law or court order. The information and opinions expressed in this report are given in response to a limited assignment and should be considered and implemented only in light of that assignment. The services provided by REI in completing this project were consistent with normal standards of the profession. No other warranty, expressed or implied, is made.

2.0 RECONNAISSANCE

On November 8, 2016, Philip McLaughlin of REI performed a visual reconnaissance of the subject property, adjoining properties, and surrounding areas to ascertain current and historic uses. Mr. McLaughlin was accompanied during his reconnaissance by Ms. Lindsey Pelio of Pelio & Associates. The subject property was systematically traversed on foot; adjoining properties were observed from the subject property and from public thoroughfares. Photographs are appended.

2.1 SUBJECT PROPERTY USE

The approximately 7.87-acre subject property is developed with a large warehouse building comprising several adjoining warehouse structures of various sizes that have been added to the original structure over time and have been subdivided into tenant spaces. A raised concrete loading dock extends along the west side of the building, which is adjoined by paved driveway, parking and loading areas. A second raised concrete loading dock with ramp extends around the curvilinear northeastern to northern perimeter of the subject property, along an unpaved former railroad spur alignment. Smaller concrete raised loading docks or ramps, and asphalt-paved parking areas, are located on the south side of the building, with an additional loading dock on the northeast corner of the building. Driveway, parking and outdoor storage areas on the east side of the building are asphalt-paved. A landscaped strip extends along a portion of the Walsh Avenue frontage of the property.

The subject building is primarily utilized for general warehousing and miscellaneous industrial shop activities. The following tenants occupy the subject building:

- 601/621 Walsh Avenue, Redwood Electric Group, lighting fixture supplies warehouse, including light emitting diode (LED) fixtures, mountings, hardware and accessories for installation in commercial buildings.
- 623 Walsh Avenue, Strong Steel, steel fabrication.
- 625 Walsh Avenue, West Coast Limousine, storage of limousines, minor vehicle servicing (e.g., oil change), and miscellaneous dry storage.
- 627 Walsh Avenue, 7th Generation Recycling, collection, packaging storage and shipping of clothing, shoes, household furniture, electrical appliances, computers, and other recycled goods, with some refurbishing, and spray painting of collection receptacles. Adjoining tenant space 625S is used for miscellaneous dry storage.

- 621/631/641 Walsh Avenue, Russell's Furniture, furniture storage and small furniture repair shop with paint touch-up; aerosol spray cans and application of coating finishes.
- 661 Walsh Avenue, Facility Logistics, storage of office furniture and equipment.
- 691 Walsh Avenue, Golden Gate Petroleum, storage and shipping terminal for petroleum products.
- 701/705/711 Walsh Avenue, Global Satcom Technology, Inc., manufacturing of microwave antennae and satellite communication equipment.

2.1.1 Hazardous Substances and Petroleum Products

REI observed the subject property for indications of the use, storage, or disposal of hazardous substances and petroleum products (*e.g.*, manufacturing activities, drums, containers, stressed vegetation, stains, sheen, heating/cooling systems). REI observed no such indications, except:

- 623 Walsh Avenue, Strong Steel: Chemical storage area near warehouse entrance includes storage cabinet with small containers of paint thinner and aerosol spray paint; shelving with small containers of motor oil and other petroleum products; and two 5-gallon containers of gasoline. Storage area in the rear of warehouse with small quantities of petroleum products (cutting oil, hydraulic oil, petroleum-distillate solvent).
- 625 Walsh Avenue, West Coast Limousine: Servicing area in the rear of the warehouse with above-ground hydraulic lift (15-gallon hydraulic vessel on side post), small containers of motor oil and ethylene glycol coolant, and two drums containing waste oil and waste absorbent. According to the occupant manager, Ms. Alia Khidiatova, the wastes are regularly removed by a waste disposal contractor.
- 627 Walsh Avenue, 7th Generation Recycling: Paint storage adjacent to and within outdoor spray booth, including several 5-gallon containers of water-based paint.
- 621/631/641 Walsh Avenue, Russell's Furniture

  631: Furniture repair shop in south side of warehouse, with flammables storage cabinet with small containers (≤1 gallon) of paint lacquer, mineral spirits and acetone; storage cabinet for aerosol cans of spray paint; and a touch-up/spray paint area.

  691: Chemical storage cabinet in northwest corner of warehouse, with 1-gallon container of paint thinner and aerosol spray paint; adjacent 55-gallon drum of fabric-guard for upholstered furniture.
- 691 Walsh Avenue, Golden Gate Petroleum: Storage warehouse with rows of stacked drums containing motor oil, automatic transmission fluid (ATF), hydraulic oil and other lubricants, ethylene glycol coolant; two flammables storage cabinets with 5-gallon containers of acetone, isopropyl alcohol (IPA), methyl alcohol, mineral spirits, heptane, kerosene and racing gasoline; shelving with boxes of 1-quart and smaller containers of petroleum products and ethylene glycol. Two drums stored on a secondary containment skid, one containing form oil (excess oil from returned or un-sellable petroleum products) and the other with rags and waste absorbent. No open containers were observed.
- 701/705/711 Walsh Ave, Global Satcom Technology, Inc.

701: Flammables storage cabinet with 1-gallon containers of acetone, IPA, propyl alcohol, methyl ethyl ketone (MEK), polane paint (plastics primer), polyurethane paint, epoxy resin and catalyst. Hazardous waste storage in paint booth includes three drums containing waste acetone, waste filters and waste paint sludge.

705: Machining area with aerosol cans of petroleum distillate solvent, 1-gallon container of IPA; work bench with threadlocker (adhesive/sealant) for fasteners; work bench in assembly area with small containers of IPA solvent, adhesives and sealants.

711: Hazardous materials storage area with three drums of epoxy resin.

- Standard janitorial cleaners in restrooms, breakrooms and janitor's closets throughout the building. Several tenants store and use small containers of aerosol spray paints and petroleum-distillate solvents. A few 5-gallon containers of water-based paints and other standard building maintenance supplies were also observed in the building.

No evidence of significant spillage or release of hazardous materials was observed at the above locations.

2.1.2 Underground Storage Tanks (USTs)

REI observed the subject property for indications of USTs (*e.g.*, vent piping, dispensing equipment, pavement variations, fill ports). REI observed no such indications.

2.1.3 Aboveground Storage Tanks (ASTs)

REI observed the subject property for indications of ASTs (*e.g.*, pavement bolts, containers, reservoirs, generators). REI observed no such indications.

2.1.4 Liquid Waste

REI observed the subject property for indications of liquid waste discharge sources (*e.g.*, sumps, drains, clarifiers, pools of liquid, pits, ponds, lagoons, septic systems, wastewater, storm water). REI observed no such indications, except:

- Restrooms, breakrooms and janitor's sinks throughout the subject building, which are plumbed to the municipal sanitary sewer system.
- A concrete-lined trench extends the north-to-south length of warehouse 631/661/691. The trench is covered by steel grates, steel plates or wooden planks. The trench contains an approximately 8-inch-diameter steel pipe.
- Observed patches in concrete, including long linear features, which may be abandoned floor drains and sumps.
- Storm water run-off from the paved western side of the subject property is collected in a concrete culvert that extends southward to a catch basin in the southwest corner of the subject property. Storm water is also collected from a catch basin located at the north end of the culvert, with storm water conveyed via underground drain beneath the culvert to the main catch basin in the southwest corner. A lift station consisting of an electric-powered pump in the main catch basin forces the storm water into the municipal storm drain that extends along Walsh Avenue. In addition, a storm water catch basin is located at the bottom of the truck well for the loading dock on the south side of warehouse 601. The storm water is conducted via underground piping to the

municipal storm water system. Storm water run-off otherwise flows across pavement to the adjacent street gutter that extends along Walsh Avenue. Run-off from the asphalt-paved eastern side of the subject property collects in a curb gutter extending along the eastern boundary of the subject property, which conveys storm water to the Walsh Avenue street gutter. Catch basins are also located along the curb gutter, with storm water conveyed by underground piping to the municipal storm drain system.

2.1.5 Solid Waste

REI observed the subject property for indications of solid waste disposal (*e.g.*, mounding, depressions, fill material, bins, debris, active human use). REI observed no such indications, except:

- A few drums of hazardous waste were observed on the premises. According to the various tenant occupants interviewed during site reconnaissance, the waste drums are periodically removed from the subject property by a waste disposal contractor. The drums were observed at the following locations: 625, two drums containing waste oil and waste absorbent; 691, one drum containing oily rags and waste absorbent; and 701, three drums containing waste acetone, waste filters and waste paint sludge (paint booth). No evidence of significant spillage or release of hazardous materials was observed at the above locations.
- Two trash bins containing standard office trash and recyclables were observed adjacent to a loading dock in the southeastern corner of subject property. Bins with similar office or otherwise chemically inert trash were observed outside warehouse 623 and within warehouse 701.
- A large debris bin on the south side of the building was filled with discarded office and household furniture and miscellaneous trash.

2.1.6 Polychlorinated Biphenyls (PCBs)

REI observed the subject property for indications of PCBs (*e.g.*, transformers, capacitors, elevators, lifts). REI observed no such indications, except for one pad-mounted, Pacific Gas and Electric (PG&E) transformer located along the Walsh Avenue frontage of the subject property. No evidence of spillage or a release from the transformer was observed at the above location.

2.1.7 Wells

REI observed the subject property for indications of supply, irrigation, monitor, injection, dry, abandoned, or other wells (*e.g.*, protruding pipes, cover plates, pumps, small sheds, large water storage containers, mounded grout). REI observed no such indications.

2.2 ADJOINING PROPERTY AND SURROUNDING AREA USE

REI observed the adjoining properties and surrounding area to primarily comprise commercial and retail uses that include:

- North: Office/light industrial buildings occupied by Hitachi Data Systems (2825 & 2845 Lafayette Street) and Digital Realty (2805 Lafayette Street).
- West: Barnhart Construction contractor's yard with office, warehouse and outdoor storage (785 Walsh Avenue), and various miscellaneous light industrial buildings (2715-2775 Lafayette Street).

- South: Walsh Avenue, with multiple industrial buildings including Sysco Circuit Breakers (614 Walsh Avenue), Haro's Anodizing (630 Walsh Avenue), a large, warehouse building with multiple tenants consisting of a pool supply company, and various warehouse, contractor, and light industrial uses (650-698 Walsh Avenue), AMQ (764 Walsh Avenue), and Safeway Scaffolding (750 Walsh Avenue). A plate cover identified as a monitoring well was observed on the north side of the 614/630 address, near Walsh Avenue and adjacent to the railroad tracks.
- East: Railroad tracks with office/light industrial buildings of the Airport Technology Park (2770-2890 De la Cruz Boulevard) with runways of the San Jose International Airport beyond.

3.0 INTERVIEWS

REI conducted or attempted to conduct interviews at various times during November 2016. Unless otherwise noted, interviewed persons were generally forthcoming. None of the interviewed persons is aware of 1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; 2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; and 3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

3.1 USER

ASTM E 1527 defines “user” as the party seeking to use Practice E 1527 to complete an environmental site assessment of the subject property, and in this case, the user is subject property owner W. Leslie Pelio. User representative Mr. Jon Shank of Pelio & Associates completed the user questionnaire. Mr. Shank is unaware of any environmental liens or activity and use limitations (AULs); has no specialized knowledge or experience with the subject property; and has no commonly known or reasonably ascertainable information regarding past uses, specific chemicals, spills, or cleanups, except for potential residual lead contamination associated with historical manufacturing processes at the subject property that may remain beneath structural building columns from past remediation efforts. Mr. Shank is otherwise unaware of spills or other chemical releases, environmental cleanups, or obvious indicators of contamination at the subject property. Mr. Shank stated the reason for the Phase I ESA is to complete an environmental review for potential re-development of the subject property. The user questionnaire is appended (Appendix C).

3.2 CURRENT OWNER, OPERATORS, OCCUPANTS

REI interviewed subject property owner representative Jon Shank of Pelio & Associates on November 16, 2016. Mr. Shank has been familiar with the subject property for the past 10 years. Mr. Shank stated that Mr. Pelio purchased the subject property in approximately 1984 and began renovation of the building for use as a multi-tenant warehouse and industrial shop building. The building formerly had been occupied by a wire products manufacturer. During renovation work, lead-contaminated soil was discovered beneath the concrete floor of the former manufacturing area of the building. Mr. Shank understands that remediation work to remove the contaminated soil was completed under the oversight of the City of Santa Clara Fire Department, with residual contamination left in place beneath some structural support columns, where excavation would compromise structural integrity. Mr. Shank stated he has no knowledge of in-ground features such as USTs, floor drains, clarifiers, or sumps on the subject property. He confirmed the existence of a historical wastewater line extending the length of warehouse 631/661/691, which he

noted was associated with historical wire manufacturing processes in the building and is no longer in use. He also noted he has no knowledge of spills, releases or other environmental issues pertaining to uses by subject property tenants that have occupied the building since approximately 1985.

Utilities are provided to the subject property as follows:

- Power: PG&E
- Natural Gas PG&E
- Sewer City of Santa Clara
- Water Santa Clara Valley Water District

3.3 PAST OWNERS, OPERATORS, AND OCCUPANTS.

REI identified no past subject property owners, operators, and occupants.

3.4 NEARBY PROPERTY OWNERS AND OCCUPANTS

The subject property is not abandoned. Therefore, REI did not attempt to interview nearby property owners and occupants.

3.5 GOVERNMENT OFFICIALS

REI attempted on three occasions to interview Assistant Fire Marshal Frederick Chun of the City of Santa Clara Fire Department (SCFD), Fire Prevention and Hazardous Materials Division on November 3, 9 and 14, 2016. REI also attempting to interview Deputy Fire Marshal John Signorino, Fire Inspector for the subject property, on November 14, 2016. As of the date of this ESA, the SCFD members contacted have not responded to REIs request for information.

4.0 RECORDS REVIEW

REI reviewed records pertaining to the subject property. In addition, where practicable, REI reviewed records indicating uses at adjoining properties and nearby properties or surrounding areas within approximate minimum search distances from the subject property.

4.1 PHYSICAL SETTING

4.1.1 Physiography

According to the 1980 United States Geological Survey (USGS) 7.5-Minute Series San Jose West, California Quadrangle topographic map, the subject property has an elevation of approximately 45 feet above mean sea level (msl). The general surface topography at the subject property is relatively flat with a slight downward slope to the northeast. The nearest water body is the northwest flowing Guadalupe River, located approximately ¾ mile to the northeast. The northerly flowing San Tomas Aquinas Creek, a tributary of Saratoga Creek, is located approximately one mile to the west. These streams flow northward toward the marshlands that rim the southern end of San Francisco Bay.

4.1.2 Geology

REI reviewed *Soil and Water Investigation Report, ACI Distribution, Inc., 750 Walsh Avenue Santa Clara, California* prepared by Secor and dated July 26, 2001 (Secor, 2001). This report pertains to the

southwestern adjoining property across Walsh Avenue. The investigation included several borings drilled along the mid-line of Walsh Avenue and on either side of the street directly opposite the subject property. Beneath 2 to 3 feet of generally coarse-grained surficial fill, encountered soils consisted of native silty clay to approximately 12 feet below the ground surface (bgs), underlain by interbedded sandy gravel, sand, silty sand, sandy silt and silty clay to explored depths of up to 43 feet bgs.

4.1.3 Hydrology

REI reviewed *Quarterly Groundwater Monitoring Report, ACI Distribution, Inc. 750 Walsh Avenue, Santa Clara, California, October 1 to December 31 2001* prepared by Levine-Fricke and dated January 28, 2002 (LFR, 2002a). As noted above, this site is the southwestern adjoining property. Three groundwater monitoring events were conducted in October, November and December 2001 with groundwater depths for on-site wells generally ranging from approximately 6.0 to 8.4 feet bgs; an off-site, downgradient well was advanced on the northeast corner of the subject property for this investigation. The well, MW-11, had reported groundwater depths of 11.8 to 12.1 feet bgs over the monitored period. Groundwater flow direction for the three monitoring events was reportedly to the northeast with an average gradient of 0.005 ft/ft. The consultants concluded that the groundwater flow directions and gradients for the October-December 2001 period were generally similar to previous monitoring events. The local groundwater flow direction and gradient under the subject property may be influenced naturally by zones of higher or lower permeability, or artificially by nearby groundwater pumping or recharge, and may deviate from the regional trend.

4.2 FIRE INSURANCE MAPS

REI reviewed fire insurance maps of the subject property, adjoining properties, and surrounding area from the Environmental Data Resources, Inc. (EDR) collection. Map summaries follow.

- **1961 Sanborn Fire Insurance Map; Approximate Scale: 1"=150'**

  The subject property is developed with an industrial building addressed as 651 Walsh Avenue comprising several adjoined warehouse buildings identified as the Wire Specialties Company wire products manufacturing facility. The depicted building generally corresponds to the eastern half of the current building, excepting warehouses 627 and 701/705 in the northeastern portion. Walsh Avenue extends along the southern border of the subject property. Mainline railroad tracks of the Southern Pacific Railroad (SPRR) pass northward along the eastern boundary of the subject property. A railroad spur extends along the east side of the building and terminates, with a second spur continuing around the curvilinear northeastern perimeter of the subject property and beyond. Designated operational areas of the facility (with current addresses) include the manufacturing floor with annealing ovens and adjoining warehouse in the southern half, a machine shop and plant office in the southeastern portion (601, 621), finished products and other non-designated warehouses in the northern half (623, 625), and a plating house with boiler room and packing house in the northeastern portion (east side of 623). These structures are noted to be concrete-floored, except that the packing house is wood-floored. A raised concrete platform adjoins the western side of the building. An outdoor, concrete-floored volatiles storage shed is depicted in the yard area north of the building.

  The southern adjoining property on the opposite side of Walsh Avenue is developed with a large warehouse structure addressed as 630 Walsh Avenue and identified as the U.S. Products Corp. canned goods warehouse. Three smaller structures depicted directly east of the canned goods warehouse, collectively addressed as 614 and 650 Walsh (630 and 650 addresses appear to be erroneously transposed), include a baled rags and paper warehouse with truck repair shop, a baling

machine house, and plant office. The southwestern adjoining property is developed with a glass works building including spray booths (750 Walsh) and directly west, the Drew Company cannery facility (810/850 Walsh). The western adjoining property is developed with a fenced contractor's storage yard including office building and carpentry and storage building (785 Walsh), and an apparently unrelated structure just north of the enclosed storage yard identified as an equipment repair shop (unaddressed). The corner of a large building is depicted on the northwestern adjoining property, but the address is not visible.

- **1966 Sanborn Fire Insurance Map; Approximate Scale: 1"=150'**

  The subject property appears unchanged from the 1961 map, except that another concrete-floored finished products warehouse (627) adjoins the northern end of the pre-existing eastern half of the current building (627), the pre-existing warehouse (625) has been extended eastward, and a much larger concrete-floored warehouse adjoins the west side of the building, which corresponds to the western half of the current building (631/661/691). A concrete dock adjoins the west side of the western warehouse structure. The volatiles storage shed is no longer depicted in its original location, which is now covered by the northeastern warehouse addition; a similar shed is depicted in a new location in the northeastern corner of the property. The facility is now designated Keystone Steel & Wire Company, Wire Specialties Division. The adjoining properties appear unchanged, except that the aforementioned equipment repair building on the western adjoining property is now designated as an auto body shop (811 Walsh) with an additional structure in between the shop and the western boundary of the subject property identified as a spray booth.

4.3 AERIAL PHOTOGRAPHS

REI reviewed aerial photographs of the subject property, adjoining properties, and surrounding area from the EDR collection. Photograph summaries follow.

- **1939; Scale: 1"= 500'**

  The subject property and surrounding adjoining and nearby properties appear to be in agricultural use as hay or grain fields. Northerly mainline railroad tracks extend along the approximate eastern boundary of the subject property. A paved roadway nearby to the west corresponds with the current Lafayette Street, which extends northward to an east-to-west easterly roadway corresponding to the historical Kifer Road (current Central Expressway). A roadway to the east extends northward along the approximate alignment of the current De la Cruz Boulevard to terminate at Kifer Road. Farm residences with outbuildings and/or other buildings associated with agricultural uses are visible in the nearby surrounding area. U.S. Highway 101 transects the area southeasterly, nearby to the north.

- **1948; Scale: 1"= 500'**

  The subject property is developed with an industrial building in the southeast portion (601/621) consisting of an elongate east-to-west warehouse with a rectangular section adjoining the southeast portion. A railroad spur extends along the east side of the building and another continues around the curvilinear northeastern perimeter of the subject property. Walsh Avenue now extends eastward from Lafayette Street to terminate at the railroad tracks. The southern adjoining property includes a small industrial building with railroad spur adjacent to the mainline railroad tracks resembling the current structure at that location. The western adjoining property is developed with two large industrial buildings with the entrance driveway to the facility on Lafayette Street; that portion opposite the southwest portion of the subject property appears to be graded for future development. The southwestern adjoining property on the opposite side of Walsh Avenue is developed with an industrial

building, with nearby properties farther west on the south side of Walsh developed with industrial buildings. The northern and eastern adjoining properties remain in agricultural use. Nearby properties to the south are partially developed by industrial buildings served by railroad spurs from the mainline tracks, with scattered industrial development apparent nearby to the northwest and southwest.

- **1950; Scale: 1"= 500'**

  A small, stand-alone rectangular building is visible on the subject property opposite the northeastern portion of the pre-existing building. The industrial building on the southwestern adjoining property has been expanded into a large, north-to-south structure. The subject property and adjoining and nearby properties otherwise generally appear unchanged.

- **1956; Scale: 1"= 500'**

  The original industrial building on the subject property has been expanded by the addition of adjoining warehouses on the north (623, 625) and south (601/621) sides. Pavement appears to extend along the west side of the building. The previously stand-alone structure is now joined to the main building by the addition of a small connecting warehouse; both structures are also joined to a new warehouse (623) on the west. The southern adjoining property across Walsh Avenue, opposite the central portion of the subject property, appears to be graded for development. The western adjoining property opposite the southwestern portion of the subject property is developed with an L-shaped warehouse and a smaller office-type structure. A nearby property to the southwest along the south side of Walsh Avenue and extending to Lafayette Street is fully developed with a complex of industrial buildings. The northwestern adjoining property is developed with a large industrial building that extends along Lafayette Street and includes a large outdoor storage area that extends eastward along Kifer Road. Infilled industrial buildings are apparent nearby to the west and southwest.

- **1963; Scale: 1"= 500'**

  The subject property is developed with an additional warehouse (627) with outdoor storage along its length on the north side of the main building. A small shed structure is visible beyond the northeast corner of the building within an unpaved area of evident outdoor storage, which appears to correspond with the volatiles storage shed depicted on the 1966 fire insurance map (see Section 4.2); an additional area of outdoor storage is visible on the west side of the building. A rail car and outdoor storage are visible along the railroad spur on the east side of the subject building; another rail car is visible off the southeast corner of the building. The southern adjoining property across Walsh Avenue is now developed with the current large warehouse building. De la Cruz Boulevard is widened and realigned into its present configuration extending north of Kifer Road to the Highway 101 interchange. Additional infilling of industrial buildings is apparent throughout the industrial tract encompassing the subject property.

- **1968; Scale: 1"= 500'**

  The subject property now includes a large warehouse structure (631/661/691) on the west side of the main building, with adjoining pavement extending to the western boundary of the property and around the northwest corner of the building. A storm water culvert extends along and just within the western site boundary and appears to terminate in the area of the current storm water catch basin/lift station in the southwest corner or the property. In addition, a smaller warehouse with canopy (701/705) is visible on the north side of the building, and the 625 and 627 warehouses have been extended eastward to the edge of the railroad spur. The western adjoining property includes a small shed

structure in between the pre-existing structure and the approximate mid-point of the subject property boundary. The adjoining property to the east is developed with a large industrial- or warehouse-type building with an adjoining parking lot, but the remainder appears cultivated for a hay or grain crop. Kifer Road to the north has been replaced by the multi-lane Central Expressway.

- **1974; Scale: 1"= 500'**

  The subject property and adjoining and nearby properties generally appear unchanged, except that rail cars are visible along the rail spur extending along the northern edge of the subject property, with regularly stacked products on the adjoining raised concrete dock that abuts the north side of the subject building along the railroad spur (faintly visible on 1968 photograph). The small shed in the northeast corner of the subject property is no longer visible. A parking lot is visible on the south side of the western warehouse addition, with what appears to be a storm water culvert extending along its midline (faintly visible in 1968 photograph). Extensive outdoor storage is visible on the western adjoining property, including the area adjoining the western boundary of the subject property. The outdoor storage area for the industrial building on northwestern adjoining property now extends onto the northern adjoining property.

- **1982; Scale: 1"= 500'**

  An additional warehouse (711) is now present on the north side of the subject building, and warehouse 631 has been expanded on its south side nearly to the curb line. Additional warehouse structures are visible on the western adjoining property opposite the northwestern portion of the subject property.

- **1993; Scale: 1"= 500'**

  The railroad spur has been removed from the subject property and the eastern ends of warehouses 623, 625 and 627 have been trimmed back to their current margin; the cleared area on the east side of the property is now asphalt-paved yard. In addition, a small warehouse structure adjoins the eastern side of warehouse 701, the approximate northern limit of pavement on the east side. The northern adjoining property has been cleared and redeveloped with the current three office and/or light industrial buildings. The eastern adjoining property has been developed with the current office/light industrial park, incorporating the pre-existing building in this area, with the runways of the San Jose Airport visible beyond

- **1998; Scale: 1"= 500'**

  The subject property and adjoining and nearby properties generally appear unchanged, except the southeastern adjoining property is developed with a large parking lot.

- **2005, 2006, 2009, 2010 and 2012; Scale: 1"= 500'**

  The subject property and adjoining and nearby properties generally appear unchanged.

4.4 TOPOGRAPHIC MAPS

REI reviewed USGS topographic maps of the subject property, adjoining properties, and surrounding area from the EDR collection. Map summaries follow.

- **1889 USGS 15-Minute Series San Jose Quadrangle Map; Scale: 1: 62,500**

  The subject property and adjoining properties are depicted as vacant land with no structures. The general area surrounding the subject property is characterized by a regular grid of roadways

appearing to correspond to sectioned agricultural land. The surrounding nearby properties are depicted as vacant land with the exception of various small structures along these roadways. Mainline railroad tracks pass along the approximate eastern boundary of the subject property.

- **1897 and 1899 USGS 15-Minute Series Palo Alto and San Jose Quadrangle Maps; Scale: 1: 62,500**

  The subject property and adjoining and nearby properties generally appear unchanged.

- **1953 USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Map; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged, except that Walsh Avenue is depicted and the subject property is developed with an industrial building in the southeast portion. One railroad spur extends along the east side of the building and another continues around the curvilinear northeastern perimeter of the subject property with branching spur lines to the northwest and north. The subject property appears to be part of a developed industrial district north of the town site of Santa Clara along the axis of Lafayette Street northward to Kifer Road (current Central Expressway) and generally extending from the railroad tracks on the east to Scott Boulevard on the west. The industrial tract includes the current street grid and railroad spurs serving the numerous industrial buildings in the area. The southern adjoining property includes a small industrial building adjacent to the railroad tracks resembling the current structure at that location. The southwestern and western adjoining properties are developed with industrial buildings resembling some of the current structures; a large industrial building is also depicted on the northwestern adjoining property. Vacant land is depicted east of the railroad tracks, which is transected by a northerly road corresponding to the current De la Cruz Boulevard.

- **1961 USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Map; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged, except that structures, excepting larger ones, generally are not depicted in the industrial tract encompassing the subject property, which is shaded red to indicate developed urban land. De la Cruz Boulevard is depicted as multi-lane roadway that terminates at Kifer Road. Highway 101 to the north has been upgraded to a multi-lane freeway. Infilled industrial buildings are apparent nearby to the southeast, in between the railroad tracks and De la Cruz. Runways of the San Jose Municipal Airport have been extended northwestward to a point generally east of the industrial tract encompassing the subject property.

- **1968 (Photorevised 1961) USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Map; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged, except that Kifer Road to the north has been replaced by a multi-lane roadway identified as the Central Expressway, which extends eastward to De la Cruz Boulevard.

- **1973 (Photorevised 1961) USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Map; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged.

- **1980 (Photorevised 1961) USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Map; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged, except that the pre-existing industrial building on the subject property has been expanded to resemble the current structure. The current large warehouse building is depicted on the southern adjoining property opposite the central portion of the subject property. Additional buildings are depicted on the southwestern adjoining property. Infilled industrial buildings are depicted throughout the industrial tract encompassing the subject property.

- **2012 USGS 7.5-Minute Series San Jose West Quadrangle Map with adjoining Milpitas Quadrangle Ma; Scale: 1: 24,000**

  The subject property and adjoining and nearby properties generally appear unchanged.

4.5 LOCAL STREET DIRECTORIES

REI reviewed local street directory entries for the subject property that EDR researched in approximately five-year intervals between the years 1922 and 2013. The city directory business listings in the general subject property area primarily indicate commercial/industrial uses since the mid-1950s.

The subject property addresses are identified as follows:

Address	Year	Local Street Directory Listing
601 Walsh	1996 2001	New West Industries Color Image
621 Walsh	2001	Kapa Auto Body
625 Walsh	1996-2013	Strong Steel
627 Walsh	2008	Kaiser Technologies
631 Walsh	2008	Northern California Chair
651 Walsh	1955-1960 1963 1970-1985	Wire Specialties Co., iron works Keystone Steel & Wire Co., Wire Specialties Div., Keystone Consolidated Industries; Blankenship Motors Keystone Steel & Wire Co.
661 Walsh	1991 2001-2013	Taps-Woodstalk Facilities Logistics
691 Walsh	2001 2013	R A Enterprises Bay Area Diablo Petroleum
701 Walsh	2001	Global Satcom Technologies

705 Walsh	1980 1991-2001 2013	Barnhart Construction Co. Charles Moving & Storage Global Satcom Technologies

Adjoining or nearby properties of note include the following:

Orientation	Address	Year	Local Street Directory Listing
Southern	614 Walsh	1955	Naco Fertilizer Co., mfrs
		1960-1963	Dahlhauser Mfg Co., wire products mfrs
		1960-1974	Customer Utility Service, refuse removers
		1963	Production Plating Co.
		1970-1974	Advance Service Corp., refuse agency
		2001	Haro
		2008	Hacienda Food
	650 Walsh	1960	Berryman Electroplating
		2001	W. Pelio
	660 Walsh	1970-1974	U.S.P. Corp., warehouse
		1985	Sprinkler Irrigation Specialists
		2008	Cubicle Resources
	664 Walsh	1986	SFR Printing Enterprises; House of Mailing
		1991	Phoenix Fasteners
		1996-2013	GLR Fasteners, Inc.
		2008	Dynamic Impressions
	668 Walsh	1991	Atlas Mfg and Supply Co.
		2008	Auto Guardian
		2013	Leslie's Swimming Pool Supplies
	672 Walsh	1985	Penhall Co.
		1991-2013	A&B Painting West, Inc.
	676 Walsh	1985-1986	Tron Precision Machine
		2008	Barker Healthcare, Inc.
		2013	Breiling Management Corp.
	680 Walsh	1986	Omega Physical Therapy Clinic
		1986-1996	DJ Ommerts Welding & Mfg
	684 Walsh	1986-1991	Sprinkler Irrigation Specialists
		1996	Big Bang Technology, Inc.
		2008-2013	Town Square Furniture Warehouse
	688 Walsh	1996	Irish Construction
		2008	Carmel Mover, Inc.
	696 Walsh	1985-1986	A&B Painting
		1991-2013	Penhall Co.
	750 Walsh	1955-1986	American Mirror Mart, mirror mnfs
		1957-1986	Havlin Witkin Picture & Mirror Corp., mirror mfrs, wholesale glass
		1957-1991	Panal Plastics, Inc.; Panal Plastics & Aluminum Corp.
		1970-1985	Century Mfg., wholesale glass
		1991	ACI Glass Products

		2008 2008-2013	Kenko Utility Supply, Inc.; DRL Construction Co. San Jose Rebar, Inc.

4.6 REGULATORY AGENCIES

4.6.1 Tax Assessor

REI contacted the Santa Clara County Tax Assessor's Office on November 2, 2016. According to the assessor, the subject property is identified by assessor parcel number (APN) 224-04-059 and is approximately 7.87 acres in size. Assessor records indicate the parcel is improved with an industrial building that was built in 1946 and addressed as 651 Walsh Avenue. The following Situs Addresses are currently associated with the subject property: 601, 621, 625, 627, 631, 641, 651, 661, 691, 701, 705 and 711 Walsh Avenue. The owner of the parcel is identified as W. Leslie Pelio Trust.

4.6.2 Building Department

REI reviewed records available on the City of Santa Clara Building Department (SCBD) website on November 7, 2016 pertaining to the subject property. In addition, REI visited the SCBD on November 10, 2016 to review additional records only available in the office. According to the records, the subject property parcel is assigned 12 addresses ranging between 601 to 711 Walsh Avenue (odds), and noted to be owned by W. L. Pelio. The reviewed records for these addresses ranged from 1955 to 2006.

Reviewed records documenting site improvements are summarized below.

- 1955: Wire Specialties, 651 Walsh. Add to industrial building.
- 1956: Wire Specialties, 651 Walsh. Erect steel warehouse building with restrooms.
- 1962: Wire Specialties, 651 Walsh. Erect addition to warehouse.
- 1963: Wire Specialties, 651 Walsh. Erect warehouse addition.
- 1965: Keystone Steel and Wire, 651 Walsh. Add to industrial building; restrooms and loading dock.
- 1966: Keystone Steel and Wire, 651 Walsh. Construct concrete fabric machine foundation pit and alter metal chimneys.
- 1968: Keystone, 651 Walsh. Erect storage cover.
- 1972: Keystone, 651 Walsh. Construct ventilation cupola.
- 1975: Keystone, 651 Walsh. Erect storage building.
- 1976: Keystone, 651 Walsh. Install foundation for tanks.
- 1980: Keystone, 651 Walsh. Erect and remodel industrial building; foundation and tank, industrial equipment footings.
- 1987: W.L. Pelio, 601 Walsh. Alter exterior and interior; erect inside mixing room; add heat pump, interior remodel.
- 1987: W.L. Pelio; 691, 701 Walsh and 711 Walsh. Tenant improvement/interior alterations.
- 1988: W.L. Pelio, 601 Walsh. Repair sumps and dock; restroom alterations.
- 1989: W.L. Pelio, 601 Walsh. Interior alterations; upgrade service for tenant.

- 1990: W.L. Pelio, 691 Walsh. Interior alterations.
- 1995: W.L. Pelio, 601 Walsh. Interior alterations.
- 2004: Golden West Spray Booth, 701 Walsh. Install spray booth.
- 2006: Pelio & Associates, 631 Walsh. Install air compressor.

In addition, the SCBD had several City of Santa Clara Fire Department records over the date range 1985 to 2004, mostly related to fire sprinklers and unspecified tenant improvements. The following records were of environmental significance:

- 1987: Sheer Comfort, 601 Walsh. Install two spray booths, erect mixing room.
- 1988: Keystone Consolidated, 651 Walsh. Permit to remove 1,000-gallon tank (not indicated if UST or AST).
- 2000: Global Satcom, 701 Walsh. Install spray booth.
- 2002: Color Image Apparel, 601 Walsh. Permit for Hazardous Materials Closure.
- 2004: Global Satcom, 701 Walsh. Install spray booth.

4.6.3 Fire Department

REI requested records from the Santa Clara Fire Department (SCFD) on November 2, 2016. REI made several follow up attempts by telephone, email, and in person to obtain information related to the subject property. As of the date of this ESA, REI has not been provided access to subject property records.

4.6.4 Environmental Health

REI contacted the Santa Clara County Department of Environmental Health (SCCDEH) on November 2, 2016 to request records pertaining to the subject property. On November 3, 2016, SCCDEH staff responded that they have no records on file for the subject property address.

In addition, REI reviewed the SCCDEH LUSTOP database website and found no records pertaining to the subject property. REI also found no records on the Santa Clara Valley Water District's (SCVWD's) historical solvent case database available on the SCCDEH website.

4.6.5 Regional Water Quality Control Board

REI contacted the Regional Water Quality Control Board (RWQCB) on November 2, 2016 to request records pertaining to the subject property. According to the RWQCB, no records are on file for the subject property addresses, except for 651 Walsh Avenue. REI visited the RWQCB on November 9, 2016 to review available documentation, which is summarized as follows:

- *Sampling and Analysis Plan, 651 Walsh Avenue Santa Clara, California* prepared by EMCON Associates and dated July 1987.
- *Site Characterization and Proposed Remedial Action Report, 651 Walsh Avenue Santa Clara, California* prepared by EMCON Associates and dated October 1987.
- *Remedial Action Report, 651 Walsh Avenue Santa Clara, California* prepared by EMCON Associates and dated May 1989.

- *CERCLA Screening Site Inspection, 651 Walsh Avenue Santa Clara, California* prepared by ICF Technology and dated March 22, 1991.

  In 1986, stained soil was discovered during renovation activities. The SCFD initially requested sampling of sump sludge and wastewater from the wire annealing and galvanizing area (galvanizing area). During 1987 site characterization investigations, lead and zinc contamination was discovered beneath the concrete floor of the galvanizing area. Three areas of concern were identified and investigated for metals: the exterior steel-rod cleaning area on the north side of the building (canopied area on north side of 701/705), exterior wastewater treatment area on northwest side of the building (exterior area of 711), and the galvanizing area (623, adjoining northern portion of 601/621). The discovered area of contamination was limited to the galvanizing area. The lead and zinc contamination extended to a depth of approximately 12 feet bgs and covered an area of approximately 16,000 square feet. Lead was detected in soil samples at concentrations up to 390,000 parts per million (ppm) and zinc up to 45,000 ppm in the galvanizing area. On-site background lead detections in soil at the subject property ranged up to 19 ppm, and zinc up to 750 ppm. The cleanup level for lead was set at 100 ppm, and for zinc at 2,500 ppm. A limited number of soil samples (two) collected in the galvanizing area were analyzed for volatile organic compounds (VOCs) with the following detections: 1,1,1,-trichloroethane (1,1,1-TCA), up to 0.002 ppm; toluene, up to 0.57 ppm; and acetone, up to 0.20 ppm in soil. No groundwater sampling was conducted during the remedial investigation. Investigators also noted that the entire building was raised approximately 2 to 4 feet above apparent grade and that the facility was therefore built upon fill.

  Remediation activities completed in 1989 included removing wastewater treatment sumps, two cooling water sumps, trench drains, and associated pipe runs. Residual soil/sludge removed from these features, and underlying soil, were not found to have elevated levels of lead and zinc. In addition, the sanitary sewer lines within the building were flushed and decontaminated. One soil sample collected in the rod-cleaning area was analyzed for VOCs, with toluene the only detection at 0.003 ppm. Approximately 1,600 tons of soil/concrete were excavated, with confirmation soil samples collected during the excavation process. Residual concentrations reported for confirmation samples collected from the excavated area generally ranged up to 53 ppm for lead and up to 1,000 ppm for zinc. Some areas could not be completely excavated due to the presence of load-bearing structural columns; soil contamination was left in place beneath the columns in the northern and eastern portions of the galvanizing area. Residual lead concentrations ranging from 130 to 200 ppm and zinc, up to 450 ppm were reported for confirmation samples collected in these areas. In addition, an approximately 7-foot-long section of the sewer line in the northwest portion of the galvanizing area was discovered to be blocked during the cleaning process, with the blockage left in place. The section of pipe including the blockage was not connected to functional pipe runs. The sampling, decontamination and remediation efforts were completed under SCFD oversight. It was recommended that the lateral and vertical extent of lead and zinc impacts in the areas of the column footings be defined and remediated by a licensed contractor if and when they are removed.

  Areas of the former wire manufacturing plant that were not investigated during site characterization and remediation activities include the volatiles storage shed (two locations), former plating shop/boiler room, and the machine shop identified on the fire insurance maps (Section 4.2).

In addition, REI reviewed State Water Resources Control Board's GeoTracker database website and found no records for the subject property, except for documents relating to the investigation of 750 Walsh Avenue. Investigation of that site, which is located to the southwest across Walsh Avenue, included the

advancement of one downgradient groundwater monitoring well on the northeast side of the subject property. Refer to Section 4.9 for additional information.

4.6.6 Department of Toxic Substances Control

REI visited the Department of Toxic Substances Control (DTSC) on November 14, 2016 to review available records pertaining to the subject property. The DTSC files did not include records additive to those maintained by the RWQCB.

In addition, REI reviewed DTSC's Envirostor database website and records for 650 Walsh Avenue, which are summarized as follows:

- *Site Screening Assessment, for Berryman Electroplating*, dated May 26, 2005, prepared by the DTSC. According to this assessment, a Preliminary Assessment of the Berryman Electroplating facility, also known as Keystone and Keystone Warehouse Group, was conducted in 1989. Keystone had occupied the 650 Walsh property (southern adjoining property) and the 651 property (subject property) from 1955-1984. The 650 Walsh property was used as warehouse, and the 651 Walsh property for wire manufacturing. Prior to Keystone, the facility (650 and 651 properties not distinguished) had been occupied by a wire manufacturing and galvanizing facility since 1946. No records were found documenting Berryman Electroplating operations at the subject property; however, Berryman Electroplating operated under the name Keystone Consolidated Industrial. Subsurface Investigations conducted in the mid-1980s identified lead and zinc soil contamination in the manufacturing area of the subject building, which was reportedly remediated by excavation, as described above in Section 4.6.5.

  Additional historical information described the former storage of sulfuric acid in a 6,000-gallon tank and hydrochloric acid in a 10,600-gallon tank on the northeast corner of the property.

  The assessment notes that the property currently (in 2005) included several tenants regulated by the SCFD. The DTSC interviewed a contact at the SCFD who stated that 2XL Capital Equipment Handling Services and Global Satcom Technology had filed (hazardous materials) business plans and hazardous material inventory forms. A map depicts the locations of these occupants in the subject property building. The DTSC assigned a low priority level to the site.

REI also reviewed records of hazardous waste disposal for the subject property address available online through the DTSC Hazardous Waste Tracking System (HWTS) database. The subject property addresses were identified as follows:

- *Facilities Logistics Services (631 Walsh Avenue)*. Noted as disposing 16.85 tons of waste in 2003. California Waste transported from site consisted of other inorganic solid waste. EPA ID profile entered 2/24/03. EPA ID profile noted to be inactive as of 8/24/03.
- *2XL, Inc. (661 Walsh Avenue)*. No information provided pertaining to amount or type of California or RCRA waste transported from site. EPA ID profile entered 2/20/03. EPA ID profile noted to be inactive as of 6/30/03.
- *Global Satcom Technology (701 Walsh Avenue)*. Noted as disposing waste between 2007 and 2016. Annual tonnage ranged between 0.025 and 0.31 tons. California Waste transported from site consisted of oxygenated solvents, hydrocarbon solvents, unspecified organic liquid mixture, and other organic solids. EPA ID profile entered 4/14/04. EPA ID profile noted as active.

4.7 ACTIVITY & USE LIMITATIONS (AULS)

REI reviewed a search report of title and judicial records prepared by Nationwide Environmental Title Research (NETR) for indications of environmental liens and AULs recorded against the subject property (Appendix D). No environmental liens or AULs were identified as of November 10, 2016. The search report included an attached DTSC Site Screening Assessment report (DTSC, 2005), which was reviewed in Section 4.6.6 above.

4.8 PREVIOUS ENVIRONMENTAL DOCUMENTATION

REI was provided no previous environmental report or documentation for the current assessment.

4.9 DATABASE REVIEW

REI reviewed an environmental regulatory agency database search report prepared by EDR for information pertinent to the subject property and off-site facilities located within ASTM-specified search distances from the subject property (Appendix E). The database report identifies 203 plotted facilities, including the subject property, as well as the accessed databases. The subject property addresses were identified in the following databases:

Keystone Group – Santa Clara Plant, Keystone Wire Galvanizing Factory, 651 Walsh Avenue

- ENVIROSTOR, FINDS, ECHO databases. The potential contaminant of concern at this facility is identified as acid solution pH >2 with metals (lead). This facility was identified as having undergone a site screening, which included the removal of lead-impacted soil in 1988. REI reviewed DTSC records on the ENVIROSTOR Database (see section 4.6.6).
- SPILLS database. Case status: Inactive. Last agency update, 11/30/88. Contamination source indicated to be wastewater from wire processing operations. Lead agency, RWQCB.

Keystone Consolidated Industries and *Berryman Electro Plating, 650 Walsh Avenue* (pertaining to the subject property and southern adjoining property as described in section 4.6.6),

- SEMS-ARCHIVE, RCRA-SQG, CA ENVIROSTOR, and CA HAZNET databases. This facility is identified as being a large quantity generator of hazardous waste in 1980, and a small quality generator of hazardous waste in 1996. No violations were noted. Hazardous materials shipped from the site include unspecified waste sludge, unspecified organic liquid mixture and other organic solids in 1983. The CERCLIS database notes that this facility is not eligible for the NPL, with a status of “No Further Remedial Action Planned.” Other business names include Berryman Electroplating. No other information provided. The ENVIROSTOR listing indicates potential contaminants of concern including halogenated solvents, hydrocarbon solvents, metal sludge, acid solutions with metals, alkaline solution with metals, contaminated soil, unspecified sludge waste, other inorganic solid waste, sulfur sludge, and lead.

Color Image, 601 Walsh Avenue

- RCRA-SQG, HAZNET, FINDS, ECHO databases. This facility is noted as a small quantity generator of hazardous waste as of 4/15/97, with no violations noted. Hazardous wastes transported from this facility consisted of hydrocarbon solvents between 2000 and 2002.

Sheer Comfort Company, Inc., 601 Walsh Avenue

- EMI database. Emissions Inventory Data. EMI database reports that total organic hydrocarbon gases and reactive organic gases were emitted in 1987.

601 Walsh Avenue

- CHMIRS database. Hazardous material incident (accidental spill or release) reported 2/14/13. Santa Clara Fire Department reported that "Caller states: a fiberline was possibly bored through in a sewer main causing the release from the manhole."

621 Walsh Avenue

- EDR Historical Auto Stations database. EDR Historical Auto Stations. Kapa Auto Body indicated to occupy this address in 2000.

631 Walsh Avenue

- CHMIRS, HAZNET databases. Hazardous material incident (accidental spill or release) reported 1/18/89; no other information provided. Hazardous wastes transported from this facility consisted of other inorganic solid waste in 2003.

Electronics Recycling Services, Inc., 661 Walsh Avenue

- FINDS, ECHO databases. No additional information provided.

2XL, Inc., 661 Walsh Avenue

- RCRA NonGen/NLR, FINDS databases. This facility is noted as a handler of hazardous waste, but not a generator as of 6/14/06. The facility is not regulated. The facility reportedly operates as an electronics recycling service (see above). No violations were noted.

Santa Clara Plant, 691 Walsh Avenue

- AST database. Owner/Business Name, Golden Gate Petroleum. CUPA not identified. No details are provided regarding the size or contents of the AST.

Global Satcom Technology, 701 Walsh Avenue

- HAZNET EMI, FINDS databases. Hazardous wastes transported from this facility consisted of other organic solids and unspecified organic liquid mixture in 2014, and as an unspecified waste category in 2013. EMI database reports that total organic hydrocarbon gases and reactive organic gases were emitted for years 2004 to 2013

No adjoining properties or nearby properties were identified in the EDR that are located up- to cross-gradient of the subject property within ¼ mile, with cases involving groundwater or otherwise potentially impacting the subject property, with the following exceptions:

ACI Glass Products, 750 Walsh Avenue (southern adjoining property)

- This site listed in the SWEEPs, CA FID UST, CA LUST, CA HIST LUST, CA ENF, CA HAZNET and CA Hist Cortese databases. This facility was identified as having three former USTs storing leaded and unleaded vehicle fuels (gasoline & diesel) in a common tank pit. A UST release of gasoline reportedly impacted groundwater. The case was issued closure in 2002. REI reviewed the case closure letter and other documentation in the case file available on GeoTracker (RWQCB, 2002: LFR, 2002b). Based on the information reviewed, soil remediation was competed by over-excavation of the tank pit, followed by several rounds of investigation, which included the installation of 11 groundwater monitoring wells at both on-site and off-site locations.

In addition, between 1994 and 2001 groundwater extraction removed approximately of 7 million gallons of water to address the groundwater impacts.

During the investigations conducted between 1993 and 2000, nine off-site borings were advanced on the adjoining property to the east (650 Walsh Avenue); this property is also the southern adjoining property, on the opposite side of Walsh Avenue from the subject property. In 1999, two borings were advanced on this site, one near the former UST pit associated with the 750 Walsh property (GW-1), and one on the northern side of the 650 Walsh property (GW-2), directly across the street from the subject property. Total petroleum hydrocarbons as gasoline (TPH-g) and diesel (TPH-d), or the aromatic hydrocarbons benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected above laboratory detection limits in the grab groundwater sample collected from GW-1. However, boring GW-2 had detections of TPH-g at 8,800 parts per billion (ppb), benzene at 35 ppb, toluene at 110 ppb, ethylbenzene at 280 ppb, and total xylenes at 95 ppb. It was concluded that the detections were either a result of preferential pathways with respect to the 750 Walsh Avenue release, or due to a second release from another unknown source.

An additional investigation was conducted in 2000, which included the advancement of two borings (SB-2, SB-5) on the northern side 650 Walsh site. One of these borings, located near the northwest corner of the 650 building, had detections of ethylbenzene at 0.6 ppb, and total xylenes at 1.3 ppb. This investigation also included a boring (SB-1) along the north side of Walsh Avenue, directly adjacent to the southern boundary of the subject property (if not just within the subject property). The grab groundwater sample from this boring had TPH-g at 12,000 ppb, benzene at 100 ppb, ethylbenzene at 150 ppb, total xylenes at 220 ppb, and MTBE at 31 ppb; the MTBE detection was concluded to be a false positive.

Three borings (SB-6, SB-8, SB-9) were subsequently advanced along the mid-line of Walsh Avenue in 2001, which did not have detections in groundwater above laboratory detection limits. Based on the above data, it was concluded that the groundwater plume associated with the 750 Walsh site was stable or shrinking, and that the residual TPH-g, BTEX and MTBE concentrations did not represent a significant risk to human health or the environment. Accordingly, case closure was issued in 2002.

REI reviewed the most recent groundwater monitoring report available on GeoTracker (LFR, 2002a) for the 750 Walsh site. During the last four quarterly monitoring events, conducted between December 2001 to March 2002, the furthest downgradient monitoring well in the general area of the UST release, had detections of TPH-g between 190 and 850 ppb, benzene between 84 and 140 ppb, toluene between 4 and 23 ppb, ethylbenzene between 15 and 39 ppb, and total xylenes between 6.6 and 50 ppb. The lowest reported detections for these compounds were generally reported during the last sampling event. Monitoring well MW-11, the off-site well located furthest downgradient of the 750 Walsh site, in the northeast corner of the subject property, was monitored over the period from December 1993 to June of 2001. Analyzed parameters TPH-g, TPH-d, BTEX and methyl tert-butyl ether (MTBE) were generally non-detect throughout the monitoring period, except for early TPH-d detections ranging from 50 to 300 ppb during the 1994 to 1996 period, and one sampling round in 1997 with low BTEX concentrations (benzene, 0.6 ppb; toluene and total xylenes up to 1.8 ppb).

Haro's Anodizing Specialist, Inc., 630 Walsh Avenue (southern adjoining property)

- Site listed in the CA ENVIROSTOR, CA LUST, CA HIST LUST, CHMIRS, CA HIST CORTESE, RCRA-LQG and FINDs databases. This facility was noted as having a tiered permit with DTSC.

This facility was identified as operating as an anodizing facility since at least 1979, and as a generator of hazardous waste between 1995 and 2013. Generated hazardous wastes consist of wastewater treatment sludge from chemical coating of aluminum, containing 1,1-dichloroethene (1,1-DCE) and cadmium. Violations were noted between 2005 and 2006, with an informal written enforcement action: compliance was achieved.

REI reviewed the case closure letter in the case file available on GeoTracker. Based on the records reviewed, it appears that both petroleum hydrocarbon and VOC releases have impacted the subsurface, which were treated as separate cases. REI reviewed the case closure letter in the case file available on GeoTracker (SCVWD, 1996) related to the petroleum release. In 1985, three USTs, one 10,000-gallon gasoline, and two 550 gallon USTs, containing gasoline and diesel respectively, were removed. Documentation refers to the diesel UST as 2,000 gallons in size. The USTs were located in the central and eastern portions of the property, and over-excavation was required in the vicinity of the diesel tank pit. A subsurface investigation, included sampling of a groundwater monitoring well located in the northeast portion of the property, and collection of two grab groundwater samples in 1996. TPH-g and BTEX were not detected in any of the groundwater samples. TPH-d was detected in the monitoring well and one of the grab groundwater samples near the central portion of the site at concentrations up to 270 ppb. MTBE was detected in all three groundwater samples up to 11 ppb. The Santa Clara Valley Water District concluded that given the limited extent of the release and the reported groundwater concentrations below regulatory levels, regulatory closure be issued.

REI reviewed the case closure letter in the case file available on GeoTracker (RWQCB, 1997) related to the solvent release. According to the records reviewed, a subsurface investigation was conducted in 1988, which included the installation of a groundwater monitoring well (as noted above), and four shallow soil sample locations.

The groundwater sampled from the well contained 2.8 ppb of trichloroethene (TCE), 8.2 ppb of 1,1,1-TCA, and 6.5 ppb of 1,1-dichloroethane (1,1-DCA). Four shallow soil samples were collected across the property in areas of reported chemical use. VOCs were detected in two of the four shallow soil samples including up to 8.2 ppm of tetrachloroethene (PCE), 0.28 ppm of TCE, 0.1 ppm of 1,1,1-TCA, 0.45 ppm of 1,2-dichloroethene (1,2-DCE), 17 ppm of acetone, 140 ppm of toluene, and 0.31 ppm of xylenes.

A subsequent investigation was conducted in a 1996 investigation as noted above, and included the analysis of four soil samples, two grab groundwater samples, and a monitoring well sample for VOCs. The borings were advanced in the central and northeastern portion of the property. Two soil samples were collected from each boring at 5 and 10 feet bgs. The only VOC detected in soil was PCE, between 0.006 and 0.032 ppm at 5 feet bgs, with the highest detection at 5 feet bgs. TCE was detected in two of the three groundwater samples up to 39 ppb, and PCE was detected in all three samples up to 17 ppb. 1,1-DCA and 1,1- DCE were each detected in two of the groundwater samples up to 10 and 2 ppb, respectively. The case was issued regulatory closure, based on conclusions that the site was adequately characterized and that natural attenuation would remediate residual solvents present in the subsurface.

Magnussen's Carwest Auto Body, 631 Martin Avenue (nearby south)

- Site listed in the RCRA-SQG, FINDS, CA EMI and ECHO databases. This facility is noted as small quantity generator of hazardous waste between 1997 and 2005. The site is alternatively identified as the Stevens Creek Dodge Body Shop in 2000. Wastes include halogenated solvents

used in degreasing, metals, ignitable waste, benzene, and methyl ethyl ketone (MEK). No violations were noted. These databases do not identify chemical releases.

FMC Corp Woodlands Equipment Division, 651 Martin Avenue (nearby south)

- Site listed in the RCRA-SQG, CA LUST, EDR Hist Auto, CA HIST LUST, CA HIST CORTESE, FINDS and ECHO databases. This address was identified as Precision Auto Service from at least 1999 to 2001, A&V Catering Truck Repair in 2002, Angel Mobile Catering Truck Repair from 2006 to 2010, and as Star Mobile Catering Truck repair in 2012. This facility was identified as a small quantity generator of hazardous waste in 1996; however, it was noted as a large quantity generator in 1980 and 1990. "General" violations were noted between 1985 and 1990, with compliance noted to have been achieved. A release of gasoline reportedly occurred in 1989, which impacted groundwater; the case was issued closure in 2001. REI reviewed the case closure letter in the case file available on GeoTracker (RWQCB, 2001). Based on the records reviewed, two USTs, one 550 and one 880 gallons, were removed between 1983 and 1989. The USTs were reportedly located near the southern structure nearer to Martin Avenue. According to an included figure, Giang's Catering Truck and Auto Repair is located in the northern portion of the property. The 550 gallon UST was reportedly removed in 1983, with no documentation, and the 880-gallon tank was removed in 1989. Four groundwater monitoring wells were installed in and sampled in1989. Three of the wells are located near the former USTs to the north and east. One well was installed northeast of the former UST located near the previously mentioned truck and auto repair building. The most downgradient well, had detections of 1,1,1,-TCA at 5.5 ppb, and total petroleum hydrocarbons at 900 ppb. Total petroleum hydrocarbons were detected up to 247,812 ppb, benzene up to 14,884 ppb, toluene up to 24,895 ppb, and xylenes up to 15,610 ppm. Other VOCs detected included 1,2-DCA at 77 ppb, methylene chloride at 5.5 ppb, 1,1-DCA at 6 ppb, 1,1,1-TCA at 8.3 ppb, and TCE at 5.7 ppb. A request was made to resample the wells in 2001; however, only two wells were able to be located, not including the most down gradient well. No detections of TPH or BTEX were reported above laboratory detection limits in the two groundwater samples. VOCs were not analyzed. Based on the residual petroleum hydrocarbon impacts, the SCVWD concluded that threats to groundwater, human health and the environment do not exist, and the case was closed in 2001.

Georgia Pacific Corp, DBA Paper Tran Co., 751 Martin Avenue (nearby south)

- Site listed in the RCRA-SQG, FINDS, and ECHO databases. This facility was noted as a small quantity generator of hazardous waste, with no violations noted. These databases do not identify chemical releases.

Align Technology, 881 Martin Avenue (nearby southwest)

- Site listed in the RCRA-SQG, FINDS, CA HAZNET and ECHO databases. This facility was noted as a small quantity generator of hazardous waste, with no violations noted. Wastes generated include spent halogenated solvents. These databases do not identify chemical releases.

Lindsey Property, 851 Martin Avenue (nearby southwest)

- Site listed in the CA LUST and CA HIST LUST databases. This facility was noted as having a release of gasoline, which impacted groundwater. The case was issued closure in 2001. REI reviewed the case closure letter in the case file available on GeoTracker (RWQCB, 2001). Based on the records reviewed, two USTs, containing gasoline and diesel were removed in 1983. The tanks were located in the northeastern portion of the building. Several rounds of investigation have been conducted, which included the installation of seven groundwater monitoring wells and

two additional borings. The property addresses include 801, 821, 851, and 881 Martin Avenue. Two groundwater monitoring wells were installed between the former UST location and the subject property. The furthest downgradient well of the two has been sampled during three events between 1990 and 1999, and the other well was sampled during two events in 1995 and 1999. No detections of TPH-g, TPH-d, or BTEX were reported above laboratory detections limits. Both wells were sampled again in 2000 for BTEX and MTBE, with no concentrations again reported above laboratory detection limits. The two groundwater monitoring wells have been sampled for VOCs, with only the furthest downgradient well having sporadic detections of carbon tetrachloride (0.72 ppb), chloroform (up to 4 ppb), and Freon 113 (up to 0.59 ppb). The other well did not have concentrations above laboratory detection limits.

The case closure notes that detections of VOCs, including PCE up to 10.9 ppb and TCE up to 2.0 ppb, as well as associated breakdown products have been detected in up-gradient wells, and do not appear to originate from onsite. The SCVWD concluded that the release does not present a threat to groundwater, human health or the environment from the residual petroleum hydrocarbon impacts.

Container Corp, 2600 De La Cruz Boulevard (nearby southeast)

- Site listed in the CA LUST, CA NPDES, CA HIST CORTESE and CA HIST LUST databases. This facility was noted as having a release of gasoline, which impacted groundwater. The case was issued closure in 2000. REI reviewed the case closure letter in the case file available on GeoTracker (RWQCB, 2000). A total of 12 USTs were removed from the facility between 1982 and 1990. Groundwater was reported to flow to the north. The tanks ranged in size from 2,000 gallons up to 25,000 gallons, the larger tanks containing fuel oil. The other tanks contained gasoline, diesel, MEK, isopropyl acetate, toluene, ethyl alcohol, caustic solution, isopropanol, hexane, waste solvent, and gravure wash. Fourteen groundwater monitoring wells were installed to investigate the release. The tanks were located near the intersection of De La Cruz and Martin Avenue.

  Several rounds of investigation, including groundwater extraction and injection of an oxygen-release compound took place. Two groundwater monitoring wells were installed northeast of the former tank locations. These wells have been sampled on various occasions between 1991 and 2000 for a range of potential contaminants. BTEX and TPH compounds have not been detected in these wells. 1,1,1-TCA has been regularly detected up to 2.2 ppb, 1,2-DCA on one occasion at 1.2 ppb, TCE has been regularly detected up to 7.3 ppb, but most recently at 6.8 ppb in 1996, cis-1,2-DCE has been regularly detected up to 13 ppb. The case was issued closure, based on the limited extent of petroleum contamination, and a conclusion that the release does not pose a significant threat to water resources, public health and safety, and the environment.

Levin Western Metals & Steel, 2556 Lafayette Street (approximately 1,200 feet southwest)

- This facility was noted as having a release of gasoline. No other details were provided. REI reviewed the case closure letter in the case file available on GeoTracker (RWQCB, 2004). Based on the records reviewed, four USTs, three gasoline and one waste oil were removed in 1987. The release impacted groundwater. Groundwater monitoring wells were installed, including two downgradient wells, one of which located on the east side of Lafayette Street. These wells were sampled between 1997 and 2002, and did not have detections above laboratory detection limits for TPH-g, BTEX, or MTBE. Case closure was issued in 2004.

The Home Depot, 2435 Lafayette Street (approximately 1,500 feet southwest)

- This facility is listed in the CA SLIC, RCRA-SQG, FINDS, ECHO and CA HAZNET databases. The facility is noted as having a release to groundwater. REI reviewed the case closure letter available on GeoTracker (RWQCB, 1995). No groundwater monitoring reports were available; however, the letter summarized reviewed available reports, and noted that given the decreasing concentration of pollutants in groundwater across the site and lack of documented on-site VOC spills, the source of pollutants appears to be from an off-site and upgradient source.

5.0 FINDINGS AND OPINIONS

REI identified obvious subject property uses from the present back to 1939, at which time it appears to have been in agricultural use as a hay or grain field. By 1946, the subject property was developed with an industrial building for wire manufacturing. The building was served by railroad spurs that branched from mainline railroad tracks passing northward along the eastern property boundary. The building was expanded to its current size by the addition of several adjoining warehouses over the approximate period 1950 to 1982. Wire manufacturing appears to have ceased by 1984. Between approximately 1984 and 1986, the building was renovated for multi-tenant occupancy, which has continued through the present. Uses of the subject building by historical and current tenants appear to have consisted primarily of warehousing and small industrial shops.

Adjoining properties were also in general agricultural use as hay or grain fields in 1939. Since the late 1940s, the vicinity of the subject property has been developed as an industrial tract that extended northward from the town site of Santa Clara along the axis of Lafayette Street to the Central Expressway and beyond. In the 1990s, the northern adjoining industrial property was redeveloped for office/light industrial uses, and the remaining agricultural land on the eastern adjoining property was similarly developed with an office/light industrial park.

This ESA revealed the following notable findings:

- The subject property historically was used for wire manufacturing. Subsurface investigations conducted in the mid-1980s identified lead and zinc soil contamination in the manufacturing area of the subject building in association with the historical use. Following the excavation and removal of 1,600 tons of contaminated soil, residual impacts were left in place beneath several structural columns of the building due to the potential for structural failure. Residual lead concentrations ranging from 130 to 200 ppm and zinc up to 450 ppm were reported for confirmation samples collected in these areas. The lead results exceed the current RWQCB Tier 1 Environmental Screening Level (ESL) for this metal. The results of confirmation samples collected from the excavated area are otherwise below the Tier 1 ESLs for lead and zinc. Trace concentrations, below ESL levels of VOCs (toluene, xylene, 1,1,1-TCA and acetone), were also detected in soils beneath the former manufacturing area. A Site Screening Study conducted by the DTSC in 2005 found the overall hazard value to be low related to the residual presence of lead and zinc beneath the structural columns in the impacted area; the study notes that the impacted soils are covered by pavement or structures. The remedial action was certified as complete by the Santa Clara Fire Department with no further action required. Additional former industrial features of the former wire manufacturing plant include a volatiles storage shed in the northeast portion of the property (two successive locations between at least 1961 to at least 1968), abandoned in-ground features and floor drains, a plating shop with boiler room in the east-central portion, and a machine shop in the southeast portion. Potential subsurface impacts associated with these historical industrial features do not appear to

have been investigated to date. No groundwater or soil vapor samples were collected during the remedial investigations of the subject property. Historical use with known residual lead and zinc impacts to soils and additional areas where no investigation is known to have been performed, including a volatile chemicals storage shed, a plating shop with boiler room, and a machine shop, is a REC.

- Since approximately 1987, the subject property has been occupied primarily by warehousing and industrial shop tenants. These tenants have used and stored petroleum products and hazardous materials at the subject property under oversight of the Santa Clara Fired Department (SCFD). REI requested records from the Santa Clara Fire Department (SCFD) on November 2, 2016 and made several follow up attempts to obtain information related to the subject property. Assistant Fire Marshal Frederick Chun, has not responded to these requests. This represents a significant data gap, based on records reviewed that identify chemical use and storage at the subject property. Lack of response from this agency impeded REI's ability to understand environmental conditions on the subject property. Industrial use of the subject property since the 1950s with limited information regarding hazardous materials use with no known investigation is a REC.
- Previous investigators noted that the entire subject building was raised approximately 2 to 4 feet above apparent grade and that the facility was therefore built upon fill. Fill of unknown origin is a REC.
- The subject property was historically developed for agricultural use and included two rail spurs with former adjacent buildings of unknown use. Although not documented at the subject property, agricultural chemicals (e.g., organochlorine pesticides and metal compounds) may have been applied to the subject property. In addition, pesticides, nematocides, and other compounds, may have been applied to the railroad spurs to retard plant growth and protect wooden ties. Agricultural use appears to have ended by 1946 and rail spurs remained into the 1980s. The normal application of agricultural chemicals to field crops typically does not result in conditions that would result in action by a regulatory agency. However, residual concentrations from potential chemical application during agricultural use and at the rail spurs may pose a health risk to site users and may affect soil handling and disposal. This finding is a REC.
- ACI Glass Products, located at 750 Walsh Avenue, the southern adjoining property opposite the western portion of the subject property, was identified as having a release that impacted groundwater. Investigations were conducted between 1993 and 2001. A 1999 investigation identified impacted groundwater migrating onto the adjoining property to the east of 750 Walsh (i.e., 650 Walsh Avenue), with impacts extending to a localized area in the northeastern portion of this property opposite the eastern portion of the subject property, where groundwater sampling identified TPH-g at 8,800 ppb, benzene at 35 ppb, toluene at 110 ppb, ethylbenzene at 280 ppb, and total xylenes at 95 ppb. A follow-up grab groundwater sample collected in 2000 across Walsh Avenue from this sampling point, directly adjacent to the southern boundary of the subject property, or just within it, had TPH-g at 12,000 ppb, benzene at 100 ppb, ethylbenzene at 150 ppb, total xylenes at 220 ppb. These results exceed the current RWQCB Tier 1 ESLs. During the last four groundwater monitoring events conducted for the 750 Walsh Avenue case, December 2001 to March 2002, the furthest downgradient on-site groundwater monitoring well, located approximately 375 feet upgradient from the subject property, had detections of TPH-g between 190 and 850 ppb and benzene between 84 and 140 ppb. These concentrations also exceed current Tier 1 ESLs. The lowest detections of these compounds were generally reported for the last sampling event. In addition, monitoring well MW-11, advanced on the northeast, downgradient margin of the subject property and monitored over the period from

December 1993 to June of 2001, was generally non-detect for analyzed parameters, except for early TPH-d detections ranging from 50 to 300 ppb during the 1994 to 1996 period, and a 1997 sampling round with low BTEX concentrations (benzene, 0.6 ppb; toluene and total xylenes up to 1.8 ppb). The 750 Walsh Avenue case was issued closure in 2002. In summary, groundwater concentrations directly upgradient and apparently overlapping onto the southern edge of the subject property at the time of closure exceed current Tier 1 ESLs. Furthermore, based on the downgradient distribution of the groundwater impacts, the potential for soil vapor and vapor intrusion at the subject property is not defined. Therefore, groundwater contamination directly upgradient from and overlapping onto the subject property in excess of current regulatory screening levels, the extent of which does not appear to have been fully defined, is a REC.

- The vicinity of the subject property has been in use as an industrial tract beginning in the late 1940s. Adjoining properties were listed in the searched databases, including the southern adjoining property (Haro's Anodizing, 630 Walsh), and nearby properties to the southeast (Container Corp, 2600 De La Cruz), south (FMC Corp Woodlands Equipment Division, 651 Martin Avenue), and southwest (Lindsey Property, 851 Martin Avenue). These sites have documented releases impacting groundwater. These facilities have been investigated, and received regulatory closure, but were closed with residual concentrations of MTBE, TPH, TCE, and PCE exceeding current Tier 1 ESLs. In addition, the investigations on the southern and nearby southern properties did not fully delineate the extent of groundwater contamination. None of the investigations for these releases evaluated the potential impact to soil vapor. Reviewed historical information identified other features and/or operations including refuse burners, auto and truck repair, machine shops, which have been present on adjoining and up- to cross-gradient properties do not appear to have been investigated. In addition, a consultant's review of impacts at a nearby property to the southwest noted that VOCs are present in groundwater in upgradient wells from an unknown source. Based on the lengthy industrial use of the adjoining and nearby properties, including documented releases impacting groundwater, this finding is a REC.
- One pad-mounted, outdoor electrical transformer was observed along the Walsh Avenue frontage of the subject property. The transformer is owned and maintained by PG&E. No evidence spills or leaks were observed on the concrete pad or ground surface surrounding the transformer. This finding is *de minimis*.
- The plotted and orphan facilities that were identified in the database search report, except as noted above, are not expected to present an environmental concern to the subject property because: i) they only hold an operating permit (which does not imply a problem); ii) they are not required to perform further action; iii) the nature of the identified environmental concern does not suggest that the subject property would be impacted; or iv) based upon REI's review, are too distant and/or hydraulically downgradient or cross-gradient relative to the subject property to reasonably affect it. This finding is *de minimis*.

6.0 CONCLUSIONS

REI conducted a Phase I ESA in substantial conformance with ASTM Designation: E 1527-13 of the subject property located at 601-711 Walsh Avenue, Santa Clara, Santa Clara County, California. This ESA has revealed no evidence of RECs in connection with the subject property, except:

- Historical use of the subject property for wire manufacturing with residual contamination from lead and zinc remaining in soils, and additional areas where no investigation is known to have been performed, including a volatile chemicals storage shed, a plating shop with boiler room, and a machine shop, is a REC.
- Fill of unknown origin beneath the subject building is a REC.
- Historical development of the subject property with rail spurs and for agricultural use is a REC.
- Groundwater impacts originating on the property located at 750 Walsh Avenue, which appear to have overlapped onto the upgradient margins of the subject property, represent a REC.
- Known contamination of groundwater with chlorinated solvents and petroleum hydrocarbons in the immediate vicinity of the subject property is a REC.

This report prepared by:

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This report reviewed by:

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Jon A. Rosso, PE
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FIGURES

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APPROXIMATE SCALE: feet

VICINITY MAP

601-711 WALSH AVENUE, SANTA CLARA, CALIFORNIA

ROSSO ENVIRONMENTAL, INC.

Figure 1

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Project No. 16-0062.00

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APPROXIMATE SCALE: feet

SITE LOCATION MAP

601-711 WALSH AVENUE, SANTA CLARA, CALIFORNIA

ROSSO ENVIRONMENTAL, INC.

Figure **2**

Project No. 16-0062.00

PHOTOGRAPHS

Project No. 14-0062.00	**Description**	View to north of warehouse 601 loading ramp with trash bins on the right and office on left.	**1**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to north of warehouse 661 interior (typical) with building support columns	**2**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to northwest of west side of warehouse 621 interior (typical).	**3**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to north of loading dock and ramp on south side of building, with warehouse 601 on right side of ramp and warehouse 621 on the left. Note storm water catch basin at bottom of truck well.	**4**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	Description	View northwest with warehouse 621 on the right and south end of warehouse 631/661/691 with 631 ramp on the left. Bin for discarded furniture in foreground.	5
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to northwest of transformer off southeast corner of warehouse 631.	6
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to north along loading dock on west side of warehouse 631.661/691.	7
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of warehouse 631 interior (typical). Note steel-grate-covered utility trench in foreground for inactive wastewater line that extends north-to-south the length of warehouse 631/661/691 (west side of building).	8
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of hazardous materials on storage shelving in northwest corner of warehouse 631.	9
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View chemical storage area in northwest corner of warehouse 631, with drum of fabric guard on the right for upholstered furniture. Drum on left filled with trash	10
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to the east of southernmost end of warehouse 631, with furniture repair shop.	11
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of flammable storage cabinet in repair shop, with small quantities of lacquer paint, paint thinner, acetone and glue.	12
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of work bench in repair area work with aerosol spray paint for touch-up.	13
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to north of warehouse 621 interior (typical).	14
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	**Description**	View to north along east side of subject property, with office/light industrial buildings of eastern adjoining property on the right.	**15**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to west of east side of building, with 601 in left foreground, and 623 and 625 in left and right background, respectively.	**16**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	Description	View of hazardous material storage area near entrance to 623.	17
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to west of general shop area of 623.	18
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of hazardous material storage on shelving in southwest corner of 623.	19
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to west of 627 interior with limousine storage in rear background and general dry storage on the left.	20
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of waste oil drums vehicle servicing area (oil changes, etc.) in rear portion of 625.	21
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of small quantities of motor oil in vehicle servicing area of 625.	22
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	**Description**	View to west of 627 interior, with three hydraulic-driven material compactors on left wall.	**23**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

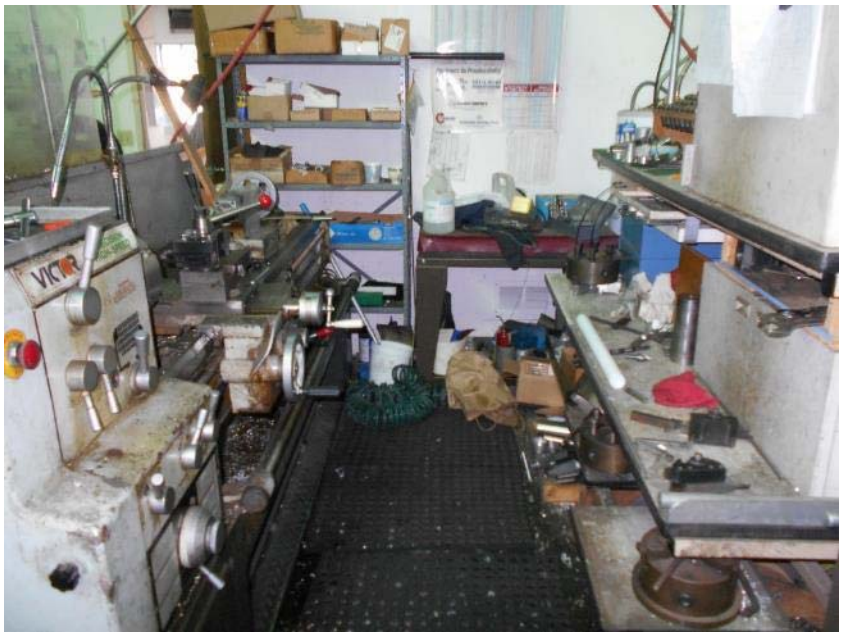
Project No. 14-0062.00	**Description**	View to north clothes donation/recycling collection bin refurbishing area of spray booth at outdoor area on west side of 627.	**24**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to west along former railroad spur alignment with loading dock and warehouse 701, including small room in left foreground and canopy on the right.	**25**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to west along former railroad spur alignment with former railroad spur dock and general 701/705/711 area on the left. Buildings of western adjoining property n far background.	**26**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	Description	Assembly area in interior of 705.	27
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	Assembly area in interior of 705.	28
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016



Project No. 14-0062.00	Description	Machining area of 705 with 1-gallon container of IPA in background.	29
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to southeast of interior of 701, with trash bin on the right and spray booth in the background.	30
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of flammables storage cabinet adjacent to spray booth with small quantities of polyurethane paint and acetone.	31
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View of spray booth interior with drums containing from left to right waste filters, waste acetone an paint sludge (with 5-gallon container of acetone on top).	32
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	**Description**	View to northwest from small room on east side of 701 used to apply and dry filler compound to antennae discs.	**33**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to west of 711 storage warehouse interior, with flammables storage cabinet on the right containing small quantities of polyurethane paint and acetone.	**34**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View of drum storage area in 711 for epoxy resin and catalyst.	**35**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to east of ramp up to concrete dock with west end of 711 in background.	**36**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View to east of 791 interior, with storage of petroleum products.	**37**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	**Description**	View of flammables storage cabinet on south wall of 691, near entrance, Cabinet contains 5-gallon containers of mineral spirits, kerosene and racing gasoline, with smaller containers of acetone, toluene, IPA and methyl alcohol.	**38**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

Project No. 14-0062.00	Description	Two drums on secondary containment skid contain form oil on the right and oily rags and waste absorbent on the left.	39
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to south along loading dock on west side of building, with petroleum products on dock of warehouse 691 awaiting shipping and dock of warehouse 661 in background.	40
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to east of warehouse 661 interior.	41
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. 14-0062.00	Description	View to south along concrete storm water culvert, with western adjoining property on the right.	42
	Name	601-711 Walsh Avenue, Santa Clara, City, California	Photo Date November 8, 2016

Project No. **14-0062.00**	**Description**	View to northwest of storm water catch basin and lift station, with western adjoining property beyond.	**43**
	Name	601-711 Walsh Avenue, Santa Clara, City, California	**Photo Date** November 8, 2016

APPENDIX A

RESUMES

APPENDIX B

SOURCES AND REFERENCES

SOURCES AND REFERENCES

SOURCES

Agency and division/source:	Pelio & Associates
Name/title of representative:	Jon Shank/Owner Representative
Location	1473 Big Basin Way, Saratoga, California
Agency telephone number:	(408) 872-9500

Agency and division/source:	Santa Clara County Tax Assessor's Office
Name/title of representative:	Staff
Location of Agency:	70 West Hedding Street, East Wing, San Jose, California 95110
Agency Telephone Number:	(408) 299-5570

Agency and division/source:	City of Santa Clara Building Department
Name/title of representative:	Staff
Location of Agency:	1500 Warburton Avenue, Santa Clara, California 95050
Agency Telephone Number:	(408) 615-2440

Agency and division/source:	City of Santa Clara Fire Department, Office of the Fire Marshal
Name/title of representative:	Assistant Fire Marshal Frederick Chun
Location of Agency:	1675 Lincoln Street, Santa Clara, California 95050
Agency Telephone Number:	(408) 615-4970

Agency and division/source:	Santa Clara County Department of Environmental Health
Name/title of representative:	Staff
Location of Agency:	1555 Berger Drive, Suite 300, San Jose, California 95112
Agency Telephone Number:	(408) 918-3400

Agency and division/source:	Regional Water Quality Control Board
Name/title of representative:	Ms. Melinda Wong – Records Clerk
Location of Agency:	1515 Clay St # 1400, Oakland, California 94612
Agency Telephone Number:	(510) 622-2430

Agency and division/source:	California Department of Toxic Substances Control
Name/title of representative:	Andre Alexander – Records Clerk
Location of Agency:	700 Heinz Avenue, Suite 200, Berkeley, California 94583
Agency Telephone Number:	(510) 540-2122

SOURCES AND REFERENCES

REFERENCES:

Name of publication:	EDR Radius Map with Geocheck
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	November 3, 2016

Name of publication:	EDR Topographic Map Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	November 3, 2016

Name of publication:	EDR Sanborn Map Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	November 3, 2016

Name of publication:	EDR Aerial Photo Report
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	November 3, 2016

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Name of publication:	EDR City Directory Abstract
Author of publication:	Environmental Data Resources, Inc. (EDR)
Date of publication:	November 8, 2016
Name of publication:	The NETR Environmental Lien and AUL Search Report
Author of publication:	Nationwide Environmental Title Research, Inc. (NETR)
Date of publication:	November 10, 2016
Name of publication:	*Case Closure Summary – Former EXSL Chemical, 630 Walsh Avenue, Santa Clara, California*
Author of publication:	Regional Water Quality Control Board (RWQCB)
Date of publication:	October 24 1997
Name of publication:	*Case Closure Summary– Former EXSL Chemical, 630 Walsh Avenue, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	November 7 1996,
Name of publication:	*Fuel Leak Site Case Closure at ACI Glass Products, 750 Walsh Avenue, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	October 10, 2002
Name of publication:	*Recommendation for Site Closure, ACI Distribution, 750 Walsh Avenue, Santa Clara, California*
Author of publication:	Levine Fricke (LFR)
Date of publication:	January 28, 2002a
Name of publication:	*Recommendation for Site Closure, ACI Distribution, 750 Walsh Avenue, Santa Clara, California*
Author of publication:	Levine Fricke (LFR)
Date of publication:	May 6, 2002b
Name of publication:	*Results of Recent Soil and Groundwater Investigations at ACI Distribution Inc., 750 Walsh Avenue, Santa Clara, California*
Author of publication:	Levine Fricke (LFR)
Date of publication:	*April 27, 2000*
Name of publication:	*Soil and Water Investigation Report, ACI Distribution, 750 Walsh Avenue, Santa Clara, California*
Author of publication:	SECOR International Inc.
Date of publication:	July 26, 2001

SOURCES AND REFERENCES

Name of publication:	*Fuel Leak Site Case Closure – Lindsay Property, 851 Martin Avenue, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	March 26, 2001
Name of publication:	*Soil and Groundwater Contamination Assessment, Stevens Creek Dodge-Auto Shop, 651 Martin Avenue, Santa Clara, California*
Author of publication:	United Soil Engineering, Inc.
Date of publication:	August 9, 2001
Name of publication:	*Fuel Leak Site Case Closure – FMC Corporation, 651 Martin Avenue, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	September 13, 2001
Name of publication:	*Results of Recent Soil and Groundwater Investigations at ACI Distribution Inc., at 750 Walsh Avenue, Santa Clara, California*
Author of publication:	Levine Fricke (LFR)
Date of publication:	April 27 2000
Name of publication:	*Fuel Leak Site Case Closure – Levin Western Metals and Steel, 2556 Lafayette Street, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	October 25, 2002
Name of publication:	*Letter RE: The Home Depot, 2435 Lafayette Street, Santa Clara, California*
Author of publication:	Regional Water Quality Control Board (RWQCB)
Date of publication:	May 12, 1995

SOURCES AND REFERENCES

Name of publication:	*Fuel Leak Site Case Closure – Container Corporation, 2600 De La Cruz, Santa Clara, California*
Author of publication:	Santa Clara Valley Water District (SCVWD)
Date of publication:	September 27, 2000
Name of publication:	*Sampling and Analysis Plan, 651 Walsh Avenue Santa Clara, California*
Author of publication:	EMCON Associates
Date of publication:	July 1987
Name of publication:	*Site Characterization and Proposed Remedial Action Report, 651 Walsh Avenue Santa Clara, California*
Author of publication:	EMCON Associates
Date of publication:	October 1987
Name of publication:	*Remedial Action Report, 651 Walsh Avenue Santa Clara, California*
Author of publication:	EMCON Associates
Date of publication:	May 1989
Name of publication:	*CERCLA Screening Site Inspection, 651 Walsh Avenue Santa Clara, California*
Author of publication:	ICF Technology
Date of publication:	March 22, 1991
Name of publication:	*Site Screening Assessment, for Berryman Electroplating*, prepared by the
Author of publication:	California Department of Toxic Substances Control (DTSC
Date of publication:	May 26, 2005

Appendix C-2

Limited Phase II ESA

Santa Clara Portfolio
North of Walsh Property
Limited Phase II ESA Report
651 Walsh Avenue
Santa Clara, California 95050

Provided to

DIGITAL REALTY
Data Center Solutions

Digital Realty Trust
Acquisitions & Investments
Four Embarcadero Center, Suite 3200
San Francisco, CA 94111

Submitted by:

ATC
ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

ATC Group Services LLC
1117 Lone Palm Avenue
Suite 201B
Modesto, California 95351
ATC Project No. Z054000129

July 28, 2017

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1.0 INTRODUCTION

1.1. PROPERTY DESCRIPTION

The subject property (Property) located at 651 Walsh Avenue, Santa Clara, California is an approximately 7.87-acre parcel that is also known as 601-711 Walsh Avenue and the North of Walsh Property. The Property is developed with a large warehouse building complex comprised of an original building structure and several conjoined warehouse structures of various sizes that have been added to the original structure over time (**Figures 1 and 2**). The original large manufacturing and warehouse building complex has been subdivided into several tenant spaces.

A raised concrete loading dock extends along the west side of the building, which is adjoined by a paved driveway, parking and loading areas. A second raised concrete loading dock with ramp extends along an unpaved curvilinear former railroad spur alignment around the northeastern to northern perimeter of the Property. Several smaller concrete raised loading docks or ramps and asphalt-paved parking areas are located on the south side of the building, with an additional loading dock on the northeast corner of the building. Driveway, parking and outdoor storage areas on the east side of the building are asphalt-paved. A landscaped strip extends along a portion of the Walsh Avenue frontage of the property.

The subject building is currently utilized primarily for general warehousing and miscellaneous office/commercial/industrial activities.

1.2. BRIEF SITE HISTORY

Historical records of Property uses extend from the present back to 1939, at which time it appears to have been in agricultural use as a hay or grain field. Since the late 1940s, the vicinity of the Property has been developed as an industrial tract that extended northward from the town site of Santa Clara along the axis of Lafayette Street to the Central Expressway and beyond. By 1946, the Property was developed with the original core industrial building for wire manufacturing, which remains a portion of the existing building.

Uses of the subject building by historical and current tenants appear to have consisted primarily of warehousing and small industrial shops. Adjoining properties were also generally utilized as agricultural fields sometime prior to 1939. The building was served by railroad spurs that branched from mainline railroad tracks passing northward along the eastern property boundary. The building was expanded to its current size by the addition of several conjoining warehouses during the period between 1950 and 1982.

Keystone Consolidated Industries, Incorporated (Keystone) acquired the Property in 1956 and operated a wire galvanizing facility on the Property until 1984. Wire manufacturing operations at the Property appear to have ceased by 1984.

In June 1984, the Property was acquired by W. Leslie Pelio and Associates (Pelio). Between approximately 1984 and 1986, the building was renovated for multi-tenant occupancy. This use has continued through the present. During the renovation process, several partially buried tanks associated with the galvanizing line were encountered and removed. During the tank removal activities, discolored soil was discovered and possible environmental issues became apparent. In response to this condition, Pelio contracted with EMCON Associates (EMCON) of San Jose

and Geonomics, Incorporated (GI) to perform the initial soil sampling and analytical testing. In May 1987, Keystone retained EMCON to assess the extent of lead and zinc contamination within the building. EMCON were responsible for the investigation remediation activities at the facilities through 1990.

1.3. SITE SETTING

1.3.1. Regional Geology

The Site is located south of the San Francisco Bay within the South Bay Drainage Unit (California Department of Water Resources, 1975). The South Bay Drainage Unit lies within the Coast Range Geomorphic Province and is characterized by a broad alluvial valley sloping northward to the San Francisco Bay. The valley is flanked by alluvial fans deposited at the foot of the Diablo Range to the east and the Santa Cruz Mountains to the west.

The Site is located on unconsolidated sediments approximately 500 feet thick and consists primarily of estuarine deposits of the Alameda Formation and younger alluvial fans. It is mostly underlain extensively by the Mud Member that contains a high clay content and forms an extensive east-west aquitard across the area. This unit averages 25 to 50 feet thick with gravel and sand layers commonly encountered in the middle of the unit. The Mud Member has been identified as an ideal case for less aggressive groundwater remediation as it serves to retard vertical groundwater migration. Deeper geologic units beneath the Site consist of a sequence of alluvial fan deposits interbedded between older muds.

The Hayward Fault runs through the East Bay (east side of Hayward) on a trend parallel to the San Andreas Fault. The Hayward Fault displays an average creep rate of about 0.2 inches per year.

1.3.2. Regional Hydrogeology

The Site is located within the East Bay Plain Groundwater Basin (Plain) of the San Francisco Bay hydrogeologic system. The Plain is approximately 25 miles long, two to seven miles wide, and includes all or portions of the cities in the east Bay Area, including Hayward. The upland watershed area for the Plain encompasses over 100 square miles along the western slope of the Coast Ranges. Between the 1860s and 1930s, all water supplies to the Plain area were provided by groundwater, springs, and local reservoirs. As a result of the development of various Sierra Nevada water supplies in the 1920s and 1930s, all local municipal water supplies were subsequently abandoned. Since then, the Plain has not been utilized as a regional water supply source. However, the Plain is used locally for irrigation, industry, emergency water supply purposes, and a limited drinking water supply. Water service in the Plain is provided by the City of Hayward and East Bay Municipal Utility District (EBMUD). The groundwater flow direction in the vicinity of the Property is expected to be toward the east or northeast.

1.4. PREVIOUS ENVIRONMENTAL INVESTIGATION/REMEDIATION EFFORTS

In June 1984, Pelio hired environmental consultant EMCON to assess possible releases. In May 1987, Keystone retained EMCON to assess the extent of lead and zinc contaminated soil within the building footprint. In July 1987, EMCON prepared a Sampling and Analysis Plan to characterize soil conditions in the sulfuric acid rod cleaning area, the wire galvanizing area, and a transformer vault that was identified on a 1979 Keystone Site Plan.

EMCON submitted the Sampling and Analysis Plan to the Santa Clara Fire Department (SCFD), California Department of Health Service (DHS), and Regional Water Quality Control Board (RWQCB) and requested comments. The DHS had indicated that it would not have time for full oversight in voluntary projects involving characterization and remediation, where the imminent threat to human health was considered minimal, for at least 3 to 5 years. The RWQCB reportedly indicated during a telephone conversation, that it may want to be involved at a later date and requested that copies of all reports be provided to the RWQCB. Therefore, the SCFD subsequently reviewed and approved the Sampling and Analysis Plan and assumed the role as the lead oversight agency.

During the week of July 27, 1987 EMCON and its subcontractors began to remove structures incompatible with the envisioned multi-use configuration (e.g., sumps and partially buried tanks) as well as identified contaminated soil. Soil excavation was performed in the following areas:

- The wastewater treatment sump near the northwest corner of the building,
- The cooling water sumps in the northeast portion of the building, and
- The partially buried tanks associated with the wire galvanizing area.

The protocol utilized by EMCON involved the collection of confirmation soil samples at the base and sidewalls of the excavation areas. The laboratory analytical results of the confirmation soil samples were compared to the soil cleanup standards developed by EMCON of 100 milligrams per kilogram (mg/kg) for lead and 2,500 mg/kg for zinc. Soil samples collected during site characterization and/or confirmation sampling activities indicated the presence of lead at concentrations up to 390,000 mg/kg and zinc up to 45,000 mg/kg. The lateral and/or vertical extent of the remedial excavation areas were extended if the confirmation sampling results did not demonstrate that the cleanup standards were achieved. Additional confirmation soil samples were obtained from the base and sidewalls of the extended excavation limits. The process of excavation and confirmation sampling was repeated for five (5) separate mobilizations until the cleanup standard was achieved in all of the excavation areas.

Upon completion, a cumulative total of approximately 1,100 cubic yards of lead/zinc contaminated soil and debris weighing approximately 1,600 tons were excavated. The majority of the soil excavation occurred in the wire galvanizing area, in the vicinity of the rinse water pipelines and wastewater raceways, and near the wastewater treatment system. In order to reduce the risk of compromising the structural integrity of the building, impacted soil in the vicinity of structural support columns and footings near the wire galvanizing area was left in place. Impacted soil near the support columns and footings did not represent an immediate hazard to human health. Consequently, EMCON recommended the impacted soil be allowed to remain in place until the building is demolished.

In addition to the remedial excavation activities, Keystone contracted with ENRAC of Fremont, California to clean the sewer lines associated with the building. The sewer line cleaning activities were performed in October 1987. The sewer line cleaning process included removing contaminated sludge, cleaning the lines with a high pressure washing device (hydroblaster), and flushing the cleaned lines with tap water. Samples of the tap water flush were obtained for laboratory analysis. It should be noted that portions of the sewer line and the cooling water lines were excluded from cleaning operations as they were obstructed, despite efforts to snake or otherwise clear them. EMCON recommended that these two sections of subsurface pipelines be

left in place because they did not represent an immediate hazard to human health and the cost for removing the lines at that time was substantial and unjustifiable. Consequently, EMCON recommended that these two lines be excavated and removed during future building demolition.

In 2005, DTSC contracted with ICF Technology Inc. (ICF) to perform a CERCLA Site Screening Study on the property. ICF reported that residual lead and zinc impacted soil beneath the structural columns near the former wire galvanizing area and along the sewer lines were covered by pavement or structures. Consequently, remaining impacted soil was considered to represent a low hazard.

ICF noted that although soil contamination at the site has been documented to a depth of 12 feet below ground surface (bgs), there has been no groundwater sampling at the former Keystone facility. They countered by stating that although there is a potential for a release of substances from the site to the shallow groundwater, potable water supply wells are generally constructed with screens in the lower aquifer, well below 200 feet bgs. In addition, ICF noted that a 100-foot thick clay aquitard separates the upper and lower aquifers, suggesting that the likelihood of a release to adversely impact the potable aquifer system appeared to be low.

ICF also indicated that while no form of certificate of closure was issued, SCFD was reportedly satisfied that the remediation at Keystone is complete and considers the site file to be closed. However, ICF reported that DHS would not issue a certificate of clean closure to Keystone because they were not the lead agency.

ATC shares a similar concern regarding the absence of a formal “closure” or “no further action letter” issued by any regulatory agency for the investigation / remediation overseen by the SCFD between 1984 and early 1990. While it appears that the remedial excavation activities were performed to the satisfaction SCFD, the fact remains that lead and zinc impacted soil remains beneath the building in the vicinity of the support columns shared by portions of Suites 601, 621, and 623 and along sections of the sanitary sewer that was obstructed at the time of remediation.

ATC recommends that as soon as practical but at a minimum prior to building demolition, that Pelio or DLR engage one of the three regulatory agencies involved with the original investigation/remediation to review past investigation/remediation actions. The intent would be to limit the scope of future post-demolition actions to the soil removal under the building support columns shared by portions of Suites 601, 621, and 623 and the portion of the sanitary sewer that was obstructed at the time of remediation.

2.0 LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

2.1. OBJECTIVE

A 1961 fire insurance map identified several functional areas of the former wire manufacturing plant located at the site. These areas include the plating shop located in the northeastern portion (east side of Suite 623), a volatiles storage shed (southeast side of Suite 627), and a machine shop (on the south side of Suite 601). Previous environmental remediation activities performed at the site between 1987 through 1990 did not result in the complete removal of heavy metals impacted soil associated with the former galvanized wire manufacturing activities.

The main objective for the Limited Phase II Environmental Site Assessment was to confirm that residual soil and water contamination associated with the former galvanized wire manufacturer is unlikely to have migrated off-site, and to investigate three areas identified as being part of the former galvanized wire manufacturer's operation that had not been previously investigated. These areas include a volatiles storage area, a plating shop, and a machine shop. In addition, since chlorinated solvents had been detected in previous soil samples collected from the site, it was ATC's intent to assess if an undetected source of chlorinated solvents exists at the site.

2.2. PRE-FIELD ACTIVITIES

A site-specific Health & Safety Plan (HASP) and Job Safety Analysis (JSA) was be created for site activities to establish the personal health and safety procedures of ATC employees performing work at this location. The HASP defined safety practices and procedures instituted in ATC work places, as applicable. The program met the requirements promulgated by the Occupational Safety and Health Administration (OSHA).

Prior to conducting field activities, ATC contacted Underground Service Alert (USA) North, 811, to locate public subsurface utilities in the vicinity of the proposed soil borings. Additionally, a private utility locator service was utilized to locate facility-specific utilities not covered by USA North 811. Each soil boring location was cleared of potential subsurface obstructions prior to drilling.

2.3. DRILLING ACTIVITIES

From May 23 through 31, 2017, an ATC geologist supervised drilling activities conducted by TEG Northern California, a C-57 licensed drilling company. Twelve soil borings, N-SB101 through N-SB109 and S-SB110 through S-SB112, were advanced around the perimeter of the Property with a direct push sampling rig. These included three borings west of the building, three borings north of the building, three borings east of the building, and three borings south of Walsh Avenue. Another soil boring, N-PS01, was advanced near the former plating shop. Five sub-slab vapor points (N-SL01 through N-SL05) were installed along a sewer line and one sub-slab vapor point (N-VS01) was installed in the vicinity of the former machine shop.

2.3.1. Soil Vapor Sampling

Soil vapor sampling was completed around the perimeter of the building to surveil for the possible presence of Volatile Organic Compounds (VOCs) associated with releases emanating from offsite sources or site operations. VOCs, in general, and more specifically chlorinated VOCs represent a potential off-site liability.

Borings N-SB101 through N-SB109 were advanced to depths of approximately 5 feet bgs along the east, north, and west sides of the property and a temporary soil vapor point was installed in each boring. A 1.25-inch diameter steel rod was pushed into the ground using a direct push drilling rig. When the rod had been advanced to the 5-foot depth, it was retracted several inches to allow the boring to be tested for potential vapor flow and the rod was then extracted. If insufficient flow was indicated, a new location was selected in the vicinity of the first and within the area previously cleared for subsurface work. When sufficient flow was indicated, approximately six inches of sand were placed in the bottom of each borehole and a plastic screen tip implant attached to 0.25-inch outer diameter Teflon tubing was placed on the sand pack. An air-tight valve was installed at the opposite end of the tubing and approximately six more inches

of sand were added to the borehole, covering the implant. An additional six inches of dry granular bentonite followed by hydrated granular bentonite was placed above the sand pack to within approximately one foot of the ground surface to seal the annular space above the sampling interval to prevent ambient air intrusion within the boring annulus.

Approximately three tubing volumes were purged from each soil vapor point. The purge volume was calculated using a predetermined volume of six cubic centimeters per linear foot of tubing plus the estimated pore space in the sand pack and dry bentonite. Purging was conducted using a dedicated plastic syringe with a capacity to hold up to 60 milliliters. The soil vapor samples were collected in 400-milliliter Suma canisters utilizing a certified flow control device. Vapor flow during sampling were restricted to less than or equal to 200 milliliters per minute during purging and sampling activities. After soil vapor samples were collected, the borings were subsequently overdrilled for the purpose of collecting groundwater samples.

The vapor samples were shipped under chain-of-custody to H&P Mobile Geochemistry Inc. laboratory (California ELAP Certificate No. 2741) in Carlsbad, California for analysis of VOCs by EPA Method TO-15.

2.3.2. Groundwater Sampling

Groundwater sampling was completed around the perimeter of the building to evaluate the possible presence of VOCs and metals in groundwater associated with releases emanating from offsite sources or site operations. The presence of VOCs in groundwater, whether related to impacts from offsite locations or historical site activities, may warrant consideration of potential impacts to future site uses and/or liability.

Borings S-SB110 through S-SB112 were advanced to groundwater along the south side of the property. Groundwater was encountered in these borings at depths ranging from approximately 16 to 24 feet bgs. Groundwater samples were collected from each boring using a hydropunch sampler equipped with a 4-foot screen section. Groundwater samples were collected from the hydropunch sampler using a stainless steel bailer prior to transfer into appropriate laboratory-supplied sample containers. It should be noted that groundwater samples were not field filtered prior to transfer to the sample containers. Following collection, the groundwater samples were placed in a cooler and chilled to approximately 4^{o} C.

Groundwater samples were delivered under chain of custody procedures to Test America Laboratories, Inc. (California ELAP Certificate No. 2496) in Pleasanton, California. Groundwater was analyzed for volatile organic compounds (VOCs) by EPA Method 8260B and CAM 17 metals by EPA method 6010B and 7470A.

2.3.3. Soil Sampling

Soil samples were collected in the area identified as the former plating shop to determine the possible presence of VOCs or metals that may be associated with historical operations in this area.

Boring N-PS01 was advanced in the vicinity of the former plating shop to a depth of 15 feet bgs. Soil samples were collected at five-foot intervals and field-monitored with a photoionization detector. Soil samples were collected in acetate tubes, capped with Teflon sheeting and plastic endcaps, and stored in a cooler chilled with ice.

Soil samples were delivered under chain of custody procedures to Test America Laboratories, Inc. (California ELAP Certificate No. 2496) in Pleasanton, California. Soil was analyzed for volatile organic compounds (VOCs) by EPA Method 8260B and CAM 17 metals by EPA method 6010B and 7470A.

2.3.4. Sub Slab Vapor Sampling

Five sub slab vapors points (N-SL01V through N-SL05V), were installed in a line paralleling the sewer line was chosen to surveil the presence of chlorinated solvents as sewer lines typically have been identified as the common mechanism for chlorinated solvent releases in industry. In addition, one sub slab vapor point (N-VS01) was installed in the in the vicinity of the former volatiles storage area.

Each sub-slab point consisted of a 1-inch diameter boring advanced through the slab to approximately three inches below the base of the concrete slab flooring using a rotary hammer with a masonry bit. The drill bit was advanced into the sub-slab material approximately 2 to 3 inches to create a void space and to allow sloughed materials to fall into the hole so as not to be drawn into the sampling tube. No soil samples were collected during the installation of the sub slab vapors points.

Each sub slab vapors point was completed as a semi-permanent soil gas probe consisting of approximately two feet of ⅛-inch outside diameter Teflon or Nylaflow® tubing attached to a one-inch long filter screen emplaced immediately below the base of the building slab. Several inches of sand were emplaced in the borehole to protect the filter screen. Bentonite was then placed in the borehole and hydrated with deionized water to create a slurry that provided a seal around the sampling tube. The tubing was then fitted with a dedicated shut-off valve and sampling manifold. The constructed gas point was allowed to stabilize for two hours before ATC returned to collect the sample.

Prior to the collection of the sub slab soil vapor sample, the sample collection system was purged by extracting three purge volumes from the soil gas sampling point. Because of the small purge volumes, purge volume testing was not conducted.

Each soil vapor sample was collected in a 400 mL Summa canister and shipped under chain-of-custody procedures to H&P Mobile Geochemistry Inc. laboratory for analysis of VOCs by EPA Method TO-15.

Upon completion of sample collection activities, the soil gas probes and associated tubing were removed and all the borings were grouted to the surface. Any investigative derived waste was stored in 55-gallon drum and temporarily stored on site pending proper disposal.

2.4. ANALYTICAL RESULTS

2.4.1. Soil Vapor Analytical Results

Upon receiving the laboratory analysis on the nine soil vapor samples collected from the perimeter of the site, ATC tabulated and analyzed the results. The laboratory analytical results for the soil vapor samples are presented in **Tables 1** and **2**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 1**.

ATC performed a Tier I evaluation by comparing the soil vapor sampling results to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB), dated February 2016, Revision 3. Specifically, the results were compared to the ESLs for Subslab/Soil vapor under a residential or unrestricted land-use scenario.

All nine soil vapor samples collected during this investigation contained concentrations of one or more VOCs above the laboratory reporting limit. However, benzene was the only analyte reported at a concentration that exceeded the Tier 1 ESL of 48 µg/m^3 for residential or unrestricted land use. Benzene was detected in soil vapor sample N-SB107, located on the northeast portion of the site, at a concentration of 61 µg/m^3.

2.4.2. Groundwater Analytical Results – Volatile Organic Compounds

Upon receiving the laboratory analytical results for the twelve groundwater samples collected from the perimeter of the site, ATC tabulated and analyzed the results. This tabular summary of laboratory analytical results for VOCs in groundwater is presented in **Table 3**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 2**.

Groundwater samples collected from six of twelve perimeter borings at the site contained concentrations of VOCs above the laboratory reporting limit. The reported analytes include 1,2-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, 1,1,1-trichloroethane, benzene, toluene, total xylenes, and methyl tertiary butyl ether. Each sample contained detected concentrations of at least one and as many as three analytes. However, only 1,2-dichloroethane, cis-1,2-dichloroethene, trichloroethene, and benzene were detected in groundwater at concentrations above their respective ESL. Locations in which one or more VOCs were detected in groundwater at concentrations above the Tier 1 ESL are limited to the following:

- N-SB-103 (1,2-dichloroethane)
- N-SB-104 (c-1,2-dichloroethene and trichloroethene)
- N-SB-105 (c-1,2-dichloroethene and trichloroethene)
- S-SB-110 (Benzene)

The locations where VOCs were detected in groundwater at concentrations in excess of Tier 1 ESLs are limited to the northwestern portion of the property and to the southeast of the property. The presence of VOCs at concentrations in excess of Tier 1 ESLs appears to be associated with releases emanating from offsite locations.

No VOCs were detected in groundwater samples obtained from borings N-SB101, N-SB102, N-SB106, N-SB107, S-SB111, S-SB112, or N-PS01.

2.4.3. Groundwater Analytical Results – Metals

Upon receiving the laboratory analysis for the twelve groundwater samples collected from the perimeter of the site, ATC tabulated and analyzed the results. The laboratory analytical results metals in groundwater are presented in **Table 4**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 3**.

All of the groundwater samples collected at the site contained detectable concentrations of total barium, total chromium, total cobalt, total copper, total lead, total nickel, total vanadium, and total zinc. Most of the groundwater samples collected at the site contained detectable concentrations of total arsenic.

Additionally, the groundwater samples collected from borings N-SB103, N-SB105, N-SB106, N-SB108, N-SB109, and S-SB112 contained detectable concentrations of total beryllium, total cadmium, and/or total molybdenum. The groundwater sample collected from boring N-SB103 contained a detectable concentration of total selenium.

2.4.4. Soil Analytical Results – Volatile Organic Compounds

Upon receiving the laboratory analysis for VOCs on soil samples collected from the area of the former plating shop, N-PS01, ATC tabulated and analyzed the results. The laboratory analytical results for VOCs in soil samples collected from N-PS01 are presented in **Table 5**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 4**.

None of the soil samples collected from boring N-PS01 contained concentrations of VOCs above the laboratory reporting limit.

2.4.5. Soil Analytical Results – Metals

Upon receiving the laboratory analysis for metals on soil samples collected from the area of the former plating shop, N-PS01, ATC tabulated and analyzed the results. The laboratory analytical results for metals in soil samples collected from N-PS01 are presented in **Table 6**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 5**.

All of the soil samples collected from boring N-PS01 at the site contained detectable concentrations of metals. The reported concentrations of metals were below their respective ESLs with the exception of arsenic, which was above its ESL. It should be noted that the concentrations of arsenic detected in soil samples obtained from N-PS01 are within the range of background concentrations for this naturally-occurring element.

2.4.6. Sub Slab Soil Vapor Analytical Results - Sewer Line

Upon receiving the laboratory analysis for VOCs on soil samples collected from the area of the sewer line, ATC tabulated and analyzed the results. The laboratory analytical results for sub-slab soil vapor samples obtained near the sewer line are presented in **Tables 1** and **2**. Copies of laboratory analytical reports and chain of custody documentation are included in **Attachment 1**.

Of the five sub slab soil vapor samples collected adjacent to the sewer line of the building, all of them contained concentrations of VOCs above the laboratory reporting limit, including benzene, toluene, m,p-xylene, 1,1,1-trichloroethane, and 1,1,2-trichlorotrifluroethane.

The reported concentrations were compared to the Environmental Screening Levels (ESLs) for Subslab/Soil vapor established by the San Francisco Bay Regional Water Quality Control Board (RWQCB), dated February 2016, Revision 3. None of the analytes were reported in subslab soil vapor samples collected along the sewer line at concentrations in excess of Tier 1 ESLs for residential or unrestricted land use.

3.0 DISCUSSION SUMMARY

ATC was able to obtain environmental samples in most of the intended areas, with the exception of the former machine shop. Collection of groundwater or subslab vapor samples in the area of the former machine shop was not possible due to the presence of a subfloor in this location.

As was previously discussed, soil containing elevated concentrations of lead and zinc associated with the former wire galvanizing line remains beneath portions of Suites 601, 621, and 623, particularly in the areas near support columns and footings near the former galvanizing line in the southeastern portion of the building. Sampling within these suites was not possible due to tenant occupation of the areas to be sampled. Consequently, the Limited Phase II ESA activities described in this report does not include sampling or analysis of soil near the building footings in this area.

The investigation activities described in this report were generally intended to evaluate 1) whether historical operations associated with the former plating shop, former volatiles storage area and the sanitary sewer line within the building may have resulted in impacts to soil, groundwater, or soil vapor and 2) whether subsurface soil and/or soil vapor has been impacted by releases emanating from offsite locations. Provided below is a summary of the findings of this investigation by sample matrix:

- **Soil** – Soil samples obtained in the vicinity of the former plating shop at depths of 5, 10, and 15 feet bgs did not contain detected concentrations of VOCs. Metals were detected in soil samples obtained from the former plating shop area. However, the concentrations of metals detected in soil in this area are below background concentrations for these naturally-occurring elements. Based on the results of this investigation, the former plating shop area is not considered to represent a significant source of VOCs or metals in soil or groundwater.

- **Groundwater** – Groundwater samples were obtained during this investigation through the use of "grab" sampling techniques and did not involve the construction and installation of groundwater monitoring wells. The "grab" groundwater sampling technique tends to yield higher concentrations than if samples were obtained from groundwater monitoring wells, particularly when groundwater samples are highly turbid. Consideration should be given to the influence of the groundwater sample collection techniques when comparing the laboratory analytical results to numeric action levels.

  Groundwater samples obtained around the perimeter of the Site contained detected concentrations of both chlorinated and non-chlorinated VOCs. Chlorinated VOCs were detected in groundwater at concentrations in excess of Tier 1 ESLs in samples obtained from N-SB103, N-SB104, and N-SB105 obtained from the northwestern portion of the Site. The absence of detected concentrations of chlorinated VOCs in groundwater samples collected from other site locations suggests that the VOCs may be related to an as yet undefined source located to the west or southwest. However, the presence of chlorinated VOCs in groundwater was confirmed in groundwater samples obtained from the former EXSL Chemical property located at 630 Walsh Avenue in 1996. The EXSL Chemical site was issued a remedial action completion certificate by the SFRWQCB on October 24, 1997.

Benzene was detected in groundwater at a concentration in excess of Tier 1 ESLs in one sample obtained across Walsh Avenue, southeast of the Site. The presence of benzene in groundwater at this location appears to relate to the documented release from the ACI Distribution, Inc. site located at 750 Walsh Avenue. The ACI Distribution, Inc. site was formally closed by the Santa Clara Valley Water District in a letter dated October 10, 2002.

In summary, the presence of chlorinated solvents in groundwater within the northwestern portion of the Site and benzene in groundwater near the southeastern property line appear to be related to releases originating from possible offsite sources, as discussed above. This assessment did not involve the collection or analysis of groundwater samples obtained from beneath the existing building footprint in the central portion of the Site. Consequently, it is not known whether groundwater beneath the central portion of the Site contains VOCs at concentrations similar to those observed in perimeter groundwater samples.

Groundwater samples collected during this investigation were also analyzed for metals. During sample collection, groundwater samples exhibited high turbidity. The high turbidity, due to collection of native soil mobilized by the collected water during sampling, coupled with the use of pre-preserved sample containers would tend dissolve any metals present in the entrained soils and bias the laboratory analytical results for metals toward the high end. As such, the reported results should not be construed as representative of dissolved-phase concentrations that would be present in groundwater samples obtained from a groundwater monitoring well installed in accordance with California Well Standards. This limitation influences the interpretation of the relative significance of the groundwater analytical results for metals. Several metals were detected in groundwater at concentrations in excess of primary or secondary drinking water maximum contaminant levels (MCLs). Some of these metals may be related to the known residuals from the wire galvanizing line impacts to the subsurface. For example, concentrations of lead and zinc detected in groundwater ranged from 0.20 to 1.9 mg/l and 1.9 to 14 mg/l, respectively. ATC anticipates that the concentrations of dissolved metals in groundwater samples obtained from properly installed and developed groundwater monitoring wells would be significantly lower than the concentrations derived from the grab groundwater samples collected during this investigation.

A parallel may be drawn with the Limited Phase II ESA that was performed simultaneously on the former Memorex Property (1320 Memorex Drive). In that investigation, four grab groundwater samples were collected with metals concentrations being reported in excess of the MCLs in a similar pattern. This suggests the metals detected are likely a regional groundwater issue and/or the result of naturally occurring metals present in native soils influencing shallow groundwater concentrations. Shallow groundwater in the vicinity is not used for drinking water purposes.

- **Soil Vapor** – Soil vapor samples obtained within the building envelope along the sewer line and in the vicinity of the former volatile storage area contained detected concentrations of several VOCs. However, the concentrations of VOCs detected in these areas are below levels that would be considered to represent a vapor intrusion threat to current or future building occupants. Consequently, the former facility operations

involving the sewer line and former volatile storage area do not appear to represent a significant source of VOCs at the Site. VOCs were detected in soil vapor samples collected around the perimeter of the Site. The VOCs detected in soil vapor are generally consistent with those associated with documented releases to groundwater from offsite locations. The VOCs detected in soil vapor include aromatic petroleum hydrocarbons that are common constituents of gasoline and non-chlorinated solvents (e.g., benzene, toluene, ethylbenzene, xylenes, methyl ethyl ketone, and methyl iso-butyl ketone) and common chlorinated solvents (e.g., Freon-113, 1,1,1-trichloroethane, trichloroethene, and related degradation compounds). Benzene was detected in one soil vapor sample (N-SB107) obtained from the northeastern portion of the Site at a concentration in excess of the SFRWQCB Tier 1 ESL for vapor intrusion under a residential or unrestricted land use scenario.

In general, the findings of this limited assessment are consistent with known environmental conditions related to the Site or as related to documented offsite releases. The limited environmental assessment activities described in this report do not represent an exhaustive analysis of all potential or suspected environmental conditions. Soil impacted by zinc and lead is known to remain within the building envelope, particularly in the vicinity of building footings near the former wire galvanizing area. Assessment of the nature and extent of the residual soil and/or groundwater impacts near the former wire galvanizing area is not possible as long as the current site tenants remain. Similarly, further assessment of potential features of environmental concern within the existing building envelope (e.g., uninvestigated floor drains) is not possible until the existing tenants have vacated the premises. Section 4.0 provides an overview of the conclusions and recommendations based on the results of this assessment, and where applicable, recommendations for future assessment of other known or suspected environmental issues at other locations that have not yet been fully assessed.

4.0 CONCLUSIONS RECOMMENDATIONS

The North of Walsh site has been the subject of environmental contaminant releases over its history and the environmental sampling completed at the site summarized in this report confirm this statement. In ATC's opinion, the analytical results of soil, soil vapor, and groundwater samples obtained during this investigation do not suggest the presence of a significant onsite source of impacts that would be expected to migrate beyond the property boundaries. The results of this investigation suggest that soil vapor and groundwater beneath the Site has been impacted by releases originating from an offsite source or sources, or naturally occurring sources. While impacts from offsite sources does not necessarily require remedial action at this time, ATC recommends that these impacts be considered in the design and construction of future buildings on the Site.

Known environmental impacts associated with the historical use of the Site include the presence of soil containing elevated concentrations of lead and zinc beneath the building footprint and in the vicinity of certain structural footings near the former wire galvanizing area. The presence of lead and zinc impacted soil represents an unresolved Recognized Environmental Condition for which the titleholders of the property may remain liable until it is remediated and a No Further Action (NFA) letter or equivalent is obtained effectively closing this uncertainty.

The Property appears suitable for the proposed construction activities subject to the following considerations and/or limitations:

- The presence of VOCs in groundwater and soil vapor represents a potential vapor encroachment condition. Given uncertainties regarding the offsite source(s) of VOCs and upgradient concentrations of VOCs in groundwater that may migrate beneath the Site in the future, ATC suggests that engineered soil vapor barriers be included in the design and construction of future site buildings to be located on the property.
- The results of this investigation indicate the presence of VOCs in soil vapor and groundwater at concentrations in excess of applicable SFRWQCB ESLs. An exceedance of an ESL in groundwater or soil vapor, in and of itself, would not necessarily be actionable. Factors that would influence the determination of actionable impacts would include the concentration relative to the ESL, the general pervasiveness of the impacts (e.g., isolated occurrences or widespread across the site), and whether the VOCs are likely to be associated with an onsite release (i.e., evidence that suggests on onsite source) or impacts emanating from an offsite source or sources. The concentrations of VOCs detected in groundwater are consistent with those observed in groundwater samples collected in association with documented releases from the ACI Distribution, Inc. site (750 Walsh Avenue) and EXSL Chemical site (630 Walsh Avenue). Site closure determinations have been issued by applicable regulatory agencies for these documented offsite releases. Similarly, the concentrations of VOCs detected in sub-slab and shallow soil vapor samples are not suggestive of an onsite source or release of VOCs. In consideration of this information, it is ATC's opinion that the detected presence of VOCs in groundwater and soil vapor would not result in further action if brought to the attention of a relevant regulatory agency.
- Grab groundwater samples collected during this investigation indicated the presence of metals at concentrations in excess of primary or secondary drinking water MCLs. The grab groundwater sampling technique tends to yield higher concentrations than if samples were obtained from groundwater monitoring wells, particularly when groundwater samples are highly turbid as was the case for this assessment. Consequently, the groundwater sample results for metals are not representative of dissolved-phase metal concentrations that serve as the basis for the MCL determination. ATC does not consider the results of the grab groundwater sampling to represent an actionable finding if brought to the attention of a relevant regulatory agency. This opinion is influenced by the fact that shallow groundwater is not utilized as a drinking water source and the samples were not collected from properly installed and developed groundwater monitoring wells. In the event that a more definitive assessment of this opinion is desired, ATC suggests that an inquiry be placed with the SFRWQCB to determine the conditions under which the results of grab groundwater samples would be considered actionable. In ATC's opinion, such a determination could be made based on the results of groundwater samples obtained from a properly installed and developed groundwater monitoring well or wells.
- Previous environmental assessment activities indicate the presence of soil containing elevated concentrations of metals (e.g., lead and zinc) within portions of the existing building. While the presence of metals in soil is not considered to represent a significant issue as related to the continued use of the building as it is currently configured, future site development activities, including demolition and excavation, may encounter metals impacted soil that would be subject to management and disposal and accordance with applicable standards and regulations. ATC recommends that a Soil Management Plan (SMP) be prepared in advance of future building demolition and construction activities. The SMP would establish written procedures that may include, but are not necessarily

limited to, soil monitoring, segregation, management during construction; dust mitigation measures to be employed during excavation, grading, and earthwork; establishing quantitative soil reuse criteria; and laboratory analytical methods to be employed to analysis of soil in order to facilitate decision-making regarding soil reuse onsite and to classify excess soil for offsite transport and disposal.

- Certain elements associated with historical site operations within the existing building footprint (e.g., floor drains, residual impacts in the vicinity of the building foundations near the former galvanizing area) are not reasonable accessible at present. However, additional sampling and analysis of soil, soil vapor, and groundwater (if necessary) should be performed at a future date, when the investigation activities would not disrupt current tenant operations and prior to building demolition. The results of this analysis would be incorporated into the SMP.
- Historical uses of the property for agricultural purposes may have involved the application of herbicides or pesticides. In addition, the former rail spur along the eastern portion of the Site may have involved the application or herbicides or pesticides and/or treated wood railroad ties. The limited environmental assessment activities conducted to date did not include laboratory analysis of near-surface soil samples for the possible presence of residual herbicides or pesticides. ATC recommends that additional sampling of near surface soil (i.e., soil within the upper five feet of ground surface) be performed to determine the possible presence of lead and arsenic associated with lead-arsenate pesticides and organochlorine pesticides. The additional assessment activities could be completed at any time prior to preparation of the SMP. If necessary, the SMP would establish soil reuse and/or disposal criteria for residual pesticides and herbicides in near-surface soil.
- In the event that future site construction activities would require construction dewatering, installation of one or more groundwater monitoring wells is recommended. The groundwater monitoring wells would allow for collection and analysis of groundwater samples that would provide better insight regarding the concentrations of VOCs and metals in groundwater that may require treatment prior to discharge.

5.0 CERTIFICATION

This document review project and this report has been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workperson like manner and within all accepted standards pertaining to providers of environmental services in California at the time of the investigation.

If you have questions or comments regarding this report or our recommendations, please call us at your convenience.

Sincerely,

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TABLES

TABLE 1
Soil Vapor Sample Analytical Results
Volatile Organic Compounds
North of Walsh Property
651 Walsh Avenue
Santa Clara, California
1 of 1

	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	2-Hexanone (MEK)	4-Methyl-2-pentanone (MIBK)	Styrene	Carbon Disulfide
Analtyical Method	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15
Tier I ESL - Soil Vapor - 5 feet bgs	**48**	**160,000**	**560**	**52,000**		**2,600,000**	**1,600,000**	**470,000**	--
Sample ID ***Sampling Date***	***µg/m³***								
N-SB101-V 05-31-2017	<3.2	12	<4.4	9.0	<4.4	<8.3	<8.3	<4.3	<6.3
N-SB102-V 05-24-2017	19	170	12	39	15	12	110	6.2	40
N-SB103-V 05-24-2017	32	170	15	52	19	<8.3	34	5.3	140
N-SB104-V 05-24-2017	41	160	16	52	17	<8.3	56	<4.3	27
N-SB105-V 05-24-2017	25	71	4.6	15	11	<8.3	11	<4.3	15
N-SB106-V 05-25-2017	20	93	9.6	34	11	<8.3	<8.3	<4.3	15
N-SB107-V 05-25-2017	**61**	230	19	53	23	<8.3	20	13	150
N-SB108-V 05-25-2017	37	96	9.4	35	13	<8.3	<8.3	<4.3	8.6
N-SB109-V 05-25-2017	9.7	69	<4.4	9.9	5.2	<8.3	<8.3	<4.3	11
Tier I ESL - Soil - Vapor Subslab	**48**	**160,000**	**560**	**52,000**		**2,600,000**	**1,600,000**	**470,000**	--
N-SL01-V 05-31-2017	10	23	<4.4	9.0	<4.4	<8.3	<8.3	<4.3	<6.3
N-SL02-V 05-31-2017	<3.2	26	<4.4	<8.8	<4.4	<8.3	<8.3	<4.3	<6.3
N-SL03-V 05-31-2017	<3.2	16	<4.4	<8.8	<4.4	<8.3	<8.3	<4.3	<6.3
N-SL04-V 05-31-2017	<3.2	18	<4.4	<8.8	<4.4	<8.3	<8.3	<4.3	<6.3
N-SL05-V 05-31-2017	5.1	28	<4.4	8.9	<4.4	<8.3	<8.3	<4.3	<6.3
N-VS01-V 05-31-2017	<3.2	22	<4.4	<8.8	<4.4	<8.3	<8.3	<4.3	<6.3

Notes:
µg/m3 = micrograms per cubic meter
ESL = Environmental Screening Level
Tier I ESLs for sub slab samples based on unrestricted (Residential land use, µg/m3) from SBRWQCB, February 22, 2016 (Table SG-1)
-- = not applicable or not available
< = Not Detected at or Above Stated Method Detection Limit
Bold = concentration exceeded ESL
For a full list of analytes, refer to the laboratory analytical report.

TABLE 2
Soil Vapor Sample Analytical Results
Additional Volatile Organic Compounds
North of Walsh Property
651 Walsh Avenue
Santa Clara, California
1 of 1

		1,1,1-Trichloroethane	1,1,2-Trichlorotrifluoroethane (F113)	1,1-Dichloroethane	Chloroform	Chloromethane	Trichloroethene	Vinyl Chloride	
		TO15	TO15	TO15	TO15	TO15	TO15	TO15	
Tier I ESL - Soil Vapor - 5 feet bgs		**520,000**	**--**	**880**	**61**	**47,000**	**240**	**4.7**	
Sample ID	***Sampling Date***	***µg/m³***							***units***
Perimeter Soil Borings									
N-SB101-V	05-23-2017	<5.5	20	<4.1	<4.9	<2.1	<5.5	<2.6	
N-SB102-V	05-24-2017	<5.5	<7.7	<4.1	<4.9	5.8	<5.5	<2.6	
N-SB103-V	05-24-2017	<5.5	<7.7	<4.1	19	2.9	<5.5	<2.6	
N-SB104-V	05-24-2017	<5.5	<7.7	<4.1	<4.9	4.3	<5.5	<2.6	
N-SB105-V	05-24-2017	<5.5	<7.7	<4.1	<4.9	4.8	<5.5	3.3	
N-SB106-V	05-25-2017	<5.5	<7.7	<4.1	<4.9	6.3	<5.5	<2.6	
N-SB107-V	05-25-2017	<5.5	<7.7	<4.1	<4.9	7.3	<5.5	<2.6	
N-SB108-V	05-25-2017	<5.5	49	9.6	<4.9	2.4	29	<2.6	
N-SB109-V	05-25-2017	8.1	<7.7	<4.1	<4.9	5.9	<5.5	2.7	
Tier I ESL - Soil -Vapor Subslab		**520,000**	**--**	**880**	**61**	**47,000**	**240**	**4.7**	
Sewer Line Subslab Samples									
N-SL01-V	05-23-2017	<5.5	20	<4.1	<4.9	<2.1	<5.5	<2.6	
N-SL02-V	05-23-2017	<5.5	52	<4.1	<4.9	<2.1	<5.5	<2.6	
N-SL03-V	05-23-2017	6.8	<7.7	<4.1	<4.9	<2.1	<5.5	<2.6	
N-SL04-V	05-23-2017	<5.5	<7.7	<4.1	<4.9	<2.1	<5.5	<2.6	
N-SL05-V	05-23-2017	11	<7.7	<4.1	<4.9	<2.1	<5.5	<2.6	
N-VS01-V	05-25-2017	<5.5	<7.7	<4.1	<4.9	2.4	<5.5	<2.6	

Notes:
µg/m3 = micrograms per cubic meter
ESL = Environmental Screening Level
Tier I ESLs for sub slab samples based on unrestricted (Residential) land use (µg/m3) from SBRWQCB, February 22, 2016 (Table SG-1)
-- = not applicable or not available
< = Not Detected at or Above Stated Method Detection Limit
Bold = concentration exceeded ESL
For a full list of analytes, refer to the laboratory analytical report.

Table 3
Summary of Groundwater Sample Analytical Results
Volatile Organic Compounds
North of Walsh
651 Walsh Avenue
Santa Clara, California

		Chlorinated VOCs							Non-Chlorinated VOCs			
		1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Benzene	Toluene	Xylenes, Total	Methyl tert-butyl ether
Analytical Method		USEPA Method 8260										
Sample ID	**Date**	micrograms per liter (µg/L)										Units
Groundwater ESLs		**0.5**	**6.0**	**10**	**5**	**3**	**62**	**1**	**40**	**20**	**5**	
N-SB101-W	5/24/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB102-W	5/24/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB103-W	5/25/2017	**0.84**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB104-W	5/24/2017	<0.5	**11**	0.63	**55**	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB105-W	5/24/2017	<0.5	**10**	<0.5	**30**	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB106-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB107-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB108-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	0.75	<0.5	<0.5	<0.5	<1.0	<0.5	
N-SB109-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	0.53	<0.5	<0.5	<1.0	<0.5	
N-PS01-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
S-SB110-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**39**	1.6	2.2	<0.5	
S-SB111-W	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
S-SB112-W	5/24/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	
TB	5/24/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	2.7	
TB	5/25/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	

Notes:

See laboratory analytical report for a full list of analytes.

ESLs = Environmental Screening Levels

Tier I ESLs for groundwater based on the lower of shallow groundwater vapor intrusion (Residential) or Maximum contaminant Level priority values from SBRWQCB, February 22, 2016 (Table GW-/MCL or Table GW-3/Vapor Intrusion)

< = Not Detected at or Above Stated Method Detection Limit

Bold = concentration exceeded ESL

Table 4
Summary of Groundwater Sample Analytical Results
Total Metals
North of Walsh
651 Walsh Avenue, Santa Clara, California

		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
	MCL	0.006 [1]	0.01 [1]	1 [1]	0.004 [1]	0.005 [1]	0.05 [1]	NA	1.0 [2]	0.015 [1]	NA	0.1 [1]	0.05 [1]	0.1 [2]	0.002 [1]	NA	5.0 [2]	
Sample ID	**Date**	milligrams per liter (mg/L)																
N-SB101-W	5/24/2017	<0.10	<0.10	6.4	<0.020	<0.025	1.8	0.50	1.0	0.30	<0.10	2.1	<0.20	<0.050	<0.10	1.6	1.4	
N-SB102-W	5/24/2017	<0.20	0.50	68	<0.040	<0.050	1.6	0.55	1.7	0.55	<0.20	2.5	<0.40	<0.10	<0.50	1.9	2.9	
N-SB103-W	5/25/2017	<0.10	0.81	42	0.092	0.048	7.4	1.9	4.8	1.3	0.21	8.9	0.35	<0.050	<0.10	6.0	11	
N-SB104-W	5/24/2017	<0.50	0.23	11	<0.040	<0.050	3.4	0.63	1.9	0.40	<0.20	2.9	<1.0	<0.10	<0.50	2.4	5.0	
N-SB105-W	5/24/2017	<0.10	0.24	15	15	0.029	1.2	0.28	0.75	0.22	<0.10	1.4	<0.20	<0.050	<0.10	0.99	1.9	
N-SB106-W	5/25/2017	<0.10	0.50	33	<0.040	<0.025	3.2	0.69	2.0	0.58	0.11	3.4	<0.20	<0.050	<0.10	2.6	4.8	
N-SB107-W	5/25/2017	<0.10	0.82	18	0.065	<0.025	5.1	1.3	3.5	0.68	<0.10	7.7	<0.20	<0.050	<0.10	4.5	7.4	
N-SB108-W	5/25/2017	<0.20	3.1	61	0.12	4.5	15	3.0	7.4	1.9	<0.10	21	<0.40	<0.10	<0.20	8.3	14	
N-SB109-W	5/25/2017	<0.20	1.0	86	0.089	0.0048	9.3	2.0	5.2	1.4	<0.10	11	<0.40	<0.050	<0.20	6.9	9.3	
S-SB110-W	5/25/2017	<0.10	0.46	5.9	<0.020	<0.025	1.7	0.37	1.3	0.25	<0.10	2.1	<0.20	<0.050	<0.10	1.4	2.5	
S-SB111-W	5/25/2017	<0.10	<0.10	3.7	<0.020	<0.025	1.4	0.30	0.90	0.23	<0.10	1.6	<0.20	<0.050	<0.10	1.0	2.1	
S-SB112-W	5/25/2017	<0.20	<0.20	16	<0.040	0.0051	2.0	0.43	2.1	0.20	0.32	1.9	<0.40	<0.10	<0.20	2.3	3.2	
N-PS01-W	5/25/2017	<0.10	0.11	17	<0.020	<0.025	1.6	0.50	1.3	0.39	<0.10	2.1	<0.20	<0.050	<0.10	1.5	2.4	

Notes:

MCL = California Maximum Contaminant Level for Drinking Water

[1] - Value based on Primary MCL (health and technology-based values)

[2] - Value based on Secondary MCL (e.g., taste, odor, or aesthetics)

NA = Not Analyzed/Not Applicable

< = Not Detected at or Above Stated Method Detection Limit

Groundwater samples were obtained as "grab" samples and were not field filtered. Reported results are not anticipated to reflect the true concentration from a monitoring well installed in accordance with California Well Standards.

Table 5
Summary of Soil Sample Analytical Results
Volatile Organic Compounds
North of Walsh
651 Walsh Avenue
Santa Clara, California

			Chlorinated VOCs						Non-Chlorinated VOCs			
			1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Trichloroethene	Tetrachloroethene	1,1,1-Trichloroethane	Benzene	Toluene	Xylenes, Total	Methyl tert-butyl ether
	Analytical Method		USEPA Method 8260									
	Units		micrograms per kilogram (µg/kg)									Units
	Tier I ESLs		**4.5**	**190**	**670**	**460**	**420**	**7,800**	**44**	**2,900**	**2,300**	**23**
Sample ID	**Date**	**Depth to Sample**										
N-PS01-S-5'	5/25/2017	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<9.9	<5.0
N-PS01-S-10'	5/25/2017	10	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.3	<4.7
N-PS01-S-15'	5/25/2017	15	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<9.8	<4.9

Notes:

ESLs = Environmental Screening Levels

Tier I ESLs for soil based on the lower of direct-exposure (Residential land use) or leaching to groundwater (Drinking Water Source, Table S-2) from SBRWQCB, February 22, 2017

< = Not Detected at or Above Stated Method Detection Limit

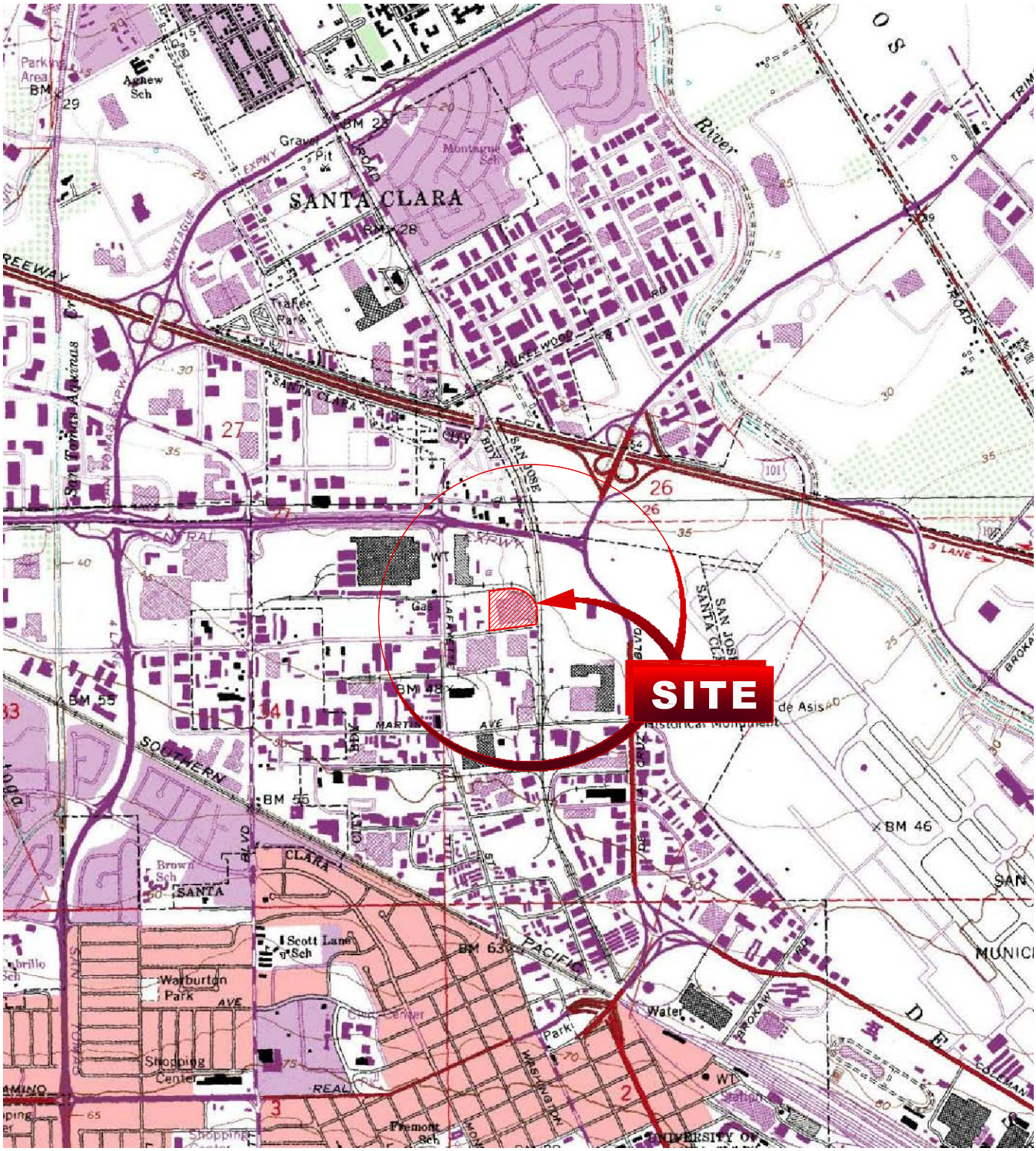
For a full list of analytes, refer to the laboratory analytical report.

Table 6
Summary of Soil Sample Analytical Results
Metals
North of Walsh
651 Walsh Avenue
Santa Clara, California

			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
		ESLs	**31**	**0.067**	**3,000**	**42**	**39**	**--**	**23**	**3,100**	**80**	**13**	**390**	**86**	**390**	**390**	**0.78**	**390**	**23,000**	
Sample ID	**Date**	**Depth to Sample**	milligrams per kilogram (mg/kg)																	
N-PS01-S-5'	5/25/2017	5	<1.4	2.9	98	0.33	<0.36	35	6.1	18	5.0	0.47	<1.4	34	<2.9	<0.71	<1.4	21	36	
N-PS01-S-10'	5/25/2017	10	<1.4	3.7	87	<0.69	<0.34	46	8.8	20	6.3	0.066	<1.4	58	<2.8	<0.69	<1.4	32	48	
N-PS01-S-15'	5/25/2017	15	<1.9	<3.8	89	0.38	<0.48	39	9.8	28	7.7	0.061	<1.9	45	<3.8	<0.95	<1.9	39	54	

Notes:
ESLs = Environmental Screening Levels
< = Not Detected at or Above Stated Method Detection Limit
Tier I ESLs for soil based on direct-exposure (Residential land use) from SBRWQCB, February 22, 2017
-- = not applicable or not available

FIGURES



SITE LOCATION MAP

NORTH OF WALSH
651 WALSH AVENUE
SANTA CLARA, CALIFORNIA

PROJECT NUMBER: Z05400132	DATE: 5/18/17	FIGURE 1
REVIEW BY: M. SONKE	DRAWN BY: DAW	

ATC
ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING
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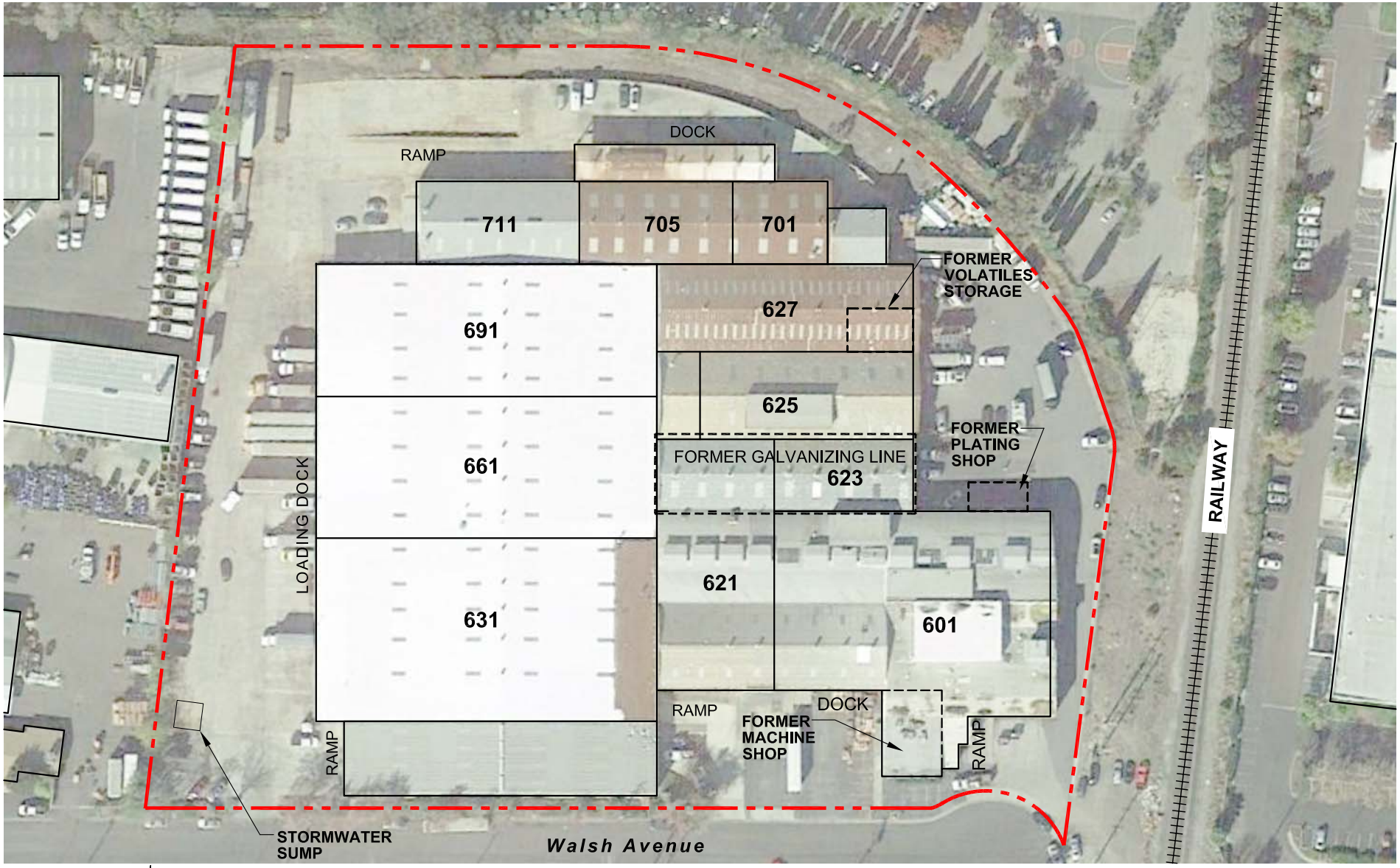
Ph: (209) 579-2221 *** Fax: (209) 579-2225

FILE: W:\Modesto Office\Z054000132 - Walsh\651 Walsh Ave_Santa Clara.dwg May 19, 2017



Note: All information presented is approximate and should be used for reference only.

AERIAL PHOTOGRAPH

NORTH OF WALSH
601-711 WALSH AVENUE
SANTA CLARA, CALIFORNIA

PROJECT NUMBER: Z054000132	DATE: 5/18/17	FIGURE
REVIEW BY: M. SONKE	DRAWN BY: DAW	2

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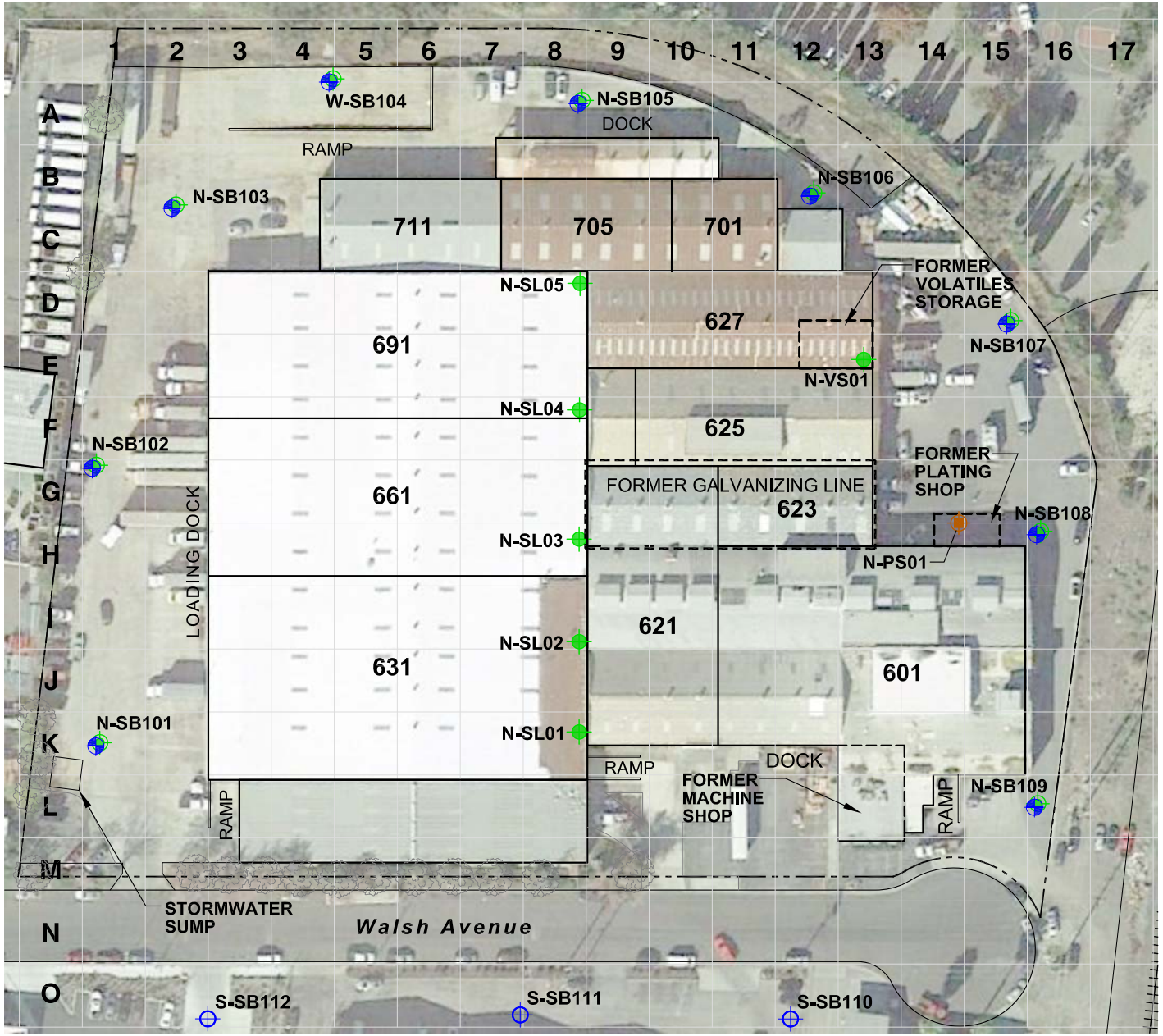
FILE: W:\Modesto Office\Z054000132 - 601-711 Walsh\Cad\651 Walsh Ave_Santa Clara.dwg Jun 20, 2017

LEGEND

- GROUNDWATER - EXTERIOR (10-15 FT BGS)
- SOIL VAPOR - EXTERIOR (5 FT BGS)
- GROUNDWATER - EXTERIOR (10-15 FT BGS)
- SOIL/GROUNDWATER - EXTERIOR (10FT/10-15 FT BGS)
- SOIL VAPOR - INTERIOR (SUBSLAB)
- SITE BOUNDARY



N

0 100

Approximate Scale in Feet

Note: All information presented is approximate and should be used for reference only.

SITE LAYOUT WITH SAMPLE LOCATIONS

NORTH OF WALSH
601-711 WALSH AVENUE
SANTA CLARA, CALIFORNIA

PROJECT NUMBER: Z054000132	DATE: 6/18/17	FIGURE 3
REVIEW BY: M. SONKE	DRAWN BY: DAW	

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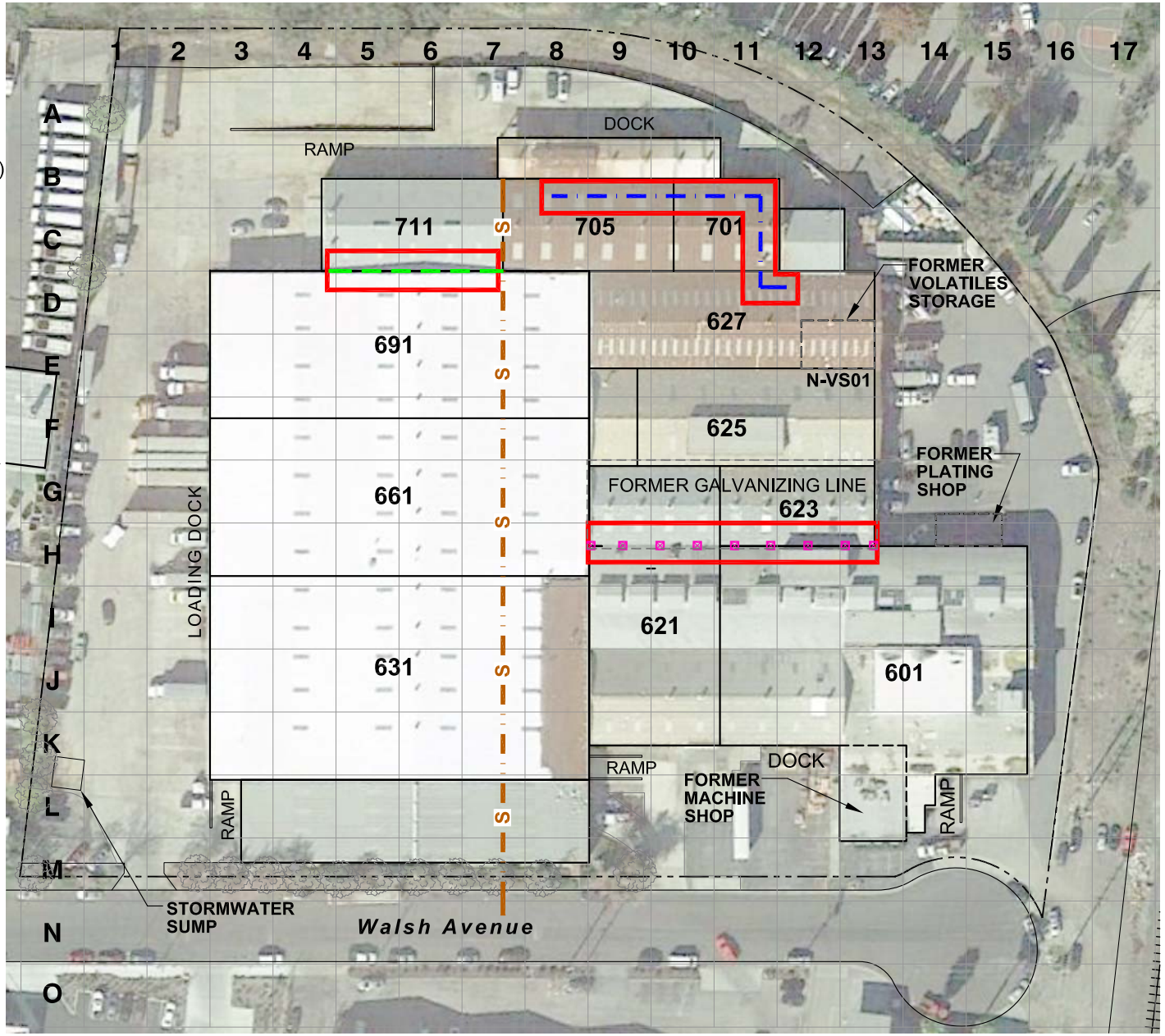
FILE: W:\Modesto Office\Z054000132 - 601-711 Walsh\Cad\651 Walsh Ave_Santa Clara.dwg Jun 19, 2017

LEGEND

- SITE BOUNDARY
- MAIN-SEWER LINE (8-INCH)
- NORTHWEST FEEDER LINE (4-INCH)
- COOLING WATER FEEDER LINE (4-INCH) BLOCKED
- BUILDING SUPPORT COLUMNS

AREA OF RESIDUAL LIABILITY

- NORTHWEST FEEDER AREA
- COOLING WATER FEEDER AREA
- SUPPORT COLUMN AREA



N

0 100

Approximate Scale in Feet

Note: All information presented is approximate and should be used for reference only.

SUSPECTED METALS - IMPACTED SOIL AREA

NORTH OF WALSH
601-711 WALSH AVENUE
SANTA CLARA, CALIFORNIA

PROJECT NUMBER: Z054000132	DATE: 7/28/17	FIGURE 4
REVIEW BY: M. SONKE	DRAWN BY: DAW	

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FILE: W:\Modesto Office\Z054000132 - 601-711 Walsh\Cad\651 Walsh Ave_Santa Clara.dwg Jul 28, 2017

ATTACHMENTS

ATTACHMENT A

Laboratory Analytical Reports

ATTACHMENT A1

Laboratory Analytical Reports
Soil Vapor Samples

Mobile Geochemistry Inc.

02 June 2017

Mr. Mike Sonke
ATC Group Services - Modesto
1117 Lone Palm Ave., Suite B
Modesto, CA 95351

H&P Project: ATC053017-11
Client Project: Digital Realty Trust

Dear Mr. Mike Sonke:

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 30-May-17 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,

Janis La Roux
Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP and the National Environmental Laboratory Accreditation Conference (NELAC). H&P is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP Program and ISO/IEC 17025:2005 programs, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N-SB102-V	E705115-01	Vapor	24-May-17	30-May-17
N-SB103-V	E705115-02	Vapor	24-May-17	30-May-17
N-SB104-V	E705115-03	Vapor	24-May-17	30-May-17
N-SB105-V	E705115-04	Vapor	24-May-17	30-May-17
N-SB106-V	E705115-05	Vapor	25-May-17	30-May-17
N-SB107-V	E705115-06	Vapor	25-May-17	30-May-17
N-SB108-V	E705115-07	Vapor	25-May-17	30-May-17
N-SB109-V	E705115-08	Vapor	25-May-17	30-May-17
N-VS01-V	E705115-09	Vapor	25-May-17	30-May-17
N-SB101-V	E705115-10	Vapor	23-May-17	30-May-17
N-SL01	E705115-11	Vapor	23-May-17	30-May-17
N-SL02	E705115-12	Vapor	23-May-17	30-May-17
N-SL03	E705115-13	Vapor	23-May-17	30-May-17
N-SL04	E705115-14	Vapor	23-May-17	30-May-17
N-SL05	E705115-15	Vapor	23-May-17	30-May-17

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

DETECTIONS SUMMARY

Sample ID: **N-SB102-V** Laboratory ID: **E705115-01**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**5.8**	2.1	ug/m3	EPA TO-15	
Carbon disulfide	**40**	6.3	ug/m3	EPA TO-15	
2-Butanone (MEK)	**31**	30	ug/m3	EPA TO-15	
Benzene	**19**	3.2	ug/m3	EPA TO-15	
4-Methyl-2-pentanone (MIBK)	**110**	8.3	ug/m3	EPA TO-15	
Toluene	**170**	3.8	ug/m3	EPA TO-15	
2-Hexanone (MBK)	**12**	8.3	ug/m3	EPA TO-15	
Ethylbenzene	**12**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**39**	8.8	ug/m3	EPA TO-15	
Styrene	**6.2**	4.3	ug/m3	EPA TO-15	
o-Xylene	**15**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**12**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB103-V** Laboratory ID: **E705115-02**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**2.9**	2.1	ug/m3	EPA TO-15	
Carbon disulfide	**140**	6.3	ug/m3	EPA TO-15	
Chloroform	**19**	4.9	ug/m3	EPA TO-15	
Benzene	**32**	3.2	ug/m3	EPA TO-15	
4-Methyl-2-pentanone (MIBK)	**34**	8.3	ug/m3	EPA TO-15	
Toluene	**170**	3.8	ug/m3	EPA TO-15	
Ethylbenzene	**15**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**52**	8.8	ug/m3	EPA TO-15	
Styrene	**5.3**	4.3	ug/m3	EPA TO-15	
o-Xylene	**19**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**11**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB104-V** Laboratory ID: **E705115-03**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**4.3**	2.1	ug/m3	EPA TO-15	
Carbon disulfide	**27**	6.3	ug/m3	EPA TO-15	
Benzene	**41**	3.2	ug/m3	EPA TO-15	
4-Methyl-2-pentanone (MIBK)	**56**	8.3	ug/m3	EPA TO-15	
Toluene	**160**	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	**9.2**	6.9	ug/m3	EPA TO-15	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Sample ID: **N-SB104-V** Laboratory ID: **E705115-03**

Analyte	Result	Reporting Limit	Units	Method	Notes
Ethylbenzene	**16**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**52**	8.8	ug/m3	EPA TO-15	
o-Xylene	**17**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**9.0**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB105-V** Laboratory ID: **E705115-04**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**4.8**	2.1	ug/m3	EPA TO-15	
Vinyl chloride	**3.3**	2.6	ug/m3	EPA TO-15	
2-Butanone (MEK)	**48**	30	ug/m3	EPA TO-15	
cis-1,2-Dichloroethene	**16**	4.0	ug/m3	EPA TO-15	
Benzene	**25**	3.2	ug/m3	EPA TO-15	
4-Methyl-2-pentanone (MIBK)	**11**	8.3	ug/m3	EPA TO-15	
Toluene	**71**	3.8	ug/m3	EPA TO-15	
Ethylbenzene	**4.6**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**15**	8.8	ug/m3	EPA TO-15	
o-Xylene	**11**	4.4	ug/m3	EPA TO-15	

Sample ID: **N-SB106-V** Laboratory ID: **E705115-05**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**6.3**	2.1	ug/m3	EPA TO-15	
Carbon disulfide	**15**	6.3	ug/m3	EPA TO-15	
Benzene	**20**	3.2	ug/m3	EPA TO-15	
Toluene	**93**	3.8	ug/m3	EPA TO-15	
Ethylbenzene	**9.6**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**34**	8.8	ug/m3	EPA TO-15	
o-Xylene	**11**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**5.4**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB107-V** Laboratory ID: **E705115-06**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**7.3**	2.1	ug/m3	EPA TO-15	
Carbon disulfide	**150**	6.3	ug/m3	EPA TO-15	
2-Butanone (MEK)	**51**	30	ug/m3	EPA TO-15	
Benzene	**61**	3.2	ug/m3	EPA TO-15	
4-Methyl-2-pentanone (MIBK)	**20**	8.3	ug/m3	EPA TO-15	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Sample ID: **N-SB107-V** Laboratory ID: **E705115-06**

Analyte	Result	Reporting Limit	Units	Method	Notes
Toluene	**230**	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	**40**	6.9	ug/m3	EPA TO-15	
Ethylbenzene	**19**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**53**	8.8	ug/m3	EPA TO-15	
Styrene	**13**	4.3	ug/m3	EPA TO-15	
o-Xylene	**23**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**15**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB108-V** Laboratory ID: **E705115-07**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**2.4**	2.1	ug/m3	EPA TO-15	
1,1,2-Trichlorotrifluoroethane (F113)	**49**	7.7	ug/m3	EPA TO-15	
Carbon disulfide	**8.6**	6.3	ug/m3	EPA TO-15	
1,1-Dichloroethane	**9.6**	4.1	ug/m3	EPA TO-15	
cis-1,2-Dichloroethene	**6.6**	4.0	ug/m3	EPA TO-15	
Benzene	**37**	3.2	ug/m3	EPA TO-15	
Trichloroethene	**29**	5.5	ug/m3	EPA TO-15	
Toluene	**96**	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	**180**	6.9	ug/m3	EPA TO-15	
Ethylbenzene	**9.4**	4.4	ug/m3	EPA TO-15	
m,p-Xylene	**35**	8.8	ug/m3	EPA TO-15	
o-Xylene	**13**	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	**6.4**	5.0	ug/m3	EPA TO-15	

Sample ID: **N-SB109-V** Laboratory ID: **E705115-08**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**5.9**	2.1	ug/m3	EPA TO-15	
Vinyl chloride	**2.7**	2.6	ug/m3	EPA TO-15	
Carbon disulfide	**11**	6.3	ug/m3	EPA TO-15	
1,1,1-Trichloroethane	**8.1**	5.5	ug/m3	EPA TO-15	
Benzene	**9.7**	3.2	ug/m3	EPA TO-15	
Toluene	**69**	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	**23**	6.9	ug/m3	EPA TO-15	
m,p-Xylene	**9.9**	8.8	ug/m3	EPA TO-15	
o-Xylene	**5.2**	4.4	ug/m3	EPA TO-15	

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Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Sample ID: **N-VS01-V** Laboratory ID: **E705115-09**

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloromethane	**2.4**	2.1	ug/m3	EPA TO-15	
Toluene	**22**	3.8	ug/m3	EPA TO-15	

Sample ID: **N-SB101-V** Laboratory ID: **E705115-10**

Analyte	Result	Reporting Limit	Units	Method	Notes
4-Methyl-2-pentanone (MIBK)	**9.7**	8.3	ug/m3	EPA TO-15	
Toluene	**12**	3.8	ug/m3	EPA TO-15	

Sample ID: **N-SL01** Laboratory ID: **E705115-11**

Analyte	Result	Reporting Limit	Units	Method	Notes
1,1,2-Trichlorotrifluoroethane (F113)	**20**	7.7	ug/m3	EPA TO-15	
Benzene	**10**	3.2	ug/m3	EPA TO-15	
Toluene	**23**	3.8	ug/m3	EPA TO-15	
m,p-Xylene	**9.0**	8.8	ug/m3	EPA TO-15	

Sample ID: **N-SL02** Laboratory ID: **E705115-12**

Analyte	Result	Reporting Limit	Units	Method	Notes
1,1,2-Trichlorotrifluoroethane (F113)	**52**	7.7	ug/m3	EPA TO-15	
Toluene	**26**	3.8	ug/m3	EPA TO-15	

Sample ID: **N-SL03** Laboratory ID: **E705115-13**

Analyte	Result	Reporting Limit	Units	Method	Notes
1,1,1-Trichloroethane	**6.8**	5.5	ug/m3	EPA TO-15	
Toluene	**16**	3.8	ug/m3	EPA TO-15	

Sample ID: **N-SL04** Laboratory ID: **E705115-14**

Analyte	Result	Reporting Limit	Units	Method	Notes
Toluene	**18**	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	**7.2**	6.9	ug/m3	EPA TO-15	

Sample ID: **N-SL05** Laboratory ID: **E705115-15**

Analyte	Result	Reporting Limit	Units	Method	Notes
1,1,1-Trichloroethane	**11**	5.5	ug/m3	EPA TO-15	

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Sample ID: **N-SL05** Laboratory ID: **E705115-15**

Analyte	Result	Reporting Limit	Units	Method	Notes
Benzene	**5.1**	3.2	ug/m3	EPA TO-15	
Toluene	**28**	3.8	ug/m3	EPA TO-15	
m,p-Xylene	**8.9**	8.8	ug/m3	EPA TO-15	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB102-V (E705115-01) Vapor Sampled: 24-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**5.8**	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	**40**	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**31**	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	**19**	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)	**110**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**170**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**12**	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	**12**	4.4	"	"	"	"	"	"	
m,p-Xylene	**39**	8.8	"	"	"	"	"	"	
Styrene	**6.2**	4.3	"	"	"	"	"	"	
o-Xylene	**15**	4.4	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB102-V (E705115-01) Vapor Sampled: 24-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**12**	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		*112 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.4 %*		*77-127*	"	"	"	"	
N-SB103-V (E705115-02) Vapor Sampled: 24-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**2.9**	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	**140**	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	**19**	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**32**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	

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Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB103-V (E705115-02) Vapor Sampled: 24-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**34**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**170**	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	**15**	4.4	"	"	"	"	"	"	
m,p-Xylene	**52**	8.8	"	"	"	"	"	"	
Styrene	**5.3**	4.3	"	"	"	"	"	"	
o-Xylene	**19**	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	**11**	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		*115 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.0 %*		*77-127*	"	"	"	"	

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Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB104-V (E705115-03) Vapor Sampled: 24-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**4.3**	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	**27**	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	**41**	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)	**56**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**160**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**9.2**	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	**16**	4.4	"	"	"	"	"	"	
m,p-Xylene	**52**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**17**	4.4	"	"	"	"	"	"	

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Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB104-V (E705115-03) Vapor Sampled: 24-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**9.0**	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		*115 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.5 %*		*77-127*	"	"	"	"	
N-SB105-V (E705115-04) Vapor Sampled: 24-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**4.8**	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	**3.3**	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)	**48**	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**16**	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**25**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB105-V (E705115-04) Vapor Sampled: 24-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**11**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**71**	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	**4.6**	4.4	"	"	"	"	"	"	
m,p-Xylene	**15**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**11**	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		*112 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*98.0 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.1 %*		*77-127*	"	"	"	"	

H&P Mobile
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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB106-V (E705115-05) Vapor Sampled: 25-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**6.3**	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	**15**	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	**20**	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	**93**	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	**9.6**	4.4	"	"	"	"	"	"	
m,p-Xylene	**34**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**11**	4.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB106-V (E705115-05) Vapor Sampled: 25-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**5.4**	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		*113 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.8 %*		*77-127*	"	"	"	"	
N-SB107-V (E705115-06) Vapor Sampled: 25-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
Chloromethane	**7.3**	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	**150**	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**51**	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	**61**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB107-V (E705115-06) Vapor Sampled: 25-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EE73111	31-May-17	31-May-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**20**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**230**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**40**	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	**19**	4.4	"	"	"	"	"	"	
m,p-Xylene	**53**	8.8	"	"	"	"	"	"	
Styrene	**13**	4.3	"	"	"	"	"	"	
o-Xylene	**23**	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	**15**	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		*109 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.4 %*		*77-127*	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

N-SB108-V (E705115-07) Vapor Sampled: 25-May-17 Received: 30-May-17

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
Chloromethane	**2.4**	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)	**49**	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	**8.6**	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
1,1-Dichloroethane	**9.6**	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**6.6**	4.0	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**37**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	**29**	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	**96**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**180**	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	**9.4**	4.4	"	"	"	"	"	"	
m,p-Xylene	**35**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**13**	4.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB108-V (E705115-07) Vapor Sampled: 25-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**6.4**	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		*113 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.0 %*		*77-127*	"	"	"	"	
N-SB109-V (E705115-08) Vapor Sampled: 25-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
Chloromethane	**5.9**	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	**2.7**	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	**11**	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	**8.1**	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**9.7**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB109-V (E705115-08) Vapor Sampled: 25-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**69**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**23**	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	**9.9**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**5.2**	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		*114 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*110 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.4 %*		*77-127*	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

N-VS01-V (E705115-09) Vapor Sampled: 25-May-17 Received: 30-May-17

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
Chloromethane	**2.4**	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	**22**	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	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-VS01-V (E705115-09) Vapor Sampled: 25-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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		*116 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.8 %*		*77-127*	"	"	"	"	
N-SB101-V (E705115-10) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SB101-V (E705115-10) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**9.7**	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**12**	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	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.7 %*		*77-127*	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL01 (E705115-11) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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)	**20**	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	**10**	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	**23**	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	**9.0**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL01 (E705115-11) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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		*110 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.1 %*		*77-127*	"	"	"	"	
N-SL02 (E705115-12) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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)	**52**	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	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL02 (E705115-12) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**26**	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	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*		*76-134*	*"*	*"*	*"*	*"*	
Surrogate: Toluene-d8		*101 %*		*78-125*	*"*	*"*	*"*	*"*	
Surrogate: 4-Bromofluorobenzene		*94.3 %*		*77-127*	*"*	*"*	*"*	*"*	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL03 (E705115-13) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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	**6.8**	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	**16**	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	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL03 (E705115-13) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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		*111 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.7 %*		*77-127*	"	"	"	"	
N-SL04 (E705115-14) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL04 (E705115-14) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromodichloromethane	ND	6.8	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**18**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**7.2**	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	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*108 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.1 %*		*77-127*	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL05 (E705115-15) Vapor Sampled: 23-May-17 Received: 30-May-17									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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	**11**	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**5.1**	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	**28**	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	**8.9**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
N-SL05 (E705115-15) Vapor Sampled: 23-May-17 Received: 30-May-17									
Bromoform	ND	10	ug/m3	1	EF70108	31-May-17	01-Jun-17	EPA TO-15	
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		*111 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*		*77-127*	"	"	"	"	

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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
Batch EE73111 - TO-15										
Blank (EE73111-BLK1)				Prepared & Analyzed: 31-May-17						
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3							
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	"							
Chlorobenzene	ND	4.7	"							

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1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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
Batch EE73111 - TO-15										
Blank (EE73111-BLK1)				Prepared & Analyzed: 31-May-17						
Ethylbenzene	ND	4.4	ug/m3							
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	*235*		*"*	*214*		*110*	*76-134*			
Surrogate: Toluene-d8	*212*		*"*	*207*		*102*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*337*		*"*	*364*		*92.6*	*77-127*			
LCS (EE73111-BS1)				Prepared & Analyzed: 31-May-17						
Dichlorodifluoromethane (F12)	97	5.0	ug/m3	101		96.3	59-128			
Vinyl chloride	44	2.6	"	52.0		84.8	64-127			
Chloroethane	40	8.0	"	53.6		75.2	63-127			
Trichlorofluoromethane (F11)	100	5.6	"	113		90.9	62-126			
1,1-Dichloroethene	63	4.0	"	80.8		78.0	61-133			
1,1,2-Trichlorotrifluoroethane (F113)	150	7.7	"	155		94.2	66-126			
Methylene chloride (Dichloromethane)	63	3.5	"	70.8		88.8	62-115			
trans-1,2-Dichloroethene	57	8.0	"	80.8		70.4	67-124			
1,1-Dichloroethane	66	4.1	"	82.4		80.1	68-126			
cis-1,2-Dichloroethene	58	4.0	"	80.0		73.1	70-121			
Chloroform	91	4.9	"	99.2		92.2	68-123			
1,1,1-Trichloroethane	100	5.5	"	111		91.7	68-125			
1,2-Dichloroethane (EDC)	76	4.1	"	82.4		92.5	65-128			
Benzene	55	3.2	"	64.8		84.5	69-119			

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ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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
Batch EE73111 - TO-15										
LCS (EE73111-BS1)				Prepared & Analyzed: 31-May-17						
Carbon tetrachloride	120	6.4	ug/m3	128		91.1	68-132			
Trichloroethene	100	5.5	"	110		91.1	71-123			
Toluene	67	3.8	"	76.8		86.7	66-119			
1,1,2-Trichloroethane	95	5.5	"	111		85.7	73-119			
Tetrachloroethene	110	6.9	"	138		82.8	66-124			
1,1,1,2-Tetrachloroethane	120	7.0	"	140		87.3	67-129			
Ethylbenzene	74	4.4	"	88.4		83.5	70-124			
m,p-Xylene	85	8.8	"	88.4		95.7	61-134			
o-Xylene	75	4.4	"	88.4		84.5	67-125			
1,1,2,2-Tetrachloroethane	120	7.0	"	140		85.5	65-127			
Surrogate: 1,2-Dichloroethane-d4	*246*		*"*	*214*		*115*	*76-134*			
Surrogate: Toluene-d8	*203*		*"*	*207*		*98.0*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*352*		*"*	*364*		*96.6*	*77-127*			
Batch EF70108 - TO-15										
Blank (EF70108-BLK1)				Prepared & Analyzed: 01-Jun-17						
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3							
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	"							

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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
Batch EF70108 - TO-15										
Blank (EF70108-BLK1)				Prepared & Analyzed: 01-Jun-17						
1,1,1-Trichloroethane	ND	5.5	ug/m3							
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	"							
1,2,4-Trichlorobenzene	ND	38	"							
Hexachlorobutadiene	ND	54	"							
Surrogate: 1,2-Dichloroethane-d4	*238*		*"*	*214*		*111*	*76-134*			

H&P Mobile
Geochemistry Inc.

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Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

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
Batch EF70108 - TO-15										
Blank (EF70108-BLK1)				Prepared & Analyzed: 01-Jun-17						
Surrogate: Toluene-d8	*216*		*ug/m3*	*207*		*104*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*337*		*"*	*364*		*92.4*	*77-127*			
LCS (EF70108-BS1)				Prepared & Analyzed: 01-Jun-17						
Dichlorodifluoromethane (F12)	100	5.0	ug/m3	101		101	59-128			
Vinyl chloride	46	2.6	"	52.0		88.1	64-127			
Chloroethane	42	8.0	"	53.6		77.6	63-127			
Trichlorofluoromethane (F11)	100	5.6	"	113		91.0	62-126			
1,1-Dichloroethene	69	4.0	"	80.8		85.0	61-133			
1,1,2-Trichlorotrifluoroethane (F113)	150	7.7	"	155		98.6	66-126			
Methylene chloride (Dichloromethane)	65	3.5	"	70.8		92.4	62-115			
trans-1,2-Dichloroethene	60	8.0	"	80.8		74.5	67-124			
1,1-Dichloroethane	70	4.1	"	82.4		85.3	68-126			
cis-1,2-Dichloroethene	62	4.0	"	80.0		77.2	70-121			
Chloroform	95	4.9	"	99.2		95.9	68-123			
1,1,1-Trichloroethane	100	5.5	"	111		94.4	68-125			
1,2-Dichloroethane (EDC)	77	4.1	"	82.4		93.4	65-128			
Benzene	57	3.2	"	64.8		87.6	69-119			
Carbon tetrachloride	120	6.4	"	128		93.5	68-132			
Trichloroethene	100	5.5	"	110		95.2	71-123			
Toluene	75	3.8	"	76.8		97.5	66-119			
1,1,2-Trichloroethane	100	5.5	"	111		90.7	73-119			
Tetrachloroethene	120	6.9	"	138		89.4	66-124			
1,1,1,2-Tetrachloroethane	130	7.0	"	140		89.8	67-129			
Ethylbenzene	76	4.4	"	88.4		86.3	70-124			
m,p-Xylene	80	8.8	"	88.4		90.4	61-134			
o-Xylene	77	4.4	"	88.4		87.3	67-125			
1,1,2,2-Tetrachloroethane	120	7.0	"	140		87.4	65-127			
Surrogate: 1,2-Dichloroethane-d4	*251*		*"*	*214*		*117*	*76-134*			
Surrogate: Toluene-d8	*210*		*"*	*207*		*102*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*354*		*"*	*364*		*97.0*	*77-127*			

H&P Mobile
Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

ATC Group Services - Modesto	Project: ATC053017-11	
1117 Lone Palm Ave., Suite B	Project Number: Digital Realty Trust	Reported:
Modesto, CA 95351	Project Manager: Mr. Mike Sonke	02-Jun-17 11:04

Notes and Definitions

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

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, accreditation number 69070 for EPA Method TO-15, H&P Method TO-15, EPA Method 8260B and H&P 8260SV.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

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 numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

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.

H&P Mobile Geochemistry, Inc.

2470 Impala Drive, Carlsbad, CA 92010
& Field Office - Signal Hill, CA
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P 760.804.9678 F 760.804.9159

VAPOR / AIR Chain of Custody

DATE: 5/24/17
Page 1 of 2

Lab Client and Project Information

Lab Client/Consultant: ATC Group Services	Project Name / #: Digital Realty Trust
Lab Client Project Manager: Mike Sonke	Project Location: ~~Digital Realty Trust - N walsh~~ North Walsh (Kri 5/30/17)
Lab Client Address: 1117 Lone Palm Ave Ste. 201B	Report E-Mail(s): mike.sonke@atcassociates.com
Lab Client City, State, Zip: Modesto, CA 95351	
Phone Number: 209-579-2221	

Sample Receipt (Lab Use Only)

Date Rec'd: 5/30/17	Control #: 170460.01
H&P Project # ATC053017-11	
Lab Work Order # E705115	
Sample Intact: ☐ Yes ☐ No ☐ See Notes Below	
Receipt Gauge ID: 11167	Temp: RT
Outside Lab:	
Receipt Notes/Tracking #: 1Z93TT618450748617	
per John, no Analysis on can "Dup"	Lab PM Initials: KDI

Reporting Requirements

☑ Standard Report ☐ Level III ☐ Level IV
☐ Excel EDD ☐ Other EDD: ______
☐ CA Geotracker Global ID: ______

Turnaround Time

☐ 5-7 day Stnd ☐ 24-Hr Rush
☑ 3-day Rush ☐ Mobile Lab
☐ 48-Hr Rush ☐ Other: ____

Sampler Information

Sampler(s): John Sellman
Signature: John Sellman
Date: 5/25/17

Additional Instructions to Laboratory:

*** Preferred VOC units (please choose one):**
☐ µg/L ☐ µg/m³ ☐ ppbv ☐ ppmv

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 ☐ 8260SV ☑ TO-15	VOCs Short List / Project List ☐ 8260SV ☐ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15	TPHv as Gas ☐ 8260SVm ☐ TO-15m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Leak Check Compound ☐ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2				
N-SB102-V		05/24/17	11:03	SV	400mL Summa	~~264~~ 035 (JS)	-19.31	✓									ID# 035			
N-SB103-V		05/24/17	~~11:21~~ 11:15	SV	400mL	231	-4.45	✓												
N-SB104-V		05/24/17	11:47	SV	400mL	157	-4.91	✓												
N-SB-105-V		05/24/17	12:07	SV	400mL	275	-4.83	✓												
N-SB-106-V		05/25/17	10:37	SV	400mL	008	-4.41	✓												
N-SB107-V		5/25/17	10:49	SV	400mL	045	-15.17	✓												
N-SB108-V		5/25/17	10:59	SV	400mL	139	-4.43	✓												
N-SB109-V		5/25/17	11:11	SV	400mL	005	-17.20	✓												
N-VS01-V		5/25/17	11:35	~~SV~~ SS (JS)	400mL	041	-3.16	✓												
N-SB101-V		5/23/17	1449		"	080	-5.63	✓ — Kri 5/30/17												

Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
John Sellman	ATC	5/26/17	12:00	Tori Unsworth (?)	H&P	5/30/17	11:15

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

Appendix 6A1, Rev 5/23/2016, Effective 5/23/2016

H&P Mobile Geochemistry, Inc.

2470 Impala Drive, Carlsbad, CA 92010
& Field Office - Signal Hill, CA
W handpmg.com E info@handpmg.com
P 760.804.9678 F 760.804.9159

VAPOR / AIR Chain of Custody

DATE: 5/24/17

Lab Client and Project Information

Lab Client/Consultant: ATC Group Services	Project Name / #: Digital Realty Trust
Lab Client Project Manager: Mike Sonke	Project Location: North Walsh.
Lab Client Address: 1117 Lone Palm Ave. Ste. 201	Report E-Mail(s): mike.sonke@atcassociates.com
Lab Client City, State, Zip: Modesto, CA 95351	
Phone Number: 209-579-7221	

Sample Receipt (Lab Use Only)

Date Rec'd: 5/30/17	Control #: 70460.01
H&P Project # ATC053017-11	
Lab Work Order # E705115	
Sample Intact: ☒ Yes ☐ No ☐ See Notes Below	
Receipt Gauge ID: 11167	Temp: RT
Outside Lab:	
Receipt Notes/Tracking #: 1Z93TT018449875036	
Lab PM Initials: KR	

Reporting Requirements

☑ Standard Report ☐ Level III ☐ Level IV
☐ Excel EDD ☐ Other EDD: _____
☐ CA Geotracker Global ID: _____

Turnaround Time

☐ 5-7 day Stnd ☐ 24-Hr Rush
☑ ~~3-day~~ Rush ☐ Mobile Lab
☐ 48-Hr Rush ☐ Other: ____

Sampler Information

Sampler(s): John Sellman
Signature: John Sellman
Date: 5/23/17

Additional Instructions to Laboratory:

* *Preferred VOC units (please choose one):*
☐ µg/L ☐ µg/m³ ☐ ppbv ☐ ppmv

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 ☐ 8260SV ☒ TO-15	VOCs Short List / Project List ☐ 8260SV ☐ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15	TPHv as Gas ☐ 8260SVm ☐ TO-15m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Leak Check Compound ☐ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2				
~~SL001~~ N-SL01	Sewer Line	5/23/17	1315	SS	400ml	383	-4.36													
N-SL02			1325	SS		221	-4.80													
N-SL03			1339	SS		025	-4.18													
N-SL04			1354	SS		263	-4.31													
N-SL05			1404	SS		004	-4.64													

Approved/Relinquished by: John Sellman	Company: ATC	Date: 5/26/17	Time: 12:00	Received by: Jon Unsworth	Company: H&P	Date: 5/30/17	Time: 11:15
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

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

Mobile Geochemistry, Inc.
2470 Impala Drive, Carlsbad, CA 92010
& Field Office - Signal Hill, CA
W handpmg.com E info@handpmg.com
P 760.804.9678 F 760.804.9159

VAPOR / AIR Chain of Custody

DATE: 5/24/17
Page ____ of ____

Lab Client and Project Information

Lab Client/Consultant: ATC Group Services	Project Name / #: Digital Realty Trust
Lab Client Project Manager: Mike Sonke	Project Location: N. Walsh.
Lab Client Address: 1117 Lone Palm Ave. Ste. 201	Report E-Mail(s): mike.sonke@ateassociates.com
Lab Client City, State, Zip: Modesto, CA 95351	
Phone Number: 209-579-2221	

Reporting Requirements

- [x] Standard Report ☐ Level III ☐ Level IV
- ☐ Excel EDD ☐ Other EDD: _____
- ☐ CA Geotracker Global ID: _____

Turnaround Time

- ☐ 5-7 day Stnd ☐ 24-Hr Rush
- [x] ~~3~~-day Rush ☐ Mobile Lab
- ☐ 48-Hr Rush ☐ Other: ____

Sampler Information

Sampler(s): John Sellman
Signature: John Sellman
Date: 5/23/17

Sample Receipt (Lab Use Only)

Date Rec'd:	Control #:
H&P Project #	
Lab Work Order #	
Sample Intact: ☐ Yes ☐ No ☐ See Notes Below	
Receipt Gauge ID:	Temp:
Outside Lab:	
Receipt Notes/Tracking #:	
	Lab PM Initials:

Additional Instructions to Laboratory:

** Preferred VOC units (please choose one):*
☐ µg/L ☐ µg/m³ ☐ ppbv ☐ ppmv

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 ☐ 8260SV [x] TO-15	VOCs Short List / Project List ☐ 8260SV ☐ TO-15	Oxygenates ☐ 8260SV ☐ TO-15	Naphthalene ☐ 8260SV ☐ TO-15	TPHv as Gas ☐ 8260SV/m ☐ TO-15m	Aromatic/Aliphatic Fractions ☐ 8260SV/m ☐ TO-15m	Leak Check Compound ☐ DFA ☐ IPA ☐ He	Methane by EPA 8015m	Fixed Gases by ASTM D1945 ☐ CO2 ☐ O2 ☐ N2				
~~Sheet~~ N1-SL01	Sewer Line	5/23/17	1315	SS	400ml	383														
N-SL02			1325	SS		221														
N-SL03			1339	SS		025														
N-SL04			1354	SS		263														
N-SL05			1404	SS		004														

Approved/Relinquished by: John Sellman	Company: ATC	Date: 5/26/17	Time: 12:00	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Approved/Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

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

ATTACHMENT A2

Laboratory Analytical Reports
Groundwater & Soil Samples

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-79700-1
Client Project/Site: SCP N of Walsh

For:
ATC Group Services LLC.
1117 Lone Palm Avenue
Suite B
Modesto, California 95351

Attn: Mike Sonke

Authorized for release by:
6/7/2017 4:44:43 PM

Micah Smith, Project Manager II
(916)374-4302
micah.smith@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Job ID: 720-79700-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-79700-1

Comments
No additional comments.

Receipt
The samples were received on 5/24/2017 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6010B: The following sample was diluted due to the abundance of non-target analytes: N-SB102-W (720-79700-1) and N-SB104-W (720-79700-2). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The following samples was diluted due to the nature of the sample matrix: N-SB102-W (720-79700-1), N-SB104-W (720-79700-2) and N-SB101-W (720-79700-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: N-SB102-W — Lab Sample ID: 720-79700-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.50		0.20		mg/L	20		6010B	Total/NA
Barium	68		0.20		mg/L	20		6010B	Total/NA
Chromium	1.6		0.20		mg/L	20		6010B	Total/NA
Cobalt	0.55		0.040		mg/L	20		6010B	Total/NA
Copper	1.7		0.40		mg/L	20		6010B	Total/NA
Lead	0.55		0.10		mg/L	20		6010B	Total/NA
Nickel	2.5		0.20		mg/L	20		6010B	Total/NA
Vanadium	1.9		0.20		mg/L	20		6010B	Total/NA
Zinc	2.9		0.40		mg/L	20		6010B	Total/NA
Mercury	0.017		0.00020		mg/L	1		7470A	Total/NA

Client Sample ID: N-SB104-W — Lab Sample ID: 720-79700-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	11		0.50		ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.63		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	55		0.50		ug/L	1		8260B	Total/NA
Arsenic	0.23		0.20		mg/L	20		6010B	Total/NA
Barium	11		0.20		mg/L	20		6010B	Total/NA
Chromium	3.4		0.20		mg/L	20		6010B	Total/NA
Cobalt	0.63		0.040		mg/L	20		6010B	Total/NA
Copper	1.9		0.40		mg/L	20		6010B	Total/NA
Lead	0.40		0.25		mg/L	50		6010B	Total/NA
Nickel	2.9		0.50		mg/L	50		6010B	Total/NA
Vanadium	2.4		0.20		mg/L	20		6010B	Total/NA
Zinc	5.0		0.40		mg/L	20		6010B	Total/NA
Mercury	0.0077		0.00020		mg/L	1		7470A	Total/NA

Client Sample ID: TB — Lab Sample ID: 720-79700-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.7		0.50		ug/L	1		8260B	Total/NA

Client Sample ID: N-SB101-W — Lab Sample ID: 720-79700-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	6.4		0.10		mg/L	10		6010B	Total/NA
Chromium	1.8		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.50		0.020		mg/L	10		6010B	Total/NA
Copper	1.0		0.20		mg/L	10		6010B	Total/NA
Lead	0.30		0.050		mg/L	10		6010B	Total/NA
Nickel	2.1		0.10		mg/L	10		6010B	Total/NA
Vanadium	1.6		0.10		mg/L	10		6010B	Total/NA
Zinc	1.4		0.20		mg/L	10		6010B	Total/NA
Mercury	0.0022		0.00020		mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: N-SB102-W
Date Collected: 05/24/17 12:55
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 19:10	1
Acetone	ND		20		ug/L			05/28/17 19:10	1
Benzene	ND		0.50		ug/L			05/28/17 19:10	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 19:10	1
Bromobenzene	ND		0.50		ug/L			05/28/17 19:10	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 19:10	1
Bromoform	ND		1.0		ug/L			05/28/17 19:10	1
Bromomethane	ND		0.50		ug/L			05/28/17 19:10	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 19:10	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 19:10	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 19:10	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 19:10	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 19:10	1
Chloroethane	ND		1.0		ug/L			05/28/17 19:10	1
Chloroform	ND		0.50		ug/L			05/28/17 19:10	1
Chloromethane	ND		0.50		ug/L			05/28/17 19:10	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 19:10	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 19:10	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 19:10	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:10	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:10	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:10	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 19:10	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 19:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 19:10	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 19:10	1
Dibromomethane	ND		0.50		ug/L			05/28/17 19:10	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 19:10	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 19:10	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 19:10	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 19:10	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 19:10	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 19:10	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 19:10	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 19:10	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 19:10	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 19:10	1
2-Hexanone	ND		5.0		ug/L			05/28/17 19:10	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 19:10	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 19:10	1
Naphthalene	ND		1.0		ug/L			05/28/17 19:10	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
Styrene	ND		0.50		ug/L			05/28/17 19:10	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 19:10	1

Client Sample ID: N-SB102-W
Date Collected: 05/24/17 12:55
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 19:10	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 19:10	1
Toluene	ND		0.50		ug/L			05/28/17 19:10	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 19:10	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 19:10	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 19:10	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 19:10	1
Trichloroethene	ND		0.50		ug/L			05/28/17 19:10	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 19:10	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 19:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 19:10	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 19:10	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 19:10	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 19:10	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 19:10	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*05/28/17 19:10*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*05/28/17 19:10*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/28/17 19:10*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*05/28/17 19:10*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Arsenic	**0.50**		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Barium	**68**		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Beryllium	ND		0.040		mg/L		05/30/17 15:29	06/06/17 20:56	20
Cadmium	ND		0.050		mg/L		05/30/17 15:29	06/06/17 20:56	20
Chromium	**1.6**		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Cobalt	**0.55**		0.040		mg/L		05/30/17 15:29	06/06/17 20:56	20
Copper	**1.7**		0.40		mg/L		05/30/17 15:29	06/06/17 20:56	20
Lead	**0.55**		0.10		mg/L		05/30/17 15:29	06/06/17 20:56	20
Molybdenum	ND		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Nickel	**2.5**		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Selenium	ND		0.40		mg/L		05/30/17 15:29	06/06/17 20:56	20
Silver	ND		0.10		mg/L		05/30/17 15:29	06/06/17 20:56	20
Thallium	ND		0.50		mg/L		05/30/17 15:29	06/07/17 14:35	50
Vanadium	**1.9**		0.20		mg/L		05/30/17 15:29	06/06/17 20:56	20
Zinc	**2.9**		0.40		mg/L		05/30/17 15:29	06/06/17 20:56	20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.017**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:22	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: N-SB104-W
Date Collected: 05/24/17 13:40
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 19:39	1
Acetone	ND		20		ug/L			05/28/17 19:39	1
Benzene	ND		0.50		ug/L			05/28/17 19:39	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 19:39	1
Bromobenzene	ND		0.50		ug/L			05/28/17 19:39	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 19:39	1
Bromoform	ND		1.0		ug/L			05/28/17 19:39	1
Bromomethane	ND		0.50		ug/L			05/28/17 19:39	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 19:39	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 19:39	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 19:39	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 19:39	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 19:39	1
Chloroethane	ND		1.0		ug/L			05/28/17 19:39	1
Chloroform	ND		0.50		ug/L			05/28/17 19:39	1
Chloromethane	ND		0.50		ug/L			05/28/17 19:39	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 19:39	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 19:39	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 19:39	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:39	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:39	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 19:39	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 19:39	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 19:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 19:39	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 19:39	1
Dibromomethane	ND		0.50		ug/L			05/28/17 19:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 19:39	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 19:39	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 19:39	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 19:39	1
cis-1,2-Dichloroethene	**11**		0.50		ug/L			05/28/17 19:39	1
trans-1,2-Dichloroethene	**0.63**		0.50		ug/L			05/28/17 19:39	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 19:39	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 19:39	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 19:39	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 19:39	1
2-Hexanone	ND		5.0		ug/L			05/28/17 19:39	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 19:39	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 19:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 19:39	1
Naphthalene	ND		1.0		ug/L			05/28/17 19:39	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
Styrene	ND		0.50		ug/L			05/28/17 19:39	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 19:39	1

Client Sample ID: N-SB104-W
Date Collected: 05/24/17 13:40
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 19:39	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 19:39	1
Toluene	ND		0.50		ug/L			05/28/17 19:39	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 19:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 19:39	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 19:39	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 19:39	1
Trichloroethene	**55**		0.50		ug/L			05/28/17 19:39	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 19:39	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 19:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 19:39	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 19:39	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 19:39	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 19:39	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 19:39	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*05/28/17 19:39*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*05/28/17 19:39*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*05/28/17 19:39*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*05/28/17 19:39*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/L		05/30/17 15:29	06/07/17 10:53	50
Arsenic	**0.23**		0.20		mg/L		05/30/17 15:29	06/06/17 21:00	20
Barium	**11**		0.20		mg/L		05/30/17 15:29	06/06/17 21:00	20
Beryllium	ND		0.040		mg/L		05/30/17 15:29	06/06/17 21:00	20
Cadmium	ND		0.050		mg/L		05/30/17 15:29	06/06/17 21:00	20
Chromium	**3.4**		0.20		mg/L		05/30/17 15:29	06/06/17 21:00	20
Cobalt	**0.63**		0.040		mg/L		05/30/17 15:29	06/06/17 21:00	20
Copper	**1.9**		0.40		mg/L		05/30/17 15:29	06/06/17 21:00	20
Lead	**0.40**		0.25		mg/L		05/30/17 15:29	06/07/17 10:53	50
Molybdenum	ND		0.20		mg/L		05/30/17 15:29	06/06/17 21:00	20
Nickel	**2.9**		0.50		mg/L		05/30/17 15:29	06/07/17 10:53	50
Selenium	ND		1.0		mg/L		05/30/17 15:29	06/07/17 10:53	50
Silver	ND		0.10		mg/L		05/30/17 15:29	06/06/17 21:00	20
Thallium	ND		0.50		mg/L		05/30/17 15:29	06/07/17 10:53	50
Vanadium	**2.4**		0.20		mg/L		05/30/17 15:29	06/06/17 21:00	20
Zinc	**5.0**		0.40		mg/L		05/30/17 15:29	06/06/17 21:00	20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0077**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:28	1

Client Sample ID: TB
Date Collected: 05/24/17 00:00
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	**2.7**		0.50		ug/L			05/28/17 20:08	1
Acetone	ND		20		ug/L			05/28/17 20:08	1
Benzene	ND		0.50		ug/L			05/28/17 20:08	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 20:08	1
Bromobenzene	ND		0.50		ug/L			05/28/17 20:08	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 20:08	1
Bromoform	ND		1.0		ug/L			05/28/17 20:08	1
Bromomethane	ND		0.50		ug/L			05/28/17 20:08	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 20:08	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 20:08	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 20:08	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 20:08	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 20:08	1
Chloroethane	ND		1.0		ug/L			05/28/17 20:08	1
Chloroform	ND		0.50		ug/L			05/28/17 20:08	1
Chloromethane	ND		0.50		ug/L			05/28/17 20:08	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 20:08	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 20:08	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 20:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:08	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:08	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 20:08	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 20:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 20:08	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 20:08	1
Dibromomethane	ND		0.50		ug/L			05/28/17 20:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 20:08	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 20:08	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 20:08	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 20:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 20:08	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 20:08	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 20:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 20:08	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 20:08	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 20:08	1
2-Hexanone	ND		5.0		ug/L			05/28/17 20:08	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 20:08	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 20:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 20:08	1
Naphthalene	ND		1.0		ug/L			05/28/17 20:08	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
Styrene	ND		0.50		ug/L			05/28/17 20:08	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 20:08	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: TB
Date Collected: 05/24/17 00:00
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 20:08	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 20:08	1
Toluene	ND		0.50		ug/L			05/28/17 20:08	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 20:08	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 20:08	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 20:08	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 20:08	1
Trichloroethene	ND		0.50		ug/L			05/28/17 20:08	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 20:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 20:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 20:08	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 20:08	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 20:08	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 20:08	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 20:08	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*05/28/17 20:08*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*05/28/17 20:08*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/28/17 20:08*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*05/28/17 20:08*	*1*

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: N-SB101-W
Date Collected: 05/24/17 15:36
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 20:37	1
Acetone	ND		20		ug/L			05/28/17 20:37	1
Benzene	ND		0.50		ug/L			05/28/17 20:37	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 20:37	1
Bromobenzene	ND		0.50		ug/L			05/28/17 20:37	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 20:37	1
Bromoform	ND		1.0		ug/L			05/28/17 20:37	1
Bromomethane	ND		0.50		ug/L			05/28/17 20:37	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 20:37	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 20:37	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 20:37	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 20:37	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 20:37	1
Chloroethane	ND		1.0		ug/L			05/28/17 20:37	1
Chloroform	ND		0.50		ug/L			05/28/17 20:37	1
Chloromethane	ND		0.50		ug/L			05/28/17 20:37	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 20:37	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 20:37	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 20:37	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:37	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:37	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 20:37	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 20:37	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 20:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 20:37	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 20:37	1
Dibromomethane	ND		0.50		ug/L			05/28/17 20:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 20:37	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 20:37	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 20:37	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 20:37	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 20:37	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 20:37	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 20:37	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 20:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 20:37	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 20:37	1
2-Hexanone	ND		5.0		ug/L			05/28/17 20:37	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 20:37	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 20:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 20:37	1
Naphthalene	ND		1.0		ug/L			05/28/17 20:37	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
Styrene	ND		0.50		ug/L			05/28/17 20:37	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 20:37	1

Client Sample ID: N-SB101-W

Date Collected: 05/24/17 15:36
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 20:37	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 20:37	1
Toluene	ND		0.50		ug/L			05/28/17 20:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 20:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 20:37	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 20:37	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 20:37	1
Trichloroethene	ND		0.50		ug/L			05/28/17 20:37	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 20:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 20:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 20:37	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 20:37	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 20:37	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 20:37	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 20:37	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*05/28/17 20:37*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*05/28/17 20:37*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/28/17 20:37*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*05/28/17 20:37*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Arsenic	ND		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Barium	**6.4**		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Beryllium	ND		0.020		mg/L		05/30/17 15:29	06/06/17 21:04	10
Cadmium	ND		0.025		mg/L		05/30/17 15:29	06/06/17 21:04	10
Chromium	**1.8**		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Cobalt	**0.50**		0.020		mg/L		05/30/17 15:29	06/06/17 21:04	10
Copper	**1.0**		0.20		mg/L		05/30/17 15:29	06/06/17 21:04	10
Lead	**0.30**		0.050		mg/L		05/30/17 15:29	06/06/17 21:04	10
Molybdenum	ND		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Nickel	**2.1**		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Selenium	ND		0.20		mg/L		05/30/17 15:29	06/06/17 21:04	10
Silver	ND		0.050		mg/L		05/30/17 15:29	06/06/17 21:04	10
Thallium	ND		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Vanadium	**1.6**		0.10		mg/L		05/30/17 15:29	06/06/17 21:04	10
Zinc	**1.4**		0.20		mg/L		05/30/17 15:29	06/06/17 21:04	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0022**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:30	1

Surrogate Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(80-128)	(80-120)	(76-132)
720-79700-1	N-SB102-W	110	105	99	114
720-79700-2	N-SB104-W	110	103	101	117
720-79700-3	TB	109	102	102	115
720-79700-4	N-SB101-W	112	104	102	117
LCS 440-408778/5	Lab Control Sample	97	103	103	107
MB 440-408778/4	Method Blank	99	107	100	106

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-408778/4
Matrix: Water
Analysis Batch: 408778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 10:25	1
Acetone	ND		20		ug/L			05/28/17 10:25	1
Benzene	ND		0.50		ug/L			05/28/17 10:25	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 10:25	1
Bromobenzene	ND		0.50		ug/L			05/28/17 10:25	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 10:25	1
Bromoform	ND		1.0		ug/L			05/28/17 10:25	1
Bromomethane	ND		0.50		ug/L			05/28/17 10:25	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 10:25	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 10:25	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 10:25	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 10:25	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 10:25	1
Chloroethane	ND		1.0		ug/L			05/28/17 10:25	1
Chloroform	ND		0.50		ug/L			05/28/17 10:25	1
Chloromethane	ND		0.50		ug/L			05/28/17 10:25	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 10:25	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 10:25	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 10:25	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 10:25	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 10:25	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 10:25	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 10:25	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 10:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 10:25	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 10:25	1
Dibromomethane	ND		0.50		ug/L			05/28/17 10:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 10:25	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 10:25	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 10:25	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 10:25	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 10:25	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 10:25	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 10:25	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 10:25	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 10:25	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 10:25	1
2-Hexanone	ND		5.0		ug/L			05/28/17 10:25	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 10:25	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 10:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 10:25	1
Naphthalene	ND		1.0		ug/L			05/28/17 10:25	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
Styrene	ND		0.50		ug/L			05/28/17 10:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-408778/4
Matrix: Water
Analysis Batch: 408778

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 10:25	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 10:25	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 10:25	1
Toluene	ND		0.50		ug/L			05/28/17 10:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 10:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 10:25	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 10:25	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 10:25	1
Trichloroethene	ND		0.50		ug/L			05/28/17 10:25	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 10:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 10:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 10:25	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 10:25	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 10:25	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 10:25	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 10:25	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/28/17 10:25*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*05/28/17 10:25*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/28/17 10:25*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*05/28/17 10:25*	*1*

Lab Sample ID: LCS 440-408778/5
Matrix: Water
Analysis Batch: 408778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	24.9		ug/L		100	63 - 131
Acetone	25.0	26.4		ug/L		106	10 - 150
Benzene	25.0	24.9		ug/L		100	68 - 130
Dichlorobromomethane	25.0	25.9		ug/L		103	70 - 132
Bromobenzene	25.0	28.1		ug/L		112	70 - 130
Chlorobromomethane	25.0	26.7		ug/L		107	70 - 130
Bromoform	25.0	27.8		ug/L		111	60 - 148
Bromomethane	25.0	20.7		ug/L		83	64 - 139
2-Butanone (MEK)	25.0	27.4		ug/L		110	44 - 150
n-Butylbenzene	25.0	26.7		ug/L		107	65 - 150
sec-Butylbenzene	25.0	27.0		ug/L		108	70 - 138
tert-Butylbenzene	25.0	28.5		ug/L		114	70 - 130
Carbon disulfide	25.0	24.6		ug/L		98	52 - 136
Carbon tetrachloride	25.0	28.2		ug/L		113	60 - 150
Chlorobenzene	25.0	25.0		ug/L		100	70 - 130
Chloroethane	25.0	21.0		ug/L		84	64 - 135
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	19.5		ug/L		78	47 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-408778/5
Matrix: Water
Analysis Batch: 408778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
4-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
Chlorodibromomethane	25.0	26.6		ug/L		106	69 - 145
1,2-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,3-Dichlorobenzene	25.0	27.3		ug/L		109	70 - 130
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,3-Dichloropropane	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	26.9		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	28.6		ug/L		114	52 - 140
Ethylene Dibromide	25.0	26.0		ug/L		104	70 - 130
Dibromomethane	25.0	24.2		ug/L		97	70 - 130
Dichlorodifluoromethane	25.0	19.3		ug/L		77	29 - 150
1,1-Dichloroethane	25.0	25.4		ug/L		102	64 - 130
1,2-Dichloroethane	25.0	24.8		ug/L		99	57 - 138
1,1-Dichloroethene	25.0	25.7		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 133
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
1,2-Dichloropropane	25.0	24.7		ug/L		99	67 - 130
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 133
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	70 - 132
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	32.0		ug/L		128	10 - 150
2-Hexanone	25.0	25.2		ug/L		101	10 - 150
Isopropylbenzene	25.0	26.5		ug/L		106	70 - 136
4-Isopropyltoluene	25.0	27.8		ug/L		111	70 - 132
Methylene Chloride	25.0	25.3		ug/L		101	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	25.4		ug/L		102	59 - 149
Naphthalene	25.0	29.2		ug/L		117	60 - 140
N-Propylbenzene	25.0	26.8		ug/L		107	67 - 139
Styrene	25.0	26.9		ug/L		108	70 - 134
1,1,1,2-Tetrachloroethane	25.0	27.9		ug/L		112	60 - 141
1,1,2,2-Tetrachloroethane	25.0	25.0		ug/L		100	63 - 130
Tetrachloroethene	25.0	28.3		ug/L		113	70 - 130
Toluene	25.0	25.1		ug/L		101	70 - 130
1,2,3-Trichlorobenzene	25.0	30.3		ug/L		121	60 - 140
1,2,4-Trichlorobenzene	25.0	29.4		ug/L		118	60 - 140
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	70 - 130
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 130
Trichloroethene	25.0	27.8		ug/L		111	70 - 130
Trichlorofluoromethane	25.0	24.7		ug/L		99	60 - 150
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.7		ug/L		103	60 - 140
1,2,4-Trimethylbenzene	25.0	27.4		ug/L		110	70 - 135
1,3,5-Trimethylbenzene	25.0	27.7		ug/L		111	70 - 136
Vinyl acetate	25.0	23.7		ug/L		95	48 - 140
Vinyl chloride	25.0	19.4		ug/L		78	59 - 133
m-Xylene & p-Xylene	25.0	26.5		ug/L		106	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-408778/5
Matrix: Water
Analysis Batch: 408778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	25.0	26.3		ug/L		105	70 - 130
2,2-Dichloropropane	25.0	27.7		ug/L		111	68 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*103*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-223841/1-A
Matrix: Water
Analysis Batch: 224152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Barium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Cadmium	ND		0.0025		mg/L		05/30/17 15:29	06/03/17 01:12	1
Chromium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Cobalt	ND		0.0020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Copper	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Lead	ND		0.0050		mg/L		05/30/17 15:29	06/03/17 01:12	1
Molybdenum	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Nickel	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Selenium	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Silver	ND		0.0050		mg/L		05/30/17 15:29	06/03/17 01:12	1
Thallium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Vanadium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Zinc	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1

Lab Sample ID: MB 720-223841/1-A
Matrix: Water
Analysis Batch: 224320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 15:29	06/06/17 20:12	1
Beryllium	ND		0.0020		mg/L		05/30/17 15:29	06/06/17 20:12	1

Lab Sample ID: LCS 720-223841/2-A
Matrix: Water
Analysis Batch: 224152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.951		mg/L		95	80 - 120
Barium	1.00	0.976		mg/L		98	80 - 120
Cadmium	1.00	0.965		mg/L		97	80 - 120
Chromium	1.00	0.860		mg/L		86	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-223841/2-A
Matrix: Water
Analysis Batch: 224152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	1.00	0.992		mg/L		99	80 - 120
Copper	1.00	0.917		mg/L		92	80 - 120
Lead	1.00	0.975		mg/L		98	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Nickel	1.00	0.972		mg/L		97	80 - 120
Selenium	1.00	0.929		mg/L		93	80 - 120
Silver	0.500	0.451		mg/L		90	80 - 120
Thallium	1.00	0.986		mg/L		99	80 - 120
Vanadium	1.00	0.868		mg/L		87	80 - 120
Zinc	1.00	0.966		mg/L		97	80 - 120

Lab Sample ID: LCS 720-223841/2-A
Matrix: Water
Analysis Batch: 224320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.971		mg/L		97	80 - 120
Beryllium	1.00	0.982		mg/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-223880/1-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/31/17 08:17	05/31/17 13:04	1

Lab Sample ID: LCS 720-223880/2-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00936		mg/L		94	85 - 115

QC Association Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

GC/MS VOA

Analysis Batch: 408778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	8260B	
720-79700-2	N-SB104-W	Total/NA	Water	8260B	
720-79700-3	TB	Total/NA	Water	8260B	
720-79700-4	N-SB101-W	Total/NA	Water	8260B	
MB 440-408778/4	Method Blank	Total/NA	Water	8260B	
LCS 440-408778/5	Lab Control Sample	Total/NA	Water	8260B	

Metals

Prep Batch: 223841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	3010A	
720-79700-2	N-SB104-W	Total/NA	Water	3010A	
720-79700-4	N-SB101-W	Total/NA	Water	3010A	
MB 720-223841/1-A	Method Blank	Total/NA	Water	3010A	
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	3010A	

Prep Batch: 223880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	7470A	
720-79700-2	N-SB104-W	Total/NA	Water	7470A	
720-79700-4	N-SB101-W	Total/NA	Water	7470A	
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 223932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	7470A	223880
720-79700-2	N-SB104-W	Total/NA	Water	7470A	223880
720-79700-4	N-SB101-W	Total/NA	Water	7470A	223880
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	223880
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	223880

Analysis Batch: 224152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-223841/1-A	Method Blank	Total/NA	Water	6010B	223841
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	6010B	223841

Analysis Batch: 224320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	6010B	223841
720-79700-2	N-SB104-W	Total/NA	Water	6010B	223841
720-79700-4	N-SB101-W	Total/NA	Water	6010B	223841
MB 720-223841/1-A	Method Blank	Total/NA	Water	6010B	223841
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	6010B	223841

Analysis Batch: 224355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-2	N-SB104-W	Total/NA	Water	6010B	223841

Metals (Continued)

Analysis Batch: 224371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79700-1	N-SB102-W	Total/NA	Water	6010B	223841

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Client Sample ID: N-SB102-W
Date Collected: 05/24/17 12:55
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	408778	05/28/17 19:10	WC	TAL IRV
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224320	06/06/17 20:56	BKR	TAL PLS
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		50	224371	06/07/17 14:35	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:22	OBI	TAL PLS

Client Sample ID: N-SB104-W
Date Collected: 05/24/17 13:40
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	408778	05/28/17 19:39	WC	TAL IRV
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224320	06/06/17 21:00	BKR	TAL PLS
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		50	224355	06/07/17 10:53	CAM	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:28	OBI	TAL PLS

Client Sample ID: TB
Date Collected: 05/24/17 00:00
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	408778	05/28/17 20:08	WC	TAL IRV

Client Sample ID: N-SB101-W
Date Collected: 05/24/17 15:36
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79700-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	408778	05/28/17 20:37	WC	TAL IRV
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224320	06/06/17 21:04	BKR	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:30	OBI	TAL PLS

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312017-1	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79700-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-79700-1	N-SB102-W	Water	05/24/17 12:55	05/24/17 18:00
720-79700-2	N-SB104-W	Water	05/24/17 13:40	05/24/17 18:00
720-79700-3	TB	Water	05/24/17 00:00	05/24/17 18:00
720-79700-4	N-SB101-W	Water	05/24/17 15:36	05/24/17 18:00

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
phone 925 484 1919 fax 925 600 3002

720-79700

Chain of Custody Record

176124

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TestAmerica Laboratories, Inc.

6/7/2017

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other.

Client Contact	Project Manager: Mike Sonke	Site Contact:	Date: 5/16/2017	COC No
ATC Group Services LLC	Tel/Fax: (209) 579-2221	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs

Address 1117 Lone Palm Avenue, Suite 201B
City/State/Zip Modesto, CA, 95351
Phone (209) 579-2221 FAX (209) 579-2225
E-mail mike.sonke@atcassociates.com
Project Name Digital Realty Trust
Site N. Wells Project #
Geotracker EDF Global ID #

Analysis Turnaround Time
Calendar (C) or Work Days (W)
TAT if different from Below
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For Lab Use Only:
Walk-in Client
Lab Sampling
Job / SDG No
Sampler John Sellman

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	VOCs Full Scan by EPA 8260B	CAM-17 Metals	Sample Specific Notes
N-SB102-W	5/24/17	12:55		water	4	N G	✓	✓		
N-SB104-W	5/24/17	3:40		water	4	N G	✓	✓		
~~N-SB105-W~~	~~[illegible]~~	~~[illegible]~~		~~water~~	~~4~~	~~N G~~	~~✓~~	~~✓~~		
T3	5/24/17			water	2			✓		
N-SB101-W	5-23-17	1530		W	4	N G	✓	✓		
~~S-SB113-W~~										
~~JMS~~										

720-79700 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
4.7°C

Relinquished by: John Sellman	Company ATC	Date/Time 5/24/17 1510	Received by [signature]	Company TA	Date/Time 5/24/17 1510
Relinquished by [signature]	Company TA	Date/Time 5/24/17 1800	Received by [signature]	Company TA	Date/Time 5/24/17 1800
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-34173.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note):		Job #: 720-79700-1
Address: 17461 Derian Ave, Suite 100,	Due Date Requested: 5/31/2017	Analysis Requested		Preservation Codes:
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92614-5817				
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:			
Email:	WO #:			
Project Name: DLR Memorex	Project #: 72012659			
Site:	SSOW#:			Other:

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030B 8260B-VOCs	Total Number of containers	Special Instructions/Note:
				Preservation Code:					
N-SB102-W (720-79700-1)	5/24/17	12:55 Pacific		Water			X	3	
N-SB104-W (720-79700-2)	5/24/17	13:40 Pacific		Water			X	3	
TB (720-79700-3)	5/24/17	Pacific		Water			X	2	
N-SB101-W (720-79700-4)	5/24/17	15:36 Pacific		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 5-25-17 1600	Company [illegible]	Received by: [signature]	Date/Time: 5/26/17 0950	Company TAT
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.: 1290-7493-9704
Cooler Temperature(s) °C and Other Remarks: 1.8/2.4 IR506 QS

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79700-1

Login Number: 79700
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79700-1

Login Number: 79700
List Number: 2
Creator: Salas, Margarita

List Source: TestAmerica Irvine
List Creation: 05/26/17 01:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-79699-1
Client Project/Site: SCP N of Walsh

For:
ATC Group Services LLC.
1117 Lone Palm Avenue
Suite B
Modesto, California 95351

Attn: Mike Sonke

Authorized for release by:
6/7/2017 4:14:40 PM

Micah Smith, Project Manager II
(916)374-4302
micah.smith@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-79699-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-79699-1

Comments
No additional comments.

Receipt
The sample was received on 5/24/2017 6:00 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 3010A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: S-SB112-W (720-79699-1). The sample was preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

Method(s) 7470A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: S-SB112-W (720-79699-1). The sample was preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

Method(s) 6010B: The following sample was diluted due to the abundance of non-target analytes: S-SB112-W (720-79699-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Client Sample ID: S-SB112-W

Lab Sample ID: 720-79699-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	16		0.20		mg/L	20		6010B	Total/NA
Cadmium	0.051		0.050		mg/L	20		6010B	Total/NA
Chromium	2.0		0.20		mg/L	20		6010B	Total/NA
Cobalt	0.43		0.040		mg/L	20		6010B	Total/NA
Copper	2.1		0.40		mg/L	20		6010B	Total/NA
Lead	0.20		0.10		mg/L	20		6010B	Total/NA
Molybdenum	0.32		0.20		mg/L	20		6010B	Total/NA
Nickel	1.9		0.20		mg/L	20		6010B	Total/NA
Vanadium	2.3		0.20		mg/L	20		6010B	Total/NA
Zinc	3.2		0.40		mg/L	20		6010B	Total/NA
Mercury	0.015		0.00020		mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: S-SB112-W
Date Collected: 05/24/17 09:15
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79699-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 11:08	1
Acetone	ND		20		ug/L			05/28/17 11:08	1
Benzene	ND		0.50		ug/L			05/28/17 11:08	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 11:08	1
Bromobenzene	ND		0.50		ug/L			05/28/17 11:08	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 11:08	1
Bromoform	ND		1.0		ug/L			05/28/17 11:08	1
Bromomethane	ND		0.50		ug/L			05/28/17 11:08	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 11:08	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 11:08	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 11:08	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 11:08	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 11:08	1
Chloroethane	ND		1.0		ug/L			05/28/17 11:08	1
Chloroform	ND		0.50		ug/L			05/28/17 11:08	1
Chloromethane	ND		0.50		ug/L			05/28/17 11:08	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 11:08	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 11:08	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 11:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 11:08	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 11:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 11:08	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 11:08	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 11:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 11:08	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 11:08	1
Dibromomethane	ND		0.50		ug/L			05/28/17 11:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 11:08	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 11:08	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 11:08	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 11:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 11:08	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 11:08	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 11:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 11:08	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 11:08	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 11:08	1
2-Hexanone	ND		5.0		ug/L			05/28/17 11:08	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 11:08	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 11:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 11:08	1
Naphthalene	ND		1.0		ug/L			05/28/17 11:08	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
Styrene	ND		0.50		ug/L			05/28/17 11:08	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 11:08	1

Client Sample ID: S-SB112-W
Date Collected: 05/24/17 09:15
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79699-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 11:08	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 11:08	1
Toluene	ND		0.50		ug/L			05/28/17 11:08	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 11:08	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 11:08	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 11:08	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 11:08	1
Trichloroethene	ND		0.50		ug/L			05/28/17 11:08	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 11:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 11:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 11:08	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 11:08	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 11:08	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 11:08	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 11:08	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 11:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/28/17 11:08*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*05/28/17 11:08*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/28/17 11:08*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*05/28/17 11:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Arsenic	ND		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Barium	**16**		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Beryllium	ND		0.040		mg/L		05/30/17 15:29	06/06/17 20:53	20
Cadmium	**0.051**		0.050		mg/L		05/30/17 15:29	06/06/17 20:53	20
Chromium	**2.0**		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Cobalt	**0.43**		0.040		mg/L		05/30/17 15:29	06/06/17 20:53	20
Copper	**2.1**		0.40		mg/L		05/30/17 15:29	06/06/17 20:53	20
Lead	**0.20**		0.10		mg/L		05/30/17 15:29	06/07/17 14:30	20
Molybdenum	**0.32**		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Nickel	**1.9**		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Selenium	ND		0.40		mg/L		05/30/17 15:29	06/06/17 20:53	20
Silver	ND		0.10		mg/L		05/30/17 15:29	06/06/17 20:53	20
Thallium	ND		0.20		mg/L		05/30/17 15:29	06/07/17 10:43	20
Vanadium	**2.3**		0.20		mg/L		05/30/17 15:29	06/06/17 20:53	20
Zinc	**3.2**		0.40		mg/L		05/30/17 15:29	06/06/17 20:53	20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.015**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:20	1

Surrogate Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(80-128)	(80-120)	(76-132)
720-79699-1	S-SB112-W	101	110	102	102
720-79699-1 MS	S-SB112-W	98	108	101	100
720-79699-1 MSD	S-SB112-W	103	105	101	103
LCS 440-408780/4	Lab Control Sample	98	106	101	101
MB 440-408780/3	Method Blank	103	111	102	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-408780/3
Matrix: Water
Analysis Batch: 408780

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/28/17 09:54	1
Acetone	ND		20		ug/L			05/28/17 09:54	1
Benzene	ND		0.50		ug/L			05/28/17 09:54	1
Dichlorobromomethane	ND		0.50		ug/L			05/28/17 09:54	1
Bromobenzene	ND		0.50		ug/L			05/28/17 09:54	1
Chlorobromomethane	ND		0.50		ug/L			05/28/17 09:54	1
Bromoform	ND		1.0		ug/L			05/28/17 09:54	1
Bromomethane	ND		0.50		ug/L			05/28/17 09:54	1
2-Butanone (MEK)	ND		5.0		ug/L			05/28/17 09:54	1
n-Butylbenzene	ND		1.0		ug/L			05/28/17 09:54	1
sec-Butylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
tert-Butylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
Carbon disulfide	ND		1.0		ug/L			05/28/17 09:54	1
Carbon tetrachloride	ND		0.50		ug/L			05/28/17 09:54	1
Chlorobenzene	ND		0.50		ug/L			05/28/17 09:54	1
Chloroethane	ND		1.0		ug/L			05/28/17 09:54	1
Chloroform	ND		0.50		ug/L			05/28/17 09:54	1
Chloromethane	ND		0.50		ug/L			05/28/17 09:54	1
2-Chlorotoluene	ND		0.50		ug/L			05/28/17 09:54	1
4-Chlorotoluene	ND		0.50		ug/L			05/28/17 09:54	1
Chlorodibromomethane	ND		0.50		ug/L			05/28/17 09:54	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/28/17 09:54	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/28/17 09:54	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/28/17 09:54	1
1,3-Dichloropropane	ND		0.50		ug/L			05/28/17 09:54	1
1,1-Dichloropropene	ND		0.50		ug/L			05/28/17 09:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/28/17 09:54	1
Ethylene Dibromide	ND		0.50		ug/L			05/28/17 09:54	1
Dibromomethane	ND		0.50		ug/L			05/28/17 09:54	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/28/17 09:54	1
1,1-Dichloroethane	ND		0.50		ug/L			05/28/17 09:54	1
1,2-Dichloroethane	ND		0.50		ug/L			05/28/17 09:54	1
1,1-Dichloroethene	ND		0.50		ug/L			05/28/17 09:54	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 09:54	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/28/17 09:54	1
1,2-Dichloropropane	ND		0.50		ug/L			05/28/17 09:54	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 09:54	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/28/17 09:54	1
Ethylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
Hexachlorobutadiene	ND		0.50		ug/L			05/28/17 09:54	1
2-Hexanone	ND		5.0		ug/L			05/28/17 09:54	1
Isopropylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
4-Isopropyltoluene	ND		0.50		ug/L			05/28/17 09:54	1
Methylene Chloride	ND		2.0		ug/L			05/28/17 09:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/28/17 09:54	1
Naphthalene	ND		1.0		ug/L			05/28/17 09:54	1
N-Propylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
Styrene	ND		0.50		ug/L			05/28/17 09:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-408780/3
Matrix: Water
Analysis Batch: 408780

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 09:54	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/28/17 09:54	1
Tetrachloroethene	ND		0.50		ug/L			05/28/17 09:54	1
Toluene	ND		0.50		ug/L			05/28/17 09:54	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/28/17 09:54	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/28/17 09:54	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/28/17 09:54	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/28/17 09:54	1
Trichloroethene	ND		0.50		ug/L			05/28/17 09:54	1
Trichlorofluoromethane	ND		0.50		ug/L			05/28/17 09:54	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/28/17 09:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/28/17 09:54	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/28/17 09:54	1
Vinyl acetate	ND		4.0		ug/L			05/28/17 09:54	1
Vinyl chloride	ND		0.50		ug/L			05/28/17 09:54	1
Xylenes, Total	ND		1.0		ug/L			05/28/17 09:54	1
2,2-Dichloropropane	ND		1.0		ug/L			05/28/17 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*05/28/17 09:54*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*05/28/17 09:54*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/28/17 09:54*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*05/28/17 09:54*	*1*

Lab Sample ID: LCS 440-408780/4
Matrix: Water
Analysis Batch: 408780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	28.6		ug/L		115	63 - 131
Acetone	25.0	19.2	J	ug/L		77	10 - 150
Benzene	25.0	26.1		ug/L		104	68 - 130
Dichlorobromomethane	25.0	29.3		ug/L		117	70 - 132
Bromobenzene	25.0	26.1		ug/L		104	70 - 130
Chlorobromomethane	25.0	26.7		ug/L		107	70 - 130
Bromoform	25.0	27.7		ug/L		111	60 - 148
Bromomethane	25.0	26.4		ug/L		106	64 - 139
2-Butanone (MEK)	25.0	22.6		ug/L		90	44 - 150
n-Butylbenzene	25.0	27.0		ug/L		108	65 - 150
sec-Butylbenzene	25.0	25.9		ug/L		104	70 - 138
tert-Butylbenzene	25.0	27.7		ug/L		111	70 - 130
Carbon disulfide	25.0	25.5		ug/L		102	52 - 136
Carbon tetrachloride	25.0	30.6		ug/L		123	60 - 150
Chlorobenzene	25.0	24.7		ug/L		99	70 - 130
Chloroethane	25.0	24.4		ug/L		98	64 - 135
Chloroform	25.0	27.1		ug/L		108	70 - 130
Chloromethane	25.0	17.6		ug/L		70	47 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-408780/4
Matrix: Water
Analysis Batch: 408780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130
Chlorodibromomethane	25.0	29.2		ug/L		117	69 - 145
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,3-Dichlorobenzene	25.0	25.4		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloropropene	25.0	28.5		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.4		ug/L		102	52 - 140
Ethylene Dibromide	25.0	25.2		ug/L		101	70 - 130
Dibromomethane	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	23.0		ug/L		92	29 - 150
1,1-Dichloroethane	25.0	24.2		ug/L		97	64 - 130
1,2-Dichloroethane	25.0	25.5		ug/L		102	57 - 138
1,1-Dichloroethene	25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	27.4		ug/L		109	70 - 133
trans-1,2-Dichloroethene	25.0	27.8		ug/L		111	70 - 130
1,2-Dichloropropane	25.0	23.2		ug/L		93	67 - 130
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 133
trans-1,3-Dichloropropene	25.0	28.9		ug/L		115	70 - 132
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130
Hexachlorobutadiene	25.0	34.5		ug/L		138	10 - 150
2-Hexanone	25.0	18.1		ug/L		72	10 - 150
Isopropylbenzene	25.0	27.1		ug/L		108	70 - 136
4-Isopropyltoluene	25.0	26.6		ug/L		106	70 - 132
Methylene Chloride	25.0	24.5		ug/L		98	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	19.2		ug/L		77	59 - 149
Naphthalene	25.0	27.2		ug/L		109	60 - 140
N-Propylbenzene	25.0	26.8		ug/L		107	67 - 139
Styrene	25.0	26.5		ug/L		106	70 - 134
1,1,1,2-Tetrachloroethane	25.0	29.8		ug/L		119	60 - 141
1,1,2,2-Tetrachloroethane	25.0	20.9		ug/L		84	63 - 130
Tetrachloroethene	25.0	29.0		ug/L		116	70 - 130
Toluene	25.0	26.5		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	30.6		ug/L		122	60 - 140
1,2,4-Trichlorobenzene	25.0	29.9		ug/L		120	60 - 140
1,1,1-Trichloroethane	25.0	29.5		ug/L		118	70 - 130
1,1,2-Trichloroethane	25.0	25.4		ug/L		102	70 - 130
Trichloroethene	25.0	26.6		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	26.6		ug/L		106	60 - 150
1,2,3-Trichloropropane	25.0	24.4		ug/L		98	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.3		ug/L		101	60 - 140
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	70 - 135
1,3,5-Trimethylbenzene	25.0	27.3		ug/L		109	70 - 136
Vinyl acetate	25.0	19.7		ug/L		79	48 - 140
Vinyl chloride	25.0	25.3		ug/L		101	59 - 133
m-Xylene & p-Xylene	25.0	27.2		ug/L		109	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-408780/4
Matrix: Water
Analysis Batch: 408780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	25.0	26.5		ug/L		106	70 - 130
2,2-Dichloropropane	25.0	31.7		ug/L		127	68 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*106*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*76 - 132*

Lab Sample ID: 720-79699-1 MS
Matrix: Water
Analysis Batch: 408780

Client Sample ID: S-SB112-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		25.0	27.7		ug/L		111	70 - 130
Acetone	ND		25.0	20.9		ug/L		83	10 - 150
Benzene	ND		25.0	24.9		ug/L		100	66 - 130
Dichlorobromomethane	ND		25.0	27.7		ug/L		111	70 - 138
Bromobenzene	ND		25.0	25.0		ug/L		100	70 - 130
Chlorobromomethane	ND		25.0	25.8		ug/L		103	70 - 130
Bromoform	ND		25.0	27.1		ug/L		108	59 - 150
Bromomethane	ND		25.0	25.4		ug/L		102	62 - 131
2-Butanone (MEK)	ND		25.0	21.1		ug/L		84	48 - 140
n-Butylbenzene	ND		25.0	25.5		ug/L		102	61 - 149
sec-Butylbenzene	ND		25.0	24.3		ug/L		97	67 - 134
tert-Butylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
Carbon disulfide	ND		25.0	23.8		ug/L		95	49 - 140
Carbon tetrachloride	ND		25.0	28.7		ug/L		115	60 - 150
Chlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
Chloroethane	ND		25.0	22.8		ug/L		91	68 - 130
Chloroform	ND		25.0	25.8		ug/L		103	70 - 130
Chloromethane	ND		25.0	17.5		ug/L		70	39 - 144
2-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
4-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130
Chlorodibromomethane	ND		25.0	29.1		ug/L		116	70 - 148
1,2-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.3		ug/L		97	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130
1,1-Dichloropropene	ND		25.0	26.5		ug/L		106	64 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	25.0		ug/L		100	48 - 140
Ethylene Dibromide	ND		25.0	24.8		ug/L		99	70 - 131
Dibromomethane	ND		25.0	24.7		ug/L		99	70 - 130
Dichlorodifluoromethane	ND		25.0	22.3		ug/L		89	25 - 142
1,1-Dichloroethane	ND		25.0	22.9		ug/L		91	65 - 130
1,2-Dichloroethane	ND		25.0	25.0		ug/L		100	56 - 146
1,1-Dichloroethene	ND		25.0	24.1		ug/L		96	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-79699-1 MS
Matrix: Water
Analysis Batch: 408780

Client Sample ID: S-SB112-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,2-Dichloropropane	ND		25.0	22.7		ug/L		91	69 - 130
cis-1,3-Dichloropropene	ND		25.0	26.8		ug/L		107	70 - 133
trans-1,3-Dichloropropene	ND		25.0	28.2		ug/L		113	70 - 138
Ethylbenzene	ND		25.0	26.2		ug/L		105	70 - 130
Hexachlorobutadiene	ND		25.0	32.2		ug/L		129	10 - 150
2-Hexanone	ND		25.0	18.2		ug/L		73	10 - 150
Isopropylbenzene	ND		25.0	26.5		ug/L		106	70 - 132
4-Isopropyltoluene	ND		25.0	25.2		ug/L		101	70 - 130
Methylene Chloride	ND		25.0	22.5		ug/L		90	52 - 130
4-Methyl-2-pentanone (MIBK)	ND		25.0	19.2		ug/L		77	52 - 150
Naphthalene	ND		25.0	26.4		ug/L		106	60 - 140
N-Propylbenzene	ND		25.0	25.2		ug/L		101	66 - 135
Styrene	ND		25.0	26.0		ug/L		104	29 - 150
1,1,1,2-Tetrachloroethane	ND		25.0	28.7		ug/L		115	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	20.4		ug/L		82	63 - 130
Tetrachloroethene	ND		25.0	28.3		ug/L		113	70 - 137
Toluene	ND		25.0	26.0		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	ND		25.0	29.4		ug/L		118	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	29.0		ug/L		116	60 - 140
1,1,1-Trichloroethane	ND		25.0	28.2		ug/L		113	70 - 130
1,1,2-Trichloroethane	ND		25.0	25.0		ug/L		100	70 - 130
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
Trichlorofluoromethane	ND		25.0	24.9		ug/L		100	60 - 150
1,2,3-Trichloropropane	ND		25.0	24.2		ug/L		97	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.5		ug/L		94	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.8		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.9		ug/L		104	70 - 130
Vinyl acetate	ND		25.0	19.1		ug/L		77	23 - 150
Vinyl chloride	ND		25.0	24.4		ug/L		98	50 - 137
m-Xylene & p-Xylene	ND		25.0	26.7		ug/L		107	70 - 133
o-Xylene	ND		25.0	26.0		ug/L		104	70 - 133
2,2-Dichloropropane	ND		25.0	31.3		ug/L		125	69 - 138

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*

Lab Sample ID: 720-79699-1 MSD
Matrix: Water
Analysis Batch: 408780

Client Sample ID: S-SB112-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	ND		25.0	28.9		ug/L		115	70 - 130	4	25
Acetone	ND		25.0	21.4		ug/L		85	10 - 150	2	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-79699-1 MSD
Matrix: Water
Analysis Batch: 408780

Client Sample ID: S-SB112-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	25.3		ug/L		101	66 - 130	2	20
Dichlorobromomethane	ND		25.0	28.5		ug/L		114	70 - 138	3	20
Bromobenzene	ND		25.0	25.1		ug/L		100	70 - 130	0	20
Chlorobromomethane	ND		25.0	25.3		ug/L		101	70 - 130	2	25
Bromoform	ND		25.0	27.2		ug/L		109	59 - 150	1	25
Bromomethane	ND		25.0	26.1		ug/L		104	62 - 131	3	25
2-Butanone (MEK)	ND		25.0	22.7		ug/L		91	48 - 140	7	40
n-Butylbenzene	ND		25.0	25.1		ug/L		101	61 - 149	1	20
sec-Butylbenzene	ND		25.0	24.2		ug/L		97	67 - 134	0	20
tert-Butylbenzene	ND		25.0	25.9		ug/L		104	70 - 130	0	20
Carbon disulfide	ND		25.0	23.7		ug/L		95	49 - 140	0	20
Carbon tetrachloride	ND		25.0	28.6		ug/L		114	60 - 150	1	25
Chlorobenzene	ND		25.0	23.8		ug/L		95	70 - 130	2	20
Chloroethane	ND		25.0	23.4		ug/L		93	68 - 130	2	25
Chloroform	ND		25.0	26.5		ug/L		106	70 - 130	3	20
Chloromethane	ND		25.0	18.6		ug/L		75	39 - 144	6	25
2-Chlorotoluene	ND		25.0	24.8		ug/L		99	70 - 130	1	20
4-Chlorotoluene	ND		25.0	25.5		ug/L		102	70 - 130	0	20
Chlorodibromomethane	ND		25.0	28.5		ug/L		114	70 - 148	2	25
1,2-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130	0	20
1,4-Dichlorobenzene	ND		25.0	24.1		ug/L		96	70 - 130	0	20
1,3-Dichloropropane	ND		25.0	24.4		ug/L		98	70 - 130	1	25
1,1-Dichloropropene	ND		25.0	27.1		ug/L		108	64 - 130	2	20
1,2-Dibromo-3-Chloropropane	ND		25.0	25.5		ug/L		102	48 - 140	2	30
Ethylene Dibromide	ND		25.0	24.7		ug/L		99	70 - 131	0	25
Dibromomethane	ND		25.0	25.6		ug/L		102	70 - 130	3	25
Dichlorodifluoromethane	ND		25.0	22.4		ug/L		90	25 - 142	0	30
1,1-Dichloroethane	ND		25.0	23.6		ug/L		94	65 - 130	3	20
1,2-Dichloroethane	ND		25.0	25.5		ug/L		102	56 - 146	2	20
1,1-Dichloroethene	ND		25.0	23.9		ug/L		96	70 - 130	1	20
cis-1,2-Dichloroethene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
trans-1,2-Dichloroethene	ND		25.0	26.8		ug/L		107	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	23.1		ug/L		92	69 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	70 - 133	0	20
trans-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	70 - 138	1	25
Ethylbenzene	ND		25.0	25.6		ug/L		102	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	32.0		ug/L		128	10 - 150	1	20
2-Hexanone	ND		25.0	18.4		ug/L		73	10 - 150	1	35
Isopropylbenzene	ND		25.0	25.9		ug/L		104	70 - 132	2	20
4-Isopropyltoluene	ND		25.0	24.9		ug/L		100	70 - 130	1	20
Methylene Chloride	ND		25.0	23.0		ug/L		92	52 - 130	2	20
4-Methyl-2-pentanone (MIBK)	ND		25.0	19.0		ug/L		76	52 - 150	1	35
Naphthalene	ND		25.0	26.9		ug/L		108	60 - 140	2	30
N-Propylbenzene	ND		25.0	25.1		ug/L		101	66 - 135	0	20
Styrene	ND		25.0	25.5		ug/L		102	29 - 150	2	35
1,1,1,2-Tetrachloroethane	ND		25.0	28.5		ug/L		114	60 - 149	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	20.8		ug/L		83	63 - 130	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 720-79699-1 MSD
Matrix: Water
Analysis Batch: 408780

Client Sample ID: S-SB112-W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	ND		25.0	27.7		ug/L		111	70 - 137	2	20
Toluene	ND		25.0	25.3		ug/L		101	70 - 130	2	20
1,2,3-Trichlorobenzene	ND		25.0	29.6		ug/L		119	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		25.0	28.7		ug/L		115	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	28.6		ug/L		114	70 - 130	2	20
1,1,2-Trichloroethane	ND		25.0	24.9		ug/L		100	70 - 130	0	25
Trichloroethene	ND		25.0	25.3		ug/L		101	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	24.6		ug/L		98	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	24.2		ug/L		97	60 - 130	0	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.5		ug/L		94	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
Vinyl acetate	ND		25.0	19.9		ug/L		80	23 - 150	4	30
Vinyl chloride	ND		25.0	24.0		ug/L		96	50 - 137	2	30
m-Xylene & p-Xylene	ND		25.0	26.3		ug/L		105	70 - 133	2	25
o-Xylene	ND		25.0	25.4		ug/L		102	70 - 133	2	20
2,2-Dichloropropane	ND		25.0	32.6		ug/L		130	69 - 138	4	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*105*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-223841/1-A
Matrix: Water
Analysis Batch: 224152

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Barium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Cadmium	ND		0.0025		mg/L		05/30/17 15:29	06/03/17 01:12	1
Chromium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Cobalt	ND		0.0020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Copper	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Lead	ND		0.0050		mg/L		05/30/17 15:29	06/03/17 01:12	1
Molybdenum	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Nickel	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Selenium	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1
Silver	ND		0.0050		mg/L		05/30/17 15:29	06/03/17 01:12	1
Thallium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Vanadium	ND		0.010		mg/L		05/30/17 15:29	06/03/17 01:12	1
Zinc	ND		0.020		mg/L		05/30/17 15:29	06/03/17 01:12	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-223841/1-A
Matrix: Water
Analysis Batch: 224320

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 15:29	06/06/17 20:12	1
Beryllium	ND		0.0020		mg/L		05/30/17 15:29	06/06/17 20:12	1

Lab Sample ID: LCS 720-223841/2-A
Matrix: Water
Analysis Batch: 224152

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.951		mg/L		95	80 - 120
Barium	1.00	0.976		mg/L		98	80 - 120
Cadmium	1.00	0.965		mg/L		97	80 - 120
Chromium	1.00	0.860		mg/L		86	80 - 120
Cobalt	1.00	0.992		mg/L		99	80 - 120
Copper	1.00	0.917		mg/L		92	80 - 120
Lead	1.00	0.975		mg/L		98	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Nickel	1.00	0.972		mg/L		97	80 - 120
Selenium	1.00	0.929		mg/L		93	80 - 120
Silver	0.500	0.451		mg/L		90	80 - 120
Thallium	1.00	0.986		mg/L		99	80 - 120
Vanadium	1.00	0.868		mg/L		87	80 - 120
Zinc	1.00	0.966		mg/L		97	80 - 120

Lab Sample ID: LCS 720-223841/2-A
Matrix: Water
Analysis Batch: 224320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.971		mg/L		97	80 - 120
Beryllium	1.00	0.982		mg/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-223880/1-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/31/17 08:17	05/31/17 13:04	1

Lab Sample ID: LCS 720-223880/2-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00936		mg/L		94	85 - 115

QC Association Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

GC/MS VOA

Analysis Batch: 408780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	8260B	
MB 440-408780/3	Method Blank	Total/NA	Water	8260B	
LCS 440-408780/4	Lab Control Sample	Total/NA	Water	8260B	
720-79699-1 MS	S-SB112-W	Total/NA	Water	8260B	
720-79699-1 MSD	S-SB112-W	Total/NA	Water	8260B	

Metals

Prep Batch: 223841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	3010A	
MB 720-223841/1-A	Method Blank	Total/NA	Water	3010A	
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	3010A	

Prep Batch: 223880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	7470A	
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 223932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	7470A	223880
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	223880
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	223880

Analysis Batch: 224152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-223841/1-A	Method Blank	Total/NA	Water	6010B	223841
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	6010B	223841

Analysis Batch: 224320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	6010B	223841
MB 720-223841/1-A	Method Blank	Total/NA	Water	6010B	223841
LCS 720-223841/2-A	Lab Control Sample	Total/NA	Water	6010B	223841

Analysis Batch: 224355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	6010B	223841

Analysis Batch: 224371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79699-1	S-SB112-W	Total/NA	Water	6010B	223841

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Client Sample ID: S-SB112-W

Date Collected: 05/24/17 09:15
Date Received: 05/24/17 18:00

Lab Sample ID: 720-79699-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	408780	05/28/17 11:08	TCN	TAL IRV
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224320	06/06/17 20:53	BKR	TAL PLS
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224355	06/07/17 10:43	CAM	TAL PLS
Total/NA	Prep	3010A			223841	05/30/17 15:29	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224371	06/07/17 14:30	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:20	OBI	TAL PLS

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312017-1	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79699-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-79699-1	S-SB112-W	Water	05/24/17 09:15	05/24/17 18:00

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
phone 925 484 1919 fax 925 600 3002

720-79699

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

176123

TestAmerica Laboratories, Inc.

6/7/2017

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

Client Contact	Project Manager: Mike Sonke	Site Contact:	Date: 5/16/2017	COC No
ATC Group Services LLC	Tel/Fax: (209) 579-2221	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs

Address 1117 Lone Palm Avenue, Suite 201B
City/State/Zip Modesto, CA, 95351
Phone (209) 579-2221 FAX (209) 579-2225
E-mail mike.sonke@atcassociates.com
Project Name DLR South Walsh
Site: Project #:
Geotracker EDF Global ID #.

Analysis Turnaround Time
Calendar (C) or Work Days (W) _____
TAT if different from Below _____
☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day

For Lab Use Only:
Walk-in Client
Lab Sampling
Job / SDG No
Sampler ~~John Selman~~ Jim Kunkel

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	VOCs Full Scan by EPA 8260B	CAM-17 Metals	Sample Specific Notes
S-SB112-W	5-24-17	0915		W	4	N	G	✓	✓	

720-79699 Chain of Custody

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

4.7°C

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	ATC	5-24-17		TA	5/24/17 1810
Relinquished by	TA	5/24/17 1800	Received by	TA	5/24/17 1800
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-34173.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note):		Job #: 720-79699-1
Address: 17461 Derian Ave, Suite 100,	Due Date Requested: 5/31/2017			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92614-5817				
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:			
Email:	WO #:			
Project Name: DLR Memorex	Project #: 72012659			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030B 8260B-VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
S-SB112-W (720-79699-1)	5/24/17	09:15 Pacific		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Steven Mueller	Date/Time: 5-25-17 1600	Company Please	Received by: [illegible]	Date/Time: 5/26/17 9:50	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.: 7290-7493-9704	Cooler Temperature(s) °C and Other Remarks: 1.3/2.4 IR SC6 CS

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79699-1

Login Number: 79699
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79699-1

Login Number: 79699
List Number: 2
Creator: Salas, Margarita

List Source: TestAmerica Irvine
List Creation: 05/26/17 01:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-79727-1
Client Project/Site: SCP S of Walsh

For:
ATC Group Services LLC.
1117 Lone Palm Avenue
Suite B
Modesto, California 95351

Attn: Mike Sonke

Authorized for release by:
6/7/2017 5:35:57 PM

Micah Smith, Project Manager II
(916)374-4302
micah.smith@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Job ID: 720-79727-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-79727-1

Comments
No additional comments.

Receipt
The samples were received on 5/25/2017 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

GC/MS VOA
Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: S-SB110-W (720-79727-1) and S-SB111-W (720-79727-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 3010A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: S-SB110-W (720-79727-1) and S-SB111-W (720-79727-2). The samples were preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

Method(s) 6010B: The following sample was diluted due to the abundance of non-target analytes: S-SB110-W (720-79727-1) and S-SB111-W (720-79727-2). Elevated reporting limits (RLs) are provided.

Method(s) 7470A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: S-SB110-W (720-79727-1) and S-SB111-W (720-79727-2). The samples were preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Client Sample ID: S-SB110-W — Lab Sample ID: 720-79727-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	39		0.50		ug/L	1		8260B	Total/NA
Toluene	1.6		0.50		ug/L	1		8260B	Total/NA
Xylenes, Total	2.2		1.0		ug/L	1		8260B	Total/NA
Arsenic	0.46		0.10		mg/L	10		6010B	Total/NA
Barium	5.9		0.10		mg/L	10		6010B	Total/NA
Chromium	1.7		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.37		0.020		mg/L	10		6010B	Total/NA
Copper	1.3		0.20		mg/L	10		6010B	Total/NA
Lead	0.25		0.050		mg/L	10		6010B	Total/NA
Nickel	2.1		0.10		mg/L	10		6010B	Total/NA
Vanadium	1.4		0.10		mg/L	10		6010B	Total/NA
Zinc	2.5		0.20		mg/L	10		6010B	Total/NA
Mercury	0.0087		0.00020		mg/L	1		7470A	Total/NA

Client Sample ID: S-SB111-W — Lab Sample ID: 720-79727-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	3.7		0.10		mg/L	10		6010B	Total/NA
Chromium	1.4		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.30		0.020		mg/L	10		6010B	Total/NA
Copper	0.90		0.20		mg/L	10		6010B	Total/NA
Lead	0.23		0.050		mg/L	10		6010B	Total/NA
Nickel	1.6		0.10		mg/L	10		6010B	Total/NA
Vanadium	1.0		0.10		mg/L	10		6010B	Total/NA
Zinc	2.1		0.20		mg/L	10		6010B	Total/NA
Mercury	0.0027		0.00020		mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Client Sample ID: S-SB110-W
Date Collected: 05/25/17 12:15
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79727-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 18:26	1
Acetone	ND		50		ug/L			05/31/17 18:26	1
Benzene	**39**		0.50		ug/L			05/31/17 18:26	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 18:26	1
Bromobenzene	ND		1.0		ug/L			05/31/17 18:26	1
Chlorobromomethane	ND		1.0		ug/L			05/31/17 18:26	1
Bromoform	ND		1.0		ug/L			05/31/17 18:26	1
Bromomethane	ND		1.0		ug/L			05/31/17 18:26	1
2-Butanone (MEK)	ND		50		ug/L			05/31/17 18:26	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 18:26	1
sec-Butylbenzene	ND		1.0		ug/L			05/31/17 18:26	1
tert-Butylbenzene	ND		1.0		ug/L			05/31/17 18:26	1
Carbon disulfide	ND		5.0		ug/L			05/31/17 18:26	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 18:26	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 18:26	1
Chloroethane	ND		1.0		ug/L			05/31/17 18:26	1
Chloroform	ND		1.0		ug/L			05/31/17 18:26	1
Chloromethane	ND		1.0		ug/L			05/31/17 18:26	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 18:26	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 18:26	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 18:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:26	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:26	1
1,3-Dichloropropane	ND		1.0		ug/L			05/31/17 18:26	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 18:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 18:26	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 18:26	1
Dibromomethane	ND		0.50		ug/L			05/31/17 18:26	1
Dichlorodifluoromethane	ND		0.50		ug/L			05/31/17 18:26	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 18:26	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 18:26	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 18:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 18:26	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 18:26	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 18:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 18:26	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 18:26	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 18:26	1
Hexachlorobutadiene	ND		1.0		ug/L			05/31/17 18:26	1
2-Hexanone	ND		50		ug/L			05/31/17 18:26	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 18:26	1
4-Isopropyltoluene	ND		1.0		ug/L			05/31/17 18:26	1
Methylene Chloride	ND		5.0		ug/L			05/31/17 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			05/31/17 18:26	1
Naphthalene	ND		1.0		ug/L			05/31/17 18:26	1
N-Propylbenzene	ND		1.0		ug/L			05/31/17 18:26	1
Styrene	ND		0.50		ug/L			05/31/17 18:26	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 18:26	1

Client Sample ID: S-SB110-W
Date Collected: 05/25/17 12:15
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79727-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 18:26	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 18:26	1
Toluene	**1.6**		0.50		ug/L			05/31/17 18:26	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 18:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 18:26	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 18:26	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 18:26	1
Trichloroethene	ND		0.50		ug/L			05/31/17 18:26	1
Trichlorofluoromethane	ND		1.0		ug/L			05/31/17 18:26	1
1,2,3-Trichloropropane	ND		0.50		ug/L			05/31/17 18:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			05/31/17 18:26	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 18:26	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 18:26	1
Vinyl acetate	ND		10		ug/L			05/31/17 18:26	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 18:26	1
Xylenes, Total	**2.2**		1.0		ug/L			05/31/17 18:26	1
2,2-Dichloropropane	ND		0.50		ug/L			05/31/17 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*67 - 130*		*05/31/17 18:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*05/31/17 18:26*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/31/17 18:26*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:10	10
Arsenic	**0.46**		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Barium	**5.9**		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Beryllium	ND		0.020		mg/L		06/01/17 09:25	06/07/17 01:10	10
Cadmium	ND		0.025		mg/L		06/01/17 09:25	06/03/17 00:25	10
Chromium	**1.7**		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Cobalt	**0.37**		0.020		mg/L		06/01/17 09:25	06/03/17 00:25	10
Copper	**1.3**		0.20		mg/L		06/01/17 09:25	06/03/17 00:25	10
Lead	**0.25**		0.050		mg/L		06/01/17 09:25	06/03/17 00:25	10
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Nickel	**2.1**		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 00:25	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:25	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Vanadium	**1.4**		0.10		mg/L		06/01/17 09:25	06/03/17 00:25	10
Zinc	**2.5**		0.20		mg/L		06/01/17 09:25	06/03/17 00:25	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0087**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:38	1

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Client Sample ID: S-SB111-W
Date Collected: 05/25/17 10:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79727-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 18:54	1
Acetone	ND		50		ug/L			05/31/17 18:54	1
Benzene	ND		0.50		ug/L			05/31/17 18:54	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 18:54	1
Bromobenzene	ND		1.0		ug/L			05/31/17 18:54	1
Chlorobromomethane	ND		1.0		ug/L			05/31/17 18:54	1
Bromoform	ND		1.0		ug/L			05/31/17 18:54	1
Bromomethane	ND		1.0		ug/L			05/31/17 18:54	1
2-Butanone (MEK)	ND		50		ug/L			05/31/17 18:54	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 18:54	1
sec-Butylbenzene	ND		1.0		ug/L			05/31/17 18:54	1
tert-Butylbenzene	ND		1.0		ug/L			05/31/17 18:54	1
Carbon disulfide	ND		5.0		ug/L			05/31/17 18:54	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 18:54	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 18:54	1
Chloroethane	ND		1.0		ug/L			05/31/17 18:54	1
Chloroform	ND		1.0		ug/L			05/31/17 18:54	1
Chloromethane	ND		1.0		ug/L			05/31/17 18:54	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 18:54	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 18:54	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 18:54	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:54	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:54	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 18:54	1
1,3-Dichloropropane	ND		1.0		ug/L			05/31/17 18:54	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 18:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 18:54	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 18:54	1
Dibromomethane	ND		0.50		ug/L			05/31/17 18:54	1
Dichlorodifluoromethane	ND		0.50		ug/L			05/31/17 18:54	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 18:54	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 18:54	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 18:54	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 18:54	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 18:54	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 18:54	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 18:54	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 18:54	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 18:54	1
Hexachlorobutadiene	ND		1.0		ug/L			05/31/17 18:54	1
2-Hexanone	ND		50		ug/L			05/31/17 18:54	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 18:54	1
4-Isopropyltoluene	ND		1.0		ug/L			05/31/17 18:54	1
Methylene Chloride	ND		5.0		ug/L			05/31/17 18:54	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			05/31/17 18:54	1
Naphthalene	ND		1.0		ug/L			05/31/17 18:54	1
N-Propylbenzene	ND		1.0		ug/L			05/31/17 18:54	1
Styrene	ND		0.50		ug/L			05/31/17 18:54	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 18:54	1

Client Sample ID: S-SB111-W
Date Collected: 05/25/17 10:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79727-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 18:54	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 18:54	1
Toluene	ND		0.50		ug/L			05/31/17 18:54	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 18:54	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 18:54	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 18:54	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 18:54	1
Trichloroethene	ND		0.50		ug/L			05/31/17 18:54	1
Trichlorofluoromethane	ND		1.0		ug/L			05/31/17 18:54	1
1,2,3-Trichloropropane	ND		0.50		ug/L			05/31/17 18:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			05/31/17 18:54	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 18:54	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 18:54	1
Vinyl acetate	ND		10		ug/L			05/31/17 18:54	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 18:54	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 18:54	1
2,2-Dichloropropane	ND		0.50		ug/L			05/31/17 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*67 - 130*		*05/31/17 18:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*05/31/17 18:54*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/31/17 18:54*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:14	10
Arsenic	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Barium	**3.7**		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Beryllium	ND		0.020		mg/L		06/01/17 09:25	06/07/17 01:14	10
Cadmium	ND		0.025		mg/L		06/01/17 09:25	06/03/17 00:28	10
Chromium	**1.4**		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Cobalt	**0.30**		0.020		mg/L		06/01/17 09:25	06/03/17 00:28	10
Copper	**0.90**		0.20		mg/L		06/01/17 09:25	06/03/17 00:28	10
Lead	**0.23**		0.050		mg/L		06/01/17 09:25	06/03/17 00:28	10
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Nickel	**1.6**		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 00:28	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:28	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Vanadium	**1.0**		0.10		mg/L		06/01/17 09:25	06/03/17 00:28	10
Zinc	**2.1**		0.20		mg/L		06/01/17 09:25	06/03/17 00:28	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0027**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:40	1

Surrogate Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)
720-79727-1	S-SB110-W	79	95	98
720-79727-2	S-SB111-W	76	95	97
LCS 720-223878/5	Lab Control Sample	89	92	96
LCSD 720-223878/6	Lab Control Sample Dup	89	93	96
MB 720-223878/4	Method Blank	78	94	98

Surrogate Legend

BFB = 4-Bromofluorobenzene
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-223878/4
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 09:32	1
Acetone	ND		50		ug/L			05/31/17 09:32	1
Benzene	ND		0.50		ug/L			05/31/17 09:32	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 09:32	1
Bromobenzene	ND		1.0		ug/L			05/31/17 09:32	1
Chlorobromomethane	ND		1.0		ug/L			05/31/17 09:32	1
Bromoform	ND		1.0		ug/L			05/31/17 09:32	1
Bromomethane	ND		1.0		ug/L			05/31/17 09:32	1
2-Butanone (MEK)	ND		50		ug/L			05/31/17 09:32	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 09:32	1
sec-Butylbenzene	ND		1.0		ug/L			05/31/17 09:32	1
tert-Butylbenzene	ND		1.0		ug/L			05/31/17 09:32	1
Carbon disulfide	ND		5.0		ug/L			05/31/17 09:32	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 09:32	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 09:32	1
Chloroethane	ND		1.0		ug/L			05/31/17 09:32	1
Chloroform	ND		1.0		ug/L			05/31/17 09:32	1
Chloromethane	ND		1.0		ug/L			05/31/17 09:32	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 09:32	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 09:32	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 09:32	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 09:32	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 09:32	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 09:32	1
1,3-Dichloropropane	ND		1.0		ug/L			05/31/17 09:32	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 09:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 09:32	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 09:32	1
Dibromomethane	ND		0.50		ug/L			05/31/17 09:32	1
Dichlorodifluoromethane	ND		0.50		ug/L			05/31/17 09:32	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 09:32	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 09:32	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 09:32	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 09:32	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 09:32	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 09:32	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 09:32	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 09:32	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 09:32	1
Hexachlorobutadiene	ND		1.0		ug/L			05/31/17 09:32	1
2-Hexanone	ND		50		ug/L			05/31/17 09:32	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 09:32	1
4-Isopropyltoluene	ND		1.0		ug/L			05/31/17 09:32	1
Methylene Chloride	ND		5.0		ug/L			05/31/17 09:32	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			05/31/17 09:32	1
Naphthalene	ND		1.0		ug/L			05/31/17 09:32	1
N-Propylbenzene	ND		1.0		ug/L			05/31/17 09:32	1
Styrene	ND		0.50		ug/L			05/31/17 09:32	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-223878/4
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 09:32	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 09:32	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 09:32	1
Toluene	ND		0.50		ug/L			05/31/17 09:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 09:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 09:32	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 09:32	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 09:32	1
Trichloroethene	ND		0.50		ug/L			05/31/17 09:32	1
Trichlorofluoromethane	ND		1.0		ug/L			05/31/17 09:32	1
1,2,3-Trichloropropane	ND		0.50		ug/L			05/31/17 09:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			05/31/17 09:32	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 09:32	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 09:32	1
Vinyl acetate	ND		10		ug/L			05/31/17 09:32	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 09:32	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 09:32	1
2,2-Dichloropropane	ND		0.50		ug/L			05/31/17 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*67 - 130*		*05/31/17 09:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*72 - 130*		*05/31/17 09:32*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/31/17 09:32*	*1*

Lab Sample ID: LCS 720-223878/5
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	23.7		ug/L		95	62 - 130
Acetone	125	124		ug/L		100	26 - 180
Benzene	25.0	23.4		ug/L		94	79 - 130
Dichlorobromomethane	25.0	25.3		ug/L		101	70 - 130
Bromobenzene	25.0	23.3		ug/L		93	70 - 130
Chlorobromomethane	25.0	27.1		ug/L		108	70 - 130
Bromoform	25.0	26.2		ug/L		105	68 - 136
Bromomethane	25.0	23.4		ug/L		94	43 - 151
2-Butanone (MEK)	125	120		ug/L		96	54 - 153
n-Butylbenzene	25.0	22.9		ug/L		91	70 - 142
sec-Butylbenzene	25.0	23.4		ug/L		94	70 - 134
tert-Butylbenzene	25.0	22.8		ug/L		91	70 - 135
Carbon disulfide	25.0	21.1		ug/L		84	68 - 146
Carbon tetrachloride	25.0	25.6		ug/L		102	70 - 146
Chlorobenzene	25.0	23.2		ug/L		93	70 - 130
Chloroethane	25.0	23.3		ug/L		93	62 - 138
Chloroform	25.0	24.0		ug/L		96	70 - 130
Chloromethane	25.0	22.2		ug/L		89	52 - 175
2-Chlorotoluene	25.0	21.7		ug/L		87	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-223878/5
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	25.0	22.1		ug/L		89	70 - 130
Chlorodibromomethane	25.0	28.2		ug/L		113	70 - 145
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	23.6		ug/L		94	70 - 130
1,3-Dichloropropane	25.0	24.4		ug/L		97	70 - 130
1,1-Dichloropropene	25.0	23.7		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.5		ug/L		102	70 - 136
Ethylene Dibromide	25.0	27.4		ug/L		110	70 - 130
Dibromomethane	25.0	25.1		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	16.9		ug/L		67	32 - 158
1,1-Dichloroethane	25.0	22.7		ug/L		91	70 - 130
1,2-Dichloroethane	25.0	23.7		ug/L		95	61 - 132
1,1-Dichloroethene	25.0	21.9		ug/L		88	64 - 128
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
trans-1,2-Dichloroethene	25.0	24.0		ug/L		96	68 - 130
1,2-Dichloropropane	25.0	23.6		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130
trans-1,3-Dichloropropene	25.0	24.5		ug/L		98	70 - 140
Ethylbenzene	25.0	22.3		ug/L		89	80 - 120
Hexachlorobutadiene	25.0	23.2		ug/L		93	70 - 130
2-Hexanone	125	128		ug/L		102	60 - 164
Isopropylbenzene	25.0	24.5		ug/L		98	70 - 130
4-Isopropyltoluene	25.0	24.0		ug/L		96	70 - 130
Methylene Chloride	25.0	24.9		ug/L		99	70 - 147
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	50 - 155
Naphthalene	25.0	22.9		ug/L		92	50 - 130
N-Propylbenzene	25.0	22.4		ug/L		90	70 - 130
Styrene	25.0	23.0		ug/L		92	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	25.0	22.3		ug/L		89	70 - 130
Tetrachloroethene	25.0	27.1		ug/L		108	70 - 130
Toluene	25.0	21.2		ug/L		85	78 - 120
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		96	70 - 130
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	70 - 130
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	70 - 130
Trichloroethene	25.0	25.7		ug/L		103	70 - 130
Trichlorofluoromethane	25.0	23.8		ug/L		95	66 - 132
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.1		ug/L		100	42 - 162
1,2,4-Trimethylbenzene	25.0	22.7		ug/L		91	70 - 132
1,3,5-Trimethylbenzene	25.0	23.0		ug/L		92	70 - 130
Vinyl acetate	25.0	24.0		ug/L		96	43 - 163
Vinyl chloride	25.0	24.1		ug/L		96	54 - 135
m-Xylene & p-Xylene	25.0	22.1		ug/L		88	70 - 142
o-Xylene	25.0	22.8		ug/L		91	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-223878/5
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,2-Dichloropropane			25.0	25.1		ug/L		100	70 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*92*		*72 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 720-223878/6
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			25.0	23.7		ug/L		95	62 - 130	0	20
Acetone			125	126		ug/L		101	26 - 180	1	30
Benzene			25.0	23.4		ug/L		94	79 - 130	0	20
Dichlorobromomethane			25.0	25.1		ug/L		100	70 - 130	1	20
Bromobenzene			25.0	23.4		ug/L		94	70 - 130	1	20
Chlorobromomethane			25.0	27.3		ug/L		109	70 - 130	1	20
Bromoform			25.0	25.9		ug/L		104	68 - 136	1	20
Bromomethane			25.0	23.9		ug/L		96	43 - 151	2	20
2-Butanone (MEK)			125	119		ug/L		95	54 - 153	1	20
n-Butylbenzene			25.0	23.0		ug/L		92	70 - 142	1	20
sec-Butylbenzene			25.0	23.9		ug/L		96	70 - 134	2	20
tert-Butylbenzene			25.0	23.3		ug/L		93	70 - 135	2	20
Carbon disulfide			25.0	21.8		ug/L		87	68 - 146	3	20
Carbon tetrachloride			25.0	25.9		ug/L		103	70 - 146	1	20
Chlorobenzene			25.0	23.2		ug/L		93	70 - 130	0	20
Chloroethane			25.0	23.4		ug/L		94	62 - 138	1	20
Chloroform			25.0	24.4		ug/L		97	70 - 130	1	20
Chloromethane			25.0	21.7		ug/L		87	52 - 175	2	20
2-Chlorotoluene			25.0	22.2		ug/L		89	70 - 130	2	20
4-Chlorotoluene			25.0	22.5		ug/L		90	70 - 130	1	20
Chlorodibromomethane			25.0	27.7		ug/L		111	70 - 145	2	20
1,2-Dichlorobenzene			25.0	23.5		ug/L		94	70 - 130	1	20
1,3-Dichlorobenzene			25.0	24.2		ug/L		97	70 - 130	1	20
1,4-Dichlorobenzene			25.0	23.9		ug/L		95	70 - 130	1	20
1,3-Dichloropropane			25.0	24.0		ug/L		96	70 - 130	1	20
1,1-Dichloropropene			25.0	23.8		ug/L		95	70 - 130	1	20
1,2-Dibromo-3-Chloropropane			25.0	26.0		ug/L		104	70 - 136	2	20
Ethylene Dibromide			25.0	27.1		ug/L		109	70 - 130	1	20
Dibromomethane			25.0	25.2		ug/L		101	70 - 130	1	20
Dichlorodifluoromethane			25.0	16.9		ug/L		68	32 - 158	0	20
1,1-Dichloroethane			25.0	23.0		ug/L		92	70 - 130	1	20
1,2-Dichloroethane			25.0	23.7		ug/L		95	61 - 132	0	20
1,1-Dichloroethene			25.0	22.8		ug/L		91	64 - 128	4	20
cis-1,2-Dichloroethene			25.0	23.9		ug/L		95	70 - 130	0	20
trans-1,2-Dichloroethene			25.0	24.4		ug/L		98	68 - 130	2	20
1,2-Dichloropropane			25.0	23.5		ug/L		94	70 - 130	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-223878/6
Matrix: Water
Analysis Batch: 223878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			25.0	24.0		ug/L		96	70 - 130	1	20
trans-1,3-Dichloropropene			25.0	24.2		ug/L		97	70 - 140	1	20
Ethylbenzene			25.0	22.6		ug/L		90	80 - 120	1	20
Hexachlorobutadiene			25.0	23.8		ug/L		95	70 - 130	2	20
2-Hexanone			125	121		ug/L		97	60 - 164	6	20
Isopropylbenzene			25.0	24.7		ug/L		99	70 - 130	1	20
4-Isopropyltoluene			25.0	24.2		ug/L		97	70 - 130	1	20
Methylene Chloride			25.0	25.4		ug/L		101	70 - 147	2	20
4-Methyl-2-pentanone (MIBK)			125	123		ug/L		99	50 - 155	5	20
Naphthalene			25.0	24.3		ug/L		97	50 - 130	6	20
N-Propylbenzene			25.0	22.7		ug/L		91	70 - 130	1	20
Styrene			25.0	22.9		ug/L		92	70 - 130	0	20
1,1,1,2-Tetrachloroethane			25.0	26.3		ug/L		105	70 - 130	1	20
1,1,2,2-Tetrachloroethane			25.0	22.2		ug/L		89	70 - 130	0	20
Tetrachloroethene			25.0	26.9		ug/L		108	70 - 130	1	20
Toluene			25.0	21.5		ug/L		86	78 - 120	1	20
1,2,3-Trichlorobenzene			25.0	24.8		ug/L		99	70 - 130	3	20
1,2,4-Trichlorobenzene			25.0	23.7		ug/L		95	70 - 130	1	20
1,1,1-Trichloroethane			25.0	25.0		ug/L		100	70 - 130	0	20
1,1,2-Trichloroethane			25.0	25.3		ug/L		101	70 - 130	3	20
Trichloroethene			25.0	25.7		ug/L		103	70 - 130	0	20
Trichlorofluoromethane			25.0	24.8		ug/L		99	66 - 132	4	20
1,2,3-Trichloropropane			25.0	24.2		ug/L		97	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane			25.0	26.0		ug/L		104	42 - 162	4	20
1,2,4-Trimethylbenzene			25.0	23.0		ug/L		92	70 - 132	1	20
1,3,5-Trimethylbenzene			25.0	23.3		ug/L		93	70 - 130	1	20
Vinyl acetate			25.0	24.1		ug/L		97	43 - 163	1	20
Vinyl chloride			25.0	23.8		ug/L		95	54 - 135	1	20
m-Xylene & p-Xylene			25.0	22.1		ug/L		88	70 - 142	0	20
o-Xylene			25.0	22.8		ug/L		91	70 - 130	0	20
2,2-Dichloropropane			25.0	24.6		ug/L		98	70 - 140	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*93*		*72 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-223990/1-A
Matrix: Water
Analysis Batch: 224149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Barium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Cadmium	ND		0.0025		mg/L		06/01/17 09:25	06/02/17 23:34	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 720-223990/1-A
Matrix: Water
Analysis Batch: 224149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Cobalt	ND		0.0020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Copper	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Lead	ND		0.0050		mg/L		06/01/17 09:25	06/02/17 23:34	1
Molybdenum	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Nickel	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Selenium	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Silver	ND		0.0050		mg/L		06/01/17 09:25	06/02/17 23:34	1
Thallium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Vanadium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Zinc	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1

Lab Sample ID: MB 720-223990/1-A
Matrix: Water
Analysis Batch: 224356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		06/01/17 09:25	06/07/17 11:04	1
Beryllium	ND		0.0020		mg/L		06/01/17 09:25	06/07/17 11:04	1

Lab Sample ID: LCS 720-223990/2-A
Matrix: Water
Analysis Batch: 224149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.952		mg/L		95	80 - 120
Barium	1.00	0.975		mg/L		98	80 - 120
Cadmium	1.00	0.965		mg/L		96	80 - 120
Chromium	1.00	0.974		mg/L		97	80 - 120
Cobalt	1.00	0.996		mg/L		100	80 - 120
Copper	1.00	0.978		mg/L		98	80 - 120
Lead	1.00	0.980		mg/L		98	80 - 120
Molybdenum	1.00	0.998		mg/L		100	80 - 120
Nickel	1.00	0.973		mg/L		97	80 - 120
Selenium	1.00	0.932		mg/L		93	80 - 120
Silver	0.500	0.450		mg/L		90	80 - 120
Thallium	1.00	0.979		mg/L		98	80 - 120
Vanadium	1.00	0.979		mg/L		98	80 - 120
Zinc	1.00	0.961		mg/L		96	80 - 120

Lab Sample ID: LCS 720-223990/2-A
Matrix: Water
Analysis Batch: 224356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.966		mg/L		97	80 - 120
Beryllium	1.00	1.00		mg/L		100	80 - 120

QC Sample Results

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-223880/1-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/31/17 08:17	05/31/17 13:04	1

Lab Sample ID: LCS 720-223880/2-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00936		mg/L		94	85 - 115

QC Association Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

GC/MS VOA

Analysis Batch: 223878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	8260B	
720-79727-2	S-SB111-W	Total/NA	Water	8260B	
MB 720-223878/4	Method Blank	Total/NA	Water	8260B	
LCS 720-223878/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 720-223878/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Metals

Prep Batch: 223880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	7470A	
720-79727-2	S-SB111-W	Total/NA	Water	7470A	
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 223932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	7470A	223880
720-79727-2	S-SB111-W	Total/NA	Water	7470A	223880
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	223880
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	223880

Prep Batch: 223990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	3010A	
720-79727-2	S-SB111-W	Total/NA	Water	3010A	
MB 720-223990/1-A	Method Blank	Total/NA	Water	3010A	
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 224149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	6010B	223990
720-79727-2	S-SB111-W	Total/NA	Water	6010B	223990
MB 720-223990/1-A	Method Blank	Total/NA	Water	6010B	223990
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	6010B	223990

Analysis Batch: 224350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79727-1	S-SB110-W	Total/NA	Water	6010B	223990
720-79727-2	S-SB111-W	Total/NA	Water	6010B	223990

Analysis Batch: 224356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-223990/1-A	Method Blank	Total/NA	Water	6010B	223990
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	6010B	223990

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Client Sample ID: S-SB110-W

Lab Sample ID: 720-79727-1

Date Collected: 05/25/17 12:15

Matrix: Water

Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223878	05/31/17 18:26	BAJ	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:25	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224350	06/07/17 01:10	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:38	OBI	TAL PLS

Client Sample ID: S-SB111-W

Lab Sample ID: 720-79727-2

Date Collected: 05/25/17 10:00

Matrix: Water

Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	223878	05/31/17 18:54	BAJ	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:28	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224350	06/07/17 01:14	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:40	OBI	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Method Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ATC Group Services LLC.
Project/Site: SCP S of Walsh

TestAmerica Job ID: 720-79727-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-79727-1	S-SB110-W	Water	05/25/17 12:15	05/25/17 17:45
720-79727-2	S-SB111-W	Water	05/25/17 10:00	05/25/17 17:45

ref # 176143

720-79727

Chain of Custody Record

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
phone 925 484 1919 fax 925 600 3002

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THE LEADER IN ENVIRONMENTAL TESTING

6/7/2017

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Mike Sonke	Site Contact:	Date: 5/16/2017	COC No
ATC Group Services LLC	Tel/Fax: (209) 579-2221	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs
Address 1117 Lone Palm Avenue, Suite 201B	**Analysis Turnaround Time**			For Lab Use Only:
City/State/Zip Modesto, CA, 95351	Calendar (C) or Work Days (W)			Walk-in Client
Phone (209) 579-2221 FAX (209) 579-2225	TAT if different from Below			Lab Sampling
E-mail mike.sonke@atcassociates.com	☐ 2 weeks			
Project Name DLR Walsh Soth	☐ 1 week			Job / SDG No.
Site Project #	☐ 2 days			
Geotracker EDF Global ID #:	☐ 1 day			Sampler: John Selfman Jim Kundert

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	VOCs Full Scan by EPA 8260B	CAM-17 Metals	Sample Specific Notes.
S-SB110-W	5-25-17	1215		W	4	N	G	✓	✓	
S-SB111-W	5-25-17	1000		W	4	N	G	✓	✓	

720-79727 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:

2.3°C

	Company	Date/Time	Received by	Company	Date/Time
	ATC	5-25-17 1525			5/25/17 1525
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	JA	5/25/17 1745			5/25/17 1745
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79727-1

Login Number: 79727
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-79728-1
Client Project/Site: SCP N of Walsh

For:
ATC Group Services LLC.
1117 Lone Palm Avenue
Suite B
Modesto, California 95351

Attn: Mike Sonke

Authorized for release by:
6/8/2017 9:32:08 AM

Micah Smith, Project Manager II
(916)374-4302
micah.smith@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-79728-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-79728-1

Comments
No additional comments.

Receipt
The samples were received on 5/25/2017 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

GC/MS VOA
Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 4 was outside the required criteria when verified by the laboratory, and corrective action was not possible: N-SB103-W (720-79728-3) and N-SB108-W (720-79728-6). The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B: The following sample was collected in properly preserved vial for analysis of volatile organic compounds (VOCs). However, the pH of 6 was outside the required criteria when verified by the laboratory, and corrective action was not possible: N-SB107-W (720-79728-5). The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH of 7 was outside the required criteria when verified by the laboratory, and corrective action was not possible: N-SB109-W (720-79728-7) and N-PS01-W (720-79728-11). The sample was analyzed within 7 days per EPA recommendation.

Method(s) 8260B: The following volatile sample was received and analyzed with significant headspace in the sample vial: N-SB103-W (720-79728-3). Significant headspace is defined as a bubble greater than 6 mm in diameter.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 7470A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: N-SB103-W (720-79728-3), N-SB107-W (720-79728-5) and N-PS01-W (720-79728-11). The samples were preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

Method(s) 7470A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: N-SB109-W (720-79728-7). The sample(s) was preserved to the appropriate pH in the laboratory. The samples were preserved to the appropriate pH in the laboratory by adding 2mL of nitric acid on May 29, 2017.

Method(s) 3010A: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: N-SB103-W (720-79728-3), N-SB107-W (720-79728-5) and N-PS01-W (720-79728-11). The samples were preserved to the appropriate pH in the laboratory by adding 1mL of nitric acid on May 29, 2017.

Method(s) 3010A: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: N-SB109-W (720-79728-7). The samples were preserved to the appropriate pH in the laboratory by adding 2mL of nitric acid on May 29, 2017.

Method(s) 6010B: The following samples was diluted due to the abundance of non-target analytes: N-SB105-W (720-79728-2), N-SB103-W (720-79728-3), N-SB106-W (720-79728-4), N-SB107-W (720-79728-5), N-SB108-W (720-79728-6), N-SB109-W (720-79728-7), N-PS01-S-5' (720-79728-8), N-PS01-S-10' (720-79728-9) and N-PS01-W (720-79728-11). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The following samples were diluted due to the nature of the sample matrix: N-SB105-W (720-79728-2) and N-SB106-W (720-79728-4). Elevated reporting limits (RLs) are provided.

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 720-224382 recovered above the upper control limit for Be. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The

Job ID: 720-79728-1 (Continued)

Laboratory: TestAmerica Pleasanton (Continued)

following sample is impacted: N-SB105-W (720-79728-2) and N-PS01-W (720-79728-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: TB — Lab Sample ID: 720-79728-1

No Detections.

Client Sample ID: N-SB105-W — Lab Sample ID: 720-79728-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	10		0.50		ug/L	1		8260B	Total/NA
Trichloroethene	30		0.50		ug/L	1		8260B	Total/NA
Arsenic	0.24		0.10		mg/L	10		6010B	Total/NA
Barium	15		0.10		mg/L	10		6010B	Total/NA
Cadmium	0.029		0.025		mg/L	10		6010B	Total/NA
Chromium	1.2		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.28		0.020		mg/L	10		6010B	Total/NA
Copper	0.75		0.20		mg/L	10		6010B	Total/NA
Lead	0.22		0.050		mg/L	10		6010B	Total/NA
Nickel	1.4		0.10		mg/L	10		6010B	Total/NA
Vanadium	0.99		0.10		mg/L	10		6010B	Total/NA
Zinc	1.9		0.20		mg/L	10		6010B	Total/NA
Mercury	0.0092		0.00020		mg/L	1		7470A	Total/NA

Client Sample ID: N-SB103-W — Lab Sample ID: 720-79728-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.84		0.50		ug/L	1		8260B	Total/NA
Arsenic	0.81		0.10		mg/L	10		6010B	Total/NA
Barium	42		0.10		mg/L	10		6010B	Total/NA
Beryllium	0.092		0.020		mg/L	10		6010B	Total/NA
Cadmium	0.048		0.025		mg/L	10		6010B	Total/NA
Chromium	7.4		0.10		mg/L	10		6010B	Total/NA
Cobalt	1.9		0.020		mg/L	10		6010B	Total/NA
Copper	4.8		0.20		mg/L	10		6010B	Total/NA
Lead	1.3		0.050		mg/L	10		6010B	Total/NA
Molybdenum	0.21		0.10		mg/L	10		6010B	Total/NA
Nickel	8.9		0.10		mg/L	10		6010B	Total/NA
Selenium	0.35		0.20		mg/L	10		6010B	Total/NA
Vanadium	6.0		0.10		mg/L	10		6010B	Total/NA
Zinc	11		0.20		mg/L	10		6010B	Total/NA
Mercury	0.044		0.0020		mg/L	10		7470A	Total/NA

Client Sample ID: N-SB106-W — Lab Sample ID: 720-79728-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.50		0.10		mg/L	10		6010B	Total/NA
Barium	33		0.10		mg/L	10		6010B	Total/NA
Chromium	3.2		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.69		0.020		mg/L	10		6010B	Total/NA
Copper	2.0		0.20		mg/L	10		6010B	Total/NA
Lead	0.58		0.050		mg/L	10		6010B	Total/NA
Molybdenum	0.11		0.10		mg/L	10		6010B	Total/NA
Nickel	3.4		0.10		mg/L	10		6010B	Total/NA
Vanadium	2.6		0.10		mg/L	10		6010B	Total/NA
Zinc	4.8		0.20		mg/L	10		6010B	Total/NA
Mercury	0.018		0.00020		mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB107-W — Lab Sample ID: 720-79728-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.82		0.10		mg/L	10		6010B	Total/NA
Barium	18		0.10		mg/L	10		6010B	Total/NA
Beryllium	0.065		0.020		mg/L	10		6010B	Total/NA
Chromium	5.1		0.10		mg/L	10		6010B	Total/NA
Cobalt	1.3		0.020		mg/L	10		6010B	Total/NA
Copper	3.5		0.20		mg/L	10		6010B	Total/NA
Lead	0.68		0.050		mg/L	10		6010B	Total/NA
Nickel	7.7		0.10		mg/L	10		6010B	Total/NA
Vanadium	4.5		0.10		mg/L	10		6010B	Total/NA
Zinc	7.4		0.20		mg/L	10		6010B	Total/NA
Mercury	0.019		0.00040		mg/L	2		7470A	Total/NA

Client Sample ID: N-SB108-W — Lab Sample ID: 720-79728-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.75		0.50		ug/L	1		8260B	Total/NA
Arsenic	3.1		0.20		mg/L	20		6010B	Total/NA
Barium	61		0.10		mg/L	10		6010B	Total/NA
Beryllium	0.12		0.040		mg/L	20		6010B	Total/NA
Cadmium	4.5		0.050		mg/L	20		6010B	Total/NA
Chromium	15		0.20		mg/L	20		6010B	Total/NA
Cobalt	3.0		0.040		mg/L	20		6010B	Total/NA
Copper	7.4		0.40		mg/L	20		6010B	Total/NA
Lead	1.9		0.10		mg/L	20		6010B	Total/NA
Nickel	21		0.20		mg/L	20		6010B	Total/NA
Vanadium	8.3		0.20		mg/L	20		6010B	Total/NA
Zinc	14		0.40		mg/L	20		6010B	Total/NA
Mercury	0.036		0.00040		mg/L	2		7470A	Total/NA

Client Sample ID: N-SB109-W — Lab Sample ID: 720-79728-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.53		0.50		ug/L	1		8260B	Total/NA
Arsenic	1.0		0.10		mg/L	10		6010B	Total/NA
Barium	86		0.10		mg/L	10		6010B	Total/NA
Beryllium	0.089		0.040		mg/L	20		6010B	Total/NA
Cadmium	0.048		0.025		mg/L	10		6010B	Total/NA
Chromium	9.3		0.10		mg/L	10		6010B	Total/NA
Cobalt	2.0		0.020		mg/L	10		6010B	Total/NA
Copper	5.2		0.20		mg/L	10		6010B	Total/NA
Lead	1.4		0.10		mg/L	20		6010B	Total/NA
Nickel	11		0.10		mg/L	10		6010B	Total/NA
Vanadium	6.9		0.10		mg/L	10		6010B	Total/NA
Zinc	9.3		0.20		mg/L	10		6010B	Total/NA
Mercury	0.048		0.0020		mg/L	10		7470A	Total/NA

Client Sample ID: N-PS01-S-5' — Lab Sample ID: 720-79728-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.9		2.9		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: N-PS01-S-5' (Continued) — Lab Sample ID: 720-79728-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	98		1.4		mg/Kg	4		6010B	Total/NA
Beryllium	0.33		0.29		mg/Kg	4		6010B	Total/NA
Chromium	35		3.6		mg/Kg	10		6010B	Total/NA
Cobalt	6.1		0.57		mg/Kg	4		6010B	Total/NA
Copper	18		11		mg/Kg	10		6010B	Total/NA
Lead	5.0		1.4		mg/Kg	4		6010B	Total/NA
Nickel	34		1.4		mg/Kg	4		6010B	Total/NA
Vanadium	21		1.4		mg/Kg	4		6010B	Total/NA
Zinc	36		4.3		mg/Kg	4		6010B	Total/NA
Mercury	0.47		0.0097		mg/Kg	1		7471A	Total/NA

Client Sample ID: N-PS01-S-10' — Lab Sample ID: 720-79728-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.7		2.8		mg/Kg	4		6010B	Total/NA
Barium	87		1.4		mg/Kg	4		6010B	Total/NA
Chromium	46		3.4		mg/Kg	10		6010B	Total/NA
Cobalt	8.8		0.55		mg/Kg	4		6010B	Total/NA
Copper	20		10		mg/Kg	10		6010B	Total/NA
Lead	6.3		1.4		mg/Kg	4		6010B	Total/NA
Nickel	58		1.4		mg/Kg	4		6010B	Total/NA
Vanadium	32		1.4		mg/Kg	4		6010B	Total/NA
Zinc	48		4.1		mg/Kg	4		6010B	Total/NA
Mercury	0.066		0.0086		mg/Kg	1		7471A	Total/NA

Client Sample ID: N-PS01-S-15' — Lab Sample ID: 720-79728-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	89		1.9		mg/Kg	4		6010B	Total/NA
Beryllium	0.38		0.38		mg/Kg	4		6010B	Total/NA
Chromium	39		1.9		mg/Kg	4		6010B	Total/NA
Cobalt	9.8		0.76		mg/Kg	4		6010B	Total/NA
Copper	28		5.7		mg/Kg	4		6010B	Total/NA
Lead	7.7		1.9		mg/Kg	4		6010B	Total/NA
Nickel	45		1.9		mg/Kg	4		6010B	Total/NA
Vanadium	39		1.9		mg/Kg	4		6010B	Total/NA
Zinc	54		5.7		mg/Kg	4		6010B	Total/NA
Mercury	0.061		0.0087		mg/Kg	1		7471A	Total/NA

Client Sample ID: N-PS01-W — Lab Sample ID: 720-79728-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.11		0.10		mg/L	10		6010B	Total/NA
Barium	17		0.10		mg/L	10		6010B	Total/NA
Chromium	1.6		0.10		mg/L	10		6010B	Total/NA
Cobalt	0.50		0.020		mg/L	10		6010B	Total/NA
Copper	1.3		0.20		mg/L	10		6010B	Total/NA
Lead	0.39		0.050		mg/L	10		6010B	Total/NA
Nickel	2.1		0.10		mg/L	10		6010B	Total/NA
Vanadium	1.5		0.10		mg/L	10		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: N-PS01-W (Continued)

Lab Sample ID: 720-79728-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	2.4		0.20		mg/L	10		6010B	Total/NA
Mercury	0.0054		0.00020		mg/L	1		7470A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB
Date Collected: 05/25/17 00:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 21:50	1
Acetone	ND		20		ug/L			05/31/17 21:50	1
Benzene	ND		0.50		ug/L			05/31/17 21:50	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 21:50	1
Bromobenzene	ND		0.50		ug/L			05/31/17 21:50	1
Chlorobromomethane	ND		0.50		ug/L			05/31/17 21:50	1
Bromoform	ND		1.0		ug/L			05/31/17 21:50	1
Bromomethane	ND		0.50		ug/L			05/31/17 21:50	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 21:50	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 21:50	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 21:50	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 21:50	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 21:50	1
Chloroethane	ND		1.0		ug/L			05/31/17 21:50	1
Chloroform	ND		0.50		ug/L			05/31/17 21:50	1
Chloromethane	ND		0.50		ug/L			05/31/17 21:50	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 21:50	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 21:50	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 21:50	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 21:50	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 21:50	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 21:50	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 21:50	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 21:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 21:50	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 21:50	1
Dibromomethane	ND		0.50		ug/L			05/31/17 21:50	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 21:50	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 21:50	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 21:50	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 21:50	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 21:50	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 21:50	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 21:50	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 21:50	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 21:50	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 21:50	1
2-Hexanone	ND		5.0		ug/L			05/31/17 21:50	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 21:50	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 21:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 21:50	1
Naphthalene	ND		1.0		ug/L			05/31/17 21:50	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
Styrene	ND		0.50		ug/L			05/31/17 21:50	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 21:50	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: TB
Date Collected: 05/25/17 00:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 21:50	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 21:50	1
Toluene	ND		0.50		ug/L			05/31/17 21:50	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 21:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 21:50	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 21:50	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 21:50	1
Trichloroethene	ND		0.50		ug/L			05/31/17 21:50	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 21:50	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 21:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 21:50	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 21:50	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 21:50	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 21:50	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 21:50	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/31/17 21:50*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*05/31/17 21:50*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/31/17 21:50*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*05/31/17 21:50*	*1*

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB105-W
Date Collected: 05/24/17 16:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 22:19	1
Acetone	ND		20		ug/L			05/31/17 22:19	1
Benzene	ND		0.50		ug/L			05/31/17 22:19	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 22:19	1
Bromobenzene	ND		0.50		ug/L			05/31/17 22:19	1
Chlorobromomethane	ND		0.50		ug/L			05/31/17 22:19	1
Bromoform	ND		1.0		ug/L			05/31/17 22:19	1
Bromomethane	ND		0.50		ug/L			05/31/17 22:19	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 22:19	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 22:19	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 22:19	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 22:19	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 22:19	1
Chloroethane	ND		1.0		ug/L			05/31/17 22:19	1
Chloroform	ND		0.50		ug/L			05/31/17 22:19	1
Chloromethane	ND		0.50		ug/L			05/31/17 22:19	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 22:19	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 22:19	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 22:19	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:19	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:19	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:19	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 22:19	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 22:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 22:19	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 22:19	1
Dibromomethane	ND		0.50		ug/L			05/31/17 22:19	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 22:19	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 22:19	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 22:19	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 22:19	1
cis-1,2-Dichloroethene	**10**		0.50		ug/L			05/31/17 22:19	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 22:19	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 22:19	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 22:19	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 22:19	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 22:19	1
2-Hexanone	ND		5.0		ug/L			05/31/17 22:19	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 22:19	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 22:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 22:19	1
Naphthalene	ND		1.0		ug/L			05/31/17 22:19	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
Styrene	ND		0.50		ug/L			05/31/17 22:19	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 22:19	1

Client Sample ID: N-SB105-W
Date Collected: 05/24/17 16:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 22:19	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 22:19	1
Toluene	ND		0.50		ug/L			05/31/17 22:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 22:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 22:19	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 22:19	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 22:19	1
Trichloroethene	**30**		0.50		ug/L			05/31/17 22:19	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 22:19	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 22:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 22:19	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 22:19	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 22:19	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 22:19	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 22:19	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*05/31/17 22:19*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*05/31/17 22:19*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/31/17 22:19*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*05/31/17 22:19*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:17	10
Arsenic	**0.24**		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Barium	**15**		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Beryllium	ND	^	0.020		mg/L		06/01/17 09:25	06/07/17 16:13	10
Cadmium	**0.029**		0.025		mg/L		06/01/17 09:25	06/03/17 00:32	10
Chromium	**1.2**		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Cobalt	**0.28**		0.020		mg/L		06/01/17 09:25	06/03/17 00:32	10
Copper	**0.75**		0.20		mg/L		06/01/17 09:25	06/03/17 00:32	10
Lead	**0.22**		0.050		mg/L		06/01/17 09:25	06/03/17 00:32	10
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Nickel	**1.4**		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 00:32	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:32	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Vanadium	**0.99**		0.10		mg/L		06/01/17 09:25	06/03/17 00:32	10
Zinc	**1.9**		0.20		mg/L		06/01/17 09:25	06/03/17 00:32	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0092**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:43	1

Client Sample ID: N-SB103-W
Date Collected: 05/25/17 09:55
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 22:48	1
Acetone	ND		20		ug/L			05/31/17 22:48	1
Benzene	ND		0.50		ug/L			05/31/17 22:48	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 22:48	1
Bromobenzene	ND		0.50		ug/L			05/31/17 22:48	1
Chlorobromomethane	ND		0.50		ug/L			05/31/17 22:48	1
Bromoform	ND		1.0		ug/L			05/31/17 22:48	1
Bromomethane	ND		0.50		ug/L			05/31/17 22:48	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 22:48	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 22:48	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 22:48	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 22:48	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 22:48	1
Chloroethane	ND		1.0		ug/L			05/31/17 22:48	1
Chloroform	ND		0.50		ug/L			05/31/17 22:48	1
Chloromethane	ND		0.50		ug/L			05/31/17 22:48	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 22:48	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 22:48	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 22:48	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:48	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:48	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 22:48	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 22:48	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 22:48	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 22:48	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 22:48	1
Dibromomethane	ND		0.50		ug/L			05/31/17 22:48	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 22:48	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 22:48	1
1,2-Dichloroethane	**0.84**		0.50		ug/L			05/31/17 22:48	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 22:48	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 22:48	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 22:48	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 22:48	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 22:48	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 22:48	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 22:48	1
2-Hexanone	ND		5.0		ug/L			05/31/17 22:48	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 22:48	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 22:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 22:48	1
Naphthalene	ND		1.0		ug/L			05/31/17 22:48	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
Styrene	ND		0.50		ug/L			05/31/17 22:48	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 22:48	1

Client Sample ID: N-SB103-W

Date Collected: 05/25/17 09:55
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 22:48	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 22:48	1
Toluene	ND		0.50		ug/L			05/31/17 22:48	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 22:48	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 22:48	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 22:48	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 22:48	1
Trichloroethene	ND		0.50		ug/L			05/31/17 22:48	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 22:48	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 22:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 22:48	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 22:48	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 22:48	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 22:48	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 22:48	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*05/31/17 22:48*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*05/31/17 22:48*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/31/17 22:48*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*05/31/17 22:48*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:20	10
Arsenic	**0.81**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Barium	**42**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Beryllium	**0.092**		0.020		mg/L		06/01/17 09:25	06/07/17 01:20	10
Cadmium	**0.048**		0.025		mg/L		06/01/17 09:25	06/03/17 00:35	10
Chromium	**7.4**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Cobalt	**1.9**		0.020		mg/L		06/01/17 09:25	06/03/17 00:35	10
Copper	**4.8**		0.20		mg/L		06/01/17 09:25	06/03/17 00:35	10
Lead	**1.3**		0.050		mg/L		06/01/17 09:25	06/03/17 00:35	10
Molybdenum	**0.21**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Nickel	**8.9**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Selenium	**0.35**		0.20		mg/L		06/01/17 09:25	06/03/17 00:35	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:35	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Vanadium	**6.0**		0.10		mg/L		06/01/17 09:25	06/03/17 00:35	10
Zinc	**11**		0.20		mg/L		06/01/17 09:25	06/03/17 00:35	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.044**		0.0020		mg/L		05/31/17 08:18	05/31/17 14:07	10

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB106-W
Date Collected: 05/25/17 12:35
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 23:17	1
Acetone	ND		20		ug/L			05/31/17 23:17	1
Benzene	ND		0.50		ug/L			05/31/17 23:17	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 23:17	1
Bromobenzene	ND		0.50		ug/L			05/31/17 23:17	1
Chlorobromomethane	ND		0.50		ug/L			05/31/17 23:17	1
Bromoform	ND		1.0		ug/L			05/31/17 23:17	1
Bromomethane	ND		0.50		ug/L			05/31/17 23:17	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 23:17	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 23:17	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 23:17	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 23:17	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 23:17	1
Chloroethane	ND		1.0		ug/L			05/31/17 23:17	1
Chloroform	ND		0.50		ug/L			05/31/17 23:17	1
Chloromethane	ND		0.50		ug/L			05/31/17 23:17	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 23:17	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 23:17	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 23:17	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:17	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:17	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:17	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 23:17	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 23:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 23:17	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 23:17	1
Dibromomethane	ND		0.50		ug/L			05/31/17 23:17	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 23:17	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 23:17	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 23:17	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 23:17	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 23:17	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 23:17	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 23:17	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 23:17	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 23:17	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 23:17	1
2-Hexanone	ND		5.0		ug/L			05/31/17 23:17	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 23:17	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 23:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 23:17	1
Naphthalene	ND		1.0		ug/L			05/31/17 23:17	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
Styrene	ND		0.50		ug/L			05/31/17 23:17	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 23:17	1

Client Sample ID: N-SB106-W

Date Collected: 05/25/17 12:35
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 23:17	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 23:17	1
Toluene	ND		0.50		ug/L			05/31/17 23:17	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 23:17	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 23:17	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 23:17	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 23:17	1
Trichloroethene	ND		0.50		ug/L			05/31/17 23:17	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 23:17	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 23:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 23:17	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 23:17	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 23:17	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 23:17	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 23:17	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*05/31/17 23:17*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*05/31/17 23:17*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*05/31/17 23:17*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*05/31/17 23:17*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 16:18	10
Arsenic	**0.50**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Barium	**33**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Beryllium	ND		0.040		mg/L		06/01/17 09:25	06/07/17 18:00	20
Cadmium	ND		0.025		mg/L		06/01/17 09:25	06/03/17 00:39	10
Chromium	**3.2**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Cobalt	**0.69**		0.020		mg/L		06/01/17 09:25	06/03/17 00:39	10
Copper	**2.0**		0.20		mg/L		06/01/17 09:25	06/03/17 00:39	10
Lead	**0.58**		0.050		mg/L		06/01/17 09:25	06/03/17 00:39	10
Molybdenum	**0.11**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Nickel	**3.4**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 00:39	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:39	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Vanadium	**2.6**		0.10		mg/L		06/01/17 09:25	06/03/17 00:39	10
Zinc	**4.8**		0.20		mg/L		06/01/17 09:25	06/03/17 00:39	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.018**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:47	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB107-W
Date Collected: 05/25/17 13:30
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 23:47	1
Acetone	ND		20		ug/L			05/31/17 23:47	1
Benzene	ND		0.50		ug/L			05/31/17 23:47	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 23:47	1
Bromobenzene	ND		0.50		ug/L			05/31/17 23:47	1
Chlorobromomethane	ND		0.50		ug/L			05/31/17 23:47	1
Bromoform	ND		1.0		ug/L			05/31/17 23:47	1
Bromomethane	ND		0.50		ug/L			05/31/17 23:47	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 23:47	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 23:47	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 23:47	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 23:47	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 23:47	1
Chloroethane	ND		1.0		ug/L			05/31/17 23:47	1
Chloroform	ND		0.50		ug/L			05/31/17 23:47	1
Chloromethane	ND		0.50		ug/L			05/31/17 23:47	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 23:47	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 23:47	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 23:47	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:47	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:47	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 23:47	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 23:47	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 23:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 23:47	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 23:47	1
Dibromomethane	ND		0.50		ug/L			05/31/17 23:47	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 23:47	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 23:47	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 23:47	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 23:47	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 23:47	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 23:47	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 23:47	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 23:47	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 23:47	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 23:47	1
2-Hexanone	ND		5.0		ug/L			05/31/17 23:47	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 23:47	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 23:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 23:47	1
Naphthalene	ND		1.0		ug/L			05/31/17 23:47	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
Styrene	ND		0.50		ug/L			05/31/17 23:47	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 23:47	1

Client Sample ID: N-SB107-W

Date Collected: 05/25/17 13:30
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 23:47	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 23:47	1
Toluene	ND		0.50		ug/L			05/31/17 23:47	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 23:47	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 23:47	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 23:47	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 23:47	1
Trichloroethene	ND		0.50		ug/L			05/31/17 23:47	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 23:47	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 23:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 23:47	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 23:47	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 23:47	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 23:47	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 23:47	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*05/31/17 23:47*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*05/31/17 23:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/31/17 23:47*	*1*
Dibromofluoromethane (Surr)	*116*		*76 - 132*		*05/31/17 23:47*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:27	10
Arsenic	**0.82**		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Barium	**18**		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Beryllium	**0.065**		0.020		mg/L		06/01/17 09:25	06/07/17 01:27	10
Cadmium	ND		0.025		mg/L		06/01/17 09:25	06/03/17 00:42	10
Chromium	**5.1**		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Cobalt	**1.3**		0.020		mg/L		06/01/17 09:25	06/03/17 00:42	10
Copper	**3.5**		0.20		mg/L		06/01/17 09:25	06/03/17 00:42	10
Lead	**0.68**		0.050		mg/L		06/01/17 09:25	06/03/17 00:42	10
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Nickel	**7.7**		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 00:42	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:42	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Vanadium	**4.5**		0.10		mg/L		06/01/17 09:25	06/03/17 00:42	10
Zinc	**7.4**		0.20		mg/L		06/01/17 09:25	06/03/17 00:42	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.019**		0.00040		mg/L		05/31/17 08:18	05/31/17 13:49	2

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB108-W
Date Collected: 05/25/17 14:20
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/01/17 00:16	1
Acetone	ND		20		ug/L			06/01/17 00:16	1
Benzene	ND		0.50		ug/L			06/01/17 00:16	1
Dichlorobromomethane	ND		0.50		ug/L			06/01/17 00:16	1
Bromobenzene	ND		0.50		ug/L			06/01/17 00:16	1
Chlorobromomethane	ND		0.50		ug/L			06/01/17 00:16	1
Bromoform	ND		1.0		ug/L			06/01/17 00:16	1
Bromomethane	ND		0.50		ug/L			06/01/17 00:16	1
2-Butanone (MEK)	ND		5.0		ug/L			06/01/17 00:16	1
n-Butylbenzene	ND		1.0		ug/L			06/01/17 00:16	1
sec-Butylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
tert-Butylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
Carbon disulfide	ND		1.0		ug/L			06/01/17 00:16	1
Carbon tetrachloride	ND		0.50		ug/L			06/01/17 00:16	1
Chlorobenzene	ND		0.50		ug/L			06/01/17 00:16	1
Chloroethane	ND		1.0		ug/L			06/01/17 00:16	1
Chloroform	ND		0.50		ug/L			06/01/17 00:16	1
Chloromethane	ND		0.50		ug/L			06/01/17 00:16	1
2-Chlorotoluene	ND		0.50		ug/L			06/01/17 00:16	1
4-Chlorotoluene	ND		0.50		ug/L			06/01/17 00:16	1
Chlorodibromomethane	ND		0.50		ug/L			06/01/17 00:16	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:16	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:16	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:16	1
1,3-Dichloropropane	ND		0.50		ug/L			06/01/17 00:16	1
1,1-Dichloropropene	ND		0.50		ug/L			06/01/17 00:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			06/01/17 00:16	1
Ethylene Dibromide	ND		0.50		ug/L			06/01/17 00:16	1
Dibromomethane	ND		0.50		ug/L			06/01/17 00:16	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/01/17 00:16	1
1,1-Dichloroethane	ND		0.50		ug/L			06/01/17 00:16	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/17 00:16	1
1,1-Dichloroethene	ND		0.50		ug/L			06/01/17 00:16	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 00:16	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 00:16	1
1,2-Dichloropropane	ND		0.50		ug/L			06/01/17 00:16	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 00:16	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 00:16	1
Ethylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
Hexachlorobutadiene	ND		0.50		ug/L			06/01/17 00:16	1
2-Hexanone	ND		5.0		ug/L			06/01/17 00:16	1
Isopropylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
4-Isopropyltoluene	ND		0.50		ug/L			06/01/17 00:16	1
Methylene Chloride	ND		2.0		ug/L			06/01/17 00:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			06/01/17 00:16	1
Naphthalene	ND		1.0		ug/L			06/01/17 00:16	1
N-Propylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
Styrene	ND		0.50		ug/L			06/01/17 00:16	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 00:16	1

Client Sample ID: N-SB108-W

Date Collected: 05/25/17 14:20
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 00:16	1
Tetrachloroethene	**0.75**		0.50		ug/L			06/01/17 00:16	1
Toluene	ND		0.50		ug/L			06/01/17 00:16	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/17 00:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/17 00:16	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/01/17 00:16	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/01/17 00:16	1
Trichloroethene	ND		0.50		ug/L			06/01/17 00:16	1
Trichlorofluoromethane	ND		0.50		ug/L			06/01/17 00:16	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/01/17 00:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			06/01/17 00:16	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/01/17 00:16	1
Vinyl acetate	ND		4.0		ug/L			06/01/17 00:16	1
Vinyl chloride	ND		0.50		ug/L			06/01/17 00:16	1
Xylenes, Total	ND		1.0		ug/L			06/01/17 00:16	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/17 00:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*06/01/17 00:16*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*06/01/17 00:16*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/17 00:16*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/01/17 00:16*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Arsenic	**3.1**		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Barium	**61**		0.10		mg/L		06/01/17 09:25	06/03/17 00:46	10
Beryllium	**0.12**		0.040		mg/L		06/01/17 09:25	06/07/17 01:31	20
Cadmium	**4.5**		0.050		mg/L		06/01/17 09:25	06/07/17 01:31	20
Chromium	**15**		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Cobalt	**3.0**		0.040		mg/L		06/01/17 09:25	06/07/17 01:31	20
Copper	**7.4**		0.40		mg/L		06/01/17 09:25	06/07/17 01:31	20
Lead	**1.9**		0.10		mg/L		06/01/17 09:25	06/07/17 01:31	20
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:46	10
Nickel	**21**		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Selenium	ND		0.40		mg/L		06/01/17 09:25	06/07/17 01:31	20
Silver	ND		0.10		mg/L		06/01/17 09:25	06/07/17 01:31	20
Thallium	ND		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Vanadium	**8.3**		0.20		mg/L		06/01/17 09:25	06/07/17 01:31	20
Zinc	**14**		0.40		mg/L		06/01/17 09:25	06/07/17 01:31	20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.036**		0.00040		mg/L		05/31/17 08:18	05/31/17 13:52	2

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-SB109-W
Date Collected: 05/25/17 15:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/01/17 00:45	1
Acetone	ND		20		ug/L			06/01/17 00:45	1
Benzene	ND		0.50		ug/L			06/01/17 00:45	1
Dichlorobromomethane	ND		0.50		ug/L			06/01/17 00:45	1
Bromobenzene	ND		0.50		ug/L			06/01/17 00:45	1
Chlorobromomethane	ND		0.50		ug/L			06/01/17 00:45	1
Bromoform	ND		1.0		ug/L			06/01/17 00:45	1
Bromomethane	ND		0.50		ug/L			06/01/17 00:45	1
2-Butanone (MEK)	ND		5.0		ug/L			06/01/17 00:45	1
n-Butylbenzene	ND		1.0		ug/L			06/01/17 00:45	1
sec-Butylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
tert-Butylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
Carbon disulfide	ND		1.0		ug/L			06/01/17 00:45	1
Carbon tetrachloride	ND		0.50		ug/L			06/01/17 00:45	1
Chlorobenzene	ND		0.50		ug/L			06/01/17 00:45	1
Chloroethane	ND		1.0		ug/L			06/01/17 00:45	1
Chloroform	ND		0.50		ug/L			06/01/17 00:45	1
Chloromethane	ND		0.50		ug/L			06/01/17 00:45	1
2-Chlorotoluene	ND		0.50		ug/L			06/01/17 00:45	1
4-Chlorotoluene	ND		0.50		ug/L			06/01/17 00:45	1
Chlorodibromomethane	ND		0.50		ug/L			06/01/17 00:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/01/17 00:45	1
1,3-Dichloropropane	ND		0.50		ug/L			06/01/17 00:45	1
1,1-Dichloropropene	ND		0.50		ug/L			06/01/17 00:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			06/01/17 00:45	1
Ethylene Dibromide	ND		0.50		ug/L			06/01/17 00:45	1
Dibromomethane	ND		0.50		ug/L			06/01/17 00:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/01/17 00:45	1
1,1-Dichloroethane	ND		0.50		ug/L			06/01/17 00:45	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/17 00:45	1
1,1-Dichloroethene	ND		0.50		ug/L			06/01/17 00:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 00:45	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 00:45	1
1,2-Dichloropropane	ND		0.50		ug/L			06/01/17 00:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 00:45	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 00:45	1
Ethylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
Hexachlorobutadiene	ND		0.50		ug/L			06/01/17 00:45	1
2-Hexanone	ND		5.0		ug/L			06/01/17 00:45	1
Isopropylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
4-Isopropyltoluene	ND		0.50		ug/L			06/01/17 00:45	1
Methylene Chloride	ND		2.0		ug/L			06/01/17 00:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			06/01/17 00:45	1
Naphthalene	ND		1.0		ug/L			06/01/17 00:45	1
N-Propylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
Styrene	ND		0.50		ug/L			06/01/17 00:45	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 00:45	1

Client Sample ID: N-SB109-W
Date Collected: 05/25/17 15:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 00:45	1
Tetrachloroethene	ND		0.50		ug/L			06/01/17 00:45	1
Toluene	ND		0.50		ug/L			06/01/17 00:45	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/17 00:45	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/17 00:45	1
1,1,1-Trichloroethane	**0.53**		0.50		ug/L			06/01/17 00:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/01/17 00:45	1
Trichloroethene	ND		0.50		ug/L			06/01/17 00:45	1
Trichlorofluoromethane	ND		0.50		ug/L			06/01/17 00:45	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/01/17 00:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			06/01/17 00:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/01/17 00:45	1
Vinyl acetate	ND		4.0		ug/L			06/01/17 00:45	1
Vinyl chloride	ND		0.50		ug/L			06/01/17 00:45	1
Xylenes, Total	ND		1.0		ug/L			06/01/17 00:45	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/17 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*06/01/17 00:45*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*06/01/17 00:45*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/01/17 00:45*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/01/17 00:45*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.20		mg/L		06/01/17 09:25	06/07/17 01:34	20
Arsenic	**1.0**		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Barium	**86**		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Beryllium	**0.089**		0.040		mg/L		06/01/17 09:25	06/07/17 01:34	20
Cadmium	**0.048**		0.025		mg/L		06/01/17 09:25	06/03/17 00:50	10
Chromium	**9.3**		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Cobalt	**2.0**		0.020		mg/L		06/01/17 09:25	06/03/17 00:50	10
Copper	**5.2**		0.20		mg/L		06/01/17 09:25	06/03/17 00:50	10
Lead	**1.4**		0.10		mg/L		06/01/17 09:25	06/07/17 01:34	20
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Nickel	**11**		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Selenium	ND		0.40		mg/L		06/01/17 09:25	06/07/17 01:34	20
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 00:50	10
Thallium	ND		0.20		mg/L		06/01/17 09:25	06/07/17 01:34	20
Vanadium	**6.9**		0.10		mg/L		06/01/17 09:25	06/03/17 00:50	10
Zinc	**9.3**		0.20		mg/L		06/01/17 09:25	06/03/17 00:50	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.048**		0.0020		mg/L		05/31/17 08:18	05/31/17 14:09	10

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-S-5'
Date Collected: 05/25/17 08:32
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-8
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Acetone	ND		50		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Benzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Dichlorobromomethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Bromobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chlorobromomethane	ND		20		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Bromoform	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Bromomethane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
2-Butanone (MEK)	ND		50		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
n-Butylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
sec-Butylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
tert-Butylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Carbon disulfide	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Carbon tetrachloride	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chloroethane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chloroform	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chloromethane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
2-Chlorotoluene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
4-Chlorotoluene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Chlorodibromomethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,3-Dichloropropane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1-Dichloropropene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2-Dibromo-3-Chloropropane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Ethylene Dibromide	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Dibromomethane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Dichlorodifluoromethane	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1-Dichloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2-Dichloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1-Dichloroethene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2-Dichloropropane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Ethylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Hexachlorobutadiene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
2-Hexanone	ND		50		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Isopropylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
4-Isopropyltoluene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Methylene Chloride	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Naphthalene	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
N-Propylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Styrene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1

Client Sample ID: N-PS01-S-5'
Date Collected: 05/25/17 08:32
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-8
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Tetrachloroethene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Toluene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Trichloroethene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Trichlorofluoromethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Vinyl acetate	ND		20		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Vinyl chloride	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
Xylenes, Total	ND		9.9		ug/Kg		05/30/17 21:48	06/01/17 15:27	1
2,2-Dichloropropane	ND		5.0		ug/Kg		05/30/17 21:48	06/01/17 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*45 - 131*	*05/30/17 21:48*	*06/01/17 15:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*	*05/30/17 21:48*	*06/01/17 15:27*	*1*
Toluene-d8 (Surr)	*100*		*58 - 140*	*05/30/17 21:48*	*06/01/17 15:27*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Arsenic	**2.9**		2.9		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Barium	**98**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Beryllium	**0.33**		0.29		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Cadmium	ND		0.36		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Chromium	**35**		3.6		mg/Kg		05/31/17 14:49	06/07/17 20:13	10
Cobalt	**6.1**		0.57		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Copper	**18**		11		mg/Kg		05/31/17 14:49	06/07/17 20:13	10
Lead	**5.0**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Molybdenum	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Nickel	**34**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Selenium	ND		2.9		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Silver	ND		0.71		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Thallium	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Vanadium	**21**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:54	4
Zinc	**36**		4.3		mg/Kg		05/31/17 14:49	06/06/17 02:54	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.47**		0.0097		mg/Kg		05/30/17 13:54	06/01/17 16:20	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-S-10'
Date Collected: 05/25/17 08:36
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-9
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Acetone	ND		47		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Benzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Dichlorobromomethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Bromobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chlorobromomethane	ND		19		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Bromoform	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Bromomethane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
2-Butanone (MEK)	ND		47		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
n-Butylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
sec-Butylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
tert-Butylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Carbon disulfide	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Carbon tetrachloride	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chloroethane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chloroform	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chloromethane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
2-Chlorotoluene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
4-Chlorotoluene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Chlorodibromomethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2-Dichlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,3-Dichlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,4-Dichlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,3-Dichloropropane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1-Dichloropropene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2-Dibromo-3-Chloropropane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Ethylene Dibromide	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Dibromomethane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Dichlorodifluoromethane	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1-Dichloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2-Dichloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1-Dichloroethene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
cis-1,2-Dichloroethene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
trans-1,2-Dichloroethene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2-Dichloropropane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
cis-1,3-Dichloropropene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
trans-1,3-Dichloropropene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Ethylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Hexachlorobutadiene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
2-Hexanone	ND		47		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Isopropylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
4-Isopropyltoluene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Methylene Chloride	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
4-Methyl-2-pentanone (MIBK)	ND		47		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Naphthalene	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
N-Propylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Styrene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1,1,2-Tetrachloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1

Client Sample ID: N-PS01-S-10'
Date Collected: 05/25/17 08:36
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-9
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Tetrachloroethene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Toluene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2,3-Trichlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2,4-Trichlorobenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1,1-Trichloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1,2-Trichloroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Trichloroethene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Trichlorofluoromethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2,3-Trichloropropane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,2,4-Trimethylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
1,3,5-Trimethylbenzene	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Vinyl acetate	ND		19		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Vinyl chloride	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
Xylenes, Total	ND		9.3		ug/Kg		05/30/17 21:48	06/01/17 15:58	1
2,2-Dichloropropane	ND		4.7		ug/Kg		05/30/17 21:48	06/01/17 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*45 - 131*	*05/30/17 21:48*	*06/01/17 15:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*	*05/30/17 21:48*	*06/01/17 15:58*	*1*
Toluene-d8 (Surr)	*100*		*58 - 140*	*05/30/17 21:48*	*06/01/17 15:58*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Arsenic	**3.7**		2.8		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Barium	**87**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Beryllium	ND		0.69		mg/Kg		05/31/17 14:49	06/07/17 20:16	10
Cadmium	ND		0.34		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Chromium	**46**		3.4		mg/Kg		05/31/17 14:49	06/07/17 20:16	10
Cobalt	**8.8**		0.55		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Copper	**20**		10		mg/Kg		05/31/17 14:49	06/07/17 20:16	10
Lead	**6.3**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Molybdenum	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Nickel	**58**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Selenium	ND		2.8		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Silver	ND		0.69		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Thallium	ND		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Vanadium	**32**		1.4		mg/Kg		05/31/17 14:49	06/06/17 02:57	4
Zinc	**48**		4.1		mg/Kg		05/31/17 14:49	06/06/17 02:57	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.066**		0.0086		mg/Kg		05/30/17 13:54	06/01/17 16:22	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-S-15'
Date Collected: 05/25/17 08:43
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-10
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Acetone	ND		49		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Benzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Dichlorobromomethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Bromobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chlorobromomethane	ND		20		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Bromoform	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Bromomethane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
2-Butanone (MEK)	ND		49		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
n-Butylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
sec-Butylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
tert-Butylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Carbon disulfide	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Carbon tetrachloride	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chloroethane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chloroform	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chloromethane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
2-Chlorotoluene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
4-Chlorotoluene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Chlorodibromomethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2-Dichlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,3-Dichlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,4-Dichlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,3-Dichloropropane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1-Dichloropropene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2-Dibromo-3-Chloropropane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Ethylene Dibromide	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Dibromomethane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Dichlorodifluoromethane	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1-Dichloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2-Dichloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1-Dichloroethene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
cis-1,2-Dichloroethene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
trans-1,2-Dichloroethene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2-Dichloropropane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
cis-1,3-Dichloropropene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
trans-1,3-Dichloropropene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Ethylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Hexachlorobutadiene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
2-Hexanone	ND		49		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Isopropylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
4-Isopropyltoluene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Methylene Chloride	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
4-Methyl-2-pentanone (MIBK)	ND		49		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Naphthalene	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
N-Propylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Styrene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1,1,2-Tetrachloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-S-15'
Date Collected: 05/25/17 08:43
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-10
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Tetrachloroethene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Toluene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2,3-Trichlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2,4-Trichlorobenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1,1-Trichloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1,2-Trichloroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Trichloroethene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Trichlorofluoromethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2,3-Trichloropropane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,2,4-Trimethylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
1,3,5-Trimethylbenzene	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Vinyl acetate	ND		20		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Vinyl chloride	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
Xylenes, Total	ND		9.8		ug/Kg		05/30/17 21:48	06/01/17 16:28	1
2,2-Dichloropropane	ND		4.9		ug/Kg		05/30/17 21:48	06/01/17 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*45 - 131*	*05/30/17 21:48*	*06/01/17 16:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*60 - 140*	*05/30/17 21:48*	*06/01/17 16:28*	*1*
Toluene-d8 (Surr)	*97*		*58 - 140*	*05/30/17 21:48*	*06/01/17 16:28*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Arsenic	ND		3.8		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Barium	**89**		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Beryllium	**0.38**		0.38		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Cadmium	ND		0.48		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Chromium	**39**		1.9		mg/Kg		05/31/17 14:49	06/06/17 23:24	4
Cobalt	**9.8**		0.76		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Copper	**28**		5.7		mg/Kg		05/31/17 14:49	06/06/17 23:24	4
Lead	**7.7**		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Molybdenum	ND		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Nickel	**45**		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Selenium	ND		3.8		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Silver	ND		0.95		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Thallium	ND		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Vanadium	**39**		1.9		mg/Kg		05/31/17 14:49	06/06/17 03:01	4
Zinc	**54**		5.7		mg/Kg		05/31/17 14:49	06/06/17 03:01	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.061**		0.0087		mg/Kg		05/30/17 13:54	06/01/17 16:24	1

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-W
Date Collected: 05/25/17 09:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			06/01/17 01:14	1
Acetone	ND		20		ug/L			06/01/17 01:14	1
Benzene	ND		0.50		ug/L			06/01/17 01:14	1
Dichlorobromomethane	ND		0.50		ug/L			06/01/17 01:14	1
Bromobenzene	ND		0.50		ug/L			06/01/17 01:14	1
Chlorobromomethane	ND		0.50		ug/L			06/01/17 01:14	1
Bromoform	ND		1.0		ug/L			06/01/17 01:14	1
Bromomethane	ND		0.50		ug/L			06/01/17 01:14	1
2-Butanone (MEK)	ND		5.0		ug/L			06/01/17 01:14	1
n-Butylbenzene	ND		1.0		ug/L			06/01/17 01:14	1
sec-Butylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
tert-Butylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
Carbon disulfide	ND		1.0		ug/L			06/01/17 01:14	1
Carbon tetrachloride	ND		0.50		ug/L			06/01/17 01:14	1
Chlorobenzene	ND		0.50		ug/L			06/01/17 01:14	1
Chloroethane	ND		1.0		ug/L			06/01/17 01:14	1
Chloroform	ND		0.50		ug/L			06/01/17 01:14	1
Chloromethane	ND		0.50		ug/L			06/01/17 01:14	1
2-Chlorotoluene	ND		0.50		ug/L			06/01/17 01:14	1
4-Chlorotoluene	ND		0.50		ug/L			06/01/17 01:14	1
Chlorodibromomethane	ND		0.50		ug/L			06/01/17 01:14	1
1,2-Dichlorobenzene	ND		0.50		ug/L			06/01/17 01:14	1
1,3-Dichlorobenzene	ND		0.50		ug/L			06/01/17 01:14	1
1,4-Dichlorobenzene	ND		0.50		ug/L			06/01/17 01:14	1
1,3-Dichloropropane	ND		0.50		ug/L			06/01/17 01:14	1
1,1-Dichloropropene	ND		0.50		ug/L			06/01/17 01:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			06/01/17 01:14	1
Ethylene Dibromide	ND		0.50		ug/L			06/01/17 01:14	1
Dibromomethane	ND		0.50		ug/L			06/01/17 01:14	1
Dichlorodifluoromethane	ND		1.0		ug/L			06/01/17 01:14	1
1,1-Dichloroethane	ND		0.50		ug/L			06/01/17 01:14	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/17 01:14	1
1,1-Dichloroethene	ND		0.50		ug/L			06/01/17 01:14	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 01:14	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			06/01/17 01:14	1
1,2-Dichloropropane	ND		0.50		ug/L			06/01/17 01:14	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 01:14	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/17 01:14	1
Ethylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
Hexachlorobutadiene	ND		0.50		ug/L			06/01/17 01:14	1
2-Hexanone	ND		5.0		ug/L			06/01/17 01:14	1
Isopropylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
4-Isopropyltoluene	ND		0.50		ug/L			06/01/17 01:14	1
Methylene Chloride	ND		2.0		ug/L			06/01/17 01:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			06/01/17 01:14	1
Naphthalene	ND		1.0		ug/L			06/01/17 01:14	1
N-Propylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
Styrene	ND		0.50		ug/L			06/01/17 01:14	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 01:14	1

Client Sample ID: N-PS01-W
Date Collected: 05/25/17 09:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			06/01/17 01:14	1
Tetrachloroethene	ND		0.50		ug/L			06/01/17 01:14	1
Toluene	ND		0.50		ug/L			06/01/17 01:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/17 01:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/17 01:14	1
1,1,1-Trichloroethane	ND		0.50		ug/L			06/01/17 01:14	1
1,1,2-Trichloroethane	ND		0.50		ug/L			06/01/17 01:14	1
Trichloroethene	ND		0.50		ug/L			06/01/17 01:14	1
Trichlorofluoromethane	ND		0.50		ug/L			06/01/17 01:14	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/01/17 01:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			06/01/17 01:14	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			06/01/17 01:14	1
Vinyl acetate	ND		4.0		ug/L			06/01/17 01:14	1
Vinyl chloride	ND		0.50		ug/L			06/01/17 01:14	1
Xylenes, Total	ND		1.0		ug/L			06/01/17 01:14	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/17 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*06/01/17 01:14*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*06/01/17 01:14*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*06/01/17 01:14*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*06/01/17 01:14*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.10		mg/L		06/01/17 09:25	06/07/17 16:23	10
Arsenic	**0.11**		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Barium	**17**		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Beryllium	ND	^	0.020		mg/L		06/01/17 09:25	06/07/17 16:23	10
Cadmium	ND		0.025		mg/L		06/01/17 09:25	06/03/17 01:01	10
Chromium	**1.6**		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Cobalt	**0.50**		0.020		mg/L		06/01/17 09:25	06/03/17 01:01	10
Copper	**1.3**		0.20		mg/L		06/01/17 09:25	06/03/17 01:01	10
Lead	**0.39**		0.050		mg/L		06/01/17 09:25	06/03/17 01:01	10
Molybdenum	ND		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Nickel	**2.1**		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Selenium	ND		0.20		mg/L		06/01/17 09:25	06/03/17 01:01	10
Silver	ND		0.050		mg/L		06/01/17 09:25	06/03/17 01:01	10
Thallium	ND		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Vanadium	**1.5**		0.10		mg/L		06/01/17 09:25	06/03/17 01:01	10
Zinc	**2.4**		0.20		mg/L		06/01/17 09:25	06/03/17 01:01	10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0054**		0.00020		mg/L		05/31/17 08:18	05/31/17 13:56	1

Surrogate Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(45-131)	(60-140)	(58-140)
720-79728-8	N-PS01-S-5'	97	102	100
720-79728-9	N-PS01-S-10'	94	102	100
720-79728-10	N-PS01-S-15'	90	105	97
LCS 720-223981/5	Lab Control Sample	104	103	105
LCSD 720-223981/6	Lab Control Sample Dup	103	101	105
MB 720-223981/4	Method Blank	99	102	103

Surrogate Legend

BFB = 4-Bromofluorobenzene
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(70-130)	(80-128)	(80-120)	(76-132)
720-79728-1	TB	101	103	102	111
720-79728-2	N-SB105-W	105	103	102	111
720-79728-3	N-SB103-W	114	103	103	115
720-79728-4	N-SB106-W	107	102	103	115
720-79728-5	N-SB107-W	110	103	100	116
720-79728-6	N-SB108-W	110	102	102	113
720-79728-7	N-SB109-W	114	104	105	113
720-79728-11	N-PS01-W	111	100	100	117
LCS 440-409281/5	Lab Control Sample	99	99	104	106
MB 440-409281/4	Method Blank	101	105	102	109

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-223981/4
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg			06/01/17 09:21	1
Acetone	ND		50		ug/Kg			06/01/17 09:21	1
Benzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Dichlorobromomethane	ND		5.0		ug/Kg			06/01/17 09:21	1
Bromobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Chlorobromomethane	ND		20		ug/Kg			06/01/17 09:21	1
Bromoform	ND		5.0		ug/Kg			06/01/17 09:21	1
Bromomethane	ND		10		ug/Kg			06/01/17 09:21	1
2-Butanone (MEK)	ND		50		ug/Kg			06/01/17 09:21	1
n-Butylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
sec-Butylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
tert-Butylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Carbon disulfide	ND		5.0		ug/Kg			06/01/17 09:21	1
Carbon tetrachloride	ND		5.0		ug/Kg			06/01/17 09:21	1
Chlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Chloroethane	ND		10		ug/Kg			06/01/17 09:21	1
Chloroform	ND		5.0		ug/Kg			06/01/17 09:21	1
Chloromethane	ND		10		ug/Kg			06/01/17 09:21	1
2-Chlorotoluene	ND		5.0		ug/Kg			06/01/17 09:21	1
4-Chlorotoluene	ND		5.0		ug/Kg			06/01/17 09:21	1
Chlorodibromomethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,3-Dichloropropane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1-Dichloropropene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg			06/01/17 09:21	1
Ethylene Dibromide	ND		5.0		ug/Kg			06/01/17 09:21	1
Dibromomethane	ND		10		ug/Kg			06/01/17 09:21	1
Dichlorodifluoromethane	ND		10		ug/Kg			06/01/17 09:21	1
1,1-Dichloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2-Dichloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1-Dichloroethene	ND		5.0		ug/Kg			06/01/17 09:21	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			06/01/17 09:21	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2-Dichloropropane	ND		5.0		ug/Kg			06/01/17 09:21	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			06/01/17 09:21	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			06/01/17 09:21	1
Ethylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Hexachlorobutadiene	ND		5.0		ug/Kg			06/01/17 09:21	1
2-Hexanone	ND		50		ug/Kg			06/01/17 09:21	1
Isopropylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
4-Isopropyltoluene	ND		5.0		ug/Kg			06/01/17 09:21	1
Methylene Chloride	ND		10		ug/Kg			06/01/17 09:21	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			06/01/17 09:21	1
Naphthalene	ND		10		ug/Kg			06/01/17 09:21	1
N-Propylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Styrene	ND		5.0		ug/Kg			06/01/17 09:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-223981/4
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
Tetrachloroethene	ND		5.0		ug/Kg			06/01/17 09:21	1
Toluene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
Trichloroethene	ND		5.0		ug/Kg			06/01/17 09:21	1
Trichlorofluoromethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			06/01/17 09:21	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			06/01/17 09:21	1
Vinyl acetate	ND		20		ug/Kg			06/01/17 09:21	1
Vinyl chloride	ND		5.0		ug/Kg			06/01/17 09:21	1
Xylenes, Total	ND		10		ug/Kg			06/01/17 09:21	1
2,2-Dichloropropane	ND		5.0		ug/Kg			06/01/17 09:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*45 - 131*		*06/01/17 09:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*		*06/01/17 09:21*	*1*
Toluene-d8 (Surr)	*103*		*58 - 140*		*06/01/17 09:21*	*1*

Lab Sample ID: LCS 720-223981/5
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	55.8		ug/Kg		112	70 - 144
Acetone	250	280		ug/Kg		112	30 - 162
Benzene	50.0	50.9		ug/Kg		102	70 - 130
Dichlorobromomethane	50.0	55.1		ug/Kg		110	70 - 140
Bromobenzene	50.0	49.0		ug/Kg		98	70 - 130
Chlorobromomethane	50.0	51.7		ug/Kg		103	70 - 130
Bromoform	50.0	49.3		ug/Kg		99	59 - 158
Bromomethane	50.0	46.0		ug/Kg		92	59 - 132
2-Butanone (MEK)	250	272		ug/Kg		109	59 - 159
n-Butylbenzene	50.0	49.9		ug/Kg		100	70 - 142
sec-Butylbenzene	50.0	47.6		ug/Kg		95	70 - 136
tert-Butylbenzene	50.0	50.0		ug/Kg		100	70 - 130
Carbon disulfide	50.0	43.9		ug/Kg		88	60 - 140
Carbon tetrachloride	50.0	50.7		ug/Kg		101	70 - 142
Chlorobenzene	50.0	49.4		ug/Kg		99	70 - 130
Chloroethane	50.0	46.3		ug/Kg		93	65 - 130
Chloroform	50.0	49.5		ug/Kg		99	77 - 127
Chloromethane	50.0	41.8		ug/Kg		84	55 - 140
2-Chlorotoluene	50.0	50.0		ug/Kg		100	70 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-223981/5
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	50.0	51.5		ug/Kg		103	70 - 136
Chlorodibromomethane	50.0	51.9		ug/Kg		104	70 - 146
1,2-Dichlorobenzene	50.0	49.0		ug/Kg		98	70 - 130
1,3-Dichlorobenzene	50.0	48.5		ug/Kg		97	70 - 131
1,4-Dichlorobenzene	50.0	49.8		ug/Kg		100	70 - 130
1,3-Dichloropropane	50.0	50.8		ug/Kg		102	70 - 140
1,1-Dichloropropene	50.0	50.8		ug/Kg		102	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	52.1		ug/Kg		104	60 - 145
Ethylene Dibromide	50.0	52.8		ug/Kg		106	70 - 140
Dibromomethane	50.0	51.1		ug/Kg		102	70 - 139
Dichlorodifluoromethane	50.0	34.9		ug/Kg		70	37 - 158
1,1-Dichloroethane	50.0	49.1		ug/Kg		98	70 - 130
1,2-Dichloroethane	50.0	50.9		ug/Kg		102	70 - 130
1,1-Dichloroethene	50.0	44.5		ug/Kg		89	74 - 122
cis-1,2-Dichloroethene	50.0	49.1		ug/Kg		98	70 - 138
trans-1,2-Dichloroethene	50.0	47.7		ug/Kg		95	67 - 130
1,2-Dichloropropane	50.0	51.2		ug/Kg		102	73 - 127
cis-1,3-Dichloropropene	50.0	55.7		ug/Kg		111	68 - 147
trans-1,3-Dichloropropene	50.0	52.1		ug/Kg		104	70 - 155
Ethylbenzene	50.0	47.4		ug/Kg		95	80 - 137
Hexachlorobutadiene	50.0	45.9		ug/Kg		92	70 - 132
2-Hexanone	250	286		ug/Kg		115	62 - 158
Isopropylbenzene	50.0	50.0		ug/Kg		100	70 - 130
4-Isopropyltoluene	50.0	47.0		ug/Kg		94	70 - 133
Methylene Chloride	50.0	47.4		ug/Kg		95	70 - 134
4-Methyl-2-pentanone (MIBK)	250	294		ug/Kg		118	60 - 160
Naphthalene	50.0	54.9		ug/Kg		110	60 - 147
N-Propylbenzene	50.0	49.8		ug/Kg		100	70 - 130
Styrene	50.0	55.7		ug/Kg		111	70 - 130
1,1,1,2-Tetrachloroethane	50.0	54.2		ug/Kg		108	70 - 130
1,1,2,2-Tetrachloroethane	50.0	52.0		ug/Kg		104	70 - 146
Tetrachloroethene	50.0	48.1		ug/Kg		96	70 - 132
Toluene	50.0	49.5		ug/Kg		99	75 - 120
1,2,3-Trichlorobenzene	50.0	53.7		ug/Kg		107	60 - 140
1,2,4-Trichlorobenzene	50.0	52.1		ug/Kg		104	60 - 140
1,1,1-Trichloroethane	50.0	49.5		ug/Kg		99	70 - 130
1,1,2-Trichloroethane	50.0	52.5		ug/Kg		105	70 - 130
Trichloroethene	50.0	47.8		ug/Kg		96	70 - 133
Trichlorofluoromethane	50.0	48.0		ug/Kg		96	60 - 140
1,2,3-Trichloropropane	50.0	51.2		ug/Kg		102	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.9		ug/Kg		90	60 - 140
1,2,4-Trimethylbenzene	50.0	51.4		ug/Kg		103	70 - 130
1,3,5-Trimethylbenzene	50.0	51.8		ug/Kg		104	70 - 131
Vinyl acetate	50.0	56.0		ug/Kg		112	38 - 176
Vinyl chloride	50.0	45.4		ug/Kg		91	58 - 125
m-Xylene & p-Xylene	50.0	50.1		ug/Kg		100	70 - 146
o-Xylene	50.0	51.4		ug/Kg		103	70 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-223981/5
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,2-Dichloropropane			50.0	49.2		ug/Kg		98	70 - 162		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*
Toluene-d8 (Surr)	*105*		*58 - 140*

Lab Sample ID: LCSD 720-223981/6
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			50.0	55.7		ug/Kg		111	70 - 144	0	20
Acetone			250	270		ug/Kg		108	30 - 162	4	30
Benzene			50.0	50.3		ug/Kg		101	70 - 130	1	20
Dichlorobromomethane			50.0	53.6		ug/Kg		107	70 - 140	3	20
Bromobenzene			50.0	49.1		ug/Kg		98	70 - 130	0	20
Chlorobromomethane			50.0	51.4		ug/Kg		103	70 - 130	0	20
Bromoform			50.0	50.4		ug/Kg		101	59 - 158	2	20
Bromomethane			50.0	45.0		ug/Kg		90	59 - 132	2	20
2-Butanone (MEK)			250	271		ug/Kg		108	59 - 159	0	20
n-Butylbenzene			50.0	49.8		ug/Kg		100	70 - 142	0	20
sec-Butylbenzene			50.0	48.0		ug/Kg		96	70 - 136	1	20
tert-Butylbenzene			50.0	50.6		ug/Kg		101	70 - 130	1	20
Carbon disulfide			50.0	43.9		ug/Kg		88	60 - 140	0	20
Carbon tetrachloride			50.0	50.3		ug/Kg		101	70 - 142	1	20
Chlorobenzene			50.0	49.2		ug/Kg		98	70 - 130	0	20
Chloroethane			50.0	45.9		ug/Kg		92	65 - 130	1	20
Chloroform			50.0	49.1		ug/Kg		98	77 - 127	1	20
Chloromethane			50.0	41.7		ug/Kg		83	55 - 140	0	20
2-Chlorotoluene			50.0	50.1		ug/Kg		100	70 - 138	0	20
4-Chlorotoluene			50.0	51.1		ug/Kg		102	70 - 136	1	20
Chlorodibromomethane			50.0	51.7		ug/Kg		103	70 - 146	0	20
1,2-Dichlorobenzene			50.0	48.5		ug/Kg		97	70 - 130	1	20
1,3-Dichlorobenzene			50.0	48.0		ug/Kg		96	70 - 131	1	20
1,4-Dichlorobenzene			50.0	49.1		ug/Kg		98	70 - 130	2	20
1,3-Dichloropropane			50.0	50.6		ug/Kg		101	70 - 140	0	20
1,1-Dichloropropene			50.0	50.6		ug/Kg		101	70 - 130	1	20
1,2-Dibromo-3-Chloropropane			50.0	52.9		ug/Kg		106	60 - 145	1	20
Ethylene Dibromide			50.0	52.9		ug/Kg		106	70 - 140	0	20
Dibromomethane			50.0	50.7		ug/Kg		101	70 - 139	1	20
Dichlorodifluoromethane			50.0	33.9		ug/Kg		68	37 - 158	3	20
1,1-Dichloroethane			50.0	48.5		ug/Kg		97	70 - 130	1	20
1,2-Dichloroethane			50.0	50.1		ug/Kg		100	70 - 130	2	20
1,1-Dichloroethene			50.0	43.8		ug/Kg		88	74 - 122	2	20
cis-1,2-Dichloroethene			50.0	48.8		ug/Kg		98	70 - 138	1	20
trans-1,2-Dichloroethene			50.0	47.7		ug/Kg		95	67 - 130	0	20
1,2-Dichloropropane			50.0	50.9		ug/Kg		102	73 - 127	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-223981/6
Matrix: Solid
Analysis Batch: 223981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			50.0	54.8		ug/Kg		110	68 - 147	2	20
trans-1,3-Dichloropropene			50.0	51.5		ug/Kg		103	70 - 155	1	20
Ethylbenzene			50.0	47.5		ug/Kg		95	80 - 137	0	20
Hexachlorobutadiene			50.0	45.4		ug/Kg		91	70 - 132	1	20
2-Hexanone			250	292		ug/Kg		117	62 - 158	2	20
Isopropylbenzene			50.0	50.5		ug/Kg		101	70 - 130	1	20
4-Isopropyltoluene			50.0	46.9		ug/Kg		94	70 - 133	0	20
Methylene Chloride			50.0	46.8		ug/Kg		94	70 - 134	1	20
4-Methyl-2-pentanone (MIBK)			250	300		ug/Kg		120	60 - 160	2	20
Naphthalene			50.0	55.6		ug/Kg		111	60 - 147	1	20
N-Propylbenzene			50.0	49.6		ug/Kg		99	70 - 130	0	20
Styrene			50.0	55.6		ug/Kg		111	70 - 130	0	20
1,1,1,2-Tetrachloroethane			50.0	53.9		ug/Kg		108	70 - 130	1	20
1,1,2,2-Tetrachloroethane			50.0	53.3		ug/Kg		107	70 - 146	2	20
Tetrachloroethene			50.0	47.7		ug/Kg		95	70 - 132	1	20
Toluene			50.0	49.6		ug/Kg		99	75 - 120	0	20
1,2,3-Trichlorobenzene			50.0	53.2		ug/Kg		106	60 - 140	1	20
1,2,4-Trichlorobenzene			50.0	51.1		ug/Kg		102	60 - 140	2	20
1,1,1-Trichloroethane			50.0	49.8		ug/Kg		100	70 - 130	1	20
1,1,2-Trichloroethane			50.0	52.5		ug/Kg		105	70 - 130	0	20
Trichloroethene			50.0	47.4		ug/Kg		95	70 - 133	1	20
Trichlorofluoromethane			50.0	47.8		ug/Kg		96	60 - 140	1	20
1,2,3-Trichloropropane			50.0	52.2		ug/Kg		104	70 - 146	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	44.5		ug/Kg		89	60 - 140	1	20
1,2,4-Trimethylbenzene			50.0	51.1		ug/Kg		102	70 - 130	1	20
1,3,5-Trimethylbenzene			50.0	51.9		ug/Kg		104	70 - 131	0	20
Vinyl acetate			50.0	56.6		ug/Kg		113	38 - 176	1	20
Vinyl chloride			50.0	44.4		ug/Kg		89	58 - 125	2	20
m-Xylene & p-Xylene			50.0	50.1		ug/Kg		100	70 - 146	0	20
o-Xylene			50.0	51.6		ug/Kg		103	70 - 140	0	20
2,2-Dichloropropane			50.0	51.0		ug/Kg		102	70 - 162	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*
Toluene-d8 (Surr)	*105*		*58 - 140*

Lab Sample ID: MB 440-409281/4
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/31/17 19:25	1
Acetone	ND		20		ug/L			05/31/17 19:25	1
Benzene	ND		0.50		ug/L			05/31/17 19:25	1
Dichlorobromomethane	ND		0.50		ug/L			05/31/17 19:25	1
Bromobenzene	ND		0.50		ug/L			05/31/17 19:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-409281/4
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	ND		0.50		ug/L			05/31/17 19:25	1
Bromoform	ND		1.0		ug/L			05/31/17 19:25	1
Bromomethane	ND		0.50		ug/L			05/31/17 19:25	1
2-Butanone (MEK)	ND		5.0		ug/L			05/31/17 19:25	1
n-Butylbenzene	ND		1.0		ug/L			05/31/17 19:25	1
sec-Butylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
tert-Butylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
Carbon disulfide	ND		1.0		ug/L			05/31/17 19:25	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/17 19:25	1
Chlorobenzene	ND		0.50		ug/L			05/31/17 19:25	1
Chloroethane	ND		1.0		ug/L			05/31/17 19:25	1
Chloroform	ND		0.50		ug/L			05/31/17 19:25	1
Chloromethane	ND		0.50		ug/L			05/31/17 19:25	1
2-Chlorotoluene	ND		0.50		ug/L			05/31/17 19:25	1
4-Chlorotoluene	ND		0.50		ug/L			05/31/17 19:25	1
Chlorodibromomethane	ND		0.50		ug/L			05/31/17 19:25	1
1,2-Dichlorobenzene	ND		0.50		ug/L			05/31/17 19:25	1
1,3-Dichlorobenzene	ND		0.50		ug/L			05/31/17 19:25	1
1,4-Dichlorobenzene	ND		0.50		ug/L			05/31/17 19:25	1
1,3-Dichloropropane	ND		0.50		ug/L			05/31/17 19:25	1
1,1-Dichloropropene	ND		0.50		ug/L			05/31/17 19:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			05/31/17 19:25	1
Ethylene Dibromide	ND		0.50		ug/L			05/31/17 19:25	1
Dibromomethane	ND		0.50		ug/L			05/31/17 19:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/31/17 19:25	1
1,1-Dichloroethane	ND		0.50		ug/L			05/31/17 19:25	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/17 19:25	1
1,1-Dichloroethene	ND		0.50		ug/L			05/31/17 19:25	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 19:25	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			05/31/17 19:25	1
1,2-Dichloropropane	ND		0.50		ug/L			05/31/17 19:25	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 19:25	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/17 19:25	1
Ethylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
Hexachlorobutadiene	ND		0.50		ug/L			05/31/17 19:25	1
2-Hexanone	ND		5.0		ug/L			05/31/17 19:25	1
Isopropylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
4-Isopropyltoluene	ND		0.50		ug/L			05/31/17 19:25	1
Methylene Chloride	ND		2.0		ug/L			05/31/17 19:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			05/31/17 19:25	1
Naphthalene	ND		1.0		ug/L			05/31/17 19:25	1
N-Propylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
Styrene	ND		0.50		ug/L			05/31/17 19:25	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 19:25	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			05/31/17 19:25	1
Tetrachloroethene	ND		0.50		ug/L			05/31/17 19:25	1
Toluene	ND		0.50		ug/L			05/31/17 19:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/17 19:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-409281/4
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/17 19:25	1
1,1,1-Trichloroethane	ND		0.50		ug/L			05/31/17 19:25	1
1,1,2-Trichloroethane	ND		0.50		ug/L			05/31/17 19:25	1
Trichloroethene	ND		0.50		ug/L			05/31/17 19:25	1
Trichlorofluoromethane	ND		0.50		ug/L			05/31/17 19:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/17 19:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ug/L			05/31/17 19:25	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			05/31/17 19:25	1
Vinyl acetate	ND		4.0		ug/L			05/31/17 19:25	1
Vinyl chloride	ND		0.50		ug/L			05/31/17 19:25	1
Xylenes, Total	ND		1.0		ug/L			05/31/17 19:25	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/17 19:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/31/17 19:25*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*05/31/17 19:25*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/31/17 19:25*	*1*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*05/31/17 19:25*	*1*

Lab Sample ID: LCS 440-409281/5
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	25.3		ug/L		101	63 - 131
Acetone	25.0	21.8		ug/L		87	10 - 150
Benzene	25.0	24.8		ug/L		99	68 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 132
Bromobenzene	25.0	27.7		ug/L		111	70 - 130
Chlorobromomethane	25.0	26.6		ug/L		106	70 - 130
Bromoform	25.0	26.8		ug/L		107	60 - 148
Bromomethane	25.0	21.2		ug/L		85	64 - 139
2-Butanone (MEK)	25.0	23.7		ug/L		95	44 - 150
n-Butylbenzene	25.0	25.6		ug/L		102	65 - 150
sec-Butylbenzene	25.0	25.9		ug/L		104	70 - 138
tert-Butylbenzene	25.0	27.5		ug/L		110	70 - 130
Carbon disulfide	25.0	24.6		ug/L		98	52 - 136
Carbon tetrachloride	25.0	27.3		ug/L		109	60 - 150
Chlorobenzene	25.0	24.6		ug/L		99	70 - 130
Chloroethane	25.0	22.0		ug/L		88	64 - 135
Chloroform	25.0	25.4		ug/L		102	70 - 130
Chloromethane	25.0	20.3		ug/L		81	47 - 140
2-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
Chlorodibromomethane	25.0	25.9		ug/L		104	69 - 145
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-409281/5
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	26.9		ug/L		107	70 - 130
1,3-Dichloropropane	25.0	23.5		ug/L		94	70 - 130
1,1-Dichloropropene	25.0	26.3		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	52 - 140
Ethylene Dibromide	25.0	25.6		ug/L		102	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	20.3		ug/L		81	29 - 150
1,1-Dichloroethane	25.0	25.4		ug/L		101	64 - 130
1,2-Dichloroethane	25.0	24.4		ug/L		97	57 - 138
1,1-Dichloroethene	25.0	25.4		ug/L		102	70 - 130
cis-1,2-Dichloroethene	25.0	26.7		ug/L		107	70 - 133
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130
1,2-Dichloropropane	25.0	24.5		ug/L		98	67 - 130
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 133
trans-1,3-Dichloropropene	25.0	24.4		ug/L		98	70 - 132
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	31.1		ug/L		124	10 - 150
2-Hexanone	25.0	22.0		ug/L		88	10 - 150
Isopropylbenzene	25.0	25.7		ug/L		103	70 - 136
4-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 132
Methylene Chloride	25.0	24.6		ug/L		98	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	23.1		ug/L		92	59 - 149
Naphthalene	25.0	28.0		ug/L		112	60 - 140
N-Propylbenzene	25.0	25.6		ug/L		102	67 - 139
Styrene	25.0	26.6		ug/L		106	70 - 134
1,1,1,2-Tetrachloroethane	25.0	27.7		ug/L		111	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
Tetrachloroethene	25.0	26.6		ug/L		107	70 - 130
Toluene	25.0	24.2		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	25.0	29.7		ug/L		119	60 - 140
1,2,4-Trichlorobenzene	25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	70 - 130
Trichloroethene	25.0	27.3		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	23.8		ug/L		95	60 - 150
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.9		ug/L		100	60 - 140
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 135
1,3,5-Trimethylbenzene	25.0	27.1		ug/L		108	70 - 136
Vinyl acetate	25.0	22.9		ug/L		92	48 - 140
Vinyl chloride	25.0	18.7		ug/L		75	59 - 133
m-Xylene & p-Xylene	25.0	25.9		ug/L		103	70 - 130
o-Xylene	25.0	26.2		ug/L		105	70 - 130
2,2-Dichloropropane	25.0	26.8		ug/L		107	68 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-409281/5
Matrix: Water
Analysis Batch: 409281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-223890/1-A
Matrix: Solid
Analysis Batch: 224219

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223890

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Arsenic	ND		1.0		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Barium	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Beryllium	ND		0.10		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Cadmium	ND		0.13		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Chromium	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Cobalt	ND		0.20		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Copper	ND		1.5		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Lead	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Molybdenum	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Nickel	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Selenium	ND		1.0		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Silver	ND		0.25		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Thallium	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Vanadium	ND		0.50		mg/Kg		05/31/17 14:49	06/06/17 02:19	1
Zinc	ND		1.5		mg/Kg		05/31/17 14:49	06/06/17 02:19	1

Lab Sample ID: LCS 720-223890/2-A
Matrix: Solid
Analysis Batch: 224219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	50.0	49.7		mg/Kg		99	80 - 120
Arsenic	50.0	49.4		mg/Kg		99	80 - 120
Barium	50.0	51.1		mg/Kg		102	80 - 120
Beryllium	50.0	50.6		mg/Kg		101	80 - 120
Cadmium	50.0	49.3		mg/Kg		99	80 - 120
Chromium	50.0	51.5		mg/Kg		103	80 - 120
Cobalt	50.0	50.6		mg/Kg		101	80 - 120
Copper	50.0	52.0		mg/Kg		104	80 - 120
Lead	50.0	50.8		mg/Kg		102	80 - 120
Molybdenum	50.0	50.1		mg/Kg		100	80 - 120
Nickel	50.0	48.9		mg/Kg		98	80 - 120
Selenium	50.0	48.2		mg/Kg		96	80 - 120
Silver	25.0	23.4		mg/Kg		94	80 - 120
Thallium	50.0	49.4		mg/Kg		99	80 - 120
Vanadium	50.0	50.3		mg/Kg		101	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-223890/2-A
Matrix: Solid
Analysis Batch: 224219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	49.3		mg/Kg		99	80 - 120

Lab Sample ID: MB 720-223990/1-A
Matrix: Water
Analysis Batch: 224149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Barium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Cadmium	ND		0.0025		mg/L		06/01/17 09:25	06/02/17 23:34	1
Chromium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Cobalt	ND		0.0020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Copper	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Lead	ND		0.0050		mg/L		06/01/17 09:25	06/02/17 23:34	1
Molybdenum	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Nickel	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Selenium	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1
Silver	ND		0.0050		mg/L		06/01/17 09:25	06/02/17 23:34	1
Thallium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Vanadium	ND		0.010		mg/L		06/01/17 09:25	06/02/17 23:34	1
Zinc	ND		0.020		mg/L		06/01/17 09:25	06/02/17 23:34	1

Lab Sample ID: MB 720-223990/1-A
Matrix: Water
Analysis Batch: 224356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223990

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		06/01/17 09:25	06/07/17 11:04	1
Beryllium	ND		0.0020		mg/L		06/01/17 09:25	06/07/17 11:04	1

Lab Sample ID: LCS 720-223990/2-A
Matrix: Water
Analysis Batch: 224149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.952		mg/L		95	80 - 120
Barium	1.00	0.975		mg/L		98	80 - 120
Cadmium	1.00	0.965		mg/L		96	80 - 120
Chromium	1.00	0.974		mg/L		97	80 - 120
Cobalt	1.00	0.996		mg/L		100	80 - 120
Copper	1.00	0.978		mg/L		98	80 - 120
Lead	1.00	0.980		mg/L		98	80 - 120
Molybdenum	1.00	0.998		mg/L		100	80 - 120
Nickel	1.00	0.973		mg/L		97	80 - 120
Selenium	1.00	0.932		mg/L		93	80 - 120
Silver	0.500	0.450		mg/L		90	80 - 120
Thallium	1.00	0.979		mg/L		98	80 - 120
Vanadium	1.00	0.979		mg/L		98	80 - 120
Zinc	1.00	0.961		mg/L		96	80 - 120

Lab Sample ID: LCS 720-223990/2-A
Matrix: Water
Analysis Batch: 224356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.966		mg/L		97	80 - 120
Beryllium	1.00	1.00		mg/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 720-223880/1-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/31/17 08:17	05/31/17 13:04	1

Lab Sample ID: LCS 720-223880/2-A
Matrix: Water
Analysis Batch: 223932

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0100	0.00936		mg/L		94	85 - 115

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-223831/1-A
Matrix: Solid
Analysis Batch: 224045

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 223831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.010		mg/Kg		05/30/17 13:54	06/01/17 15:28	1

Lab Sample ID: LCS 720-223831/2-A
Matrix: Solid
Analysis Batch: 224045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 223831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.833	0.710		mg/Kg		85	80 - 120

GC/MS VOA

Prep Batch: 223861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	5030B	
720-79728-9	N-PS01-S-10'	Total/NA	Solid	5030B	
720-79728-10	N-PS01-S-15'	Total/NA	Solid	5030B	

Analysis Batch: 223981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	8260B	223861
720-79728-9	N-PS01-S-10'	Total/NA	Solid	8260B	223861
720-79728-10	N-PS01-S-15'	Total/NA	Solid	8260B	223861
MB 720-223981/4	Method Blank	Total/NA	Solid	8260B	
LCS 720-223981/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-223981/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 409281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-1	TB	Total/NA	Water	8260B	
720-79728-2	N-SB105-W	Total/NA	Water	8260B	
720-79728-3	N-SB103-W	Total/NA	Water	8260B	
720-79728-4	N-SB106-W	Total/NA	Water	8260B	
720-79728-5	N-SB107-W	Total/NA	Water	8260B	
720-79728-6	N-SB108-W	Total/NA	Water	8260B	
720-79728-7	N-SB109-W	Total/NA	Water	8260B	
720-79728-11	N-PS01-W	Total/NA	Water	8260B	
MB 440-409281/4	Method Blank	Total/NA	Water	8260B	
LCS 440-409281/5	Lab Control Sample	Total/NA	Water	8260B	

Metals

Prep Batch: 223831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	7471A	
720-79728-9	N-PS01-S-10'	Total/NA	Solid	7471A	
720-79728-10	N-PS01-S-15'	Total/NA	Solid	7471A	
MB 720-223831/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 720-223831/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Prep Batch: 223880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	7470A	
720-79728-3	N-SB103-W	Total/NA	Water	7470A	
720-79728-4	N-SB106-W	Total/NA	Water	7470A	
720-79728-5	N-SB107-W	Total/NA	Water	7470A	
720-79728-6	N-SB108-W	Total/NA	Water	7470A	
720-79728-7	N-SB109-W	Total/NA	Water	7470A	
720-79728-11	N-PS01-W	Total/NA	Water	7470A	
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 223890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	3050B	
720-79728-9	N-PS01-S-10'	Total/NA	Solid	3050B	
720-79728-10	N-PS01-S-15'	Total/NA	Solid	3050B	
MB 720-223890/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-223890/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 223932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	7470A	223880
720-79728-3	N-SB103-W	Total/NA	Water	7470A	223880
720-79728-4	N-SB106-W	Total/NA	Water	7470A	223880
720-79728-5	N-SB107-W	Total/NA	Water	7470A	223880
720-79728-6	N-SB108-W	Total/NA	Water	7470A	223880
720-79728-7	N-SB109-W	Total/NA	Water	7470A	223880
720-79728-11	N-PS01-W	Total/NA	Water	7470A	223880
MB 720-223880/1-A	Method Blank	Total/NA	Water	7470A	223880
LCS 720-223880/2-A	Lab Control Sample	Total/NA	Water	7470A	223880

Prep Batch: 223990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	3010A	
720-79728-3	N-SB103-W	Total/NA	Water	3010A	
720-79728-4	N-SB106-W	Total/NA	Water	3010A	
720-79728-5	N-SB107-W	Total/NA	Water	3010A	
720-79728-6	N-SB108-W	Total/NA	Water	3010A	
720-79728-7	N-SB109-W	Total/NA	Water	3010A	
720-79728-11	N-PS01-W	Total/NA	Water	3010A	
MB 720-223990/1-A	Method Blank	Total/NA	Water	3010A	
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 224045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	7471A	223831
720-79728-9	N-PS01-S-10'	Total/NA	Solid	7471A	223831
720-79728-10	N-PS01-S-15'	Total/NA	Solid	7471A	223831
MB 720-223831/1-A	Method Blank	Total/NA	Solid	7471A	223831
LCS 720-223831/2-A	Lab Control Sample	Total/NA	Solid	7471A	223831

Analysis Batch: 224149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	6010B	223990
720-79728-3	N-SB103-W	Total/NA	Water	6010B	223990
720-79728-4	N-SB106-W	Total/NA	Water	6010B	223990
720-79728-5	N-SB107-W	Total/NA	Water	6010B	223990
720-79728-6	N-SB108-W	Total/NA	Water	6010B	223990
720-79728-7	N-SB109-W	Total/NA	Water	6010B	223990
720-79728-11	N-PS01-W	Total/NA	Water	6010B	223990
MB 720-223990/1-A	Method Blank	Total/NA	Water	6010B	223990
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	6010B	223990

Metals (Continued)

Analysis Batch: 224219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	6010B	223890
720-79728-9	N-PS01-S-10'	Total/NA	Solid	6010B	223890
720-79728-10	N-PS01-S-15'	Total/NA	Solid	6010B	223890
MB 720-223890/1-A	Method Blank	Total/NA	Solid	6010B	223890
LCS 720-223890/2-A	Lab Control Sample	Total/NA	Solid	6010B	223890

Analysis Batch: 224348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-10	N-PS01-S-15'	Total/NA	Solid	6010B	223890

Analysis Batch: 224350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	6010B	223990
720-79728-3	N-SB103-W	Total/NA	Water	6010B	223990
720-79728-5	N-SB107-W	Total/NA	Water	6010B	223990
720-79728-6	N-SB108-W	Total/NA	Water	6010B	223990
720-79728-7	N-SB109-W	Total/NA	Water	6010B	223990

Analysis Batch: 224356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-223990/1-A	Method Blank	Total/NA	Water	6010B	223990
LCS 720-223990/2-A	Lab Control Sample	Total/NA	Water	6010B	223990

Analysis Batch: 224382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-2	N-SB105-W	Total/NA	Water	6010B	223990
720-79728-4	N-SB106-W	Total/NA	Water	6010B	223990
720-79728-11	N-PS01-W	Total/NA	Water	6010B	223990

Analysis Batch: 224388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-4	N-SB106-W	Total/NA	Water	6010B	223990

Analysis Batch: 224394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-79728-8	N-PS01-S-5'	Total/NA	Solid	6010B	223890
720-79728-9	N-PS01-S-10'	Total/NA	Solid	6010B	223890

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: TB
Date Collected: 05/25/17 00:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	05/31/17 21:50	JB	TAL IRV

Client Sample ID: N-SB105-W
Date Collected: 05/24/17 16:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	05/31/17 22:19	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:32	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224350	06/07/17 01:17	ASB	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224382	06/07/17 16:13	CAM	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:43	OBI	TAL PLS

Client Sample ID: N-SB103-W
Date Collected: 05/25/17 09:55
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	05/31/17 22:48	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:35	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224350	06/07/17 01:20	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		10	223932	05/31/17 14:07	OBI	TAL PLS

Client Sample ID: N-SB106-W
Date Collected: 05/25/17 12:35
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	05/31/17 23:17	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:39	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224382	06/07/17 16:18	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224388	06/07/17 18:00	CAM	TAL PLS

Client Sample ID: N-SB106-W
Date Collected: 05/25/17 12:35
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:47	OBI	TAL PLS

Client Sample ID: N-SB107-W
Date Collected: 05/25/17 13:30
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	05/31/17 23:47	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:42	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224350	06/07/17 01:27	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		2	223932	05/31/17 13:49	OBI	TAL PLS

Client Sample ID: N-SB108-W
Date Collected: 05/25/17 14:20
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	06/01/17 00:16	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:46	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224350	06/07/17 01:31	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		2	223932	05/31/17 13:52	OBI	TAL PLS

Client Sample ID: N-SB109-W
Date Collected: 05/25/17 15:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	06/01/17 00:45	JB	TAL IRV
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 00:50	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		20	224350	06/07/17 01:34	ASB	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		10	223932	05/31/17 14:09	OBI	TAL PLS

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-S-5'

Lab Sample ID: 720-79728-8
Matrix: Solid
Date Collected: 05/25/17 08:32
Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			223861	05/30/17 21:48	CTD	TAL PLS
Total/NA	Analysis	8260B		1	223981	06/01/17 15:27	JRM	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		4	224219	06/06/17 02:54	ASB	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		10	224394	06/07/17 20:13	ASB	TAL PLS
Total/NA	Prep	7471A			223831	05/30/17 13:54	OBI	TAL PLS
Total/NA	Analysis	7471A		1	224045	06/01/17 16:20	OBI	TAL PLS

Client Sample ID: N-PS01-S-10'

Lab Sample ID: 720-79728-9
Matrix: Solid
Date Collected: 05/25/17 08:36
Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			223861	05/30/17 21:48	CTD	TAL PLS
Total/NA	Analysis	8260B		1	223981	06/01/17 15:58	JRM	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		4	224219	06/06/17 02:57	ASB	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		10	224394	06/07/17 20:16	ASB	TAL PLS
Total/NA	Prep	7471A			223831	05/30/17 13:54	OBI	TAL PLS
Total/NA	Analysis	7471A		1	224045	06/01/17 16:22	OBI	TAL PLS

Client Sample ID: N-PS01-S-15'

Lab Sample ID: 720-79728-10
Matrix: Solid
Date Collected: 05/25/17 08:43
Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			223861	05/30/17 21:48	CTD	TAL PLS
Total/NA	Analysis	8260B		1	223981	06/01/17 16:28	JRM	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		4	224219	06/06/17 03:01	ASB	TAL PLS
Total/NA	Prep	3050B			223890	05/31/17 14:49	AAP	TAL PLS
Total/NA	Analysis	6010B		4	224348	06/06/17 23:24	ASB	TAL PLS
Total/NA	Prep	7471A			223831	05/30/17 13:54	OBI	TAL PLS
Total/NA	Analysis	7471A		1	224045	06/01/17 16:24	OBI	TAL PLS

Client Sample ID: N-PS01-W

Lab Sample ID: 720-79728-11
Matrix: Water
Date Collected: 05/25/17 09:00
Date Received: 05/25/17 17:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	409281	06/01/17 01:14	JB	TAL IRV

Lab Chronicle

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Client Sample ID: N-PS01-W

Date Collected: 05/25/17 09:00
Date Received: 05/25/17 17:45

Lab Sample ID: 720-79728-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224149	06/03/17 01:01	CAM	TAL PLS
Total/NA	Prep	3010A			223990	06/01/17 09:25	JNG	TAL PLS
Total/NA	Analysis	6010B		10	224382	06/07/17 16:23	CAM	TAL PLS
Total/NA	Prep	7470A			223880	05/31/17 08:18	JNG	TAL PLS
Total/NA	Analysis	7470A		1	223932	05/31/17 13:56	OBI	TAL PLS

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Accreditation/Certification Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Laboratory: TestAmerica Pleasanton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-18

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312017-1	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7470A	Mercury (CVAA)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ATC Group Services LLC.
Project/Site: SCP N of Walsh

TestAmerica Job ID: 720-79728-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-79728-1	TB	Water	05/25/17 00:00	05/25/17 17:45
720-79728-2	N-SB105-W	Water	05/24/17 16:00	05/25/17 17:45
720-79728-3	N-SB103-W	Water	05/25/17 09:55	05/25/17 17:45
720-79728-4	N-SB106-W	Water	05/25/17 12:35	05/25/17 17:45
720-79728-5	N-SB107-W	Water	05/25/17 13:30	05/25/17 17:45
720-79728-6	N-SB108-W	Water	05/25/17 14:20	05/25/17 17:45
720-79728-7	N-SB109-W	Water	05/25/17 15:00	05/25/17 17:45
720-79728-8	N-PS01-S-5'	Solid	05/25/17 08:32	05/25/17 17:45
720-79728-9	N-PS01-S-10'	Solid	05/25/17 08:36	05/25/17 17:45
720-79728-10	N-PS01-S-15'	Solid	05/25/17 08:43	05/25/17 17:45
720-79728-11	N-PS01-W	Water	05/25/17 09:00	05/25/17 17:45

ref# 1761144

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
phone 925 484 1919 fax 925 600 3002

720-79728 Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

6/8/2017

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Mike Sonke	Site Contact:	Date: 5/16/2017	COC No:
ATC Group Services LLC	Tel/Fax: (209) 579-2221	Lab Contact: Dimple Sharma	Carrier:	1 of 1 COCs

Address 1117 Lone Palm Avenue, Suite 201B
City/State/Zip Modesto, CA, 95351
Phone (209) 579-2221 FAX (209) 579-2225
E-mail mike.sonke@atcassociates.com
Project Name Oil Fuel Realty Trust
Site N. Wilson Project #
Geotracker EDF Global ID #

Analysis Turnaround Time
Calendar (C) or Work Days (W) _____
TAT if different from Below _____
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For Lab Use Only:
Walk-in Client
Lab Sampling
Job / SDG No
Sampler: John Sellman

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	VOCs Full Scan by EPA 8260B	CAM-17 Metals	Sample Specific Notes.
1	TB	5/25/17			W	2	N	G	✓		
2	N-SB105-W	5/24/17	16:10		W	4	N	G	✓	✓	
3	N-SB105-W	5/25/17	9:55		W	4	N	G	✓	✓	
4	N-SB106-W	5/25/17	12:35		W	4	N	G	✓	✓	
5	N-SB107-W	5/25/17	13:30		W	4	N	G	✓	✓	
6	N-SB108-W	5/25/17	14:20		W	4	N	G	✓	✓	
7	N-SB109-W	5/25/17	15:20		W	4	N	G	✓	✓	
8	N-PS01-S-5'	5-25-17	0832		S	1	N	G	✓	✓	
9	N-PS01-S-10'		0836		S	1	N	G	✓	✓	
10	N-PS01-S-15'		0843		S	1	N	G	✓	✓	
11	N-PS01-W		0900		W	4	N	G	✓	✓	

720-79728 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample
☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☑Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments:

2.3°C

Relinquished by	John Sellman	Company ATC	Date/Time 5/25/17 1525	Received by		Company TA	Date/Time 5/25/17 1525
Relinquished by		Company TA	Date/Time 5/25/17 1745	Received by		Company TA	Date/Time 5/25/17 1745
Relinquished by		Company	Date/Time	Received in Laboratory by		Company	Date/Time

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	COC No: 720-34184.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note):		Job #: 720-79728-1
Address: 17461 Derian Ave, Suite 100,	Due Date Requested: 6/1/2017			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92614-5817				
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:			
Email:	WO #:			
Project Name: Digital Realty Trust	Project #: 72012659			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030B 8260B-VOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TB (720-79728-1)	5/25/17	Pacific		Water			X	2	
N-SB105-W (720-79728-2)	5/24/17	16:00 Pacific		Water			X	3	
N-SB103-W (720-79728-3)	5/25/17	09:55 Pacific		Water			X	3	
N-SB106-W (720-79728-4)	5/25/17	12:35 Pacific		Water			X	3	
N-SB107-W (720-79728-5)	5/25/17	13:30 Pacific		Water			X	3	
N-SB108-W (720-79728-6)	5/25/17	14:20 Pacific		Water			X	3	
N-SB109-W (720-79728-7)	5/25/17	15:00 Pacific		Water			X	3	
N-PS01-W (720-79728-11)	5/25/17	09:00 Pacific		Water			X	3	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/26/17 1505	TA		5/27/17 11:40	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 7290-7493-9829	Cooler Temperature(s) °C and Other Remarks: 1.3/1.3 IR 66 CF

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79728-1

Login Number: 79728
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-79728-1

Login Number: 79728
List Number: 2
Creator: Salas, Margarita

List Source: TestAmerica Irvine
List Creation: 05/27/17 01:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix D

Noise Assessment Report

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

Noise Assessment Report

Digital Realty

651 Walsh Avenue Data Center

May 17th, 2019

Submitted to:

Adam Ahrens, PE, DCEP
Project Manager
EXP
7720 Anchorage Dr. SE
Caledonia, MI 49316

Prepared by:

Taylor N. Hays
Associate

Pablo A. Daroux, MS
Principal

Executive Summary

This report presents the results of the study conducted to predict expected levels of noise to be produced by the proposed Data Center to be located at 651 Walsh Avenue in Santa Clara, California and to identify potential mitigation options, if so required. The Project contains a number of noise generating sources which includes 33 generators, 54 rooftop air cooled chillers, 16 makeup air units, and additional ancillary equipment. The assessment includes an ambient noise monitoring program conducted at sensitive areas surrounding the Project site and a detailed computer noise modeling and mitigation analysis. To determine the minimum degree of mitigation, predicted project noise levels are evaluated against the limits imposed by the Santa Clara Municipal Code.

The sound level predictions derived from the computer model results indicate that the Project will meet the daytime and nighttime City of Santa Clara Code noise limits at sensitive areas during normal operation. Regular testing of each one of the Emergency Generators will exceed the baseline noise limits imposed by Santa Clara at the nearest property line. However, the site survey revealed that current ambient noise levels are slightly higher than the City's baseline limit, therefore the baseline limit can be increased by 5 decibels per City's Municipal Code regulations, resulting in compliance. No additional mitigation beyond that provided by the acoustical enclosures for the Generators or the 14 ft tall parapet already included in the present design will be required.

Applicable Criteria

Municipal Code – Noise Ordinance

Chapter 9.10 of the City of Santa Clara Municipal Code[1] deals with the regulation of noise and vibration for sources within the city. The Code limits noise from a source, as measured at the receiving property line depending on the land use. Table 1 below summarizes the criteria.

Table 1: City of Santa Clara Noise Ordinance Criteria

Receiving Zone Category	Description	Time Period	Noise Level
Categories 1 and 2	Residential	7 AM to 10 PM	55 dBA
		10 PM to 7 AM	50 dBA
Category 3	Commercial, Office	7 AM to 10 PM	65 dBA
		10 PM to 7 AM	60 dBA
Category 4	Light Industrial	Anytime	70 dBA
	Heavy Industrial	Anytime	75 dBA

It should be noted that this noise criteria is expressed in terms of instantaneous levels, unlike the CNEL or the L_{dn} which are averages over a 24 hour period. Please see the Glossary of Acoustical Terms in Appendix A below for further definitions of acoustical terms.

[1] https://www.codepublishing.com/CA/SantaClara/html/SantaClara09/SantaClara0910.html

The Code also states in Section 9.10.060.(c) that if the measured ambient noise at any given location differs from the levels shown in Table 1, the allowable noise exposure can be adjusted in five dBA increments as appropriate to reflect said ambient noise level. It is therefore important to accurately characterize existing ambient sound levels in the area. This was done by means of field measurements, as will be shown below.

Sections 9.10.020 and 9.10.070 state that emergency work, including the operation of emergency generators necessary to provide services during an emergency, are exempt from the criteria. Private utility work to restore services and protect property from damage is also exempt.

General Plan – Noise Element

The General Plan also contains a set of Goals and Policies[2] which, under Chapter 5, Section 10, sets requirements for development with respect to noise. Three goals are identified in the Element:

5.10.6-G1 Noise sources restricted to minimize impacts in the community.

5.10.6-G2 Sensitive uses protected from noise intrusion.

5.10.6-G3 Land use, development and design approvals that take noise levels into consideration.

Although several Policies are also listed, those applicable to the proposed project are as follows:

5.10.6-P1 Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1.

5.10.6-P3 New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls).

5.10.6-P4 Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.

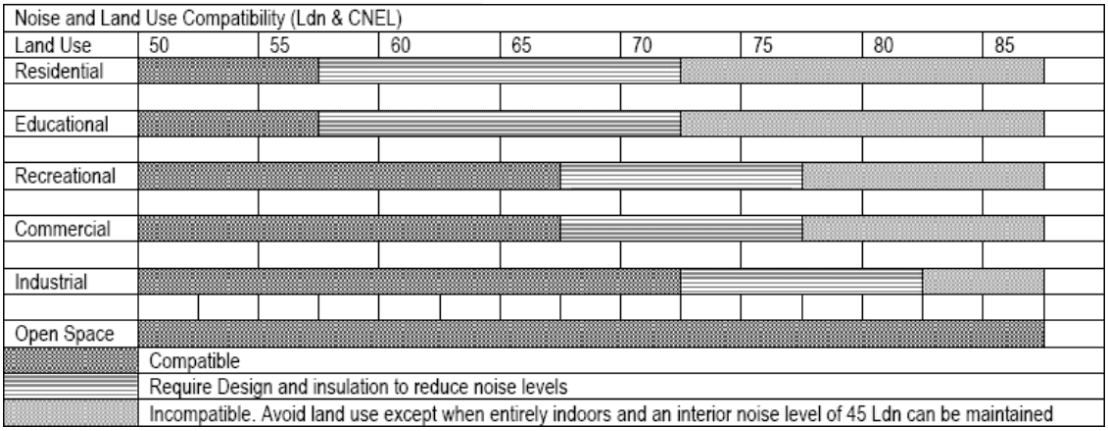
5.10.6-P5 Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.

5.10.6-P6 Discourage noise sensitive uses, such as residences, hospitals, schools, libraries and rest homes, from areas with high noise levels, and discourage high noise generating uses from areas adjacent to sensitive uses.

5.10.6-P7 Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/Research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions.

Although incorrectly labeled in the GP as 5.10-1, the Land Use Compatibility table can be found in Section 8.14 as Table 8.14-1 and it reads as follows:

[2] http://santaclaraca.gov/home/showdocument?id=13934



Further, even though a 45 L_{dn} interior noise level is indicated as considered compatible in this Table, Section 5.10.6 of the Element indicates that 50 dB CNEL is acceptable for "offices, retail and other less sensitive indoor spaces". Therefore, that is the criteria that should be used for this project with regards to interior noise within the proposed facility due to exterior sources.

Ambient Noise Measurements

The proposed site is surrounded by commercial uses to the west and south and industrial uses to the north and east, including an existing data center to the north. The Norman Y. Mineta San Jose International Airport is located 1,000 feet to the east. The nearest residential areas are located 3,000 feet to the south and 5,000 feet to the north.

An ambient noise monitoring program was conducted in the areas surrounding the Project site. Precision, calibrated sound meters were deployed at trees and light poles near two of the closest residential receptors to the project site and allowed to capture noise data in second-by-second intervals over a 72 hour period between 22 February 2019 and 25 February 2019 at the locations shown in Figure 1 below. The receptors were chosen as worst-case locations by virtue of being closest to the proposed facility in each area. Therefore, facility noise at other locations further away from the chosen ones will be lower. A sound meter was also deployed on a light pole at the northern Project property line to capture noise data over a 48 hour period between 18 March 2019 and 20 March 2019; this location is also depicted on Figure 1. The data was averaged into hourly periods for ease of visualization.

Figure 2 shows the measured hourly *Equivalent Sound Level* ($L_{eq\text{-}1Hr}$) at the north receptor studied, 910 Keith Lane. The $L_{eq\text{-}1Hr}$ is a measure of the average level of noise over an hour. At this location, the $L_{eq\text{-}1Hr}$ was observed to generally range from 62 dBA to 67 dBA during daytime hours, with nighttime levels ranging between 45 dBA and 50 dBA. The large difference between the late night and early morning $L_{eq\text{-}1Hr}$ values is due to airport operations, as the airport is relatively inactive between the hours of 11PM and 6AM but contributes significantly to the overall ambient noise at other times.

Figure 3 shows hourly $L_{eq\text{-}1Hr}$ sound levels observed at the nearest residential area to the south of the project, by the front yard of the home at 2262 Avila Avenue. There, daytime $L_{eq\text{-}1Hr}$ noise levels ranged between 55 and 58 dBA and 43 to 49 dBA during late nighttime hours.

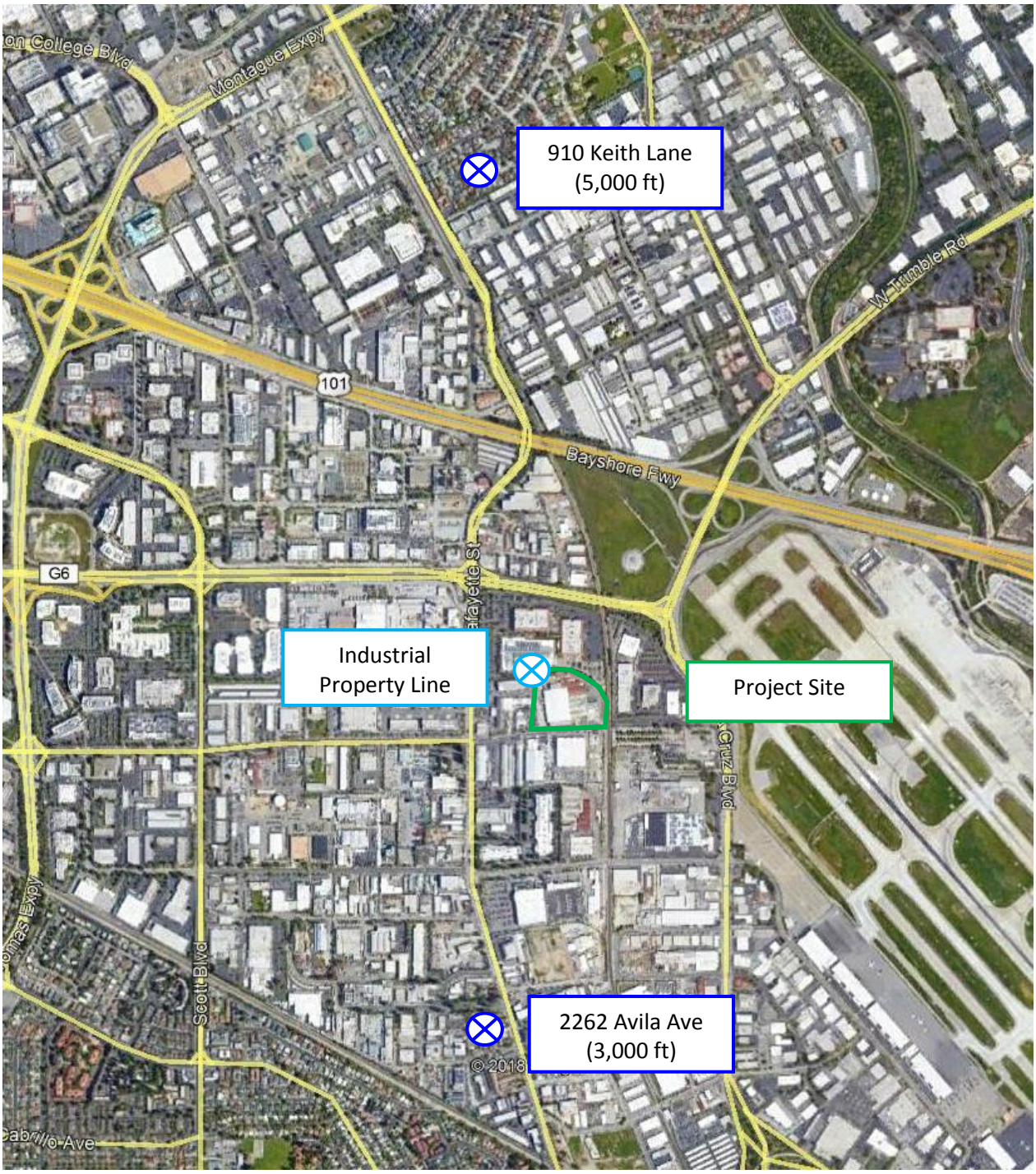


Figure 1: Project Site and Noise Measurement Locations

Figure 4 shows hourly L_{eq} and L_{max} sound levels observed at the industrial property line directly north of the project. The measured $L_{eq\text{-}1Hr}$ noise levels were very consistent across all hours of the day, ranging between 64 and 69 dBA. L_{max} levels were substantially higher, ranging from 68 to 88 dBA, but generally remaining between 75 and 80 dBA.

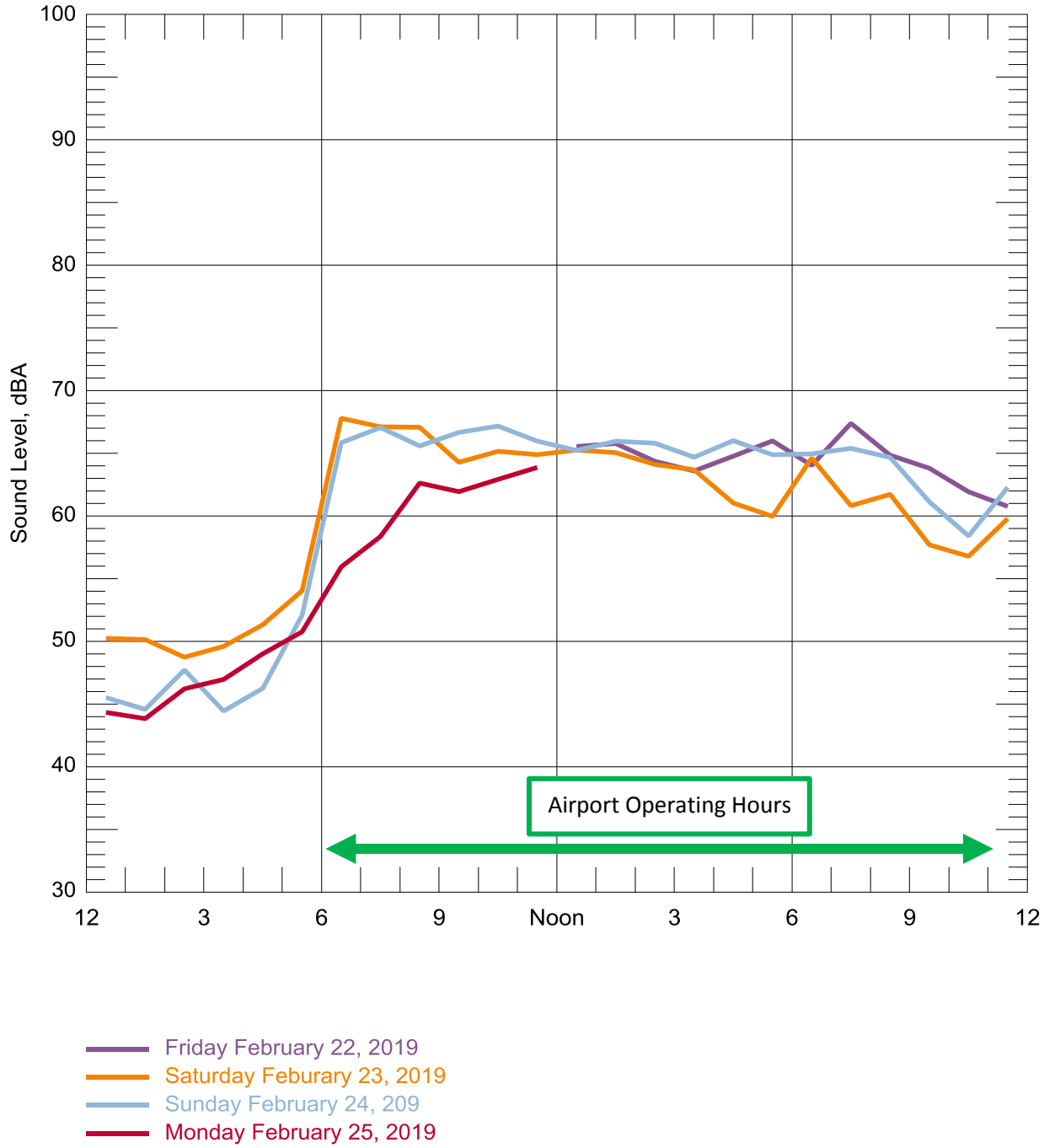


Figure 2: ***Measured average hourly noise levels (L_{eq}) at the closest residential area north of the project 910 Keith Avenue - dBA***

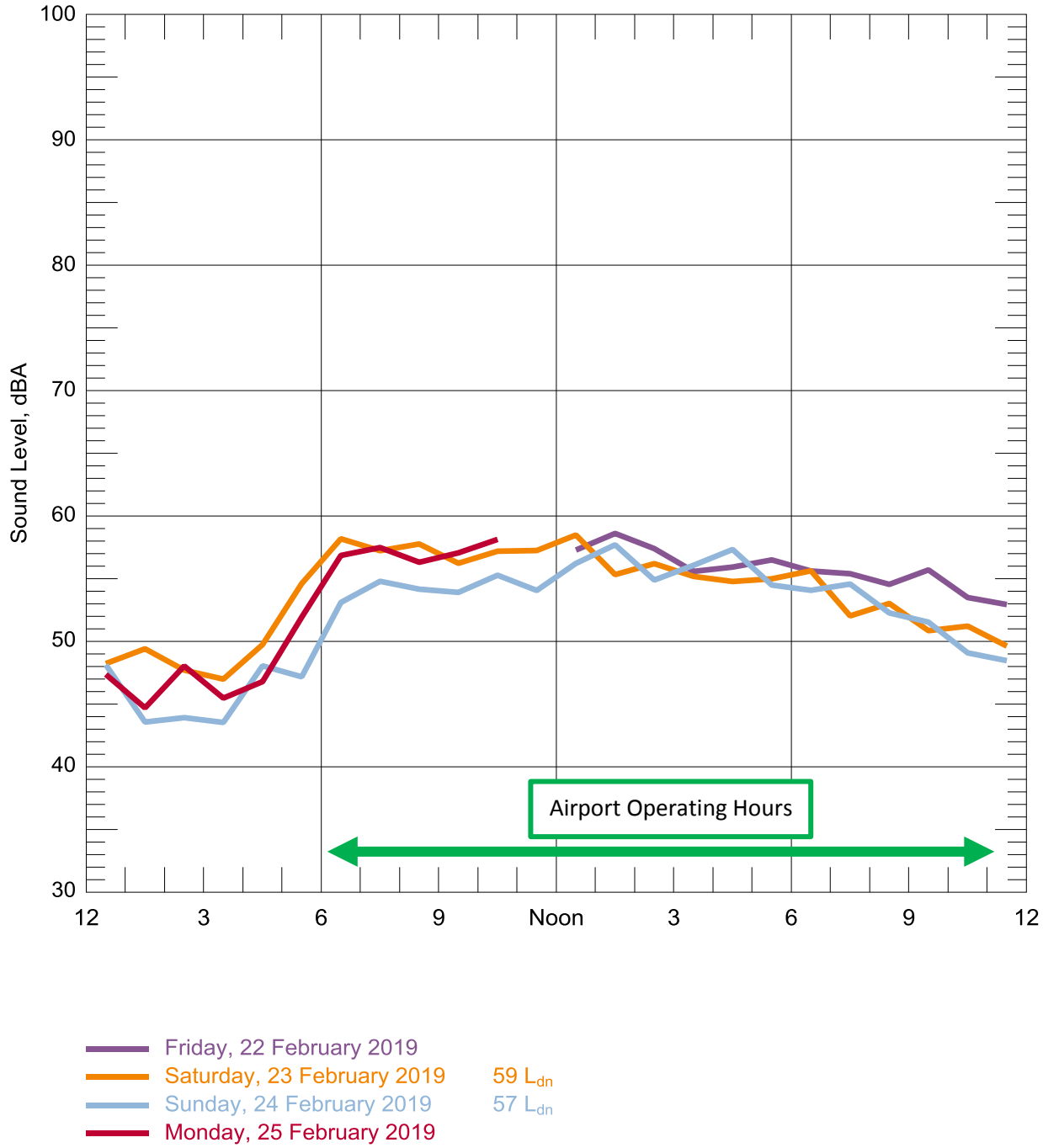


Figure 3: ***Measured average hourly noise levels (L_{eq}) at the closest residential area south of the project. 2262 Avila Avenue.***

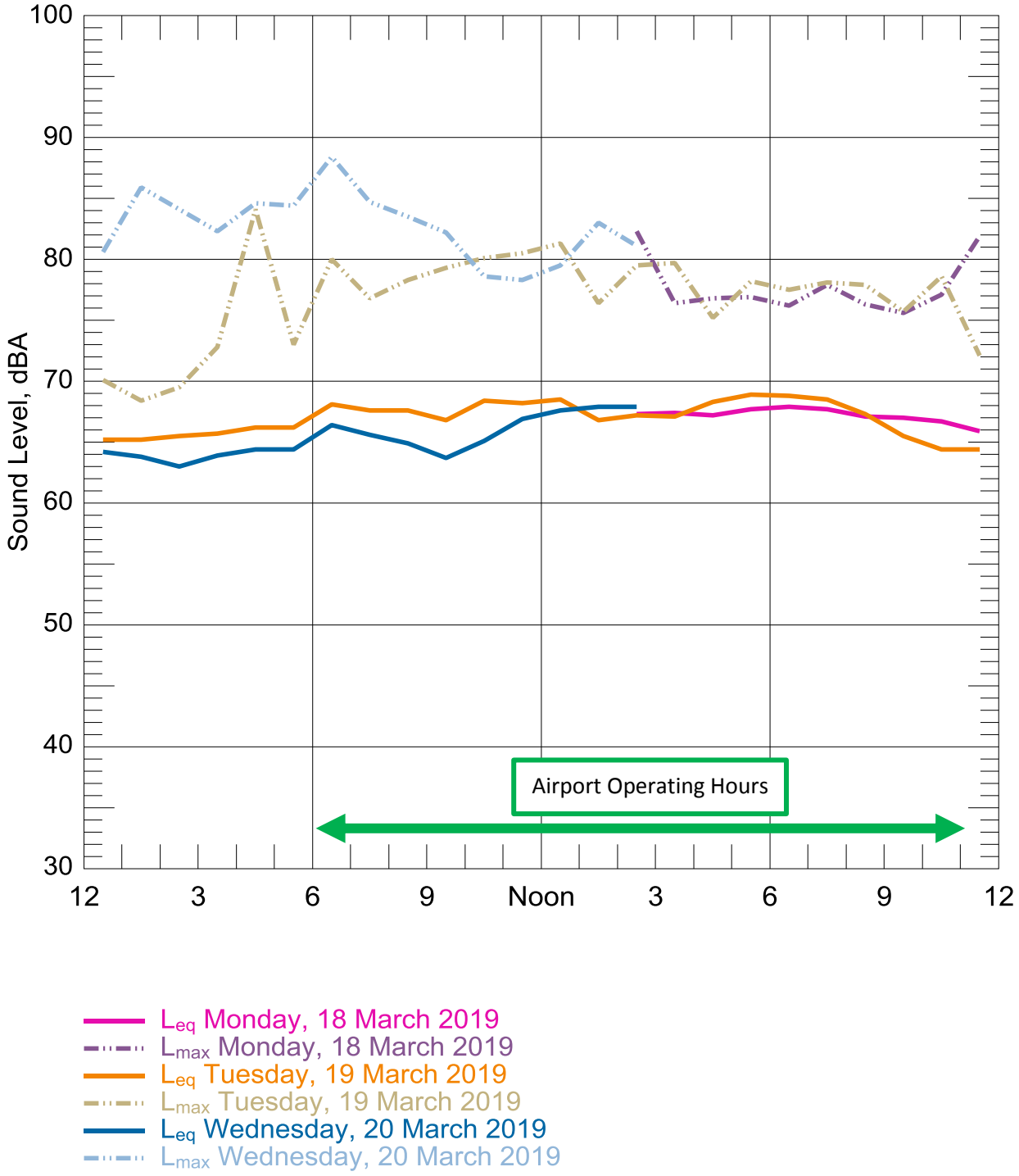


Figure 4: ***Measured average hourly noise levels (L_{eq}) and hourly L_{max} at the closest industrial area north of the project.***

Modeling Analysis

Computer noise modeling was conducted utilizing the CadnaA noise model, which is a state-of-the-art 3-dimensional model that can generate contour maps of the noise expected to be produced by the Project. All sound propagation losses, such as geometric spreading, air absorption, ground absorption and barrier shielding, can be calculated automatically.

The buildings immediately surrounding the Project were built into the model, along with the proposed Project building. Also included were the 14 ft tall rooftop parapet on top of the approximately 87 ft tall building that acts as a noise screen and the 55 ft tall precast concrete noise barriers on the eastern and western sides of the north equipment yard. These elements provide additional shielding of noise to receptors outside the building footprint. The model assumes reflective ground and downwind conditions, both of which result in worst-case sound propagation conditions.

The Project consists of numerous noise generating sources including 33 generators located in the northern equipment yard, 54 rooftop air cooled chillers (ACC), 16 makeup air units, and additional ancillary equipment such as circulating pumps. Given their relatively low sound levels, the ancillary equipment was not included in the modeling as the main contributors will be the specific equipment listed above. Additional noise from these ancillary sources is unlikely to significantly change the results.

Sound power data for the equipment was provided by the equipment manufacturers. A sound attenuating enclosure will be provided for each Generator that is designed to limit Generator noise to 75dBA at 50 feet. The octave band spectrums used in the model are shown in Table 2.

Table 2: Equipment Sound Power Levels

Equipment	Octave Band (Hz)									dBA
	31.5	63	125	250	500	1k	2k	4k	8k	
Cummins C3000 electric generator w/ enclosure	71	93	104	109	105	102	97	91	86	107
Motivair air cooled chiller	95	95	99	102	100	99	93	87	77	103
AAON makeup air unit	-	92	92	93	94	92	91	85	77	97

The project is expected to run under three separate operating conditions; hence three scenarios were studied with the computer model. These are as follows:

1. Normal Operation: Rooftop equipment (ACC and makeup air units) running at full load.
2. Generator Testing: Rooftop equipment running at full load, one single emergency generator being operated at full load. Testing may occur as often as monthly. Multiple modeling iterations were conducted to determine which generators would result in the highest project noise levels at the nearby property lines.

3. Emergency Operation: Rooftop equipment running at full load, all 33 emergency generators operating at full load.

Also, it should be noted that the predictions are for a worst-case, fully developed facility, with all planned equipment running simultaneously. In reality, facility build-out will take place over several years, and even then, it is unlikely for all equipment to be running simultaneously or at full capacity, as energy conservation programming within each device continuously optimizes rotational speeds, and hence noise generation, to the actual cooling/ventilating demands.

RESULTS

Modeling results at three property line locations and the residential areas are presented in Table 3 for each operating scenario identified, and noise contours are provided in Figures 5 through 7.

Table 3: Noise Predictions

Operating Scenario	Equipment	Receptor Location	Sound Level	Criteria (day/night)[1]
1 Normal Operation	Rooftop equipment running at full load	P1 - commercial property to W	55	60
		P2 - industrial property to N	54	70
		R1 - 2262 Avila Avenue	42	50
		R2 - 910 Keith Avenue	36	50
2 Generator Testing	Single emergency generator running at full load, rooftop equipment[2]	P1 - commercial property to W	67	65
		P2 - industrial property to N	72	70
		R1 - 2262 Avila Avenue	42	55
		R2 - 910 Keith Avenue	37	55
3 Emergency Operation	All emergency generators running at full load, rooftop equipment	P1 - commercial property to W	77	60
		P2 - industrial property to N	82	70
		R1 - 2262 Avila Avenue	46	50
		R2 - 910 Keith Avenue	46	50

Notes:
1. Normal operation and emergency testing could occur at any time and are compared to the strictest nighttime criteria. Equipment testing would only occur during daytime hours and is compared to the more relaxed daytime criteria.
2. Multiple modeling scenarios were run to determine the worst-case expected sound level at each chosen property line location (P1-P3).

As shown in Table 3, the noise levels during normal operation meet the Code limit at all nearby receptors, and sound levels at the nearest residential areas are well below the criteria during all operating scenarios.

Sound levels during generator testing exceed the Code by 2 dBA at the Project property line. However, as shown in Figure 4, the existing L_{max} sound levels in the area range from 75 to 80 dBA, which is significantly higher than the criteria. The Code allows for the criteria to be adjusted in 5 dBA

increments when existing sound levels are high. By raising the required sound level, the Project will meet the criteria.

Emergency operation results in sound levels that greatly exceed the criteria at the Project property lines. However, generator operation is exempt from the criteria during an emergency if the generator use is required to provide services or prevent property damage.

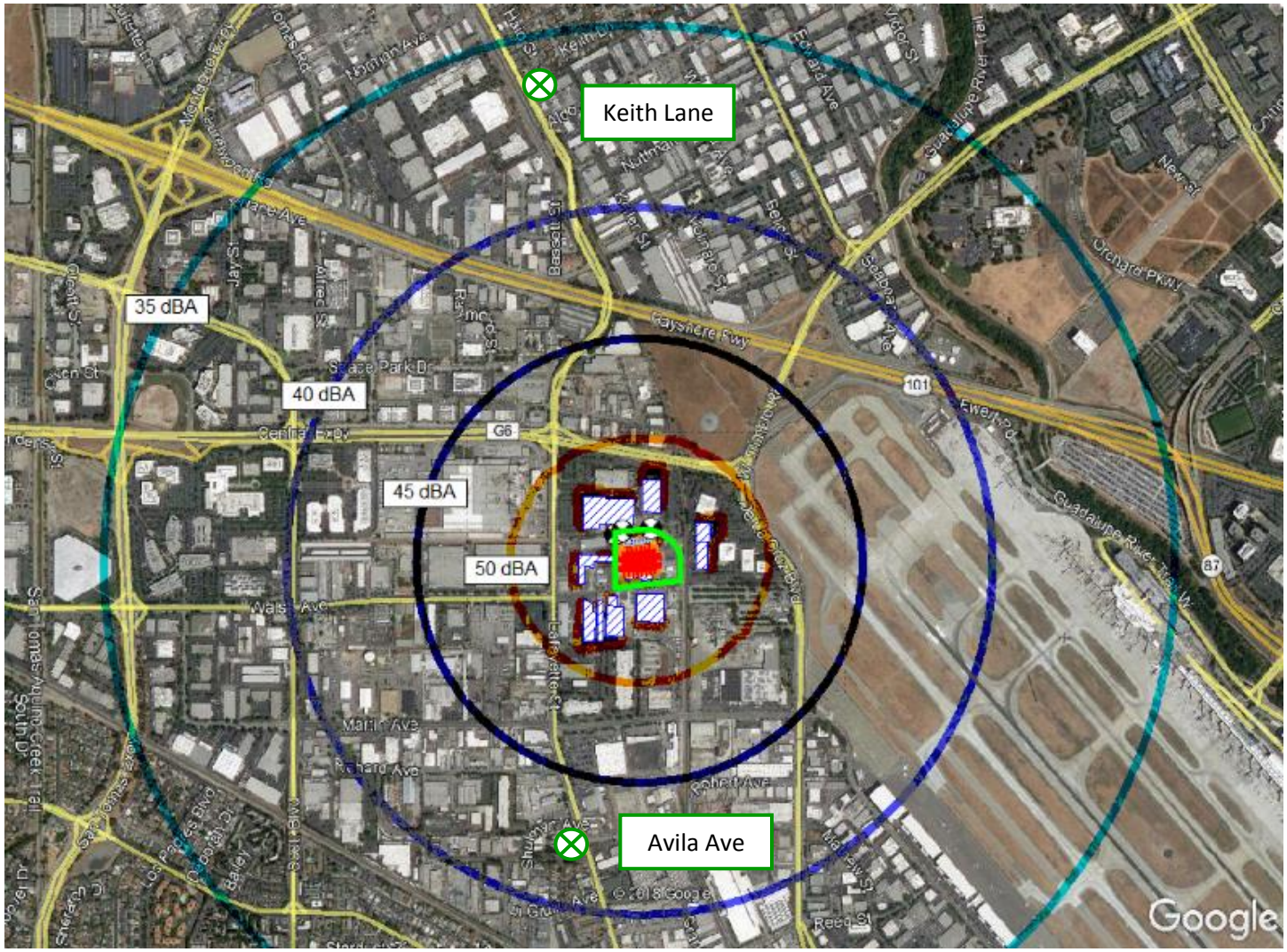


Figure 5: Operating Scenario 1 (Normal Operation) Noise Contours for Surrounding Area

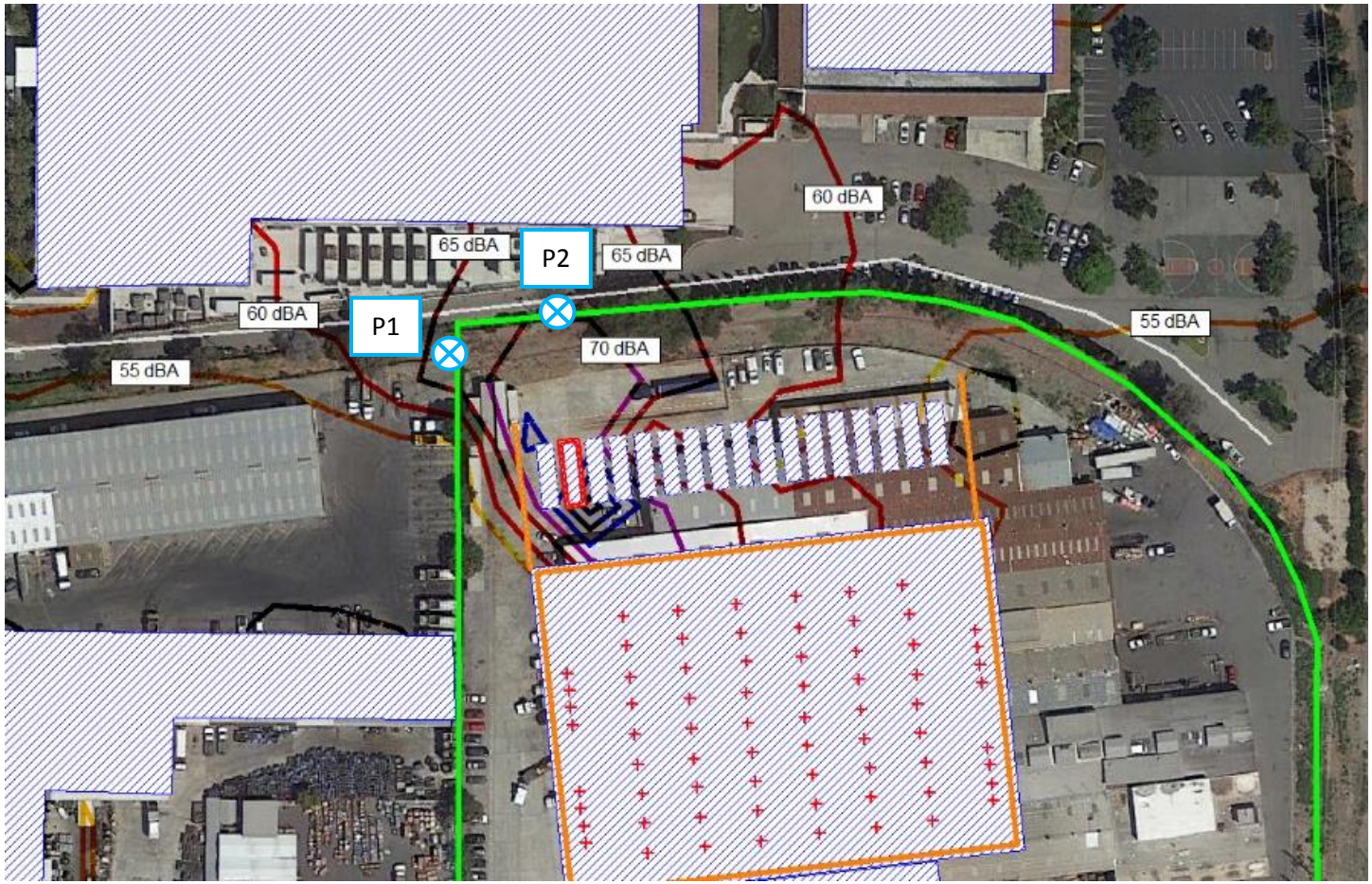


Figure 6: Operating Scenario 2 (Generator Testing) Noise Contours for Surrounding Area

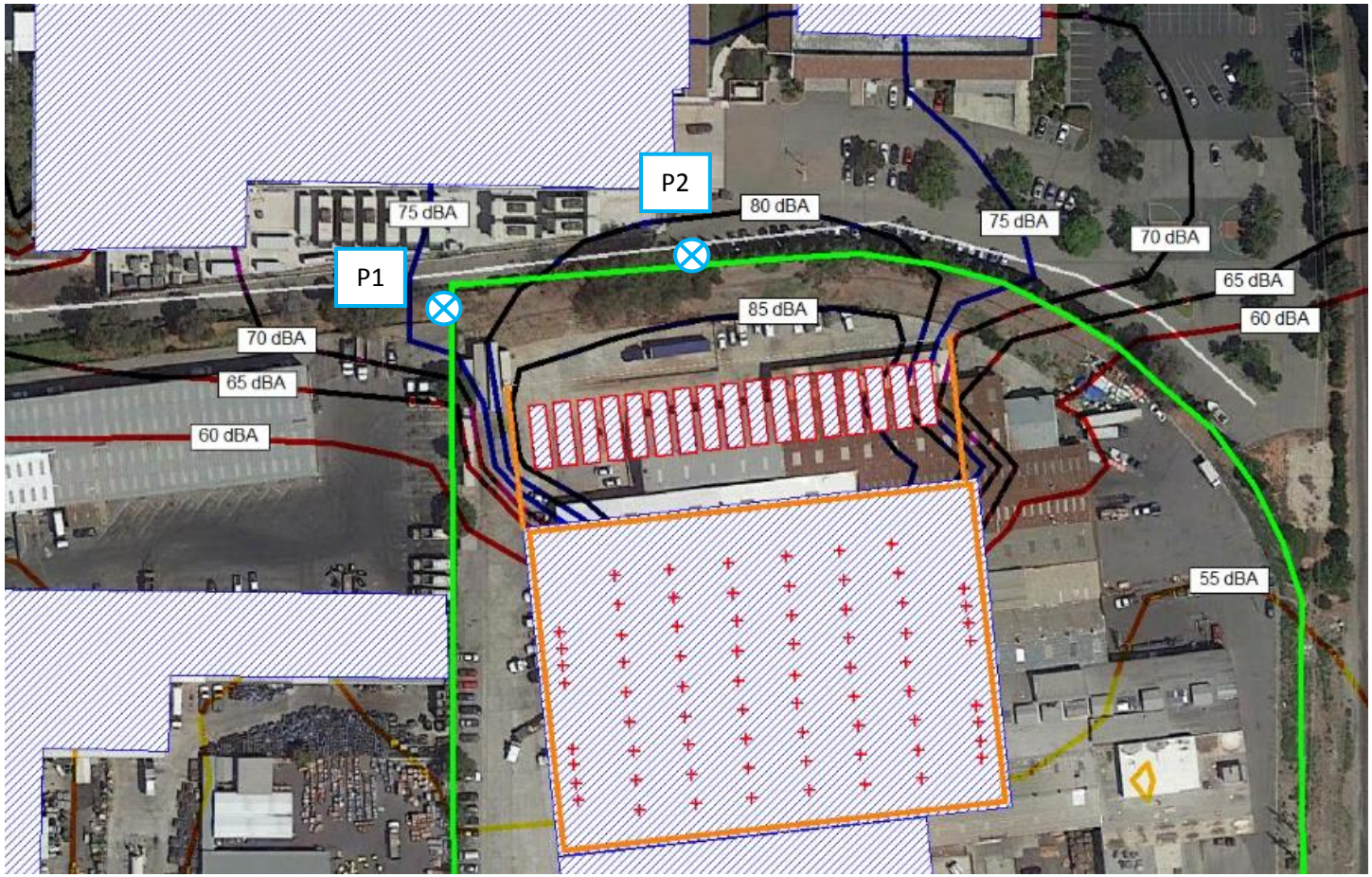


Figure 7: Operating Scenario 3 (Emergency Operation) Noise Contours for Surrounding Area

Mitigation

The exceedances at the north and west property lines are due to the emergency generator operation on the north side of the Project. However, emergency operation of the generators is exempt from the standards and therefore does not require additional mitigation to adhere to the standard. The proposed parapet wall on the rooftop and the cement masonry walls to the west and east sides of the proposed generator yard will be sufficient to reduce sound levels to acceptable levels at all nearby sensitive receptors.

Conclusion

Noise modeling shows that normal operation of the Project will be significantly below the Santa Clara Municipal Code. Minor exceedances of the Code may occur at the nearest property lines during routine testing of the emergency generators. However, the ambient monitoring program shows that existing sound levels in the area immediately surrounding the Project are higher than the criteria. In that case, the Code allows for adjustment of the criteria in 5 dBA increments. With this adjustment, the Project is expected to be in compliance with current Code requirements. Therefore no additional mitigation measures are required for the Project to be Code-compliant.

Appendix A - GLOSSARY OF ACOUSTICAL TERMS

A-Weighted Sound Level (dBA):

The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. A-weighting de-emphasizes the low and very high frequency components of the sound in a manner similar to the response of the average human ear. A-weighted sound levels correlate well with subjective reactions of people to noise and are universally used for community noise evaluations.

Ambient Noise:

The prevailing general noise existing at a location or in a space, which usually consists of a composite of sounds from many sources near and far.

Decibel (dB):

The decibel is a measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, and sound intensity) with respect to a standardized quantity.

Energy Equivalent Level (L_{eq}):

The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time period of interest. L_{eq} is widely used as a single-number descriptor of environmental noise. L_{eq} is based on the logarithmic or energy summation and it places more emphasis on high noise level periods than does L_{50} or a straight arithmetic average of noise level over time. This energy average is not the same as the average sound pressure levels over the period of interest, but must be computed by a procedure involving summation or mathematical integration.

Octave Band - 1/3 Octave Band:

One octave is an interval between two sound frequencies that have a ratio of two. For example, the frequency range of 200 Hz to 400 Hz is one octave, as is the frequency range of 2000 Hz to 4000 Hz. An octave band is a frequency range that is one octave wide. A standard series of octaves is used in acoustics, and they are specified by their center frequencies. In acoustics, to increase resolution, the frequency content of a sound or vibration is often analyzed in terms of 1/3 octave bands, where each octave is divided into three 1/3 octave bands.

Sound Pressure Level (SPL):

The sound pressure level of sound in decibels is 20 times the logarithm to the base of 10 of the ratio of the RMS value of the sound pressure to the RMS value of a reference sound pressure. The standard reference sound pressure is 20 micro-pascals as indicated in ANSI S1.8-1969, "Preferred Reference Quantities for Acoustical Levels".

Appendix E

City of Santa Clara Water Supply Assessment Determination

City of Santa Clara
The Center of What's Possible

Water & Sewer Utilities

Memorandum

Date: August 14, 2018

To: Debby Fernandez, Associate Planner

From: Diane Foronda, Water Resource Planner

Subject: Water Supply Assessment for 651 Walsh Data Center

Water Department Staff has reviewed the water demand estimates and development details provided by the developer for the 435,000 sq-ft proposed office and Data Center located at 651 Walsh Avenue.

A WSA is required if a project meets the following regulatory criteria:

- A residential development of more than 500 units
- A hotel or motel having more than 500 rooms
- A commercial office building employing 1,000 people or having more than 250,000 sq. feet of floor space
- An industrial, manufacturing or industrial park planned to house more than 1,000 employees or having more than 650,000 sq. feet of floor space
- A mixed use project that contains one or more of the criteria above
- Any project that has a water demand equal to or greater than the amount of water required by a 500 dwelling unit development

The water demand estimates and project details provided in August 2018 via e-mail by Ajit Abraham and Benjamin Rosenfeld of Jacobs Engineering indicate that the average water use estimate for the data center (381,200 sq. ft) is 18,000 gallons per day, based on operation of the site's cooling system. 18,000 gallons per day is approximately 20.2 acre-ft / yr. The remaining 53,800 sq. ft of office space is projected to use 5.4 acre-ft / yr based on current water demand estimates, for a site total of 25.6 acre-ft / yr.

Based on the provided information, Water Department Staff has determined that the project does not meet the regulatory criteria of 250,000 square feet of office space nor does the total proposed water demand for the project site equate to or exceed the amount of water required by a 500 dwelling unit development based on current residential water demand factors (67.8 acre ft / yr). Therefore, a WSA will not be required at this time, however, please keep the Water Department apprised of any and all changes to the development that may affect the site's projected water demand. The project as it currently stands does not exceed any thresholds requiring a WSA, but substantial changes to the development could potentially exceed the regulatory criteria listed above which would then require a WSA.

cc: Mike Vasquez, Compliance Manager

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