

Table 1-1  
 Site Overview  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Operational Unit	Description	Applicable Criteria	Impacted Media	Parameter Type	Parameters Identified Above Unrestricted Criteria	Text/Table/Figure Reference		
OU-1A Main Facility Parcel	<ul style="list-style-type: none"> <li>Location of former Texaco Research Facility main campus and former textile mills</li> <li>Housed laboratories, parking areas, storage areas, and offices (Demolished)</li> <li>Aboveground storage tanks, underground storage tanks, and product pipelines (Removed)</li> <li>Wastewater treatment plant and sanitary/industrial wastewater treatment system</li> <li>Potential End Use: Mixed use commercial/industrial facility, commercial/residential, residential multi-family housing, active/passive recreation, solar array farm, etc.</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Groundwater	Surface Soil (0-2")	SVOCs	BaA, BaP, BbF, BkF, Ch, D(a,h)A, I(1,2,3-cd)P	Section 3.3.1, 3.4.1 Table 3-1, 3-9 Figure 3-3A through 3-3K Figure 3-10A through 3-10X		
				PCBs	Aroclor 1248, Aroclor 1254			
				Pesticides	4,4-DDE, 4,4-DDT, Endrin			
				TAL Metals	Arsenic, Barium, Chromium, Copper, Lead, Manganese, Nickel, Vanadium, Zinc, Mercury			
			Near-Surface Soil (2"-2')	VOCs	1,1,1-TCA, 1,2-DCA, Acetone, Benzene, Carbon Tetrachloride, Chloroform, Ethylbenzene, Toluene, Xylene			
				SVOCs	4-Methylphenol, BaA, BaP, BbF, BkF, Ch, D(a,h)A, I(1,2,3-cd)P			
				PCBs	Aroclor 1248, Aroclor 1254			
				Pesticides	4,4-DDD, 4,4-DDE, 4,4-DDT			
				TAL Metals	Arsenic, Barium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Nickel, Vanadium, Zinc, Mercury			
		Subsurface Soil (2'+)	VOCs	1,1-DCE, 1,1,1-TCA, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Acetone, Chlorobenzene, Ethylbenzene, Methylene chloride, Xylene				
			SVOCs	2-Methylphenol, 4-Methylphenol, BaA, BaP, BbF, BkF, Ch, D(a,h)A, Dibenzofuran, Fluoranthene, I(1,2,3-cd)P, Naphthalene, Phenanthrene, Phenol, Pyrene				
			TAL Metals	Arsenic, Barium, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Silver, Vanadium, Zinc, Mercury				
		GW (Overburden)	VOCs	1,1-DCE, 1,1,1-TCA, 1,1-DCA, DBCP, 1,2-Dichlorobenzene, 1,2-DCA, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Butanone, Acetone, Benzene, Chlorobenzene, Chloroethane, Chloroform, cis-1,2-DCE, Ethylbenzene, Methylene chloride, PCE, Toluene, TCE, VC, Xylene	2-Chlorophenol, 2-Methylnaphthalene, 2-methylphenol, 4,6-Dinitro-2-methylphenol, 4-Methylphenol, Acenaphthene, BaA, BaP, BbF, BkF, bis(2-chloroethyl) ether, bis(2-chloroisopropyl) ether, bis(2-ethylhexyl)phthalate, Ch, Di-n-octylphthalate, D(a,h)A, Dibenzofuran, Fluoranthene, Fluorene, Hexachloroethane, I(1,2,3-cd)P, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol	Section 4.3.1, 4.4.4 Table 4-1 Figure 4-1, 4-4		
							TAL Metals	Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Mercury
1,4-Dioxane, 2-Chlorophenol, 2-Methylnaphthalene, 2-Methylphenol, 4-Methylphenol, Acenaphthene, BaA, BaP, BbF, BkF, bis(2-chloroethyl) ether, bis(2-ethylhexyl)phthalate, Ch, Db(a,h)A, I(1,2,3-cd)P, Naphthalene, Phenol								
	TAL Metals		Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Iron, lead, Magnesium, Manganese, Selenium, Sodium, Thallium, Mercury					
				Section 4.3.1, 4.4.5, 4.4.6 Table 4-2 Figure 4-1, 4-4				
Section 6.1.1, 6.1.2, 6.1.4 Table 6-1, 6-4 Figure 6-1								
	Soil Vapor	VOCs	Trichloroethylene, Carbon Tetrachloride		Section 6.1.1, 6.1.2, 6.1.4 Table 6-1, 6-4 Figure 6-1			
		TAL Metals	Mercury					
Building materials	Asbestos-friable & non-friable	Asbestos	Section 1.2.2.1					

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Operational Unit	Description	Applicable Criteria	Impacted Media	Parameter Type	Parameters Identified Above Unrestricted Criteria	Text/Table/Figure Reference
OU-1B Church Property Parcel	<ul style="list-style-type: none"> <li>Location of local church until 1950 relocation</li> <li>No TRCB activities took place on this property</li> <li>Potential End Use: Mixed use commercial/residential, residential multi-family housing, active/passive recreation, etc.</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources	Surface Soil (0-2")	SVOCs	BbF, I(1,2,3-cd)P	Section 3.3.2 Table 3-2 Figure 3-4A, 3-4B Figure 3-10A through 3-10X
			Near-Surface Soil (2"-2')	Pesticides	4,4-DDE, 4,4-DDT	
				TAL Metals	Arsenic, Iron, Lead, Manganese, Nickel, Vanadium, Zinc, Mercury	
			Near-Surface Soil (2"-2')	VOCs	Acetone, Methylene chloride	
				SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P	
				Pesticides	4,4-DDD, 4,4-DDE, 4,4-DDT	
TAL Metals	Arsenic, Chromium, Copper, Iron, Lead, Manganese, Nickel, Selenium, Silver, Vanadium, Zinc, Mercury					
OU-1C Former Washington Avenue Tank Farm	<ul style="list-style-type: none"> <li>Former location of Washington Avenue Tank Farm</li> <li>Approximately 30 aboveground chemical storage tanks and associated facilities</li> <li>Pump house with underground piping to OU-1A</li> <li>Former groundwater treatment system</li> <li>Potential End Use: Industrial utility infrastructure, Mixed use commercial/industrial facility, commercial use, active/passive recreation, solar array farm, bridge relocation option, etc.</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources Protection of Groundwater  NYSDEC TOGS 1.1.1 USEPA Tapwater RSLs	Surface Soil (0-2")	SVOCs	Phenol	Section 3.3.3, 3.4.2 Table 3-3, 3-10 Figure 3-5A through 3-5D Figure 3-10A through 3-10X
			Near-Surface Soil (2"-2')	Pesticides	4,4-DDT	
				TAL Metals	Arsenic, Chromium, Copper, Iron, Lead, Nickel, Zinc, Mercury	
			Near-Surface Soil (2"-2')	VOCs	Acetone	
				SVOCs	Phenol	
				Pesticides	4,4-DDT	
			Sub-Surface Soil (2'+)	TAL Metals	Arsenic, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Zinc, Mercury	
				VOCs	Acetone, Benzene, Ethylbenzene, Toluene, Xylene	
			GW	SVOCs	BbF, Naphthalene	
				TAL Metals	Arsenic, Chromium, Copper, Lead, Manganese, Nickel, Zinc, Mercury	
				VOCs	1,2-Dichlorobenzene, Acetone, Benzene, Methyl-t-butyl ether, Toluene, Xylene	
				SVOCs	2-Methylnaphthalene, 2-Methylphenol, 4-Methylphenol, BaA, BaP, BbF, BkF, bis(2-Ethylhexyl)phthalate, Ch, I(1,2,3-cd)P, Naphthalene, Phenol	
			TAL Metals	Aluminum, Antimony, Arsenic, Cadmium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Nickel, Selenium, Sodium, Thallium		
			LNAPL	LNAPL Present @ SWMW-21/72(?)		
OU-1D Residential Property (Rail Siding Area)	<ul style="list-style-type: none"> <li>Residential Property south of WATF and rail siding area</li> <li>Previously an offload point for chemicals being transported by rail</li> <li>Former Underground Piping to WATF and Equipment for pumping from train cars</li> <li>Potential End Use: Residential single/multi family housing, commercial use,</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources Protection of Groundwater  NYSDEC TOGS 1.1.1 USEPA Tapwater RSLs	Surface Soil (0-2")	SVOCs	BaA, BbF, Ch, I(1,2,3-cd)P	Section 3.3.4, 3.4.3 Table 3-4, 3-11 Figure 3-6A, 3-6B Figure 3-10A through 3-10X
			Near-Surface Soil (2"-2')	TAL Metals	Arsenic, Chromium, Copper, Lead, Nickel, Vanadium, Zinc, Mercury	
				VOCs	Acetone	
			Near-Surface Soil (2"-2')	SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P	
				Pesticides	4,4-DDD, 4,4-DDE, 4,4-DDT	
				TAL Metals	Arsenic, Chromium, Iron, Lead, Manganese, Nickel, Vanadium, Zinc, Mercury	
			Sub-Surface Soil (2'+)	VOCs	Acetone	
				SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P	
				TAL Metals	Arsenic, Iron, Lead, Nickel, Mercury	
			GW	TAL Metals	Aluminum, Arsenic, Barium, Beryllium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese (Total/Dissolved), Nickel, Sodium (Total/Dissolved), Thallium, Vanadium, Mercury	

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OU-1E Back 93 Acre Parcel/ Recreation Area	<ul style="list-style-type: none"> <li>Undeveloped Property to the south of the WATF, previously a recreation area</li> <li>"Old" and "New" Sludge Lagoons (Excavated)</li> <li>Trash Piles "A" through "D" (Excavated)</li> <li>Chemical Burial Site 1 through 3 (Excavated)</li> <li>Disposal Pit (Excavated)</li> <li>Container Disposal Site (Excavated)</li> <li>Potential End Use: Mixed use commercial/industrial facility, mixed use commercial/residential, residential single/multi-family housing, active/passive recreation, solar array farm, etc.</li> </ul>	<p>NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources Protection of Groundwater</p> <p>NYSDEC TOGS 1.1.1 USEPA Tapwater RSLs</p>	Surface Soil (0'-2')	SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P	<p>Section 3.3.5, 3.4.4 Table 3-5, 3-12 Figure 3-7A, 3-7B Figure 3-10A through 3-10X</p>
				Pesticides	4,4-DDE	
			Near-Surface Soil (2"-2')	TAL Metals	Arsenic, Chromium, Iron, Lead, Manganese, Nickel, Vanadium, Zinc, Mercury	
				VOCs	Acetone	
				SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P, Phenol	
				Pesticides	4,4-DDE	
			Sub-Surface Soil (2'+)	TAL Metals	Arsenic, Chromium, Iron, Manganese, Nickel, Zinc, Mercury	
				SVOCs	BaA, BaP, BbF, BkF, Ch, Db(a,h)A, I(1,2,3-cd)P	
				TAL Metals	Chromium	
			GW	VOCs	1,2-DCE, Methyl-t-butyl ether, TCE	
SVOCs	1,4-dioxane, 2,6-dinitrotoluene, 2-methylphenol, BaA, BaP, BbF, BkF, Ch, Db(a,h)A, Hexachlorobutadiene I(1,2,3-cd)P, Nitrobenzene					
TAL Metals	Aluminum, Cobalt, Iron, Lead, Magnesium, Manganese					
			Soil Vapor	VOCs	acetone, benzene, toluene, and xylenes, 1,1,1-TCA, chlorobenzenes, TCE, 1,1-DCA	<p>Section 4.3.4 Table 4-5 Figure 4-2, 4-3, 4-4</p> <p>Section 6.1.3 Table 6-2, 6-3 Figure 6-2</p>
OU-1F Fishkill Creek	<ul style="list-style-type: none"> <li>Surface water body south of OU-1A and north of OU-1C</li> <li>Used as hydropower source for the site</li> <li>Site stormwater and the wastewater treatment plant discharge to the creek</li> <li>Man bridges cross over the river carrying piping from OU-1C to the Main Facility</li> <li>Potential End Use: Recreational Fishing and Non/contact boating</li> </ul>	Water Quality Standards for Protection of Aquatic Life NYSDEC TOGS 1.1.1	Surface Water	No Impacts above Screening Levels		<p>Section 5.3.1 Table 5-1 Figure 5-1, 5-1A</p>
				Screening and Assessment of Contaminated Sediment Freshwater SGVs	Sediment	
		TAL Metals	85% <Class A 13% <Class C			
		PAHs	<Class A			
		PCBs	<Class A			
OU-2 Road Parcel	<ul style="list-style-type: none"> <li>Parcel along/underneath Washington Avenue that has been dedicated to the Town of Fishkill</li> <li>Maintained by the town of Fishkill - no TRCB activities conducted on this property</li> <li>No investigations were conducted</li> <li>End Use: Industrial (active road)</li> </ul>					

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Operational Unit	Description	Applicable Criteria	Impacted Media	Parameter Type	Parameters Identified Above Unrestricted Criteria	Text/Table/Figure Reference	
OU-3 Residential Property	<ul style="list-style-type: none"> <li>Residential Property</li> <li>No TRCB related activities</li> <li>Potential End Use: Residential single/multi-family housing, commercial</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources Protection of Groundwater	Surface Soil (0-2")	SVOCs	BaA, BaP, BbF, BkF, Ch, I(1,2,3-cd)P	Section 3.3.6, 3.4.5 Table 3-6, 3-13 Figure 3-8 Figure 3-10A through 3-10X	
				Pesticides	4,4-DDE, 4,4-DDT		
				TAL Metals	Iron, Mercury		
			Near-Surface Soil (2"-2')	VOCs	Acetone		
				Pesticides	4,4-DDE		
				TAL Metals	Iron, Nickel		
		Sub-Surface Soil (2'+)	VOCs	Acetone	Section 4.3.4 Table 4-6 Figure 4-1, 4-4		
			TAL Metals	Iron, Nickel			
			VOCs	Acetone			
			SVOCs	BaA, BaP, BbF, BkF, Ch, I(1,2,3-cd)P			
OU-4 Hydroelectric Dam Property/Undeveloped Property/Rail Siding Area	<ul style="list-style-type: none"> <li>Hydroelectric dam, related structures to the north, and undeveloped parcel easement to the south</li> <li>General maintenance activities related to dam operation</li> <li>In place the entire time the site has been in operation as the TRCB</li> <li>Potential End Use: Industrial utility infrastructure, mixed industrial/commercial</li> </ul>	NYSDEC 6NYCRR/CP-51 Unrestricted Residential Restricted-Residential Commercial Industrial Protection of Ecological Resources Protection of Groundwater	Surface Soil (0-2")	VOCs		Acetone	Section 3.3.7, 3.4.6 Table 3-7, 3-14 Figure 3-9A, 3-9B Figure 3-10A through 3-10X
				TAL Metals		Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Nickel, Selenium, Zinc, Mercury	
				Near-Surface Soil (2"-2')		VOCs	
			SVOCs			BaA, BaP, BbF, Ch, I(123-cd)P, Phenol	
			TAL Metals			Arsenic, Chromium, Copper, Iron, Lead, Manganese, Nickel, Zinc, Mercury	
			Sub-Surface Soil (2'+)	VOCs		Acetone	
		TAL Metals		Chromium, Copper, Iron, Lead, Nickel			
		GW		VOCs	1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Benzene, Chlorobenzene, Toluene		
				SVOCs	BaA, BaP, BbF, BkF, bis(2-Ethylhexyl)phthalate, Ch, I(123-cd)P		
			TAL Metals	Aluminum, Arsenic, Cadmium, Chromium, Cobalt, Iron, Lead, Magnesium, Manganese, Sodium			

**Notes:**

1,1-DCE	1,1-Dichloroethene	LNAPL	light non-aqueous phase liquid
1,1,1-TCA	1,1,1-Trichloroethane	NYSDEC	New York State Department of Environmental Conservation
1,1-DCA	1,1-Dichloroethane	PCB	polychlorinated biphenyls
1,2-DCE, cis-, trans-	1,2-Dichloroethene, cis-, trans-	RSL	residential screening level
PCE	Tetrachloroethene	SVOC	semivolatile organic compound
TCE	Trichloroethylene	TAL Metals	Target Analyte List Metals
VC	Vinyl Chloride	TOGS	Technical and Operational Guidance Series
1,2-DCA	1,2-Dichloroethane	TRCB	Texaco Research Center Beacon
4,4-DDD	4,4-dichlorodiphenyldichloroethane	USEPA	United States Environmental Protection Agency
4,4-DDE	4,4-dichlorodiphenyldichloroethylene	VOC	volatile organic compound
4,4-DDT	4,4-dichlorodiphenyltrichloroethane		
BaA	Benzo(a)Anthracene		
BaP	Benzo(a)Pyrene		
BbF	Benzo(b)Fluoranthene		
BkF	Benzo(k)Fluoranthene		
Ch	Chrysene		
D(a,h)A	Dibenz(a,h)Anthracene		
I(1,2,3-cd)P	Indeno(1,2,3-cd)Pyrene		

If not specified, metals evaluated as Total Metals in water samples.

**Table 2-1A**  
**Underground Storage Tanks**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Underground Storage Tanks Map Designator	Name/Location	Description	Products/Chemicals Stored	Current Status
U1	Building 83 Tank	Tank #200 - oil/water separator tank connected to drains in Bldgs. 58/83/89	Waste solvents and fuels	Closed and Excavated (2006)
U2	Road Simulator Tanks Northeast of Bldg. 36	14 USTs ranging in size from 550 gallons to 1,000 gallons (installed circa 1970). Containment area is reinforced concrete (one wall) and concrete block (three walls) walls	Gasoline (research and conventional) (leaded and unleaded); diesel fuel	Closed and Excavated (1988/1998)
U3	Garage Tanks	Two 1,000-gallon USTs (double-walled fiberglass with leak detection)	Gasoline; diesel fuel	Closed and Excavated (1998)
U4	Building 70 Tanks	Building 70 Tanks - Bank of 60 USTs (historically) (installed circa 1960s) - ranging from 125 to 500 gallons	Diesel fuel; various raw gasoline fractions; finished gasolines	Closed and Excavated (1988/1998)
U5	Industrial Wastewater Treatment Plant Tanks	Historical oil/water separator	Waste oils, fuels, solvents (?)	Closed and Excavated
U6	Building 37	Building 37 Tanks - 21 USTs ranging from 550 gallons to 6,000 gallons. Reinforced concrete containment vault	Gasolines (conventional/ research grades and gasohols); diesel fuels (conventional/ research grades)	Closed and Excavated (1984/2003)
U7	Fleet Test Area near Parking Area "C"	Fleet Test Area Tanks - 7 USTs ranging from 1,000 gallons to 6,000 gallons	Gasoline; diesel; alternate fuels (methanol; M85); MTBE	Closed and Excavated (2001)
U8	Pre-Building 51 Tanks	Historical USTs installed and removed prior to construction of Bldg. 51	Vinyl chloride; solvents	Removed prior to construction of B-51
U9	Pre-Building 37 Tanks	Historical USTs and pump prior to construction of Bldgs. 37 and 39	Gasoline (?)	Removed prior to construction of B-37&39
U10	Former Truscan Buildings	Petroleum fuel USTs and pump island	Petroleum Fuel	Closed and Excavated
U11	Former Building 25	Unknown	Unknown	Excavated (1963)
U12	West of Building 3	Tank 35	Industrial Waste	Closed and Abandoned (1997)

**Notes:**

Information sourced from GSC, Phase II Environmental Site Assessment, June 2005.

MTBE = methyl tertiary-butyl ether

UST = underground storage tank

**Table 2-1B**  
**Aboveground Storage Tanks**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
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Aboveground Storage Tanks Map Designator	Name/Location	Description	Products/Chemicals Stored	Current Status
A1	Building 82	Unknown	Unknown	Demolished
A2	Building 36 - east of and behind building	Two 3,000-gallon ASTs (each tank has three 1,000-gallon compartments)	Unleaded gasoline	Demolished
A3	Boiler House (Bldg. 26) Tanks	Five ASTs ranging from 250 gallons to 110,389 gallons. All ASTs have concrete secondary containment (installed in 1990/1991) except for the 275-gallon tank (see below)	Diesel fuel; stoddard solvent; type "A" waste oil; No. 6 fuel oil	Demolished (2004/2006)
A4	Boiler House (Bldg. 26) Tank	275-gallon AST		Demolished (2006)
A5	Building 81	275-gallon AST	Heating oil (?)	Demolished
A6	Building 55	Unknown	Unknown	Demolished
A7	Building 27 Tank	One 275-gallon AST	Heating oil (?)	Demolished
A8	Building 70 Tanks	Seven ASTs ranging from 1,000 gallons to 8,000 gallons	Lubricant base oil stocks; gasoline; methanol	Demolished
A9	Between Bldg. 55 and Bldg. 65	Historical AST	Unknown	Demolished
A10	Building 3	ASTs located immediately south of Bldg. 3	Unkown	In Place
A11	Outside Building 6	One 275-gallon AST. Fuel in tank used to run emergency generator during emergencies. A metal containment tray provides secondary containment. Tank in an enclosed storage shed	Diesel fuel	In Place
A12	Building 37	One 110-gallon AST with a secondary tank for containment	Unknown	Demolished (2003)
A13	Southeast of Bldgs. 37/39	Historical ASTs prior to construction of Blgs. 37 & 39	Unknown	Removed prior to construction of B-37&39
A14	Building 51	ASTs installed and removed prior to construction of Bldg. 51 addition	Unknown	Removed prior to construction of B-51
A15	Building 68	Two 550-gallon ASTs with metal secondary containment	Diesel fuel; naphthalene	Demolished
A16	Washington Avenue Tank Farm	27 ASTs ranging from 3,000 gallons to 21,000 gallons. As of 1997: 16 21,000- gallon steel vertical; one 10,000-gallon steel vertical; one 10,000-gallon steel vertical; three 5,000-gallon. Concrete secondary containment basins for ASTs (three basins)	Diesel fuel; stoddard solvent; various raw gasoline fractions gasoline	Demolished (2004)
A17	South of Bldg. 65	One 3,000-gallon steel horizontal AST in tank storage shed	Unknown	Demolished
A18	Industrial Wastewater Treatment Plant Tanks	One oil/water separator tank (Tank #259) One 275-gallon diesel fuel tank (Tank #296) - fuels emergency generator for power to treatment plant	Oil/water waste (sludge) (#259); diesel fuel (#296); lubricant oil	In Place

**Notes:**

Information sourced from GSC, Phase II Environmental Site Assessment, June 2005.

AST = aboveground storate tank

**Table 2-1C**  
**Drum Storage Areas**  
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Drum Storage Areas Map Designator	Name/Location	Description	Products/Chemicals Stored
D1	Building 58	Drum storage in 100 ft by 120 ft open bldg. (storage capacity is 2,600 drums). Contained 15-gallon to 55-gallon drums. Solvent dispensing in Building 89 (racks for twelve 55-gallon drums).	Flammable solvents (alcohols, ketones, alkanes); chlorinated solvents; gasoline; base oil stocks; various fuel and lubricant additives
D2	Building 83	Drum storage in 70 ft by 100 ft bldg. (storage capacity ~600 drums (55-gallon))(open on three sides). Reinforced concrete floor coated with a chemically resistant liner system with a "splash wall"	Chlorinated/non-chlorinated waste solvents; used oil; used ethylene glycol
D3	Building 36	Drum storage area in building used to store five 55-gallon drums; contained by steel containment tray piped to industrial wastewater treatment system	Slop gasoline, diesel fuel, oil, and antifreeze; 5-gallon cans of test fuels (diesel and gasoline)
D4	Building 91	Drum storage in self-contained building with racks to hold dispensing drums; sump in floor to provide containment (storage capacity of fifty 55-gallon drums)	Reference/research grade gasolines; diesel fuels; motor oil; anti-freeze
D5	Building 76	Drum storage in open building with one wall. Storage capacity is fifteen 55-gallon drums. Concrete floor and cinder block wall on one side of area. Concrete floor is graded to drain to truck containment pit of the Road Simulator Tanks	Experimental gasolines and fuels
D6	East of Building 45	Historical drums storage area	Unknown
D7	Building 27 (A-K Lab)	Drum storage of 5-gallon sample cans, 55-gallon drums, and a small bulk storage tank (275 gallons).	Reference fuels; research gasolines
D8	West of Building 29	Historical drums storage area	Unknown
D9	Building 78	Drum storage in a 23 ft by 53 ft open building. (storage capacity of sixty 55-gallon drums).	Lubricating oil for enginetesting
D10	Building 70	Drum storage in loading dock with drum racks between Bldg. 70 and Bldg. 28. (storage capacity is 175 55-gallon drums).	Base oils; gasolines; fuel/lubricant additives
D11	Building 39 (Pagoda)	Drum storage pagoda (storage capacity is sixty 55-gallon drums).	Diesel fuel; gasolines
D12	Building 92	Drum storage in self-contained Building with racks. (storage capacity is fourteen 55-gallon drums)	Flammable solvents; combustible oils
D13	Building 68-Bay II	Drum storage in self-contained Building. (Storage capacity is fourteen 55-gallon drums)	Flammable solvents; combustible oils
D14	Northeast of Building 32	Historical drum storage area	Unknown
D15	Area South of Bldgs. 32/41/57; North of Boat Launch Area along Fishkill Creek	Historical drum storage area along creek	Unknown

**Table 2-1C**  
**Drum Storage Areas**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Drum Storage Areas Map Designator	Name/Location	Description	Products/Chemicals Stored
D16	Area West of Building 3	Historical drum storage area	Unknown
D17	Area at Bldgs. 80/81/85	Historical drum storage area	Unknown
D18	Area Underneath and Surrounding Bldg. 83	Historical drum storage area	Unknown
D19	Area Underneath and Surrounding Bldg 58	Historical drum storage area	Unknown
D20	Area West of Bldg. 42	Historical drum storage area	Unknown
D21	Area West of Bldg. 29	Historical drum storage area	Unknown
D22	Area West of Bldg. 28 and Underneath Bldg. 28 Extension and Bldg. 78	Historical drum storage area	Unknown

**Notes:**

Information sourced from GSC, Phase II Environmental Site Assessment, June 2005.

ft = feet

**Table 2-1D**  
**Features of Interest**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Features of Interest Map Designator	Name/Location	Description	Reference
FOI1	Building 41	Septic Tank & Leachfield	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI2	Building 67	Septic Tank & Leach Wells	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI3	Building 67	Dry Well	
FOI4	Building 31 Area	Septic Tank & Leachfield	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI5	Building 58	4" Perforated Pipe	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI6	Building 58	Floor drains - tank with discharge to creek	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI7	Building 83	Sop Oil Pump Pit	Texaco Drawing Underground Sanitary Storm, 1950, Revised 1983
FOI8	Building 42	Oil Bearing Sewer Sump and Booster Pump	Texaco Drawing Pipe Lines, Field 1947
FOI9	Building 50	Mercury Tubes for Weather Station	Texaco Drawing Electrical Lines 1951, revised 1983

**Notes:**

Information sourced from GSC, Phase II Environmental Site Assessment, June 2005.

**Table 2-2**  
**Monitoring Well Construction Table**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Well ID	Area of Site	Well Type	X_COORD	Y_COORD	Ground Elevation (Ft.-MSL)	TOC Elevation (Ft.-MSL)	Screen top (Ft.-MSL)	Screen bottom (Ft.-MSL)	TD of Boring (bgs)	Well Depth (Ft.-BGS)	Casing Diameter (Inches)	Casing Length (Ft.-BGS)	Screen Length (Ft.)	STICKUP (Ft.)	Well Screen Start Depth (Ft.-BGS)	Well Screen End Depth (Ft.-BGS)	Well Component Material	Well Use/ Purpose
BR-2	Bldg 36/58/83	B	645375.69	977965.17	217.47	216.93	200.43	185.43	31.50	31.50	2.00	16.50	15.00	0.00	17.00	32.00	PVC	Monitoring
DB-17	B93	O	646916.58	975948.74	NA	231.77	NA	9.10		9.10	2.00	NA	NA	NA	NA	9.10	PVC	Monitoring
DB-8A	B93	O	646960.53	976102.93	NA	232.60	227.60	217.60	20.00	15.00	2.00	5.00	10.00	NA	5.00	15.00	PVC	Monitoring
DC-1	B93	O	646806.23	976713.89	226.10	229.30	224.00	214.00	16.00	12.00	2.00	2.00	10.00	NA	2.00	12.00	PVC	Monitoring
DC-2	B93	O	646692.32	976732.82	227.30	229.10	220.00	210.00	30.00	17.50	2.00	7.50	10.00	NA	7.50	17.50	PVC	Monitoring
GT-1	"missing"	B	645285.98	978013.14	219.82	219.44	204.44	189.44		30.00	2.00	15.00	15.00	0.00	15.00	30.00	PVC	Monitoring
GT-2	Bldg 36/58/83	O	645373.19	977962.79	217.38	217.06	213.06	208.06	9.00	9.00	2.00	4.00	5.00	0.00	4.00	9.00	PVC	Monitoring
ITMW-10		O							14.00	14.00	2.00		10.00					
ITMW-11	Bldg 45/55	B	645673.79	978738.04	262.39	261.89	251.89	241.89	20.00	20.00	2.00	10.00	10.00	0.00	11.00	21.00	PVC	Monitoring
ITMW-12	Bldg 36/58/83	B	645601.44	978216.42	234.76	234.36	224.36	214.36	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
ITMW-13	Bldg 36/58/83	B	645154.57	977786.13	217.00	216.58	206.58	196.58	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
ITMW-14	Bldg 36/58/83	B	645192.82	977848.27	216.83	216.56	206.56	196.56	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
ITMW-2	OU-1A	B	646963.36	978809.25	244.37	244.10	208.60	158.60	85.50	85.50	2.00	35.50	50.00	0.00	36.00	86.00	PVC	Monitoring
ITMW-20	Bldg 36/58/83	B	645107.10	977844.52	217.76	217.36	202.36	192.36	25.00	25.00	2.00	15.00	10.00	0.00	15.00	25.00	PVC	Monitoring
ITMW-21	Bldg 36/58/83	B	645579.86	978226.50	233.87	233.62	223.62	213.62	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
ITMW-22	Bldg 36/58/83	B	645620.94	978170.15	233.38	233.17	223.17	193.17	40.00	40.00	2.00	10.00	30.00	0.00	10.21	40.00	PVC	Monitoring
ITMW-23	Bldg 45/55 (south of building B-78)	B							22.00	22.00	2.00	12.00	10.00					
ITMW-24	Bldg 45/55	B	645760.63	978518.89	237.26	236.98	231.98	221.98	15.00	15.00	2.00	5.00	10.00	0.00	5.00	15.00	PVC	Monitoring
ITMW-25	Bldg 45/55	O	645800.82	978374.48	232.43	232.09	217.09	207.09	25.00	25.00	2.00	15.00	10.00	0.00	15.00	25.00	PVC	Monitoring
ITMW-26	OU-1A	B							31.00	31.00	2.00	20.50	10.00					
ITMW-27	OU-1A	B							60.00	60.00	2.00	29.00	40.00					
ITMW-28	Bldg 45/55	B	645837.93	978331.18	189.68	191.06	181.06	171.06	20.00	20.00	2.00	10.00	10.00	0.00	9.00	19.00	PVC	Monitoring
ITMW-29	Bldg 36/58/83	B	645546.16	978187.81	232.29	231.90	221.90	211.90	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
ITMW-3	OU-1A	B	646963.36	978813.87	243.92	243.50	216.00	206.00	37.50	37.50	2.00	27.50	10.00	0.00	28.00	38.00	PVC	Monitoring
ITMW-30	Bldg 36/58/83	B	645575.24	978147.17	232.05	231.55	221.55	191.55	40.00	40.00	2.00	10.00	30.00	0.00	11.00	41.00	PVC	Monitoring
ITMW-31	Bldg 36/58/83	B	645592.38	978156.42	232.47	232.12	222.12	192.12	40.00	40.00	2.00	10.00	30.00	0.00	10.00	40.00	PVC	Monitoring
ITMW-4	OU-1A	B	647071.24	978418.29	222.93	222.32	207.32	197.32	25.00	25.00	2.00	15.00	10.00	0.00	16.00	26.00	PVC	Monitoring
ITMW-5	OU-1A	O	646620.00	978258.52	220.49	220.18	210.18	190.18	30.00	30.00	2.00	10.00	20.00	0.00	10.00	30.00	PVC	Monitoring
ITMW-6	OU-1A	B	646594.16	978253.50	220.56	220.16	192.16	172.16	48.00	48.00	2.00	28.00	20.00	0.00	28.00	48.00	PVC	Monitoring
ITMW-7	OU-1A	B	646390.52	978372.02	224.01	223.76	208.76	188.76	35.00	35.00	2.00	15.00	20.00	0.00	15.00	35.00	PVC	Monitoring
ITMW-8	OU-1A	B	646297.69	978199.05	216.59	216.37	207.87	179.87	38.00	36.50	2.00	8.50	28.00	0.00	9.00	37.00	PVC	Monitoring
ITMW-9	Bldg 45/55	B	645906.74	978570.10	241.88	241.57	228.57	218.57	23.00	23.00	2.00	13.00	10.00	0.00	13.00	23.00	PVC	Monitoring
OR-2	B93	B	647209.85	976175.46	NA	221.92	195.92	175.92	51.00	46.00	4.00	26.00	20.00	NA	26.00	46.00	PVC	Monitoring
OR-3	B93	B	647183.12	975791.78	NA	233.23	167.73	157.73	91.00	75.50	4.00	65.50	10.00	NA	65.50	75.50	PVC	Monitoring
OS-2	B93	O	647209.85	976175.46	NA	221.76	215.76	205.76		16.00	4.00	6.00	10.00	NA	6.00	16.00	PVC	Monitoring
OS-3	B93	O	647178.66	975792.79	NA	233.02	227.02	217.02		16.00	4.00	6.00	10.00	NA	6.00	16.00	PVC	Monitoring
SB35-1R	OU-4 (N of Creek)	O	645931.05	978225.11	184.43	183.68	181.18	171.18	12.50	12.50	2.00	2.50	10.00	0.00	3.00	13.00	PVC	Monitoring
SB35-3R	OU-4 (N of Creek)	O	645946.19	978316.39	191.11	190.89	187.89	180.89	10.00	10.00	2.00	3.00	7.00	0.00	3.00	10.00	PVC	Monitoring
SB35-4R	OU-1A	O	645774.65	978199.26	185.66	185.22	181.22	171.22	13.90	14.00	2.00	4.00	10.00	0.00	4.00	14.00	PVC	Monitoring
SWMW-1	OU-1A	B	645941.22	978448.08	229.03	228.85	213.85	198.85		30.00	2.00	15.00	15.00	0.00	15.00	30.00	PVC	Monitoring
SWMW-10	OU-1A (along fault)	O	645845.98	978447.92	231.40	231.19	227.69	222.19	9.00	9.00	2.00	3.50	5.50	0.00	4.00	9.00	PVC	Monitoring

**Table 2-2**  
**Monitoring Well Construction Table**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Well ID	Area of Site	Well Type	X_COORD	Y_COORD	Ground Elevation (Ft.-MSL)	TOC Elevation (Ft.-MSL)	Screen top (Ft.-MSL)	Screen bottom (Ft.-MSL)	TD of Boring (bgs)	Well Depth (Ft.-BGS)	Casing Diameter (Inches)	Casing Length (Ft.-BGS)	Screen Length (Ft.)	STICKUP (Ft.)	Well Screen Start Depth (Ft.-BGS)	Well Screen End Depth (Ft.-BGS)	Well Component Material	Well Use/ Purpose
SWMW-101	OU-4 (S of Creek)	O	646879.19	977845.45	206.54	206.32	201.32	196.32	10.00	10.00	2.00	5.00	5.00	0.00	5.00	10.00	PVC	Monitoring
SWMW-102	OU-4 (S of Creek)	O	646942.34	977832.90	207.46	207.19	202.19	197.19	12.00	10.00	2.00	5.00	5.00	0.00	5.00	10.00	PVC	Monitoring
SWMW-103	OU-1A - Deep Bedrock Well	B	646407.73	978220.75	217.45	217.08	162.08	152.08	70.00	65.00	2.00	55.00	10.00	0.00	55.00	65.00	PVC	Monitoring
SWMW-104	OU-1A	B	646445.02	978507.76	238.23	239.51	193.23	173.23	70.00	65.00	2.00	46.28	20.00	1.28	45.00	65.00	PVC	Monitoring
SWMW-105	OU-1A	B	646369.44	978434.90	232.54	233.95	177.04	167.04	71.00	65.50	2.00	56.91	10.00	1.41	56.00	66.00	PVC	Monitoring
SWMW-106	OU-1A	B	646396.74	978368.69	223.92	225.98	178.42	158.42	65.50	65.50	2.00	47.56	20.00	2.06	43.00	63.00	PVC	Monitoring
SWMW-107	OU-1A																	
SWMW-108	OU-1A	B	646410.67	978280.46	220.34	222.11	180.34	165.34	55.00	55.00	2.00	41.77	15.00	1.77	40.00	55.00	PVC	Monitoring
SWMW-109	OU-1A	B	646761.45	978222.11	218.19	219.60	193.19	183.19	38.00	35.00	2.00	26.41	10.00	1.41	25.00	35.00	PVC	Monitoring
SWMW-11	OU-4	B	646168.37	978231.23	210.36	210.05	185.05	165.05	60.00	45.00	2.00	25.00	20.00	0.00	25.00	45.00	PVC	Monitoring
SWMW-110	OU-1A	B	646819.27	978292.49	219.88	219.76	174.76	154.76	65.00	65.00	2.00	45.00	20.00	0.00	45.00	65.00	PVC	Monitoring
SWMW-111	OU-1A	B	646473.90	978224.30	218.26	217.92	177.92	157.92	60.00	60.00	2.00	40.00	20.00	0.00	40.00	60.00	PVC	Monitoring
SWMW-112	OU-1A	B	646639.57	978212.25	207.04	206.72	151.72	141.72	70.00	65.00	2.00	55.00	10.00	0.00	55.00	65.00	PVC	Monitoring
SWMW-113	OU-1A	O	646643.04	978159.93	206.76	206.48	186.48	176.48	30.00	30.00	2.00	20.00	10.00	0.00	20.00	30.00	PVC	Monitoring
SWMW-114	Bldg 36/58/83	B	645130.42	977779.33	217.06	219.07	177.06	172.06	45.00	45.00	2.00	42.01	5.00	2.01	40.00	45.00	PVC	Monitoring
SWMW-115	Bldg 36/58/83	B	645248.82	977918.93	216.81	216.37	166.37	156.37	60.50	60.00	2.00	50.00	10.00	0.00	50.00	60.00	PVC	Monitoring
SWMW-116	Bldg 36/58/83	B	645542.81	978184.81	231.89	231.68	191.68	171.68	65.00	60.00	2.00	40.00	20.00	0.00	40.00	60.00	PVC	Monitoring
SWMW-117	OU-1A	B	645881.08	978509.77	232.77	232.29	197.29	177.29	61.00	55.00	2.00	35.00	20.00	0.00	35.00	55.00	PVC	Monitoring
SWMW-118	OU-4	B	645951.35	978311.77	191.06	190.46	130.46	115.46	81.00	75.00	2.00	60.00	15.00	0.00	61.00	76.00	PVC	Monitoring
SWMW-119	OU-1A	B	646677.12	978373.53	225.70	227.67	175.70	155.70	100.00	70.00	2.00	51.97	20.00	1.97	50.00	70.00	PVC	Monitoring
SWMW-12	OU-1A	B	646271.37	978277.86	217.47	217.07	176.07	166.07	55.00	51.00	2.00	41.00	10.00	0.00	41.00	51.00	PVC	Monitoring
SWMW-120 (1)	OU-4 (S of Creek)	B	646513.84	977904.66	207.79	NA	NA	NA	NA	NA	NA	NA	NA	0.86	NA	NA	NA	Monitoring
SWMW-121	OU-4 (S of Creek)	B	646648.09	977899.09	205.30	207.07	170.30	150.30	60.00	55.00	2.00	36.77	20.00	1.77	35.00	55.00	PVC	Monitoring
SWMW-122	OU-1A	B	646773.07	978225.22	217.54	219.58	167.54	117.54	101.00	100.00	2.00	52.04	50.00	2.04	50.00	100.00	PVC	Monitoring
SWMW-123	Bldg 36/58/83	B	645536.29	978087.01	230.52	230.39	180.39	150.39	80.00	80.00	2.00	50.00	30.00	0.00	50.00	80.00	PVC	Monitoring
SWMW-124	Bldg 45/55	B	645281.00	977898.42	216.39	216.05	174.05	154.05	80.00	62.00	2.00	42.00	20.00	0.00	42.00	62.00	PVC	Monitoring
SWMW-125	Bldg 36/58/83	B	645129.12	977799.11	217.25	219.63	188.25	178.25	39.00	39.00	2.00	31.38	10.00	2.38	29.00	39.00	PVC	Monitoring
SWMW-126	OU-1A	B	646624.13	978211.63	206.93	206.44	166.44	156.44	50.00	50.00	2.00	40.00	10.00	0.00	40.00	50.00	PVC	Monitoring
SWMW-127	OU-4 (S of Creek)	O	646898.06	977805.67	211.34	211.05	206.55	196.55	14.50	14.50	2.00	4.50	10.00	0.00	5.00	15.00	PVC	Monitoring
SWMW-128	S. of RR Track, near OU-1D	O	646880.78	977753.98	211.40	213.70	203.90	198.90	12.50	12.50	2.00	9.80	5.00	2.30	8.00	13.00	PVC	Monitoring
SWMW-129	OU-1D (S of RR Tracks)	O	646676.00	977781.69	211.53	213.43	206.53	191.53	20.00	20.00	2.00	6.90	15.00	1.90	5.00	20.00	PVC	Monitoring
SWMW-13	OU-1A	B	646458.55	978424.18	233.73	236.34	187.73	162.73	71.00	71.00	2.00	48.61	25.00	2.61	46.00	71.00	PVC	Monitoring
SWMW-130 (D)	B93 (NE Part of Site)	B	644570.94	977275.43	206.18	209.83	160.18	150.18	60.00	56.00	2.00	49.65	10.00	3.65	46.00	56.00	PVC	Monitoring
SWMW-130 (S)	B93 (NE Part of Site)	B	644570.93	977275.12	206.18	209.79	180.18	165.18	60.00	41.00	2.00	29.61	15.00	3.61	26.00	41.00	PVC	Monitoring
SWMW-131	B93 (NE Part of Site)	B	644827.44	977505.73	223.80	227.13	77.13	57.13	184.00	170.00	2.00	150.00	20.00	3.33	150.00	170.00	PVC	Monitoring
SWMW-132 (D)	B93 (NE Part of Site)	B	644931.22	977543.77	216.87	219.67	124.87	104.87	150.00	112.00	2.00	94.80	20.00	2.80	92.00	112.00	PVC	Monitoring

**Table 2-2**  
**Monitoring Well Construction Table**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Well ID	Area of Site	Well Type	X_COORD	Y_COORD	Ground Elevation (Ft.-MSL)	TOC Elevation (Ft.-MSL)	Screen top (Ft.-MSL)	Screen bottom (Ft.-MSL)	TD of Boring (bgs)	Well Depth (Ft.-BGS)	Casing Diameter (Inches)	Casing Length (Ft.-BGS)	Screen Length (Ft.)	STICKUP (Ft.)	Well Screen Start Depth (Ft.-BGS)	Well Screen End Depth (Ft.-BGS)	Well Component Material	Well Use/ Purpose
SWMW-132 (S)	B93 (NE Part of Site)	B	644931.46	977543.74	216.87	219.80	181.87	161.87	150.00	55.00	2.00	37.93	20.00	2.93	35.00	55.00	PVC	Monitoring
SWMW-133	OU-4 (S of Creek)	B	645912.09	977974.53	221.84	222.32	165.32	135.32		86.80	2.00	57.00	29.80	0.48	57.00	87.00	PVC	Monitoring
SWMW-134	OU-4 (S of Creek)	B	646205.21	977953.54	206.05	207.03	172.03	152.03		54.70	2.00	35.00	19.70	0.98	35.00	55.00	PVC	Monitoring
SWMW-135	Bldg 36/58/83	O	645088.80	977849.75	218.40	220.89	216.89	208.89	12.00	12.00	2.00	4.00	8.00	2.49	4.00	12.00	PVC	Monitoring
SWMW-136	Bldg 36/58/83	B	645093.22	977853.59	218.51	220.34	196.34	176.34	44.80	44.00	2.00	24.00	20.00	1.83	24.00	44.00	PVC	Monitoring
SWMW-137	Bldg 36/58/83	O	645453.81	978296.10	233.76	233.34	231.84	228.34		5.00	2.00	1.50	3.50	0.00	228.34	231.84	PVC	Monitoring
SWMW-138	Bldg 36/58/83	B	645459.79	978296.70	235.77	236.28	218.28	203.28	33.00	33.00	2.00	18.00	15.00	2.50	18.00	33.00	PVC	Monitoring
SWMW-139	Bldg 45/55	O	645923.82	978788.51	261.11	263.65	260.65	252.65	12.20	11.00	2.00	3.00	8.00	2.53	3.00	11.00	PVC	Monitoring
SWMW-14	OU-1A	B	646456.66	978148.44	206.53	206.23	181.23	166.23	41.00	40.00	2.00	25.00	15.00	0.00	26.00	41.00	PVC	Monitoring
SWMW-140	Bldg 45/55	B	645929.13	978789.56	260.64	262.70	223.70	193.70	69.00	69.00	2.00	39.00	30.00	2.06	39.00	69.00	PVC	Monitoring
SWMW-15	OU-1A	O	646638.40	978297.15	221.27	220.97	215.97	195.97	25.00	25.00	2.00	5.00	20.00	0.00	5.00	25.00	PVC	Monitoring
SWMW-16	OU-1A	B	646703.82	978564.01	242.60	245.39	201.60	161.60	81.00	81.00	2.00	43.79	40.00	2.79	41.00	81.00	PVC	Monitoring
SWMW-17	OU-1A	B	646922.54	978895.41	244.18	246.84	199.68	184.68		59.50	2.00	47.16	15.00	2.66	45.00	60.00	PVC	Monitoring
SWMW-18	OU-1C (well replaces TF-24)	O	646786.75	977965.07	201.98	204.49	198.98	189.98	18.00	12.00	2.00	5.51	9.00	2.51	3.00	12.00	PVC	Monitoring
SWMW-19	OU-1C (well replaces TF-25)	O	646831.89	978000.29	200.70	203.41	197.70	192.20	9.00	8.50	2.00	5.71	5.50	2.71	3.00	9.00	PVC	Monitoring
SWMW-2	Bldg 36/58/83	B	645279.93	977874.71	216.79	216.56	203.56	193.56	24.00	23.00	2.00	13.00	10.00	0.00	13.00	23.00	PVC	Monitoring
SWMW-20	OU-1C	O	646880.51	977993.22	202.41	204.83	199.41	190.41	12.00	12.00	2.00	5.42	9.00	2.42	3.00	12.00	PVC	Monitoring
SWMW-21	OU-1C	O	646876.92	977924.16	203.83	206.11	200.83	191.83	12.00	12.00	2.00	5.28	9.00	2.28	3.00	12.00	PVC	Monitoring
SWMW-22	OU-1C (well replaces TF-14)	O	647079.99	977977.81	204.92	207.22	201.92	192.92	12.00	12.00	2.00	5.30	9.00	2.30	3.00	12.00	PVC	Monitoring
SWMW-23	OU-1A (along fault)	O	645903.32	9785773.02	241.82	241.59	237.59	232.59	9.00	9.00	2.00	4.00	5.00	0.00	4.00	9.00	PVC	Monitoring
SWMW-24	OU-1A	O	645773.49	978452.19	234.20	233.99	230.49	224.49	9.50	9.50	2.00	3.50	6.00	0.00	4.00	10.00	PVC	Monitoring
SWMW-25	OU-1A (along fault)	B	645870.37	978511.22	232.81	232.61	229.11	222.11	10.50	10.50	2.00	3.50	7.00	0.00	4.00	11.00	PVC	Monitoring
SWMW-26	OU-1A (along fault)	B	645876.25	978510.80	232.78	232.52	219.52	204.52	28.00	28.00	2.00	13.00	15.00	0.00	13.00	28.00	PVC	Monitoring
SWMW-27	Bldg 45/55	B	645818.60	978223.11	186.13	185.65	159.65	129.65	56.00	56.00	2.00	26.00	30.00	0.00	26.00	56.00	PVC	Monitoring
SWMW-28	Bldg 45/55	O	645897.22	978219.99	185.84	185.61	182.11	169.11	16.50	16.50	2.00	3.50	13.00	0.00	4.00	17.00	PVC	Monitoring
SWMW-29	OU-1C (well replaces TF-9 and TF-9A)	O	647154.47	977996.82	202.54	204.69	199.54	192.54	10.00	10.00	2.00	5.15	7.00	2.15	3.00	10.00	PVC	Monitoring
SWMW-3	Bldg 36/58/83	O	645145.26	977896.81	218.72	221.02	215.72	210.72	8.00	8.00	2.00	5.30	5.00	2.30	3.00	8.00	PVC	Monitoring
SWMW-30	OU-1C (well replaces TF-18)	O	646925.85	978006.34	203.37	205.44	200.44	191.44	12.00	12.00	2.00	5.00	9.00	2.00	3.00	12.00	PVC	Monitoring
SWMW-31	OU-1C (well replaces TF-27)	O	646904.70	978036.38	201.39	203.82	198.39	192.39	9.00	9.00	2.00	5.43	6.00	2.43	3.00	9.00	PVC	Monitoring
SWMW-32	OU-1C (well replaces TF-7)	O	646934.90	978034.88	202.06	204.46	199.06	190.06	12.00	12.00	2.00	5.40	9.00	2.40	3.00	12.00	PVC	Monitoring
SWMW-33	OU-1C (well replaces TF-28)	O	646962.24	978062.33	201.16	203.63	198.16	192.66	9.00	8.50	2.00	5.47	5.50	2.47	3.00	9.00	PVC	Monitoring

**Table 2-2**  
**Monitoring Well Construction Table**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Well ID	Area of Site	Well Type	X_COORD	Y_COORD	Ground Elevation (Ft.-MSL)	TOC Elevation (Ft.-MSL)	Screen top (Ft.-MSL)	Screen bottom (Ft.-MSL)	TD of Boring (bgs)	Well Depth (Ft.-BGS)	Casing Diameter (Inches)	Casing Length (Ft.-BGS)	Screen Length (Ft.)	STICKUP (Ft.)	Well Screen Start Depth (Ft.-BGS)	Well Screen End Depth (Ft.-BGS)	Well Component Material	Well Use/ Purpose
SWMW-34	OU-1C (well replaces TF-29)	O	646982.60	978060.72	201.09	203.46	198.09	192.59	9.00	8.50	2.00	5.37	5.50	2.37	3.00	9.00	PVC	Monitoring
SWMW-35	OU-1C (well replaces TF-8)	O	647002.02	978035.59	201.73	204.12	198.73	189.73	12.00	12.00	2.00	5.39	9.00	2.39	3.00	12.00	PVC	Monitoring
SWMW-36	OU-1C (well replaces TF-30)	O	647026.67	978061.65	200.95	203.29	197.95	193.45	8.00	7.50	2.00	5.34	4.50	2.34	3.00	8.00	PVC	Monitoring
SWMW-37	OU-1C (well replaces TF-10)	O	647112.07	977909.84	204.25	206.08	201.25	194.25	10.00	10.00	2.00	4.83	7.00	1.83	3.00	10.00	PVC	Monitoring
SWMW-38	OU-1C	O	646987.28	977986.84	202.00	204.38	199.00	190.00	12.00	12.00	2.00	5.38	9.00	2.38	3.00	12.00	PVC	Monitoring
SWMW-39	OU-1A	B	646984.23	978653.19	239.54	239.22	207.22	197.22	55.00	42.00	2.00	32.00	10.00	0.00	32.00	42.00	PVC	Monitoring
SWMW-4	Bldg 36/58/83	B	645348.34	978159.50	229.46	229.10	219.10	204.10	25.00	25.00	2.00	10.00	15.00	0.00	10.00	25.00	PVC	Monitoring
SWMW-40	OU-1A	B	646174.71	978886.25	257.75	257.29	253.29	247.79	9.50	9.50	2.00	4.00	5.50	0.00	4.00	10.00	PVC	Monitoring
SWMW-41	OU-1A	B	646570.82	978146.50	206.48	206.02	181.02	161.02	51.00	45.00	2.00	25.00	20.00	0.00	25.00	45.00	PVC	Monitoring
SWMW-42	Bldg 36/58/83	B	645149.89	977899.66	218.66	221.15	206.66	191.66	27.00	27.00	2.00	14.49	15.00	2.49	12.00	27.00	PVC	Monitoring
SWMW-43	OU-1A	B	646251.64	978207.60	214.61	214.12	185.12	155.12	60.00	59.00	2.00	29.00	30.00	0.00	29.00	59.00	PVC	Monitoring
SWMW-44	OU-1A (along fault)	B	645841.83	978448.37	231.70	231.53	216.53	201.53	30.00	30.00	2.00	15.00	15.00	0.00	15.00	30.00	PVC	Monitoring
SWMW-45	Bldg 36/58/83	B	645477.81	978148.33	230.60	229.99	213.99	198.99	31.00	31.00	2.00	16.00	15.00	0.00	17.00	32.00	PVC	Monitoring
SWMW-46	Bldg 36/58/83	B	645199.24	977982.62	220.83	223.31	210.83	200.83	30.00	20.00	2.00	12.48	10.00	2.48	10.00	20.00	PVC	Monitoring
SWMW-47	Bldg 36/58/83	B	645284.47	977916.87	216.21	215.78	200.78	185.78	30.00	30.00	2.00	15.00	15.00	0.00	15.00	30.00	PVC	Monitoring
SWMW-48	OU-1A	B	645947.55	978447.79	228.89	228.60	225.10	218.60	10.00	10.00	2.00	3.50	6.50	0.00	4.00	10.00	PVC	Monitoring
SWMW-49	Bldg 36/58/83	B	645029.69	977782.94	218.04	220.74	208.04	188.04	30.00	30.00	2.00	12.70	20.00	2.70	10.00	30.00	PVC	Monitoring
SWMW-5	Bldg 36/58/83	B	645361.99	978033.91	220.00	219.82	204.82	189.82	30.00	30.00	2.00	15.00	15.00	0.00	16.00	31.00	PVC	Monitoring
SWMW-50	OU-1C (well replaces TFSB-4)	O	647004.50	977943.72	203.30	205.54	200.30	190.30	14.00	13.00	2.00	5.24	10.00	2.24	3.00	13.00	PVC	Monitoring
SWMW-51	Bldg 36/58/83	B	645217.84	977885.62	216.98	216.76	208.76	200.26	20.00	16.50	2.00	8.00	8.50	0.00	8.00	17.00	PVC	Monitoring
SWMW-52	Bldg 36/58/83	O	645195.51	977976.19	220.51	223.49	216.01	211.01	9.50	9.50	2.00	7.48	5.00	2.98	4.00	9.00	PVC	Monitoring
SWMW-53	OU-1C (well replaces TF-16)	O	646974.87	978042.14	201.44	203.77	197.94	192.94	9.00	8.50	2.00	5.83	5.00	2.33	4.00	9.00	PVC	Monitoring
SWMW-54	Bldg 36/58/83	O	645482.73	978154.44	230.57	229.93	226.43	220.93	9.00	9.00	2.00	3.50	5.50	0.00	4.00	10.00	PVC	Monitoring
SWMW-55	Bldg 36/58/83	B	645533.14	978105.31	230.61	230.19	220.19	210.19	20.00	20.00	2.00	10.00	10.00	0.00	10.00	20.00	PVC	Monitoring
SWMW-56	OU-1A (see SWMW-15 for first 27')	B	646637.73	978303.11	221.11	221.09	186.09	166.09	55.00	55.00	2.00	35.00	20.00	0.00	35.00	55.00	PVC	Monitoring
SWMW-57	Bldg 45/55	B	645712.68	978543.74	239.69	239.44	219.44	199.44	40.00	40.00	2.00	20.00	20.00	0.00	20.00	40.00	PVC	Monitoring
SWMW-58	OU-1A	O	646727.68	978283.92	219.66	219.38	214.38	189.38	30.00	30.00	2.00	5.00	25.00	0.00	5.00	30.00	PVC	Monitoring
SWMW-59	Bldg 36/58/83	O	645365.69	978031.47	217.79	217.27	214.27	207.27	10.30	10.00	2.00	3.00	7.00	0.00	4.00	11.00	PVC	Monitoring
SWMW-6	Bldg 36/58/83	B	645528.88	978498.69	249.30	251.70	229.30	211.30	38.00	38.00	2.00	22.40	18.00	2.40	20.00	38.00	PVC	Monitoring
SWMW-60	OU-1C	O	646945.34	977916.78	203.78	206.00	200.78	191.78	14.00	12.00	2.00	5.22	9.00	2.22	3.00	12.00	PVC	Monitoring
SWMW-61	OU-1C	O	646998.33	977913.39	201.40	203.76	198.40	189.40	14.00	12.00	2.00	5.36	9.00	2.36	3.00	12.00	PVC	Monitoring
SWMW-62	OU-1A	O	646577.49	978147.74	206.41	206.07	202.07	187.07	19.50	19.00	2.00	4.00	15.00	0.00	4.00	19.00	PVC	Monitoring
SWMW-63	OU-1D (S of RR Tracks)	O	646675.54	977788.41	211.30	213.38	201.30	196.30		15.00	2.00	12.08	5.00	2.08	10.00	15.00	PVC	Monitoring
SWMW-64	Bldg 45/55	B	645902.52	978217.43	185.68	184.98	154.98	144.98	40.00	40.00	2.00	30.00	10.00	0.00	31.00	41.00	PVC	Monitoring
SWMW-65	Bldg 45/55	O	645813.11	978227.33	186.32	185.81	179.81	169.81	16.00	16.00	2.00	6.00	10.00	0.00	7.00	17.00	PVC	Monitoring

**Table 2-2**  
**Monitoring Well Construction Table**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Well ID	Area of Site	Well Type	X_COORD	Y_COORD	Ground Elevation (Ft.-MSL)	TOC Elevation (Ft.-MSL)	Screen top (Ft.-MSL)	Screen bottom (Ft.-MSL)	TD of Boring (bgs)	Well Depth (Ft.-BGS)	Casing Diameter (Inches)	Casing Length (Ft.-BGS)	Screen Length (Ft.)	STICKUP (Ft.)	Well Screen Start Depth (Ft.-BGS)	Well Screen End Depth (Ft.-BGS)	Well Component Material	Well Use/ Purpose
SWMW-66	OU-1A	B	646721.79	978279.38	219.32	218.82	176.82	156.82	62.00	62.00	2.00	42.00	20.00	0.00	43.00	63.00	PVC	Monitoring
SWMW-67	OU-1A	O	646522.54	978302.03	221.94	224.58	218.94	194.94	27.00	27.00	2.00	5.64	24.00	2.64	3.00	27.00	PVC	Monitoring
SWMW-68	OU-1A	B	646525.08	978295.72	221.81	224.45	190.81	170.81	51.00	51.00	2.00	33.64	20.00	2.64	31.00	51.00	PVC	Monitoring
SWMW-69	OU-1A	O	646680.63	978380.59	226.44	228.41	223.44	204.44	22.20	22.00	2.00	4.97	19.00	1.97	3.00	22.00	PVC	Monitoring
SWMW-7	Bldg 36/58/83	B	645566.59	978346.63	236.00	238.44	226.50	206.50	29.50	29.50	2.00	11.94	20.00	2.44	10.00	30.00	PVC	Monitoring
SWMW-70	OU-1A	B	646673.20	978380.52	226.59	228.45	200.59	180.59	46.00	46.00	2.00	27.86	20.00	1.86	26.00	46.00	PVC	Monitoring
SWMW-71	OU-1C (well replaces TF-22)	O	646965.06	977951.82	205.37	207.54	202.37	192.37	14.00	13.00	2.00	5.17	10.00	2.17	3.00	13.00	PVC	Monitoring
SWMW-72	OU-4 (S of Creek)	O	646912.30	977862.01	205.93	205.36	202.36	193.36	12.00	12.00	2.00	3.00	9.00	0.00	4.00	13.00	PVC	Monitoring
SWMW-73	OU-1C (replacement well for ITMW-19)	O	646842.70	977915.66	204.13	206.30	201.63	192.13	12.00	12.00	2.00	4.67	9.50	2.17	2.00	12.00	PVC	Monitoring
SWMW-73/ ITMW-19 (installed in 2000)		O							12.00	12.00	1.00							
SWMW-74	OU-1C (replacement well for ITMW-18)	O	646801.24	977918.93	204.01	206.35	202.51	186.01	18.00	18.00	2.00	3.84	16.50	2.34	2.00	18.00	PVC	Monitoring
SWMW-74/ ITMW-18 (installed in 2000)		O							11.50	11.50	1.00							
SWMW-8	Bldg 45/55	O	645683.45	978537.65	240.88	240.67	236.67	232.67	8.00	8.00	2.00	4.00	4.00	0.00	4.00	8.00	PVC	Monitoring
SWMW-9	Bldg 45/55	B	645762.91	978454.83	234.83	234.44	214.44	194.44	40.00	40.00	2.00	20.00	20.00	0.00	20.00	40.00	PVC	Monitoring
TF-15	OU-1C	O	647066.79	978038.53	202.11	205.26	197.11	187.11	12.00	15.00	2.00	8.15	10.00	3.15	5.00	15.00	PVC	Monitoring
TF-23	OU-1C	O	646801.66	977849.33	205.46	207.20	200.20	195.20	12.00	12.00	2.00	7.00	5.00	0.00	5.26	10.26	PVC	Monitoring
TF-26	OU-1C	O	646849.17	977956.43	202.49	203.82	198.99	193.99	9.50	8.50	2.00	4.83	5.00	1.33	4.00	9.00	PVC	Monitoring
TF-5	OU-1C	O	6469999.01	977867.27	207.17	207.58	202.58	197.58	10.00	10.00	2.00	5.00	5.00	0.00	4.59	9.59	PVC	Monitoring
TF-6	OU-1C	O	646819.67	977979.48	201.71	202.63	198.91	193.91	8.00	7.80	2.00	3.72	5.00	0.92	3.00	8.00	PVC	Monitoring
Unknown Well 1	Bldg 36/58/83	O	645210.21	977853.44	216.73	216.73	NA	208.08		8.65	2.00	NA	NA	NA	0.00	8.65	PVC	Monitoring
Unknown Well 2	Bldg 36/58/83	O	645201.88	977843.45	216.52	216.52	NA	208.52		8.00	2.00	NA	NA	NA	0.00	8.00	PVC	Monitoring
Unknown Well 3	Bldg 36/58/83	O	645197.27	977845.49	216.74	216.74	NA	209.39		7.35	2.00	NA	NA	NA	0.00	7.35	PVC	Monitoring

Table 3-1A  
OU-1A Soil Data – Land Use Summary (Surface Soil)  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	43	41	0.04	22	5	0.034	0.91	6/43	6/43	6/43	1/43	1/43
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	43	41	0.009	23	5	0.075	1.01	6/43	6/43	6/43	6/43	6/43
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	43	41	0.062	30	5	0.034	1.35	8/43	8/43	8/43	1/43	1/43
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	43	40	0.027	12	7	0.034	0.56	6/43	4/43	1/43	0/43	0/43
Chrysene	218-01-9	1	1	3.9	56	110	43	41	0.068	24	5	0.034	1.05	7/43	7/43	1/43	0/43	0/43
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	43	31	0.019	3.4	28	0.072	0.18	5/43	5/43	5/43	3/43	1/43
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	43	38	0.036	14	12	0.075	0.68	8/43	8/43	8/43	1/43	1/43
<b>Polychlorinated Biphenyls</b>																		
Aroclor 1248	12672-29-6	0.1	1	1	1	25	4	1	0.15	0.15	75	0.084	0.06	1/4	0/4	0/4	0/4	0/4
Aroclor 1254	11097-69-1	0.1	1	1	1	25	4	2	0.0063	0.21	50	0.084	0.08	1/4	0/4	0/4	0/4	0/4
<b>Pesticides</b>																		
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	4	4	0.00078	1.3	0	--	0.36	2/4	0/4	0/4	0/4	0/4
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	4	4	0.00091	0.23	0	--	0.10	3/4	0/4	0/4	0/4	0/4
ENDRIN*	72-20-8	0.014	2.2	11	89	410	12	1	0.032	0.032	75	0.087	0.02	1/12	0/12	0/12	0/12	0/12
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	43	42	5.37	218	2	0.96	25	20/43	15/43	15/43	15/43	15/43
Barium	7440-39-3	350	350	400	400	10000	43	43	3.31	410	0	--	81	1/43	1/43	1/43	1/43	0/43
Chromium	7440-47-3	30	36	180	1500	6800	43	43	2.89	52.1	0	--	19	5/43	2/43	0/43	0/43	0/43
Copper	7440-50-8	50	270	270	270	10000	43	43	1.86	77.6	0	--	29	3/43	0/43	0/43	0/43	0/43
Iron	7439-89-6	--	2000	--	--	--	43	43	3020	30800	0	--	21807	--	43/43	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	43	42	6.45	1300	2	0.606	130	19/43	2/43	2/43	2/43	0/43
Manganese	7439-96-5	1600	2000	2000	10000	10000	43	43	125	2380	0	--	676	1/43	1/43	1/43	0/43	0/43
Nickel	7440-02-0	30	140	310	310	10000	43	43	1.63	143	0	--	24	4/43	1/43	0/43	0/43	0/43
Vanadium	7440-62-2	--	100	--	--	--	43	43	4.16	222	0	--	35	--	1/43	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	43	43	2.06	597	0	--	129	20/43	0/43	0/43	0/43	0/43
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	43	35	0.0392	18.2	19	0.0327	0.80	17/43	6/43	6/43	2/43	1/43

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not Applicable  
SCO: Soil Cleanup Objective  
\* Data set include data points having non detected result reported above standard or criteria

Table 3-1B  
OU-1A Soil Data – Land Use Summary (Near-Surface Soil)  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	1000	187	16	0.0006	1.5	91	0.6	0.02	1/187	0/187	0/187	0/187	0/187
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	60	187	3	0.0006	0.11	98	0.6	0.01	2/187	0/187	0/187	0/187	0/187
Acetone	67-64-1	0.05	100	100	500	1000	177	129	0.009	0.39	27	1.2	0.12	106/177	0/177	0/177	0/177	0/177
Benzene	71-43-2	0.06	2.9	4.8	44	89	187	16	0.0005	9.2	91	0.6	0.07	5/187	1/187	1/187	0/187	0/187
Carbon Tetrachloride	56-23-5	0.76	1.4	2.4	22	44	187	7	0.0008	61	96	0.6	0.33	1/187	1/187	1/187	1/187	1/187
Chloroform	67-66-3	0.37	10	49	350	700	187	11	0.0007	5.1	94	0.6	0.04	2/187	0/187	0/187	0/187	0/187
Ethylbenzene	100-41-4	1	30	41	390	780	187	11	0.0006	2.3	94	0.023	0.03	2/187	0/187	0/187	0/187	0/187
Toluene	108-88-3	0.7	100	100	500	1000	187	38	0.0006	11	80	0.14	0.14	4/187	0/187	0/187	0/187	0/187
Xylene (total)	1330-20-7	0.26	100	100	500	1000	187	12	0.003	30	94	0.058	0.36	7/187	0/187	0/187	0/187	0/187
<b>Semivolatile Organic Compounds</b>																		
4-Methylphenol (p-Cresol)	106-44-5	0.33	34	100	500	1000	168	10	0.024	0.47	94	0.74	0.06	4/168	0/168	0/168	0/168	0/168
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	190	162	0.004	40	15	2.06	1.01	17/190	17/190	17/190	6/190	5/190
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	190	159	0.004	38	16	2.06	0.92	17/190	17/190	17/190	17/190	17/190
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	190	161	0.006	48	15	11.4	1.26	20/190	20/190	20/190	5/190	4/190
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	190	153	0.004	18	19	11.4	0.62	15/190	11/190	5/190	0/190	0/190
Chrysene	218-01-9	1	1	3.9	56	110	190	163	0.005	42	14	2.06	1.04	19/190	19/190	7/190	0/190	0/190
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	189	131	0.004	6.7	31	2.06	0.22	13/189	13/189	13/189	6/189	6/189
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	190	153	0.004	21	19	2.06	0.58	21/190	21/190	21/190	5/190	2/190
<b>Polychlorinated Biphenyls</b>																		
Aroclor 1248	12672-29-6	0.1	1	1	1	1	20	1	0.29	0.29	1	0.079	0.03	1/20	0/20	0/20	0/20	0/20
Aroclor 1254	11097-69-1	0.1	1	1	1	1	20	3	0.0058	0.38	1	0.079	0.03	1/20	0/20	0/20	0/20	0/20
<b>Pesticides</b>																		
4,4-DDD*	72-54-8	0.0033	2.6	13	92	180	13	1	0.0043	0.0043	92	0.04	0.007	1/13	0/13	0/13	0/13	0/13
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	13	10	0.00047	1.4	23	0.0004	0.192	5/13	0/13	0/13	0/13	0/13
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	13	8	0.0011	0.23	38	0.001	0.039	5/13	0/13	0/13	0/13	0/13
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	172	172	1.87	527	0	--	28	62/172	50/172	50/172	50/172	50/172
Barium	7440-39-3	350	350	400	400	10000	172	172	13.2	423	0	--	74	1/172	1/172	1/172	1/172	0/172
Chromium	7440-47-3	30	36	180	1500	6800	172	172	5.72	440	0	--	26	24/172	16/172	2/172	0/172	0/172
Cobalt	7440-48-4	--	30	--	--	--	172	172	2.24	37.6	0	--	10	--	1/172	--	--	--
Copper	7440-50-8	50	270	270	270	10000	172	172	4.11	171	0	--	31	15/172	0/172	0/172	0/172	0/172
Iron	7439-89-6	--	2000	--	--	--	172	172	5490	103000	0	--	24588	--	172/172	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	172	171	3.79	1100	1	2.78	103	80/172	6/172	6/172	1/172	0/172
Manganese	7439-96-5	1600	2000	2000	10000	10000	172	172	180	4630	0	--	613	3/172	3/172	3/172	0/172	0/172
Nickel	7440-02-0	30	140	310	310	10000	172	172	1.97	53.2	0	--	19	4/172	0/172	0/172	0/172	0/172
Vanadium	7440-62-2	--	100	--	--	--	172	172	8.49	134	0	--	25	--	1/172	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	172	172	21.7	569	0	--	112	54/172	0/172	0/172	0/172	0/172
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	172	155	0.0144	7.98	10	0.0563	0.47	78/172	21/172	21/172	6/172	1/172

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)

--: Not Applicable

SCO: Soil Cleanup Objective

\* Data set include data points having non detected result reported above standard or criteria

Table 3-1C  
OU-1A Soil Data – Land Use Summary (Subsurface Soil)  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
1,1 Dichloroethene	75-35-4	0.33	100	100	500	1000	367	6	0.002	0.98	98.0	0.62	0.02	1/367	0/367	0/367	0/367	0/367
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	1000	368	14	0.001	6.5	96.0	0.62	0.03	1/368	0/368	0/368	0/368	0/368
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	1.1	100	100	500	1000	368	20	0.006	53	95.0	0.41	0.31	2/368	0/368	0/368	0/368	0/368
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	250	368	14	0.006	3.1	96.0	0.41	0.06	2/368	0/368	0/368	0/368	0/368
Acetone	67-64-1	0.05	100	100	500	1000	353	90	0.008	0.44	75.0	4.3	0.10	9/353	0/353	0/353	0/353	0/353
Chlorobenzene	108-90-7	1.1	100	100	500	1000	368	29	0.001	49	92.0	0.28	0.29	9/368	0/368	0/368	0/368	0/368
Ethylbenzene	100-41-4	1	30	41	390	780	369	27	0.001	3.6	93.0	0.53	0.05	6/369	0/369	0/369	0/369	0/369
Methylene chloride (Dichloromethane)	75-09-2	0.05	51	100	500	1000	368	196	0.001	0.21	47.0	1.2	0.03	4/368	0/368	0/368	0/368	0/368
Xylene (total)	1330-20-7	0.26	100	100	500	1000	369	65	0.001	37	82.0	0.53	0.27	8/369	0/369	0/369	0/369	0/369
<b>Semivolatile Organic Compounds</b>																		
2-Methylphenol (o-Cresol)	95-48-7	0.33	100	100	500	1000	335	2	0.39	0.65	99.0	0.82	0.07	2/335	0/335	0/335	0/335	0/335
4-Methylphenol (p-Cresol)	106-44-5	0.33	34	100	500	1000	335	4	0.029	2.1	99.0	0.8	0.08	3/335	0/335	0/335	0/335	0/335
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	368	187	0.004	55	49.0	2	0.66	26/368	26/368	26/368	5/368	3/368
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	368	179	0.004	43	51.0	2	0.54	26/368	26/368	26/368	26/368	23/368
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	368	190	0.004	53	48.0	23.4	0.70	27/368	27/368	27/368	5/368	3/368
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	368	140	0.004	21	62.0	23.4	0.35	18/368	16/368	3/368	0/368	0/368
Chrysene	218-01-9	1	1	3.9	56	110	368	195	0.004	52	47.0	2	0.63	28/368	28/368	6/368	0/368	0/368
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	368	89	0.003	7.2	76.0	4.68	0.14	14/368	14/368	14/368	6/368	5/368
Dibenzofuran	132-64-9	7	14	59	350	1000	359	56	0.022	22	84.0	2	0.21	3/359	2/359	0/359	0/359	0/359
Fluoranthene	206-44-0	100	100	100	500	1000	368	215	0.004	130	42.0	2	1.39	2/368	2/368	2/368	0/368	0/368
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	367	156	0.004	32	57.0	2	0.36	28/367	28/367	28/367	3/367	3/367
Naphthalene	91-20-3	12	100	100	500	1000	370	90	0.004	46	76.0	9.35	0.44	3/370	0/370	0/370	0/370	0/370
Phenanthrene	85-01-8	100	100	100	500	1000	368	202	0.004	170	45.0	2	1.51	2/368	2/368	2/368	0/368	0/368
Phenol	108-95-2	0.33	100	100	500	1000	335	3	0.027	1.4	99.0	0.4	0.05	2/335	0/335	0/335	0/335	0/335
Pyrene	129-00-0	100	100	100	500	1000	368	229	0.004	130	38.0	2	1.37	2/368	2/368	2/368	0/368	0/368
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	337	332	1.0	201.0	1.0	3.95	11	44/337	38/337	38/337	38/337	38/337
Barium	7440-39-3	350	350	400	400	10000	337	337	7.6	374.0	0.0	--	63	2/337	2/337	0/337	0/337	0/337
Chromium	7440-47-3	30	36	180	1500	6800	337	337	3.3	160.0	0.0	--	20	30/337	20/337	0/337	0/337	0/337
Copper	7440-50-8	50	270	270	270	10000	337	337	2.8	369.0	0.0	--	28	17/337	2/337	2/337	2/337	0/337
Iron	7439-89-6	--	2000	--	--	--	337	337	6270.0	67700.0	0.0	--	28440	--	337/337	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	337	336	1.2	34100.0	0.3	0.484	233	74/337	8/337	8/337	3/337	2/337
Manganese	7439-96-5	1600	2000	2000	10000	10000	337	337	107.0	3630.0	0.0	--	591	9/337	5/337	5/337	0/337	0/337
Nickel	7440-02-0	30	140	310	310	10000	337	337	1.2	80.7	0.0	--	18	14/337	0/337	0/337	0/337	0/337
Selenium	7782-49-2	3.9	36	180	1500	6800	337	66	0.8	6.7	80.0	5.4	1	1/337	0/337	0/337	0/337	0/337
Silver	7440-22-4	2	36	180	1500	6800	337	102	0.2	13.0	70.0	1.1	0	6/337	0/337	0/337	0/337	0/337
Vanadium	7440-62-2	--	100	--	--	--	337	337	4.2	156.0	0.0	--	24	--	2/337	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	337	337	12.7	580.0	0.0	--	83	46/337	0/337	0/337	0/337	0/337
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	337	297	0.0113	45.1	12.0	0.0595	0.34	69/337	22/337	22/337	5/337	1/337

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not Applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	13	13	0.073	1.5	0	--	0.39	1/13	1/13	1/13	0/13	0/13
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	13	13	0.031	0.59	0	--	0.16	1/13	1/13	1/13	0/13	0/13
<b>Pesticides</b>																		
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	5	5	0.0038	0.024	0	--	0.01	5/5	0/5	0/5	0/5	0/5
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	5	5	0.0048	0.018	0	--	0.01	5/5	0/5	0/5	0/5	0/5
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	13	13	7.91	21.8	0	--	12	5/13	2/13	2/13	2/13	2/13
Iron	7439-89-6	--	2000	--	--	--	13	13	13300	47700	0	--	26762	--	13/13	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	13	13	57.5	263	0	--	132	11/13	0/13	0/13	0/13	0/13
Manganese	7439-96-5	1600	2000	2000	10000	10000	13	13	111	3170	0	--	1152	2/13	2/13	2/13	0/13	0/13
Nickel	7440-02-0	30	140	310	310	10000	13	13	17.4	32.6	0	--	23	2/13	0/13	0/13	0/13	0/13
Vanadium	7440-62-2	--	100	--	--	--	13	13	41.5	145	0	--	86	--	6/13	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	13	13	40.8	236	0	--	97	3/13	0/13	0/13	0/13	0/13
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	13	13	0.123	0.544	0	--	0.27	9/13	0/13	0/13	0/13	0/13

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 --: Not Applicable  
 SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	48	29	0.008	0.25	40	0.011	0.04	12/48	0/48	0/48	0/48	0/48
Methylene chloride (Dichloromethane)	75-09-2	0.05	51	100	500	1000	48	8	0.012	0.092	83	0.024	0.01	2/48	0/48	0/48	0/48	0/48
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	76	62	0.004	2.3	18	0.045	0.18	3/76	3/76	3/76	0/76	0/76
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	76	63	0.004	2.2	17	0.043	0.19	3/76	3/76	3/76	3/76	3/76
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	76	65	0.005	3.2	14	0.042	0.26	4/76	4/76	4/76	0/76	0/76
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	76	56	0.004	1.1	26	0.047	0.11	2/76	1/76	0/76	0/76	0/76
Chrysene	218-01-9	1	1	3.9	56	110	76	65	0.004	2.4	14	0.042	0.21	3/76	3/76	0/76	0/76	0/76
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	76	42	0.005	0.39	45	0.049	0.04	1/76	1/76	1/76	0/76	0/76
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	76	58	0.004	1.5	24	0.045	0.12	5/76	5/76	5/76	0/76	0/76
<b>Pesticides</b>																		
4,4-DDD	72-54-8	0.0033	2.6	13	92	180	49	12	0.00064	0.0061	76	0.0016	0.001	2/49	0/49	0/49	0/49	0/49
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	49	43	0.00049	0.059	12	0.00041	0.010	28/49	0/49	0/49	0/49	0/49
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	49	41	0.00045	0.073	16	0.00043	0.010	23/49	0/49	0/49	0/49	0/49
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	76	76	3.8	34	0	--	10	12/76	4/76	4/76	4/76	4/76
Chromium	7440-47-3	30	36	180	1500	6800	76	76	11.3	61.7	0	--	21	4/76	3/76	0/76	0/76	0/76
Copper	7440-50-8	50	270	270	270	10000	76	76	11.3	112	0	--	30	12/76	0/76	0/76	0/76	0/76
Iron	7439-89-6	--	2000	--	--	--	76	76	10300	95300	0	--	29180	--	76/76	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	76	76	13.1	564	0	--	102	31/76	5/76	5/76	0/76	0/76
Manganese	7439-96-5	1600	2000	2000	10000	10000	76	76	121	5270	0	--	981	9/76	7/76	7/76	0/76	0/76
Nickel	7440-02-0	30	140	310	310	10000	76	76	13.1	89.9	0	--	22	6/76	0/76	0/76	0/76	0/76
Selenium	7782-49-2	3.9	36	180	1500	6800	76	49	0.291	5.04	36	1.43	1	1/76	0/76	0/76	0/76	0/76
Silver	7440-22-4	2	36	180	1500	6800	76	65	0.0305	2.93	14	0.232	0	1/76	0/76	0/76	0/76	0/76
Vanadium	7440-62-2	--	100	--	--	--	76	76	14	135	0	--	47	--	3/76	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	76	76	32.9	804	0	--	102	13/76	0/76	0/76	0/76	0/76
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	94	94	0.0293	0.734	0	--	0.19	39/94	0/94	0/94	0/94	0/94

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
Phenol	108-95-2	0.33	100	100	500	1000	16	1	0.4	0.4	94	0.028	0.04	1/16	0/16	0/16	0/16	0/16
<b>Pesticides</b>																		
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	2	2	0.00076	0.0042	0	--	0.002	1/2	0/2	0/2	0/2	0/2
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	16	16	7.67	426	0	--	90	12/16	12/16	12/16	12/16	12/16
Chromium	7440-47-3	30	36	180	1500	6800	16	16	12.3	89.4	0	--	31	5/16	3/16	0/16	0/16	0/16
Copper	7440-50-8	50	270	270	270	10000	16	16	21.1	73.3	0	--	39	3/16	0/16	0/16	0/16	0/16
Iron	7439-89-6	--	2000	--	--	--	16	16	15900	33800	0	--	27138	--	16/16	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	16	16	37.7	645	0	--	122	9/16	1/16	1/16	0/16	0/16
Nickel	7440-02-0	30	140	310	310	10000	16	16	14.7	40.3	0	--	27	6/16	0/16	0/16	0/16	0/16
Zinc	7440-66-6	109	2200	10000	10000	10000	16	16	82.3	437	0	--	207	13/16	0/16	0/16	0/16	0/16
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	16	16	0.1	1.23	0	--	0.27	11/16	1/16	1/16	0/16	0/16

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP 51 Residential	375-6.8(b) & CP 51 Residential-Restricted	375-6.8(b) & CP 51 Commercial	375-6.8(b) & CP 51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Minimum Non Detection	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatle Organic Compounds</b>																			
Acetone	67-64-1	0.05	100	100	500	1000	51	49	0.022	0.29	4	0.34	0.45	0.11	42/51	0/51	0/51	0/51	0/51
<b>Pesticides</b>																			
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	6	4	0.00048	0.0035	33	0.0004	0.0004	0.001	1/6	0/6	0/6	0/6	0/6
<b>Metals</b>																			
Arsenic	7440-38-2	13	16	16	16	16	51	51	3.3	506	0	0	--	102	36/51	34/51	34/51	34/51	34/51
Chromium	7440-47-3	30	36	180	1500	6800	51	51	14.6	189	0	0	--	27	8/51	8/51	1/51	0/51	0/51
Copper	7440-50-8	50	270	270	270	10000	51	51	13	137	0	0	--	36	8/51	0/51	0/51	0/51	0/51
Lead	7439-92-1	63	400	400	1000	3900	51	51	13.6	665	0	0	--	85	19/51	2/51	2/51	0/51	0/51
Manganese	7439-96-5	1600	2000	2000	10000	10000	51	51	280	2730	0	0	--	777	1/51	1/51	1/51	0/51	0/51
Nickel	7440-02-0	30	140	310	310	10000	51	51	12.7	70.4	0	0	--	27	10/51	0/51	0/51	0/51	0/51
Selenium	7782-49-2	3.9	36	180	1500	6800	51	50	0.131	30.9	2	0.112	0.112	1	1/51	0/51	0/51	0/51	0/51
Zinc	7440-66-6	109	2200	10000	10000	10000	51	51	43.8	659	0	0	--	159	26/51	0/51	0/51	0/51	0/51
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	51	51	0.0261	1.47	0	0	--	0.21	21/51	2/51	2/51	0/51	0/51

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	23	7	0.038	5.7	70	2	0.46	5/23	0/23	0/23	0/23	0/23
Benzene	71-43-2	0.06	2.9	4.8	44	89	23	4	0.002	0.98	83	0.073	0.07	2/23	0/23	0/23	0/23	0/23
Ethylbenzene	100-41-4	1	30	41	390	780	23	9	0.002	63	61	0.001	3.11	3/23	1/23	1/23	0/23	0/23
Toluene	108-88-3	0.7	100	100	500	1000	23	12	0.002	1.7	48	0.15	0.11	1/23	0/23	0/23	0/23	0/23
Xylene (total)	1330-20-7	0.26	100	100	500	1000	23	14	0.002	230	39	0.001	11.79	5/23	1/23	1/23	0/23	0/23
<b>Semivolatile Organic Compounds</b>																		
2-Methyl-Naphthalene	91-57-6	--	0.41	--	--	--	23	9	0.039	26	61	0.38	1.58	0/23	4/23	0/23	0/23	0/23
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	23	7	0.19	1.2	70	0.38	0.22	1/23	1/23	1/23	0/23	0/23
Naphthalene	91-20-3	12	100	100	500	1000	23	7	0.042	13	70	0.38	0.74	1/23	0/23	0/23	0/23	0/23
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	23	23	2.97	48.8	0	--	10	3/23	3/23	3/23	3/23	3/23
Chromium	7440-47-3	30	36	180	1500	6800	23	23	12	47.4	0	--	19	1/23	1/23	0/23	0/23	0/23
Copper	7440-50-8	50	270	270	270	10000	23	23	15.5	104	0	--	31	2/23	0/23	0/23	0/23	0/23
Lead	7439-92-1	63	400	400	1000	3900	23	23	7.8	87.4	0	--	28	4/23	0/23	0/23	0/23	0/23
Manganese	7439-96-5	1600	2000	2000	10000	10000	23	23	173	2040	0	--	717	1/23	1/23	1/23	0/23	0/23
Nickel	7440-02-0	30	140	310	310	10000	23	23	14.5	33.1	0	--	22	1/23	0/23	0/23	0/23	0/23
Zinc	7440-66-6	109	2200	10000	10000	10000	23	23	55.1	318	0	--	79	1/23	0/23	0/23	0/23	0/23
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	23	21	0.0143	0.203	9	0.013	0.06	2/23	0/23	0/23	0/23	0/23

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	11	11	0.025	1.3	0	--	0.41	1/11	1/11	1/11	0/11	0/11
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	11	11	0.036	1.9	0	--	0.56	2/11	2/11	2/11	0/11	0/11
Chrysene	218-01-9	1	1	3.9	56	110	11	11	0.037	1.2	0	--	0.45	2/11	2/11	0/11	0/11	0/11
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	11	11	0.016	0.75	0	--	0.25	2/11	2/11	2/11	0/11	0/11
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	11	11	5.99	96.4	0	--	34	7/11	6/11	6/11	6/11	6/11
Chromium	7440-47-3	30	36	180	1500	6800	11	11	14.8	54.6	0	--	22	1/11	1/11	0/11	0/11	0/11
Copper	7440-50-8	50	270	270	270	10000	11	11	23.4	51.6	0	--	32	1/11	0/11	0/11	0/11	0/11
Lead	7439-92-1	63	400	400	1000	3900	11	11	17.9	86.7	0	--	49	5/11	0/11	0/11	0/11	0/11
Nickel	7440-02-0	30	140	310	310	10000	11	11	19.4	53.6	0	--	27	3/11	0/11	0/11	0/11	0/11
Vanadium	7440-62-2	--	100	--	--	--	11	11	21.5	237	0	--	46	--	1/11	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	11	11	78.3	165	0	--	104	4/11	0/11	0/11	0/11	0/11
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	11	11	0.0572	0.592	0	--	0.30	7/11	0/11	0/11	0/11	0/11

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	10	9	0.045	0.13	10.0	0.53	0.12	7/10	0/10	0/10	0/10	0/10
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	35	33	0.006	3	6.0	0.004	0.44	3/35	3/35	3/35	0/35	0/35
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	35	33	0.007	2.4	6.0	0.004	0.39	3/35	3/35	3/35	3/35	3/35
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	35	34	0.005	3.5	3.0	0.004	0.54	5/35	5/35	5/35	0/35	0/35
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	35	32	0.005	1.6	9.0	0.004	0.23	3/35	2/35	0/35	0/35	0/35
Chrysene	218-01-9	1	1	3.9	56	110	35	33	0.008	3.3	6.0	0.004	0.47	3/35	3/35	0/35	0/35	0/35
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	35	27	0.007	0.4	23.0	0.021	0.07	3/35	3/35	3/35	0/35	0/35
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	35	32	0.007	1.3	9.0	0.004	0.24	5/35	5/35	5/35	0/35	0/35
<b>Pesticides</b>																		
4,4-DDD	72-54-8	0.0033	2.6	13	92	180	7	3	0.0005	0.0039	57.0	0.0036	0.002	1/7	0/7	0/7	0/7	0/7
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	7	7	0.0021	0.2	0.0	--	0.051	3/7	0/7	0/7	0/7	0/7
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	7	7	0.007	0.096	0.0	--	0.031	7/7	0/7	0/7	0/7	0/7
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	35	35	4.68	149	0.0	--	39	20/35	19/35	19/35	19/35	19/35
Chromium	7440-47-3	30	36	180	1500	6800	35	35	10.9	33.4	0.0	--	18	1/35	0/35	0/35	0/35	0/35
Iron	7439-89-6	--	2000	--	--	--	35	35	19000	47100	0.0	--	27757	--	35/35	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	35	35	9.48	107	0.0	--	41	7/35	0/35	0/35	0/35	0/35
Manganese	7439-96-5	1600	2000	2000	10000	10000	35	35	385	2790	0.0	--	719	1/35	1/35	1/35	0/35	0/35
Nickel	7440-02-0	30	140	310	310	10000	35	35	12.8	62.1	0.0	--	25	3/35	0/35	0/35	0/35	0/35
Vanadium	7440-62-2	--	100	--	--	--	35	35	14.1	508	0.0	--	49	--	3/35	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	35	35	52.1	173	0.0	--	89	3/35	0/35	0/35	0/35	0/35
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	35	35	0.027	2.66	0.0	--	0.46	18/35	6/35	6/35	0/35	0/35

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	13	11	0.013	0.13	15	0.038	0.04	2/13	0/13	0/13	0/13	0/13
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	25	8	0.005	4.4	68	0.004	0.26	1/25	1/25	1/25	0/25	0/25
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	25	8	0.008	3.6	68	0.008	0.21	1/25	1/25	1/25	1/25	1/25
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	25	9	0.004	4.1	64	0.004	0.22	1/25	1/25	1/25	0/25	0/25
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	25	7	0.005	2.3	72	0.18	0.12	1/25	1/25	0/25	0/25	0/25
Chrysene	218-01-9	1	1	3.9	56	110	25	8	0.01	4.1	68	0.004	0.29	2/25	2/25	1/25	0/25	0/25
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	25	4	0.037	0.48	84	0.18	0.04	1/25	1/25	1/25	0/25	0/25
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	25	7	0.012	1.6	72	0.008	0.09	1/25	1/25	1/25	0/25	0/25
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	25	25	4.39	35.4	0	--	8	3/25	2/25	2/25	2/25	2/25
Iron	7439-89-6	--	2000	--	--	--	25	25	20000	32800	0	--	24804	--	25/25	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	25	25	8.5	138	0	--	18	1/25	0/25	0/25	0/25	0/25
Nickel	7440-02-0	30	140	310	310	10000	25	25	13.8	30.5	0	--	22	1/25	0/25	0/25	0/25	0/25
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	25	7	0.0225	0.354	72	0.0391	0.05	2/25	0/25	0/25	0/25	0/25

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	81	77	0.004	6.1	5	0.025	0.14	2/81	2/81	2/81	1/81	0/81
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	81	78	0.006	7.3	4	0.028	0.17	2/81	2/81	2/81	2/81	2/81
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	81	79	0.008	9.8	2	0.008	0.25	2/81	2/81	2/81	1/81	0/81
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	81	72	0.004	4.5	11	0.028	0.10	2/81	2/81	1/81	0/81	0/81
Chrysene	218-01-9	1	1	3.9	56	110	81	79	0.006	6.8	2	0.025	0.17	2/81	2/81	1/81	0/81	0/81
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	81	41	0.005	1.3	49	0.028	0.03	2/81	2/81	2/81	1/81	1/81
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	81	74	0.005	4.3	9	0.028	0.11	2/81	2/81	2/81	0/81	0/81
<b>Pesticides</b>																		
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	19	15	0.00081	0.0039	21	0.00057	0.002	3/19	0/19	0/19	0/19	0/19
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	81	81	4.56	84.4	0	--	8	3/81	2/81	2/81	2/81	2/81
Chromium	7440-47-3	30	36	180	1500	6800	81	81	9.65	34.7	0	--	19	3/81	0/81	0/81	0/81	0/81
Iron	7439-89-6	--	2000	--	--	--	81	81	13500	37900	0	--	22949	--	81/81	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	81	81	11.4	65.2	0	--	37	2/81	0/81	0/81	0/81	0/81
Manganese	7439-96-5	1600	2000	2000	10000	10000	81	81	219	2620	0	--	865	4/81	2/81	2/81	0/81	0/81
Nickel	7440-02-0	30	140	310	310	10000	81	81	12.9	52.2	0	--	22	6/81	0/81	0/81	0/81	0/81
Vanadium	7440-62-2	--	100	--	--	--	81	81	13.7	126	0	--	35	--	1/81	--	--	--
Zinc	7440-66-6	109	2200	10000	10000	10000	81	81	55.9	196	0	--	87	11/81	0/81	0/81	0/81	0/81
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	81	81	0.028	1.28	0	--	0.13	9/81	1/81	1/81	0/81	0/81

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Count	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																			
Acetone	67-64-1	0.05	100	100	500	1000	87	82	0.021	0.36	5	6	0.41	0.12	70/87	0/87	0/87	0/87	0/87
<b>Semivolatile Organic Compounds</b>																			
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	253	134	0.004	6.2	119	47	0.005	0.05	3/253	3/253	3/253	1/253	0/253
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	253	143	0.004	7	110	43	0.005	0.06	3/253	3/253	3/253	3/253	3/253
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	253	174	0.004	9.4	79	31	0.005	0.08	3/253	3/253	3/253	1/253	0/253
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	253	105	0.004	4	148	58	0.005	0.04	3/253	2/253	1/253	0/253	0/253
Chrysene	218-01-9	1	1	3.9	56	110	253	162	0.004	6.6	91	36	0.005	0.06	3/253	3/253	1/253	0/253	0/253
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	253	41	0.004	1.1	212	84	0.005	0.01	3/253	3/253	3/253	1/253	0/253
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	253	121	0.004	4	132	52	0.005	0.04	3/253	3/253	3/253	0/253	0/253
Phenol	108-95-2	0.33	100	100	500	1000	253	3	0.034	0.65	250	99	0.12	0.02	1/253	0/253	0/253	0/253	0/253
<b>Pesticides</b>																			
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	59	34	0.00043	0.0045	25	42	0.00044	0.001	2/59	0/59	0/59	0/59	0/59
<b>Metals</b>																			
Arsenic	7440-38-2	13	16	16	16	16	253	253	3.62	88.5	0	0	--	7	6/253	4/253	4/253	4/253	4/253
Chromium	7440-47-3	30	36	180	1500	6800	253	253	8.85	101	0	0	--	20	8/253	4/253	0/253	0/253	0/253
Iron	7439-89-6	--	2000	--	--	--	253	253	13800	43600	0	0	--	26181	--	253/253	--	--	--
Manganese	7439-96-5	1600	2000	2000	10000	10000	253	253	193	4060	0	0	--	719	2/253	1/253	1/253	0/253	0/253
Nickel	7440-02-0	30	140	310	310	10000	253	253	10.2	53.1	0	0	--	22	14/253	0/253	0/253	0/253	0/253
Zinc	7440-66-6	109	2200	10000	10000	10000	253	253	38.6	161	0	0	--	74	7/253	0/253	0/253	0/253	0/253
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	253	253	0.0207	0.886	0	0	--	0.06	5/253	1/253	1/253	0/253	0/253

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Count	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																			
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	41	14	0.006	12	27	66	0.042	0.44	4/41	4/41	4/41	1/41	1/41
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	41	13	0.043	8.6	28	68	0.042	0.33	1/41	1/41	1/41	1/41	1/41
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	41	14	0.01	11	27	66	0.042	0.42	3/41	3/41	3/41	1/41	0/41
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	41	13	0.005	4.1	28	68	0.042	0.18	1/41	1/41	1/41	0/41	0/41
Chrysene	218-01-9	1	1	3.9	56	110	41	15	0.004	11	26	63	0.042	0.43	4/41	4/41	1/41	0/41	0/41
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	41	8	0.014	2.1	33	80	0.042	0.09	1/41	1/41	1/41	1/41	1/41
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	41	11	0.038	5	30	73	0.042	0.20	2/41	2/41	2/41	0/41	0/41
<b>Metals</b>																			
Chromium	7440-47-3	30	36	180	1500	6800	9	9	14.1	48.6	0	0	--	20.17	1/9	1/9	0/9	0/9	0/9

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency	
<b>Semivolatile Organic Compounds</b>																			
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	5	5	0.063	2.7	0	--	0.60	1/5	1/5	1/5	0/5	0/5	
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	5	5	0.071	1.9	0	--	0.44	1/5	1/5	1/5	1/5	1/5	
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	5	5	0.1	2.6	0	--	0.61	1/5	1/5	1/5	0/5	0/5	
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	5	5	0.037	1.1	0	--	0.26	1/5	1/5	0/5	0/5	0/5	
Chrysene	218-01-9	1	1	3.9	56	110	5	5	0.088	2.4	0	--	0.55	1/5	1/5	0/5	0/5	0/5	
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	5	5	0.047	0.87	0	--	0.21	1/5	1/5	1/5	0/5	0/5	
<b>Pesticides</b>																			
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	1	1	0.011	0.011	0	--	0.01	1/1	0/1	0/1	0/1	0/1	
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	1	1	0.004	0.004	0	--	0.00	1/1	0/1	0/1	0/1	0/1	
<b>Metals</b>																			
Iron	7439-89-6	--	2000	--	--	--	5	5	19300	24000	0	--	22260	--	5/5	--	--	--	
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	5	5	0.113	0.217	0	--	0.14	1/5	0/5	0/5	0/5	0/5	

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 --: Not applicable  
 SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	3	3	0.047	0.053	0	--	0.05	2/3	0/3	0/3	0/3	0/3
<b>Pesticides</b>																		
4,4-DDE*	72-55-9	0.0033	1.8	8.9	62	120	4	4	0.0019	0.0083	0	--	0.005	3/4	0/4	0/4	0/4	0/4
<b>Metals</b>																		
Iron	7439-89-6	--	2000	--	--	--	16	16	17500	34900	0	--	27844	--	16/16	--	--	--
Nickel	7440-02-0	30	140	310	310	10000	16	16	14.9	32.8	0	--	24	2/16	0/16	0/16	0/16	0/16

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)

--: Not applicable

SCO: Soil Cleanup Objective

\* Data set include data points having non detected result reported above standard or criteria

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	5	5	0.013	0.079	0	--	0.03	1/5	0/5	0/5	0/5	0/5
<b>Metals</b>																		
Iron	7439-89-6	--	2000	--	--	--	5	5	30900	34000	0	--	32380	--	5/5	--	--	--
Nickel	7440-02-0	30	140	310	310	10000	5	5	29.5	32.4	0	--	31	4/5	0/5	0/5	0/5	0/5

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 --: Not applicable  
 SCO: Soil Cleanup Objective

Parameter Name	Unrestricted	Detection Range	Most Restrictive SCO Exceeded	Unrestricted		
<b>Volatile Organic Compounds</b>						
Acetone	0.05	0.013 - 0.079	Unrestricted	1/5		
<b>Metals</b>						
Iron	2000*	30900 - 34000	Residential	5/5		
Nickel	30	29.5 - 32.4	Unrestricted	4/5		

**Notes:**  
 SCO: Soil Cleanup Objective  
 \* Value taken from CP-51 Residential Criteria  
 All units in mg/kg

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detect Count	Minimum Detect	Maximum Detect	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	16	10	0.011	0.13	38	0.58	0.10	6/16	0/16	0/16	0/16	0/16
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	16	16	4.74	21	0	--	9	1/16	1/16	1/16	1/16	1/16
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	16	15	0.16	3.36	6	0.686	1	1/16	1/16	0/16	0/16	0/16
Chromium	7440-47-3	30	36	180	1500	6800	16	16	10.3	5410	0	--	359	3/16	2/16	1/16	1/16	0/16
Copper	7440-50-8	50	270	270	270	10000	16	16	14.7	1340	0	--	112	2/16	1/16	1/16	1/16	0/16
Iron	7439-89-6	--	2000	--	--	--	16	16	15800	60000	0	--	31731	--	16/16	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	16	16	25.3	514	0	--	84	3/16	1/16	1/16	0/16	0/16
Nickel	7440-02-0	30	140	310	310	10000	16	16	11.1	50.4	0	--	29	8/16	0/16	0/16	0/16	0/16
Selenium	7782-49-2	3.9	36	180	1500	6800	16	8	1.12	4.19	50	1.38	1	1/16	0/16	0/16	0/16	0/16
Zinc	7440-66-6	109	2200	10000	10000	10000	16	16	73.7	331	0	--	120	7/16	0/16	0/16	0/16	0/16
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	16	16	0.132	1.72	0	--	0.48	13/16	3/16	3/16	0/16	0/16

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)

--: Not applicable

SCO: Soil Cleanup Objective

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detect Count	Minimum Detect	Maximum Detect	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	43	17	0.01	0.2	60	0.93	0.08	5/43	0/43	0/43	0/43	0/43
Methylene chloride (Dichloromethane)	75-09-2	0.05	51	100	500	1000	43	15	0.002	0.64	65	0.27	0.03	1/43	0/43	0/43	0/43	0/43
<b>Semi Volatile Organic Compounds</b>																		
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	43	35	0.005	1.5	19	0.005	0.07	1/43	1/43	1/43	0/43	0/43
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	43	34	0.005	1.3	21	0.005	0.07	1/43	1/43	1/43	1/43	1/43
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	43	35	0.005	1.4	19	0.005	0.08	1/43	1/43	1/43	0/43	0/43
Chrysene	218-01-9	1	1	3.9	56	110	43	35	0.005	1.4	19	0.005	0.08	1/43	1/43	0/43	0/43	0/43
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	43	31	0.004	0.67	28	0.005	0.04	1/43	1/43	1/43	0/43	0/43
Phenol	108-95-2	0.33	100	100	500	1000	43	3	0.03	0.6	93	0.054	0.04	1/43	0/43	0/43	0/43	0/43
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	43	43	1.5	15.4	0	--	6	1/43	0/43	0/43	0/43	0/43
Chromium	7440-47-3	30	36	180	1500	6800	43	43	14.7	413	0	--	35	3/43	2/43	2/43	0/43	0/43
Copper	7440-50-8	50	270	270	270	10000	43	43	11.8	212	0	--	36	2/43	0/43	0/43	0/43	0/43
Iron	7439-89-6	--	2000	--	--	--	43	43	17800	57300	0	--	32170	--	43/43	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	43	43	11.9	373	0	--	36	3/43	0/43	0/43	0/43	0/43
Manganese	7439-96-5	1600	2000	2000	10000	10000	43	43	266	1760	0	--	657	1/43	0/43	0/43	0/43	0/43
Nickel	7440-02-0	30	140	310	310	10000	43	43	16.9	46	0	--	27	14/43	0/43	0/43	0/43	0/43
Zinc	7440-66-6	109	2200	10000	10000	10000	43	43	58.9	155	0	--	84	3/43	0/43	0/43	0/43	0/43
Mercury	7439-97-6	0.18	0.81	0.81	2.8	5.7	66	65	0.0151	1.75	2	0.0081	0.36	33/66	9/66	9/66	0/66	0/66

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
--: Not applicable  
SCO: Soil Cleanup Objective

Parameter Name	Parameter	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Volatile Organic Compounds</b>																		
Acetone	67-64-1	0.05	100	100	500	1000	19	11	0.009	0.067	42	0.009	0.02	1/19	0/19	0/19	0/19	0/19
<b>Metals</b>																		
Chromium	7440-47-3	30	36	180	1500	6800	19	19	5.7	293	0	--	33	2/19	1/19	1/19	0/19	0/19
Copper	7440-50-8	50	270	270	270	10000	19	19	4.38	109	0	--	28	1/19	0/19	0/19	0/19	0/19
Iron	7439-89-6	--	2000	--	--	--	19	19	8740	52100	0	--	28915	--	19/19	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	19	19	3.5	73.9	0	--	17	1/19	0/19	0/19	0/19	0/19
Nickel	7440-02-0	30	140	310	310	10000	19	19	5.29	32.7	0	--	21.88	3/19	0/19	0/19	0/19	0/19

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)  
 --: Not applicable  
 SCO: Soil Cleanup Objective

Table 3-8A  
Background Soil Data - Land Use (Surface)  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semivolatile Organic Compounds</b>																		
1,4-Dioxane	123-91-1	0.1	9.8	13	130	250	53	0	0	--	100.0	0.44	0.17	0/53	0/53	0/53	0/53	0/53
2,4,5-Trichlorophenol	95-95-4	--	100	--	--	--	53	0	0	--	100.0	0.073	0.03	--	0/53	--	--	--
2,4-Dichlorophenol	120-83-2	--	100	--	--	--	53	0	0	--	100.0	0.073	0.03	--	0/53	--	--	--
2,4-Dinitrophenol	51-28-5	--	100	--	--	--	53	0	0	--	100.0	1.3	0.50	--	0/53	--	--	--
2,6-Dinitrotoluene	606-20-2	--	1.03	--	--	--	53	1	0.34	0.3	98.1	0.073	0.03	--	0/53	--	--	--
2-Chlorophenol (o-Chlorophenol)	95-57-8	--	100	--	--	--	53	0	0	--	100.0	0.073	0.03	--	0/53	--	--	--
2-Methyl-Naphthalene	91-57-6	--	0.41	--	--	--	53	33	0.004	0.02	37.7	0.015	0.01	--	0/53	--	--	--
2-Methylphenol (o-Cresol)	95-48-7	0.33	100	100	500	1000	53	2	0.04	0.2	96.2	0.073	0.03	0/53	0/53	0/53	0/53	0/53
4-Chloroaniline	106-47-8	--	100	--	--	--	53	0	0	--	100.0	0.15	0.06	--	0/53	--	--	--
4-Methylphenol (p-Cresol)	106-44-5	0.33	34	100	500	1000	53	16	0.022	1.8	69.8	0.073	0.08	1/53	0/53	0/53	0/53	0/53
Acenaphthene	83-32-9	20	100	100	500	1000	53	12	0.004	0.03	77.4	0.015	0.01	0/53	0/53	0/53	0/53	0/53
Acenaphthylene	208-96-8	100	100	100	500	1000	53	45	0.006	0.08	15.1	0.015	0.02	0/53	0/53	0/53	0/53	0/53
Anthracene	120-12-7	100	100	100	500	1000	53	46	0.007	0.08	13.2	0.01	0.02	0/53	0/53	0/53	0/53	0/53
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	53	51	0.012	0.35	3.8	0.006	0.06	0/53	0/53	0/53	0/53	0/53
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	53	51	0.009	0.39	3.8	0.006	0.07	0/53	0/53	0/53	0/53	0/53
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	53	52	0.011	0.48	1.9	0.006	0.11	0/53	0/53	0/53	0/53	0/53
Benzo(g,h,i)perylene	191-24-2	100	100	100	500	1000	53	51	0.015	0.30	3.8	0.006	0.06	0/53	0/53	0/53	0/53	0/53
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	53	47	0.012	0.22	11.3	0.015	0.04	0/53	0/53	0/53	0/53	0/53
bis(2-Ethylhexyl)phthalate	117-81-7	--	50	--	--	--	53	4	0.1	0.18	92.5	0.29	0.12	--	0/53	--	--	--
Butylbenzylphthalate	85-68-7	--	100	--	--	--	53	0	0	--	100.0	0.29	0.11	--	0/53	--	--	--
Chrysene	218-01-9	1	1	3.9	56	110	53	51	0.01	0.39	3.8	0.006	0.08	0/53	0/53	0/53	0/53	0/53
Di-n-butylphthalate	84-74-2	--	100	--	--	--	53	0	0	--	100.0	0.29	0.11	--	0/53	--	--	--
Di-n-octylphthalate	117-84-0	--	100	--	--	--	52	0	0	--	100.0	0.29	0.11	--	0/52	--	--	--
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	53	33	0.006	0.07	37.7	0.015	0.02	0/53	0/53	0/53	0/53	0/53
Dibenzofuran	132-64-9	7	14	59	350	1000	53	2	0.026	0.05	96.2	0.073	0.03	0/53	0/53	0/53	0/53	0/53
Diethylphthalate	84-66-2	--	100	--	--	--	53	0	0	--	100.0	0.29	0.11	--	0/53	--	--	--
Dimethyl phthalate	131-11-3	--	100	--	--	--	53	0	0	--	100.0	0.29	0.11	--	0/53	--	--	--
Fluoranthene	206-44-0	100	100	100	500	1000	53	53	0.006	0.54	0.0	--	0.12	0/53	0/53	0/53	0/53	0/53
Fluorene	86-73-7	30	100	100	500	1000	53	18	0.004	0.03	66.0	0.015	0.01	0/53	0/53	0/53	0/53	0/53
Hexachlorobenzene	118-74-1	0.33	0.33	1.2	6	12	53	1	0.006	0.01	98.1	0.015	0.01	0/53	0/53	0/53	0/53	0/53
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	53	51	0.01	0.25	3.8	0.006	0.05	0/53	0/53	0/53	0/53	0/53
Isophorone	78-59-1	--	100	--	--	--	53	0	0	--	100.0	0.073	0.03	--	0/53	--	--	--
Naphthalene	91-20-3	12	100	100	500	1000	53	41	0.005	0.06	22.6	0.015	0.01	0/53	0/53	0/53	0/53	0/53
Nitrobenzene	98-95-3	--	3.7	15	69	140	53	1	0.053	0.05	98.1	0.073	0.03	--	0/53	0/53	0/53	0/53
Pentachlorophenol	87-86-5	0.8	2.4	6.7	6.7	55	53	1	0.12	0.12	98.1	0.15	0.06	0/53	0/53	0/53	0/53	0/53
Phenanthrene	85-01-8	100	100	100	500	1000	53	52	0.008	0.27	1.9	0.006	0.07	0/53	0/53	0/53	0/53	0/53
Phenol	108-95-2	0.33	100	100	500	1000	53	1	0.075	0.08	98.1	0.073	0.03	0/53	0/53	0/53	0/53	0/53
Pyrene	129-00-0	100	100	100	500	1000	53	52	0.007	0.56	1.9	0.005	0.12	0/53	0/53	0/53	0/53	0/53
<b>Pesticides</b>																		
4,4-DDD	72-54-8	0.0033	2.6	13	92	180	11	4	0.0011	0.003	63.6	0.0011	0.001	0/11	0/11	0/11	0/11	0/11
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	11	9	0.002	0.027	18.2	0.00059	0.008	6/11	0/11	0/11	0/11	0/11
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	11	10	0.0014	0.017	9.1	0.0005	0.005	7/11	0/11	0/11	0/11	0/11
Aldrin	309-00-2	0.005	0.019	0.097	0.68	1.4	11	0	0	--	100.0	0.00039	0.000	0/11	0/11	0/11	0/11	0/11
alpha BHC	319-84-6	0.02	0.097	0.48	3.4	6.8	11	4	0.00022	0.002	63.6	0.00039	0.001	0/11	0/11	0/11	0/11	0/11
alpha Chlordane	5103-71-9	0.094	0.91	4.2	24	47	11	3	0.00094	0.006	72.7	0.0019	0.001	0/11	0/11	0/11	0/11	0/11
beta BHC	319-85-7	0.036	0.072	0.36	3	14	11	0	0	--	100.0	0.0023	0.001	0/11	0/11	0/11	0/11	0/11
delta BHC	319-86-8	0.04	100	100	500	1000	11	4	0.0013	0.002	63.6	0.001	0.001	0/11	0/11	0/11	0/11	0/11
DIELDRIN	60-57-1	0.005	0.039	0.2	1.4	2.8	11	6	0.00038	0.004	45.5	0.00072	0.001	0/11	0/11	0/11	0/11	0/11
Endosulfan I	959-98-8	2.4	4.8	24	200	920	11	0	0	--	100.0	0.0005	0.000	0/11	0/11	0/11	0/11	0/11
Endosulfan II	33213-65-9	2.4	4.8	24	200	920	11	0	0	--	100.0	0.00076	0.001	0/11	0/11	0/11	0/11	0/11
ENDOSULFAN SULFATE	1031-07-8	2.4	4.8	24	200	920	11	1	0.0018	0.002	90.9	0.0012	0.001	0/11	0/11	0/11	0/11	0/11
ENDRIN	72-20-8	0.014	2.2	11	89	410	11	1	0.0018	0.002	90.9	0.00077	0.001	0/11	0/11	0/11	0/11	0/11
gamma BHC (Lindane)	58-89-9	0.1	0.28	1.3	9.2	23	11	1	0.00086	0.001	90.9	0.00083	0.000	0/11	0/11	0/11	0/11	0/11
gamma Chlordane	5103-74-2	--	0.54	--	--	--	11	4	0.00066	0.003	63.6	0.0012	0.001	--	0/11	--	--	--
HEPTACHLOR	76-44-8	0.042	0.42	2.1	15	29	11	1	0.00062	0.001	90.9	0.0012	0.000	0/11	0/11	0/11	0/11	0/11
HEPTACHLOR EPOXIDE	1024-57-3	--	0.077	--	--	--	11	3	0.00051	0.001	72.7	0.00031	0.000	--	0/11	--	--	--
METHOXYCHLOR	72-43-5	--	100	--	--	--	11	1	0.0029	0.003	90.9	0.0039	0.003	--	0/11	--	--	--
<b>Metals</b>																		
Aluminum	7429-90-5	--	--	--	--	--	53	53	6020	27600	0.0	--	16599	--	--	--	--	--
Arsenic	7440-38-2	13	16	16	16	16	53	53	3.27	14	0.0	--	8	1/53	0/53	0/53	0/53	0/53
Barium	7440-39-3	350	350	400	400	10000	53	53	40.8	305	0.0	--	86	0/53	0/53	0/53	0/53	0/53
Beryllium	7440-41-7	7.2	14	72	590	2700	53	53	0.137	2	0.0	--	1	0/53	0/53	0/53	0/53	0/53
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	53	53	0.115	1	0.0	--	0	0/53	0/53	0/53	0/53	0/53
Chromium	7440-47-3	30	36	180	1500	6800	53	53	7.87	28	0.0	--	17	0/53	0/53	0/53	0/53	0/53
Cobalt	7440-48-4	--	30	--	--	--	53	53	1.71	16	0.0	--	9	--	0/53	--	--	--
Copper	7440-50-8	50	270	270	270	10000	53	53	8.72	90	0.0	--	23	1/53	0/53	0/53	0/53	0/53
Iron	7439-89-6	--	2000	--	--	--	53	53	6620	59000	0.0							

Table 3-8B  
Background Soil Data - Land Use (Near Surface)  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	Unrestricted Use Soil Cleanup Objectives	375-6.8(b) & CP-51 Residential	375-6.8(b) & CP-51 Residential-Restricted	375-6.8(b) & CP-51 Commercial	375-6.8(b) & CP-51 Industrial	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	Unrestricted SCOs Frequency	CP-51 & Residential SCOs Frequency	CP-51 & Residential-Restricted SCOs Frequency	CP-51 & Commercial SCOs Frequency	CP-51 & Industrial SCOs Frequency
<b>Semi-volatile Organic Compounds</b>																		
1,4-Dioxane	123-91-1	0.1	9.8	13	130	250	151	0	0	--	100	0.67	0.14	0/151	0/151	0/151	0/151	0/151
2,4,5-Trichlorophenol	95-95-4	--	100	--	--	--	151	1	0	0.040	99	0.11	0.02	--	0/151	--	--	--
2,4-Dichlorophenol	120-83-2	--	100	--	--	--	151	0	0	--	100	0.11	0.02	--	0/151	--	--	--
2,4-Dinitrophenol	51-28-5	--	100	--	--	--	151	0	0	--	100	2.00	0.41	--	0/151	--	--	--
2,6-Dinitrotoluene	606-20-2	--	1.03	--	--	--	151	0	0	--	100	0.11	0.02	--	0/151	--	--	--
2-Chlorophenol (o-Chlorophenol)	95-57-8	--	100	--	--	--	151	0	0	--	100	0.11	0.02	--	0/151	--	--	--
2-Methyl-Naphthalene	91-57-6	--	0.41	--	--	--	151	54	0	0.048	64	0.02	0.01	--	0/151	--	--	--
2-Methylphenol (o-Cresol)	95-48-7	0.33	100	100	500	1000	151	0	0	--	100	0.11	0.02	0/151	0/151	0/151	0/151	0/151
4-Chloroaniline	106-47-8	--	100	--	--	--	151	0	0	--	100	0.22	0.05	--	0/151	--	--	--
4-Methylphenol (p-Cresol)	106-44-5	0.33	34	100	500	1000	151	13	0	0.220	91	0.11	0.03	0/151	0/151	0/151	0/151	0/151
Acenaphthene	83-32-9	20	100	100	500	1000	151	25	0	0.020	83	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Acenaphthylene	208-96-8	100	100	100	500	1000	151	73	0	0.110	52	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Anthracene	120-12-7	100	100	100	500	1000	151	74	0	0.091	51	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Benzo(a)anthracene	56-55-3	1	1	1	5.6	11	151	116	0	0.320	23	0.02	0.03	0/151	0/151	0/151	0/151	0/151
Benzo(a)pyrene	50-32-8	1	1	1	1	1.1	151	117	0	0.380	23	0.01	0.04	0/151	0/151	0/151	0/151	0/151
Benzo(b)fluoranthene	205-99-2	1	1	1	5.6	11	151	138	0	0.430	9	0.01	0.06	0/151	0/151	0/151	0/151	0/151
Benzo(g,h,i)perylene	191-24-2	100	100	100	500	1000	151	116	0	0.340	23	0.01	0.03	0/151	0/151	0/151	0/151	0/151
Benzo(k)fluoranthene	207-08-9	0.8	1	3.9	56	110	151	105	0	0.190	30	0.02	0.03	0/151	0/151	0/151	0/151	0/151
bis(2-Ethylhexyl)phthalate	117-81-7	--	50	--	--	--	151	2	1	3.900	99	0.45	0.12	--	0/151	--	--	--
Butylbenzylphthalate	85-68-7	--	100	--	--	--	151	1	0	0.130	99	0.45	0.09	--	0/151	--	--	--
Chrysene	218-01-9	1	1	3.9	56	110	151	131	0	0.360	13	0.01	0.04	0/151	0/151	0/151	0/151	0/151
Di-n-butylphthalate	84-74-2	--	100	--	--	--	151	0	0	--	100	0.45	0.09	--	0/151	--	--	--
Di-n-octylphthalate	117-84-0	--	100	--	--	--	151	0	0	--	100	0.45	0.09	--	0/151	--	--	--
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	0.56	1.1	151	66	0	0.065	56	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Dibenzofuran	132-64-9	7	14	59	350	1000	151	1	0	0.059	99	0.11	0.02	0/151	0/151	0/151	0/151	0/151
Diethylphthalate	84-66-2	--	100	--	--	--	151	0	0	--	100	0.45	0.09	--	0/151	--	--	--
Dimethyl phthalate	131-11-3	--	100	--	--	--	151	0	0	--	100	0.45	0.09	--	0/151	--	--	--
Fluoranthene	206-44-0	100	100	100	500	1000	151	140	0	0.440	7	0.01	0.06	0/151	0/151	0/151	0/151	0/151
Fluorene	86-73-7	30	100	100	500	1000	151	30	0	0.030	80	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Hexachlorobenzene	118-74-1	0.33	0.33	1.2	6	12	151	0	0	--	100	0.02	0.00	0/151	0/151	0/151	0/151	0/151
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5	0.5	0.5	5.6	11	151	114	0	0.280	25	0.02	0.03	0/151	0/151	0/151	0/151	0/151
Isophorone	78-59-1	--	100	--	--	--	151	0	0	--	100	0.11	0.02	--	0/151	--	--	--
Naphthalene	91-20-3	12	100	100	500	1000	151	80	0	0.130	47	0.02	0.01	0/151	0/151	0/151	0/151	0/151
Nitrobenzene	98-95-3	--	3.7	15	69	140	151	0	0	--	100	0.11	0.02	--	0/151	0/151	0/151	0/151
Pentachlorophenol	87-86-5	0.8	2.4	6.7	6.7	55	151	1	0	0.130	99	0.22	0.05	0/151	0/151	0/151	0/151	0/151
Phenanthrene	85-01-8	100	100	100	500	1000	151	127	0	0.220	16	0.01	0.03	0/151	0/151	0/151	0/151	0/151
Phenol	108-95-2	0.33	100	100	500	1000	151	3	0	0.054	98	0.11	0.02	0/151	0/151	0/151	0/151	0/151
Pyrene	129-00-0	100	100	100	500	1000	151	141	0	0.490	7	0.01	0.06	0/151	0/151	0/151	0/151	0/151
<b>Pesticides</b>																		
4,4-DDD	72-54-8	0.0033	2.6	13	92	180	30	8	0	0.002	73	0.002	0.001	0/30	0/30	0/30	0/30	0/30
4,4-DDE	72-55-9	0.0033	1.8	8.9	62	120	30	27	0	0.021	10	0.002	0.003	7/30	0/30	0/30	0/30	0/30
4,4-DDT	50-29-3	0.0033	1.7	7.9	47	94	30	18	0	0.009	40	0.002	0.002	4/30	0/30	0/30	0/30	0/30
Aldrin	309-00-2	0.005	0.019	0.097	0.68	1.4	30	0	0	--	100	0.001	0.000	0/30	0/30	0/30	0/30	0/30
alpha BHC	319-84-6	0.02	0.097	0.48	3.4	6.8	30	2	0	0.000	93	0.001	0.000	0/30	0/30	0/30	0/30	0/30
alpha Chlordane	5103-71-9	0.094	0.91	4.2	24	47	30	8	0	0.140	73	0.002	0.008	1/30	0/30	0/30	0/30	0/30
beta BHC	319-85-7	0.036	0.072	0.36	3	14	30	1	0	0.001	97	0.002	0.000	0/30	0/30	0/30	0/30	0/30
delta BHC	319-86-8	0.04	100	100	500	1000	30	1	0	0.001	97	0.003	0.001	0/30	0/30	0/30	0/30	0/30
DIELDRIN	60-57-1	0.005	0.039	0.2	1.4	2.8	30	3	0	0.002	90	0.002	0.001	0/30	0/30	0/30	0/30	0/30
Endosulfan I	959-98-8	2.4	4.8	24	200	920	30	0	0	--	100	0.002	0.000	0/30	0/30	0/30	0/30	0/30
Endosulfan II	33213-65-9	2.4	4.8	24	200	920	30	0	0	--	100	0.002	0.000	0/30	0/30	0/30	0/30	0/30
ENDOSULFAN SULFATE	1031-07-8	2.4	4.8	24	200	920	30	2	0	0.001	93	0.002	0.001	0/30	0/30	0/30	0/30	0/30
ENDRIN	72-20-8	0.014	2.2	11	89	410	30	4	0	0.002	87	0.002	0.001	0/30	0/30	0/30	0/30	0/30
gamma BHC (Lindane)	58-89-9	0.1	0.28	1.3	9.2	23	30	0	0	--	100	0.001	0.000	0/30	0/30	0/30	0/30	0/30
gamma Chlordane	5103-74-2	--	0.54	--	--	--	30	5	0	0.001	83	0.001	0.000	--	0/30	--	--	--
HEPTACHLOR	76-44-8	0.042	0.42	2.1	15	29	30	5	0	0.015	83	0.001	0.001	0/30	0/30	0/30	0/30	0/30
HEPTACHLOR EPOXIDE	1024-57-3	--	0.077	--	--	--	30	0	0	--	100	0.001	0.000	--	0/30	--	--	--
METHOXYCHLOR	72-43-5	--	100	--	--	--	30	0	0	--	100	0.011	0.003	--	0/30	--	--	--
<b>Metals</b>																		
Arsenic	7440-38-2	13	16	16	16	16	151	151	3	14	0	--	7.26	2/151	0/151	0/151	0/151	0/151
Barium	7440-39-3	350	350	400	400	10000	151	151	39	273	0	--	80.12	0/151	0/151	0/151	0/151	0/151
Beryllium	7440-41-7	7.2	14	72	590	2700	151	151	0	3	0	--	0.85	0/151	0/151	0/151	0/151	0/151
Cadmium	7440-43-9	2.5	2.5	4.3	9.3	60	151	151	0	1	0	--	0.17	0/151	0/151	0/151	0/151	0/151
Chromium	7440-47-3	30	36	180	1500	6800	151	151	10	33	0	--	19.68	3/151	0/151	0/151	0/151	0/151
Cobalt	7440-48-4	--	30	--	--	--	151	151	5	30	0	--	10.35	--	0/151	--	--	--
Copper	7440-50-8	50	270	270	270	10000	151	151	6	106	0	--	21.61	2/151	0/151	0/151	0/151	0/151
Iron	7439-89-6	--	2000	--	--	--	151	151	13900	78200	0	--	27538.41	--	151/151	--	--	--
Lead	7439-92-1	63	400	400	1000	3900	151	151	10	445	0	--	40.02	14/151	1/151	1/151	0/151	0/151

Parameter Name	Parameter Code	375-6.8(b) & CP-51 PGW	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	375-6.8(b) & CP-51 PGW Frequency
<b>Volatile Organic Compounds</b>										
1,1-Dichloroethene	75-35-4	0.33	555	7	0.0006	0.98	1	0.62	0.01	1/555
1,1,1-Trichloroethane	71-55-6	0.68	556	30	0.0006	6.5	1	0.62	0.03	2/556
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	1.1	559	24	0.0006	53	1	0.6	0.21	2/559
1,2-Dichloroethane	107-06-2	0.02	556	4	0.0006	0.11	1	2.025	0.02	2/556
1,4-Dichlorobenzene	106-46-7	1.8	559	19	0.0008	3.1	1	0.6	0.05	2/559
Acetone	67-64-1	0.05	531	219	0.008	0.44	1	4.3	0.11	115/531
Benzene	71-43-2	0.06	557	38	0.0005	9.2	1	0.6	0.03	5/557
Carbon Tetrachloride	56-23-5	0.76	556	11	0.0008	61	1	0.62	0.12	1/556
Chlorobenzene	108-90-7	1.1	556	34	0.001	49	1	0.6	0.19	9/556
Chloroform	67-66-3	0.37	556	20	0.0007	5.1	1	0.62	0.02	2/556
Ethylbenzene	100-41-4	1	557	38	0.0006	3.6	1	0.53	0.05	8/557
Methylene chloride (Dichloromethane)	75-09-2	0.05	556	227	0.001	0.21	1	1.2	0.03	4/556
Toluene	108-88-3	0.7	557	103	0.0006	11	1	0.62	0.06	4/557
Xylene (total)	1330-20-7	1.6	557	77	0.001	37	86	0.53	0.30	10/557
<b>Semivolatile Organic Compounds</b>										
2-Methylphenol (o-Cresol)	95-48-7	0.33	546	4	0.033	0.65	99	0.82	0.07	2/546
4-Methylphenol (p-Cresol)	106-44-5	0.33	546	17	0.024	2.1	97	0.8	0.07	7/546
Benzo(a)anthracene	56-55-3	1	601	390	0.004	55	35	2.06	0.79	49/601
Benzo(a)pyrene	50-32-8	22	601	379	0.004	43	37	2.06	0.70	5/601
Benzo(b)fluoranthene	205-99-2	1.7	601	392	0.004	53	35	23.4	0.92	36/601
Benzo(k)fluoranthene	207-08-9	1.7	601	333	0.004	21	45	23.4	0.45	13/601
Chrysene	218-01-9	1	601	399	0.004	52	34	2.06	0.79	54/601
Dibenzofuran	132-64-9	6.2	584	111	0.02	22	81	2	0.20	4/584
Indeno(1,2,3-cd)Pyrene	193-39-5	8.2	600	347	0.004	32	42	2.06	0.45	8/600
Naphthalene	91-20-3	12	603	232	0.004	46	62	9.35	0.39	4/603
Nitrobenzene	98-95-3	0.17	600	7	0.02	4.4	99	9.35	0.11	1/600
Phenol	108-95-2	0.33	546	9	0.027	1.4	98	0.51	0.05	2/546
<b>Metals</b>										
Arsenic	7440-38-2	16	552	546	1.01	527	1	3.95	17	103/552
Lead	7439-92-1	450	552	549	1.21	34100	1	2.78	184	13/552
Manganese	7439-96-5	2000	552	552	107	4630	0	--	604	9/552
Nickel	7440-02-0	130	552	552	1.2	143	0	--	19	1/552
Selenium	7782-49-2	4	552	236	0.116	6.67	57	5.7	1	1/552
Silver	7440-22-4	8.3	552	246	0.0321	13	55	1.1	0.3	2/552
Mercury	7439-97-6	0.73	552	487	0.0113	45.1	12	0.0595	0.42	55/552

**Notes:**  
All values are provided in milligrams per kilogram (mg/kg)  
PGW: Protection of Groundwater  
--: Not applicable

	Parameter Code	375-6.8(b) & CP-51 PGW	Total Count	No. Detects	Frequency of Detects	Min Detect	Max Detect	No. NDs	Frequency of NDs	Min ND	Max ND	Mean	Frequency of 375-6.8(b) & CP-51 PGW Exceedances	Number of 375-6.8(b) & CP-51 PGW Exceedances
<b>Volatile Organic Compounds</b>														
1,1 Dichloroethene	75-35-4	0.33	555	7	1%	0.0006	0.98	548	99%	0.0005	0.62	0.01	1/555	1
1,1,1-Trichloroethane	71-55-6	0.68	556	30	5%	0.0006	6.5	526	95%	0.0005	0.62	0.03	2/556	2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	1.1	559	24	4%	0.0006	53	535	96%	0.0005	0.6	0.21	2/559	2
1,2-Dichloroethane	107-06-2	0.02	556	4	1%	0.0006	0.11	552	99%	0.0005	2.025	0.02	2/556	2
1,4-Dichlorobenzene	106-46-7	1.8	559	19	3%	0.0008	3.1	540	97%	0.0004	0.6	0.05	2/559	2
Acetone	67-64-1	0.05	531	219	41%	0.008	0.44	312	59%	0.007	4.3	0.11	115/531	115
Benzene	71-43-2	0.06	557	38	7%	0.0005	9.2	519	93%	0.0005	0.6	0.03	5/557	5
Carbon Tetrachloride	56-23-5	0.76	556	11	2%	0.0008	61	545	98%	0.0005	0.62	0.12	1/556	1
Chlorobenzene	108-90-7	1.1	556	34	6%	0.001	49	522	94%	0.0005	0.6	0.19	9/556	9
Chloroform	67-66-3	0.37	556	20	4%	0.0007	5.1	536	96%	0.0005	0.62	0.02	2/556	2
Ethylbenzene	100-41-4	1	557	38	7%	0.0006	3.6	519	93%	0.0004	0.53	0.05	8/557	8
Methylene chloride (Dichloromethane)	75-09-2	0.05	556	227	41%	0.001	0.21	329	59%	0.0011	1.2	0.03	4/556	4
Toluene	108-88-3	0.7	557	103	18%	0.0006	11	454	82%	0.0005	0.62	0.06	4/557	4
Xylene (total)	1330-20-7	1.6	557	77	14%	0.001	37	480	86%	0.0009	0.53	0.30	10/557	10
<b>Semivolatile Organic Compounds</b>														
2-Methylphenol (o-Cresol)	95-48-7	0.33	546	4	1%	0.033	0.65	542	99%	0.017	0.82	0.07	2/546	2
4-Methylphenol (p-Cresol)	106-44-5	0.33	546	17	3%	0.024	2.1	529	97%	0.017	0.8	0.07	7/546	7
Benzo(a)anthracene	56-55-3	1	601	390	65%	0.004	55	211	35%	0.003	2.06	0.79	49/601	49
Benzo(a)pyrene	50-32-8	22	601	379	63%	0.004	43	222	37%	0.003	2.06	0.70	5/601	5
Benzo(b)fluoranthene	205-99-2	1.7	601	392	65%	0.004	53	209	35%	0.003	23.4	0.92	36/601	36
Benzo(k)fluoranthene	207-08-9	1.7	601	333	55%	0.004	21	268	45%	0.003	23.4	0.45	13/601	13
Chrysene	218-01-9	1	601	399	66%	0.004	52	202	34%	0.003	2.06	0.79	54/601	54
Dibenzofuran	132-64-9	6.2	584	111	19%	0.02	22	473	81%	0.017	2	0.20	4/584	4
Indeno(1,2,3-cd)Pyrene	193-39-5	8.2	600	347	58%	0.004	32	253	42%	0.003	2.06	0.45	8/600	8
Naphthalene	91-20-3	12	603	232	38%	0.004	46	371	62%	0.0011	9.35	0.39	4/603	4
Nitrobenzene	98-95-3	0.17	600	7	1%	0.02	4.4	593	99%	0.017	9.35	0.11	1/600	1
Phenol	108-95-2	0.33	546	9	2%	0.027	1.4	537	98%	0.017	0.51	0.05	2/546	2
<b>Metals</b>														
Arsenic	7440-38-2	16	552	546	99%	1.01	527	6	1%	0.96	3.95	17.13	103/552	103
Lead	7439-92-1	450	552	549	99%	1.21	34100	3	1%	0.484	2.78	184.42	13/552	13
Manganese	7439-96-5	2000	552	552	100%	107	4630	0	0%	0	0	604.44	9/552	9
Nickel	7440-02-0	130	552	552	100%	1.2	143	0	0%	0	0	18.70	1/552	1
Selenium	7782-49-2	4	552	236	43%	0.116	6.67	316	57%	0.0981	5.7	0.91	1/552	1
Silver	7440-22-4	8.3	552	246	45%	0.0321	13	306	55%	0.0304	1.1	0.34	2/552	2
Mercury	7439-97-6	0.73	552	487	88%	0.0113	45.1	65	12%	0.01	0.0595	0.42	55/552	55

**Table 3-10**  
**OU-1C Soil Data – Protection of Groundwater Summary**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Parameter Name	Parameter Code	375-6.8(b) & CP-51 PGW	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	375-6.8(b) & CP-51 PGW Frequency
<b>Volatile Organic Compounds</b>										
Acetone	67-64-1	0.05	74	56	0.022	5.7	24	2	0.22	47/74
Benzene	71-43-2	0.06	74	11	0.0005	0.98	85	0.073	0.02	2/74
Xylene (total)	1330-20-7	1.6	74	20	0.001	230	73	0.064	3.67	2/74
<b>Semivolatile Organic Compounds</b>										
Naphthalene	91-20-3	12	90	63	0.004	13	30	0.38	0.22	1/74
Phenol	108-95-2	0.33	90	2	0.029	0.4	98	0.38	0.04	1/74
<b>Metals</b>										
Arsenic	7440-38-2	16	90	90	2.97	506	--	--	77	49/74
Lead	7439-92-1	450	90	90	7.8	665	--	--	77	3/74
Manganese	7439-96-5	2000	90	90	173	2730	--	--	749	2/74
Selenium	7782-49-2	4	90	71	0.131	30.9	21	1.25	1	1/74

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 PGW: Protection of Groundwater  
 --: Not applicable

	Parameter Code	375-6.8(b) & CP-51 PGW	Total Count	No. Detects	Frequency of Detects	Min Detect	Max Detect	No. NDs	Frequency of NDs	Min ND	Max ND	Mean	Frequency of 375-6.8(b) & CP-51 PGW Exceedances	Number of 375-6.8(b) & CP-51 PGW Exceedances
<b>Volatile Organic Compounds</b>														
Acetone	67-64-1	0.05	23	20	87%	0.013	0.13	3	13%	0.009	0.53	0.07	9/23	9
<b>Semivolatile Organic Compounds</b>														
2-Methyl-Naphthalene	91-57-6	36.4	71	45	63%	0.004	37	26	37%	0.004	0.02	0.61	1/23	1
Benzo(a)anthracene	56-55-3	1	71	52	73%	0.005	4.4	19	27%	0.003	0.004	0.37	5/23	5
Benzo(b)fluoranthene	205-99-2	1.7	71	54	76%	0.004	4.1	17	24%	0.003	0.004	0.43	5/23	5
Benzo(k)fluoranthene	207-08-9	1.7	71	50	70%	0.005	2.3	21	30%	0.003	0.18	0.19	1/23	1
Chrysene	218-01-9	1	71	52	73%	0.008	4.1	19	27%	0.003	0.004	0.40	7/23	7
<b>Metals</b>														
Arsenic	7440-38-2	16	71	71	100%	4.39	149	0	0%	0	0	27.39	27/23	27
Manganese	7439-96-5	2000	71	71	100%	215	2790	0	0%	0	0	643.75	1/23	1
Mercury	7439-97-6	0.73	71	53	75%	0.0225	2.66	18	25%	0.012	0.0391	0.29	7/23	7

**Table 3-12**  
**OU-1E Soil Data – Protection of Groundwater Summary**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), NY**

Parameter Name	Parameter Code	375-6.8(b) & CP-51 PGW	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	375-6.8(b) & CP-51 PGW Frequency
<b>Semivolatile Organic Compounds</b>										
Benzo(a)anthracene	56-55-3	1	375	225	0.004	12	40	0.042	0.12	9/375
Benzo(b)fluoranthene	205-99-2	1.7	375	267	0.004	11	29	0.042	0.16	6/375
Benzo(k)fluoranthene	207-08-9	1.7	375	190	0.004	4.5	49	0.042	0.07	3/375
Chrysene	218-01-9	1	375	256	0.004	11	32	0.042	0.12	9/375
<b>Metals</b>										
Manganese	7439-96-5	2000	343	343	193	4,060	0	--	752	3/343

**Notes:**

All values are provided in milligrams per kilogram (mg/kg)

PGW: Protection of Groundwater

--: Not applicable

Parameter Name	Parameter Code	375-6.8(b) & CP-51 PGW	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	375-6.8(b) & CP-51 PGW Frequency
<b>Volatile Organic Compounds</b>										
Acetone	67-64-1	0.05	8	8	0.013	0.079	0	--	0.04	3/8
<b>Semi-Volatile Organic Compounds</b>										
Benzo(a)anthracene	56-55-3	1	26	17	0.007	2.7	35	0.004	0.1	1/26
Benzo(b)fluoranthene	205-99-2	1.7	26	20	0.005	2.6	23	0.004	0.1	1/26
Chrysene	218-01-9	1	26	20	0.005	2.4	23	0.004	0.1	1/26

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 PGW: Protection of Groundwater  
 --: Not applicable

Parameter Name	Parameter Code	375-6.8(b) & CP-51 PGW	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	375-6.8(b) & CP-51 PGW Frequency
<b>Semivolatile Organic Compounds</b>										
Benzo(a)anthracene	56-55-3	1	78	54	0.005	1.5	31	0.005	0.07	1/78
Chrysene	218-01-9	1	78	54	0.005	1.4	31	0.005	0.08	1/78
<b>Metals</b>										
Arsenic	7440-38-2	16	78	77	1.27	21	1	0.697	7	1/78
Lead	7439-92-1	450	78	78	3.5	514	--	--	41	1/78

**Notes:**  
 All values are provided in milligrams per kilogram (mg/kg)  
 PGW: Protection of Groundwater  
 --: Not applicable

Table 4-1  
OU-1A Groundwater Data – Overburden Summary  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Number of USEPA Tapwater RSL 2019 Exceedances	Number of NY TOGS Exceedances	Result Count	Detect Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detections	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Volatile Organic Compounds</b>														
1,1-Dichloroethene	75-35-4	5	--	0	8	158	25	0.9	240	84.2	5	4.1	8/158	--
1,1,1-Trichloroethane	71-55-6	5	--	0	10	158	27	0.9	900	82.9	5	9.8	10/158	--
1,1-Dichloroethane	75-34-3	5	--	0	20	158	33	1	220	79.1	5	5.8	20/158	--
1,2-Dibromo-3-chloropropane (DBCP)*	96-12-8	--	<b>0.00033</b>	1	0	5	1	4	4	80.0	10	5.8	--	1/5
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	3	--	0	30	164	54	0.5	160	67.1	10	6.8	30/164	--
1,2-Dichloroethane*	107-06-2	<b>0.6</b>	--	0	1	158	1	1	1	99.4	5	1.1	1/158	--
1,3-Dichlorobenzene	541-73-1	3	--	0	4	164	31	0.5	91	81.1	11	2.4	4/164	--
1,4-Dichlorobenzene	106-46-7	3	--	0	42	164	60	0.7	160	63.4	10	5.3	42/164	--
2-Butanone (Methyl ethyl ketone)	78-93-3	<b>50</b>	--	0	1	153	18	3	55	88.2	50	5.0	1/153	--
Acetone	67-64-1	<b>50</b>	--	0	5	148	35	3	5800	76.4	50	73.6	5/148	--
Benzene	71-43-2	1	--	0	67	295	97	0.5	850	67.1	5	28.9	67/295	--
Chlorobenzene	108-90-7	5	--	0	128	293	161	0.8	1300	45.1	5	68.8	128/293	--
Chloroethane	75-00-3	5	--	0	10	158	14	2	610	91.1	10	12.5	10/158	--
Chloroform	67-66-3	7	--	0	1	158	12	0.8	9	92.4	5	1.0	1/158	--
cis-1,2-Dichloroethene	156-59-2	5	--	0	41	288	82	0.6	110	71.5	5	4.9	41/288	--
Ethylbenzene	100-41-4	5	--	0	15	164	27	1	101	83.5	5	4.5	15/164	--
Methylene chloride (Dichloromethane)	75-09-2	5	--	0	2	158	3	3	17.9	98.1	5	2.3	2/158	--
Tetrachloroethene	127-18-4	5	--	0	2	157	7	0.8	15	95.5	5	1.1	2/157	--
Toluene	108-88-3	5	--	0	7	164	30	0.9	46	81.7	5	1.8	7/164	--
Trichloroethene (Trichloroethylene)	79-01-6	5	--	0	68	293	112	0.5	300	61.8	5	9.7	68/293	--
Vinyl chloride (Chloroethene)	75-01-4	2	--	0	7	293	26	0.6	12	91.1	10	1.0	7/293	--
Xylene (total)	1330-20-7	5	--	0	15	164	35	0.9	160	78.7	15	5.1	15/164	--
<b>Semivolatile Organic Compounds</b>														
2-Chlorophenol (o-Chlorophenol)	95-57-8	1	--	0	8	149	11	0.7	12	92.6	50	1.92	8/149	--
2-Methyl-Naphthalene	91-57-6	--	<b>36</b>	3	0	156	35	0.1	8400	77.6	10	58.57	--	3/156
2-Methylphenol (o-Cresol)	95-48-7	1	--	0	1	149	2	1	2	98.7	50	1.74	1/149	--
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	1	--	0	1	149	1	8	8	99.3	500	15.01	1/149	--
4-Methylphenol (p-Cresol)	106-44-5	1	--	0	3	149	3	3	97	98.0	5	2.55	3/149	--
Acenaphthene	83-32-9	<b>20</b>	--	0	7	159	40	0.2	63	74.8	11	3.48	7/159	--
Benzo(a)anthracene	56-55-3	<b>0.002</b>	--	0	31	159	31	0.1	26	80.5	11	1.58	31/159	--
Benzo(a)pyrene	50-32-8	--	<b>0.025</b>	27	0	159	27	0.1	27	83.0	11	1.54	--	27/159
Benzo(b)fluoranthene	205-99-2	<b>0.002</b>	--	0	30	159	30	0.1	37	81.1	11	1.80	30/159	--
Benzo(k)fluoranthene	207-08-9	<b>0.002</b>	--	0	23	159	23	0.1	13	85.5	11	1.22	23/159	--
bis(2-Chloroethyl) ether	111-44-4	1	--	0	4	159	9	0.8	2	94.3	50	1.92	4/159	--
bis(2-chloroisopropyl) ether	108-60-1	5	--	0	1	159	1	35.1	35.1	99.4	50	2.12	1/159	--
bis(2-Ethylhexyl)phthalate	117-81-7	5	--	0	30	159	51	1.1	2800	67.9	20	43.82	30/159	--
Chrysene	218-01-9	<b>0.002</b>	--	0	34	159	34	0.1	26	78.6	11	1.63	34/159	--
Di-n-octylphthalate	117-84-0	<b>50</b>	--	0	1	159	3	6	66	98.1	200	6.32	1/159	--
Dibenz(a,h)anthracene	53-70-3	--	<b>0.025</b>	14	0	159	14	0.1	5	91.2	11	1.00	--	14/159
Dibenzofuran	132-64-9	--	<b>7.9</b>	1	0	156	22	0.5	180	85.9	11	2.78	--	1/156
Fluoranthene	206-44-0	<b>50</b>	--	0	2	159	44	0.2	53	72.3	11	2.66	2/159	--
Fluorene	86-73-7	<b>50</b>	--	0	1	159	46	0.2	210	71.1	11	2.81	1/159	--
Hexachloroethane	67-72-1	5	--	0	1	159	1	17.7	17.7	99.4	100	3.17	1/159	--
Indeno(1,2,3-cd)Pyrene	193-39-5	<b>0.002</b>	--	0	24	159	24	0.1	13	84.9	11	1.25	24/159	--
Naphthalene	91-20-3	<b>10</b>	--	0	10	159	49	0.1	1500	69.2	10	13.99	10/159	--
Nitrobenzene*	98-95-3	<b>0.4</b>	--	0	1	159	1	1.6	1.6	99.4	50	1.88	1/159	--
Pentachlorophenol*	87-86-5	1	--	0	1	149	1	2	2	99.3	100	3.95	1/149	--
Phenanthrene	85-01-8	<b>50</b>	--	0	2	159	46	0.1	340	71.1	11	4.47	2/159	--
Phenol	108-95-2	1	--	0	12	149	13	1	18	91.3	50	2.18	12/149	--

Table 4-1  
OU-1A Groundwater Data – Overburden Summary  
Chevron Environmental Management Company  
Former Texaco Research Center  
Beacon (Glenham), NY

Parameter Name	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Number of USEPA Tapwater RSL 2019 Exceedances	Number of NY TOGS Exceedances	Result Count	Detect Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detections	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Metals</b>														
Aluminum	7429-90-5	100	--	0	135	153	141	8.5	1020000	7.8	82.8	71672	135/153	--
Antimony	7440-36-0	3	--	0	20	153	20	3.6	49.9	86.9	35	8	20/153	--
Arsenic	7440-38-2	25	--	0	38	156	60	7	704	61.5	10.2	45	38/156	--
Barium	7440-39-3	1000	--	0	20	156	156	0.091	4790	0.0	--	461	20/156	--
Beryllium	7440-41-7	3	--	0	31	153	47	0.68	215	69.3	1.4	10	31/153	--
Cadmium	7440-43-9	5	--	0	10	156	36	0.4	20.3	76.9	5	2	10/156	--
Chromium	7440-47-3	50	--	0	37	156	102	0.024	3740	34.6	3.4	136	37/156	--
Cobalt	7440-48-4	5	--	0	45	153	67	1.4	740	56.2	5.2	53	45/153	--
Copper	7440-50-8	200	--	0	28	153	94	0.021	1930	38.6	15	134	28/153	--
Iron	7439-89-6	300	--	0	138	153	151	17.4	3050000	1.3	52.2	152946	138/153	--
Lead	7439-92-1	25	--	0	53	156	85	0.01	7400	45.5	6.9	278	53/156	--
Magnesium	7439-95-4	35000	--	0	41	153	153	22.7	501000	0.0	--	49624	41/153	--
Manganese	7439-96-5	300	--	0	240	285	285	0.54	44300	0.0	--	3640	240/285	--
Nickel	7440-02-0	100	--	0	26	153	80	1.3	748	47.7	5.6	65	26/153	--
Selenium	7782-49-2	10	--	0	8	156	9	7.8	43.3	94.2	75	12	8/156	--
Silver	7440-22-4	50	--	0	1	156	14	1.6	75.4	91.0	12	3	1/156	--
Sodium	7440-23-5	20000	--	0	129	153	153	29.9	625000	0.0	--	104796	129/153	--
Thallium	7440-28-0	0.5	--	0	23	153	23	5.8	117	85.0	67.5	17	23/153	--
Vanadium	7440-62-2	--	86	32	0	153	107	1.5	1730	30.1	2.5	117	--	32/153
Zinc	7440-66-6	2000	--	0	9	153	125	0.058	5700	18.3	46.6	417	9/153	--
Mercury	7439-97-6	0.7	--	0	32	156	54	0.06	89.6	65.4	0.09	2.34	32/156	--

**Notes:**

All values are provided in micrograms per liter (ug/L)  
NY TOGS: New York Technical and Operational Guidance Series  
USEPA: United States Environmental Protection Agency  
RSL: Regional Screening Levels

--: Not applicable

\* Data set include data points having non detected result reported above standard or criteria

Parameter Name	Parameter Code	NY TOGS	USEPA Tapwater RSL	Number of USEPA	Number of NY TOGS	Result Count	Detect Count	Minimum Detect	Maximum Detect	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	NY TOGS Exceedances
<b>Volatile Organic Compounds</b>													
1,1-Dichloroethene	75-35-4	5	--	0	49	380	95	0.8	680	75.0	50	36.05	49/380
1,1,1-Trichloroethane	71-55-6	5	--	0	37	380	76	0.8	29000	80.0	25	171.23	37/380
1,1-Dichloroethane	75-34-3	5	--	0	78	380	128	1	150	66.3	5	7.71	78/380
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	3	--	0	68	369	120	0.5	730	67.5	10	13.91	68/369
1,2-Dichloroethane	107-06-2	0.6	--	0	2	380	2	2	2	99.5	50	1.68	2/380
1,2-Dichloroethene	540-59-0	5	--	0	3	21	3	26	85	85.7	0.8	9.07	3/21
1,3-Dichlorobenzene	541-73-1	3	--	0	7	369	47	0.6	7	87.3	50	1.56	7/369
1,4-Dichlorobenzene	106-46-7	3	--	0	67	369	97	0.5	43	73.7	10	3.66	67/369
2-Butanone (Methyl ethyl ketone)	78-93-3	50	--	0	1	353	31	3	55	91.2	150	5.94	1/353
Acetone	67-64-1	50	--	0	7	328	57	3	400	82.6	300	13.20	7/328
Benzene	71-43-2	1	--	0	147	595	237	0.5	560	60.2	50	6.82	147/595
Carbon Tetrachloride	56-23-5	5	--	0	3	380	7	1	48	98.2	50	1.93	3/380
Chlorobenzene	108-90-7	5	--	0	199	595	302	0.6	3100	49.2	40	73.03	199/595
Chloroethane	75-00-3	5	--	0	24	380	31	1	110	91.8	50	3.30	24/380
Chloroform	67-66-3	7	--	0	12	380	37	0.8	55	90.3	50	2.10	12/380
Chloromethane (Methyl chloride)	74-87-3	5	--	0	1	380	1	18	18	99.7	100	2.07	1/380
cis-1,2-Dichloroethene	156-59-2	5	--	0	178	574	241	0.6	1000	58.0	25	53.71	178/574
Ethylbenzene	100-41-4	5	--	0	26	389	62	0.8	580	84.1	20	6.20	26/389
Methyl-t-butyl ether	1634-04-4	10	--	0	1	358	33	0.5	110	90.8	25	1.12	1/358
Methylene chloride (Dichloromethane)	75-09-2	5	--	0	7	380	11	0.8	24	97.1	100	2.98	7/380
o-Xylene	95-47-6	--	190	1	0	15	8	0.5	250	46.7	3	20.56	--
Tetrachloroethene	127-18-4	5	--	0	9	379	10	0.8	43	97.4	50	1.62	9/379
Toluene	108-88-3	5	--	0	34	389	75	0.7	340	80.7	25	5.93	34/389
trans-1,2-Dichloroethene	156-60-5	5	--	0	8	354	32	0.8	91	91.0	50	2.70	8/354
Trichloroethene (Trichloroethylene)	79-01-6	5	--	0	198	594	252	0.5	1200	57.6	25	73.18	198/594
Vinyl chloride (Chloroethene)	75-01-4	2	--	0	133	595	174	0.6	130	70.8	50	5.12	133/595
Xylene (total)	1330-20-7	5	--	0	37	389	67	0.8	980	82.8	75	8.89	37/389
<b>Semivolatile Organic Compounds</b>													
1,4-Dioxane	123-91-1	--	0.46	1	0	3	1	5.6	5.6	66.7	0.4	2.13	--
2-Chlorophenol (o-Chlorophenol)	95-57-8	1	--	0	13	326	23	0.7	17	92.9	1	1.00	13/326
2-Methyl-Naphthalene	91-57-6	--	36	1	0	347	40	0.1	1200	88.5	10	4.66	--
2-Methylphenol (o-Cresol)	95-48-7	1	--	0	1	326	3	0.5	3	99.1	1	0.81	1/326
4-Methylphenol (p-Cresol)	106-44-5	1	--	0	5	326	5	7	430	98.5	2	3.01	5/326
Acenaphthene	83-32-9	20	--	0	1	352	59	0.1	31	83.2	10	1.19	1/352
Benzo(a)anthracene	56-55-3	0.002	--	0	12	352	12	0.2	1.2	96.6	10	0.95	12/352
Benzo(a)pyrene*	50-32-8	--	0.025	11	0	352	11	0.1	0.8	96.9	10	0.95	--
Benzo(b)fluoranthene	205-99-2	0.002	--	0	11	352	11	0.2	1	96.9	10	0.95	11/352
Benzo(k)fluoranthene*	207-08-9	0.002	--	0	9	352	9	0.1	0.5	97.4	10	0.94	9/352
bis(2-Chloroethyl) ether	111-44-4	1	--	0	31	351	36	1	160	89.7	10	2.65	31/351
bis(2-Ethylhexyl)phthalate	117-81-7	5	--	0	31	352	61	1	360	82.7	34	6.06	31/352
Chrysene	218-01-9	0.002	--	0	13	352	13	0.1	1.1	96.3	10	0.95	13/352
Dibenz(a,h)anthracene*	53-70-3	--	0.025	2	0	352	2	0.1	0.2	99.4	10	0.94	--
Dibenzofuran	132-64-9	--	7.9	1	0	347	31	0.6	17	91.1	10	1.14	--
Indeno(1,2,3-cd)Pyrene*	193-39-5	0.002	--	0	10	352	10	0.1	0.8	97.2	10	0.94	10/352
Naphthalene	91-20-3	10	--	0	13	358	71	0.1	130	80.2	10	2.50	13/358
Phenol	108-95-2	1	--	0	14	326	17	0.5	1200	94.8	1	5.26	14/326
<b>Metals</b>													
Aluminum	7429-90-5	100	--	0	237	335	257	0.32	71500	23.3	82.8	1521.01	237/335
Antimony	7440-36-0	3	--	0	6	335	6	4	15.6	98.2	9.7	7.57	6/335
Arsenic	7440-38-2	25	--	0	7	335	55	0.019	43.2	83.6	10.2	9.45	7/335
Beryllium	7440-41-7	3	--	0	2	335	14	0.012	7.8	95.8	4.7	2/335	--
Cadmium	7440-43-9	5	--	0	1	335	33	0.009	8.6	90.1	2	1.25	1/335
Chromium	7440-47-3	50	--	0	5	334	119	0.01	230	64.4	3.4	5.37	5/334
Cobalt	7440-48-4	5	--	0	6	335	34	0.072	25.9	89.9	5	2.13	6/335
Iron	7439-89-6	300	--	0	236	335	320	0.85	80700	4.5	52.2	3792.46	236/335
Lead	7439-92-1	25	--	0	12	335	61	0.082	844	81.8	6.9	10.91	12/335
Magnesium	7439-95-4	35000	--	0	88	335	334	20	152000	0.3	5	23573.94	88/335
Manganese	7439-96-5	300	--	0	283	547	543	0.55	14800	0.7	1	1323.60	283/547
Selenium	7782-49-2	10	--	0	2	335	5	0.005	11.8	98.5	10.7	8.97	2/335
Sodium	7440-23-5	20000	--	0	239	334	334	5.9	912000	0.0	--	85600.05	239/334
Thallium	7440-28-0	0.5	--	0	12	335	12	6.1	21.4	96.4	67.5	12.28	12/335
Mercury	7439-97-6	0.7	--	0	4	335	17	0.0004	33	94.9	5	0.20	4/335

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	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Result Count	Detect Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detections	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Volatile Organic Compounds</b>												
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	3	--	287	17	0.7	7	94.08	1	0	7/287	--
Acetone	67-64-1	50	--	149	33	8	110	77.85	11	0	7/149	--
Benzene	71-43-2	1	--	258	69	0.5	550	73.26	1	0	61/258	--
Methyl-t-butyl ether	1634-04-4	10	--	214	32	0.6	110	85.05	1	0	12/214	--
Toluene	108-88-3	5	--	225	29	0.8	55	87.11	1	0	6/225	--
Xylene (total)	1330-20-7	5	--	220	32	0.9	1500	85.45	1	0	18/220	--
<b>Semivolatile Organic Compounds</b>												
2-Methyl-Naphthalene	91-57-6	--	36	209	27	0.1	170	87.08	10	0.129	--	9/209
2-Methylphenol (o-Cresol)	95-48-7	1	--	205	3	1	2	98.54	10	0.015	2/205	--
4-Methylphenol (p-Cresol)	106-44-5	1	--	205	3	2	4	98.54	10	0.015	3/205	--
Benzo(a)anthracene	56-55-3	0.002	--	216	5	0.1	0.4	97.69	10	0.023	5/216	--
Benzo(a)pyrene	50-32-8	--	0.025	216	7	0.1	0.4	96.76	10	0.032	--	7/216
Benzo(b)fluoranthene	205-99-2	0.002	--	216	7	0.1	0.5	96.76	10	0.032	7/216	--
Benzo(k)fluoranthene	207-08-9	0.002	--	216	1	0.2	0.2	99.54	10	0.005	1/216	--
bis(2-Ethylhexyl)phthalate	117-81-7	5	--	214	24	2	14	88.79	14	0.112	5/214	--
Chrysene	218-01-9	0.002	--	216	6	0.1	0.8	97.22	10	0.028	6/216	--
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	--	216	3	0.1	0.3	98.61	10	0.014	3/216	--
Naphthalene	91-20-3	10	--	225	22	0.1	260	90.22	10	0.098	7/225	--
Phenol	108-95-2	1	--	205	8	0.6	36	96.10	10	0.039	5/205	--
<b>Metals</b>												
Aluminum	7429-90-5	100	--	143	119	87.4	30200	16.78	80.2	1	117/143	--
Antimony	7440-36-0	3	--	143	4	10.1	33	97.20	9.7	0	4/143	--
Arsenic	7440-38-2	25	--	143	63	8.4	233	55.94	52	0	48/143	--
Cadmium	7440-43-9	5	--	143	14	0.43	9	90.21	5	0	3/143	--
Chromium	7440-47-3	50	--	143	74	1.1	968	48.25	3.4	1	5/143	--
Cobalt	7440-48-4	5	--	143	62	0.71	33.6	56.64	13.8	0	23/143	--
Iron	7439-89-6	300	--	143	140	55.2	66200	2.10	52.2	1	129/143	--
Lead	7439-92-1	25	--	170	76	3	131	55.29	15	0	13/170	--
Magnesium	7439-95-4	35000	--	143	143	4190	44100	--	--	1	6/143	--
Manganese	7439-96-5	300	--	176	176	1.6	17900	--	--	1	139/176	--
Nickel	7440-02-0	100	--	143	66	1.1	189	53.85	5.6	0	4/143	--
Selenium	7782-49-2	10	--	143	2	7.7	12.3	98.60	10.7	0	1/143	--
Sodium	7440-23-5	20000	--	143	143	5380	435000	--	--	1	132/143	--
Thallium	7440-28-0	0.5	--	143	2	7.4	8.5	98.60	30	0.01	2/143	--

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Parameter name	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detections	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Metals</b>												
Aluminum	7429-90-5	100	--	8	8	1920	305000	--	--	91449	8/8	--
Arsenic	7440-38-2	25	--	8	8	2	169	--	--	51	4/8	--
Barium	7440-39-3	1000	--	8	8	36.5	1630	--	--	409	1/8	--
Beryllium	7440-41-7	3	--	8	7	0.12	16.8	12.5	0.091	5	4/8	--
Chromium	7440-47-3	50	--	8	8	3	533	--	--	128	4/8	--
Cobalt	7440-48-4	5	--	8	8	1.1	300	--	--	86	4/8	--
Copper	7440-50-8	200	--	8	5	13.1	819	37.5	9.9	246	3/8	--
Iron	7439-89-6	300	--	8	8	2810	674000	--	--	198826	8/8	--
Lead	7439-92-1	25	--	8	8	2	455	--	--	131	4/8	--
Magnesium	7439-95-4	35000	--	8	8	14400	255000	--	--	61563	3/8	--
Manganese	7439-96-5	300	--	8	8	63.9	29500	--	--	8003	7/8	--
Manganese (Dissolved)	7439-96-5	300	--	8	8	17.7	1030	--	--	405	4/8	--
Nickel	7440-02-0	100	--	8	8	2.7	580	--	--	158	3/8	--
Sodium	7440-23-5	20000	--	8	8	37600	404000	--	--	222538	8/8	--
Sodium (Dissolved)	7440-23-5	20000	--	8	8	32700	412000	--	--	221050	8/8	--
Thallium	7440-28-0	0.5	--	8	4	0.41	1.5	50	0.11	0.6	3/8	--
Vanadium	7440-62-2	--	86	8	8	2.9	584	--	--	132	--	3/8
Mercury	7439-97-6	0.7	--	8	4	0.37	2.4	50	0.05	0.5	2/8	--

**Notes:**

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\* Data set include data points having non detected result reported above standard or criteria

Parametr Name	Code	NY TOGS	Tapwater RSL	Result Count	Count	Detection	Detection	Frequency (%)	Non Detection	Mean	Exceedances	Tapwater
<b>Volatile Organic Compounds</b>												
1,2-Dichloroethene	540-59-0	5	--	225	23	0.7	18	1	0.8	1	8/225	--
Methyl-t-butyl ether	1634-04-4	10	--	214	1	59	59	1	1	1	1/214	--
Trichloroethene (Trichloroethylene)	79-01-6	5	--	244	57	0.7	31	1	8	3	45/244	--
<b>Semivolatile Organic Compounds</b>												
1,4-Dioxane	123-91-1	--	0.46	21	1	2.2	2.2	1	50	38.50	--	1/21
2,6-Dinitrotoluene	606-20-2	5	--	218	1	11	11	1	2	0.86	1/218	--
2-Methylphenol (o-Cresol)	95-48-7	1	--	218	1	2	2	1	10	1.41	1/218	--
Benzo(a)anthracene	56-55-3	0.002	--	218	9	0.1	4	1	1	0.56	9/218	--
Benzo(a)pyrene	50-32-8	--	0.025	218	14	0.2	5	1	1	0.57	--	14/218
Benzo(b)fluoranthene	205-99-2	0.002	--	218	15	0.1	8	1	2	0.67	15/218	--
Benzo(k)fluoranthene	207-08-9	0.002	--	218	10	0.1	3	1	1	0.55	10/218	--
Chrysene	218-01-9	0.002	--	218	13	0.1	6	1	2	0.66	13/218	--
Dibenz(a,h)anthracene	53-70-3	--	0.025	218	4	0.1	0.8	1	1	0.53	--	4/218
Hexachlorobutadiene	87-68-3	0.5	--	218	30	0.6	6	1	1	1.08	30/218	--
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	--	218	12	0.1	4	1	2	0.63	12/218	--
Nitrobenzene	98-95-3	0.4	--	218	1	1	1	1	1	0.74	1/218	--
<b>Metals</b>												
Aluminum	7429-90-5	100	--	3	3	12700	29800	--	--	18533	3/3	--
Cobalt	7440-48-4	5	--	3	3	8.2	31.8	--	--	16	3/3	--
Iron	7439-89-6	300	--	3	3	30200	64600	--	--	51633	3/3	--
Lead	7439-92-1	25	--	85	40	0	53.5	1	6.9	11	10/85	--
Magnesium	7439-95-4	35000	--	3	3	8770	61300	--	--	29290	1/3	--
Manganese	7439-96-5	300	--	3	3	758	2620	--	0	1427	3/3	--

**Notes:**

All values are provided in micrograms per liter (ug/L).  
 NY TOGS: New York Technical and Operational Guidance Series  
 USEPA: United States Environmental Protection Agency  
 RSL: Regional Screening Levels  
 --: Not applicable  
 \* Data set include data points having non detected result reported above standard or criteria

Parameter Name	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Volatile Organic Compounds</b>												
Acetone	67-64-1	50	--	2	2	12	56	--	--	34	1/2	--
<b>Semivolatile Organic Compounds</b>												
Benzo(a)anthracene	56-55-3	0.002	--	2	1	0.3	0.3	50	0.1	0.200	1/2	--
Benzo(a)pyrene	50-32-8	--	0.025	2	1	0.4	0.4	50	0.1	0.250	--	1/2
Benzo(b)fluoranthene	205-99-2	0.002	--	2	1	0.5	0.5	50	0.1	0.300	1/2	--
Benzo(k)fluoranthene	207-08-9	0.002	--	2	1	0.2	0.2	50	0.1	0.150	1/2	--
Chrysene	218-01-9	0.002	--	2	1	0.4	0.4	50	0.1	0.250	1/2	--
Indeno(1,2,3-cd)Pyrene	193-39-5	0.002	--	2	1	0.3	0.3	50	0.1	0.200	1/2	--
<b>Metals</b>												
Aluminum	7429-90-5	100	--	2	2	180000	1730000	--	--	955000	2/2	--
Aluminum (Dissolved)	7429-90-5	100	--	2	1	1320	1320	50	19.7	670	1/2	--
Arsenic	7440-38-2	25	--	2	2	43.1	61.1	--	--	52	2/2	--
Barium	7440-39-3	1000	--	2	2	720	1330	--	--	1025	1/2	--
Beryllium	7440-41-7	3	--	2	2	6.8	12.7	--	--	10	2/2	--
Cadmium (Dissolved)	7440-43-9	5	--	2	1	5.2	5.2	50	0.15	3	1/2	--
Chromium	7440-47-3	50	--	2	2	289	511	--	--	400	2/2	--
Cobalt	7440-48-4	5	--	2	2	106	199	--	--	153	2/2	--
Cobalt (Dissolved)	7440-48-4	5	--	2	2	3.6	352	--	--	178	1/2	--
Copper	7440-50-8	200	--	2	2	259	433	--	--	346	2/2	--
Iron	7439-89-6	300	--	2	2	220000	2040000	--	--	1130000	2/2	--
Iron (Dissolved)	7439-89-6	300	--	2	2	24.5	25600	--	--	12812	1/2	--
Lead	7439-92-1	25	--	2	2	137	272	--	--	205	2/2	--
Magnesium	7439-95-4	35000	--	2	2	71500	594000	--	--	332750	2/2	--
Magnesium (Dissolved)	7439-95-4	35000	--	2	2	32300	113000	--	--	72650	1/2	--
Manganese	7439-96-5	300	--	2	2	14300	65700	--	--	40000	2/2	--
Manganese (Dissolved)	7439-96-5	300	--	2	2	4630	55100	--	--	29865	2/2	--
Nickel	7440-02-0	100	--	2	2	268	2490	--	--	1379	2/2	--
Nickel (Dissolved)	7440-02-0	100	--	2	2	5.7	233	--	--	119	1/2	--
Sodium	7440-23-5	20000	--	2	2	19000	192000	--	--	105500	1/2	--
Sodium (Dissolved)	7440-23-5	20000	--	2	2	86500	295000	--	--	190750	2/2	--
Thallium	7440-28-0	0.5	--	2	2	1	1.5	--	--	1	2/2	--
Vanadium	7440-62-2	--	86	2	2	191	312	--	--	252	--	2/2
Mercury	7439-97-6	0.7	--	2	2	0.32	4.2	--	--	2.3	1/2	--

**Notes:**

All values are provided in micrograms per liter (ug/L)  
 NY TOGS: New York Technical and Operational Guidance Series  
 USEPA: United States Environmental Protection Agency  
 RSL: Regional Screening Levels  
 --: Not applicable  
 \* Data set include data points having non detected result reported above standard or criteria

Parameter Name	Parameter Code	NY TOGS	USEPA Tapwater RSL 2019	Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean	NY TOGS Exceedances Frequency	USEPA Tapwater Exceedances Frequency
<b>Volatile Organic Compounds</b>												
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	--	<b>0.00033</b>	1	1	4	4	--	--	4.0	--	1/1
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	<b>3</b>	--	46	8	0.8	4	83	10	1.3	1/46	--
1,4-Dichlorobenzene	106-46-7	<b>3</b>	--	46	9	1	9	80	10	1.8	4/46	--
Benzene	71-43-2	<b>1</b>	--	54	17	0.5	12	69	1	1.6	14/54	--
Chlorobenzene	108-90-7	<b>5</b>	--	53	18	1	44	66	0.8	6.6	14/53	--
Toluene	108-88-3	<b>5</b>	--	46	4	0.9	12	91	5	1.1	1/46	--
<b>Semivolatile Organic Compounds</b>												
Benzo(a)anthracene	56-55-3	<b>0.002</b>	--	42	4	2	5	90	11	1.331	4/42	--
Benzo(a)pyrene	50-32-8	--	<b>0.025</b>	42	4	2	5	90	11	1.307	--	4/42
Benzo(b)fluoranthene	205-99-2	<b>0.002</b>	--	42	5	0.1	6	88	11	1.355	5/42	--
Benzo(k)fluoranthene	207-08-9	<b>0.002</b>	--	42	3	2	2	93	11	1.164	3/42	--
bis(2-Ethylhexyl)phthalate	117-81-7	<b>5</b>	--	42	3	3	19	93	20	4.119	2/42	--
Chrysene	218-01-9	<b>0.002</b>	--	42	5	0.1	6	88	11	1.379	5/42	--
Dibenz(a,h)anthracene	53-70-3	--	<b>0.025</b>	42	2	0.5	0.7	95	11	1.074	--	2/42
Indeno(1,2,3-cd)Pyrene	193-39-5	<b>0.002</b>	--	42	4	1	3	90	11	1.164	4/42	--
<b>Metals</b>												
Aluminum	7429-90-5	<b>100</b>	--	36	30	106	12900	17	80.2	1406	30/36	--
Arsenic	7440-38-2	<b>25</b>	--	38	4	6.9	31.5	89	10.2	9	1/38	--
Cadmium	7440-43-9	<b>5</b>	--	38	5	0.44	8.6	87	5	1	1/38	--
Chromium	7440-47-3	<b>50</b>	--	38	28	1.4	172	26	3.4	30	7/38	--
Cobalt	7440-48-4	<b>5</b>	--	36	6	0.66	6.8	83	2.1	2	1/36	--
Iron	7439-89-6	<b>300</b>	--	36	36	69	26000	--	--	2684	26/36	--
Lead	7439-92-1	<b>25</b>	--	38	8	6.3	46.8	79	15	9	1/38	--
Magnesium	7439-95-4	<b>35000</b>	--	36	36	3220	68500	--	--	22558	7/36	--
Magnesium (Dissolved)	7439-95-4	<b>35000</b>	--	4	4	25200	68400	--	--	37775	1/4	--
Manganese	7439-96-5	<b>300</b>	--	45	45	5.7	7860	--	--	963	20/45	--
Sodium	7440-23-5	<b>20000</b>	--	36	36	989	912000	--	--	128422	28/36	--
Sodium (Dissolved)	7440-23-5	<b>20000</b>	--	4	4	24200	69000	--	--	42575	4/4	--

**Notes:**

All values are provided in micrograms per liter (ug/L)  
 NY TOGS: New York Technical and Operational Guidance Series  
 USEPA: United States Environmental Protection Agency  
 RSL: Regional Screening Levels  
 --: Not applicable  
 \* Data set include data points having non detected result reported above standard or criteria

**Table 4-8**  
**1,4-Dioxane Groundwater Sampling Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center**  
**Beacon (Glenham), New York**

Location ID	DB-8A	DC-2	SWMW-125	SWMW-140	SWMW-41	SWMW-62	SWMW-67	SWMW-67	EB-WF1-191203	FB-W-191203	EB-WE1-191204
Field Sample ID	DB-8A-W-191204	DC-2-W-191204	SWMW-125-W-191204	SWMW-140-W-191204	SWMW-41-W-191205	SWMW-62-W-191205	SWMW-67-W-191205	FD-1-WF1-191205	EB-WF1-191203	FB-W-191203	EB-WE1-191204
Date	12/3/2019	12/3/2019	12/4/2019	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019	12/3/2019	12/3/2019	12/4/2019
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Parameter											
1,4-Dioxane	2.2	< 0.4 J	< 0.4	< 0.4	5.6	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4 J	< 0.4

Location ID	FB-W-191204	FB-W-191205	EB-WE-191205	FB-W-191205	EB-WE-191205							
Field Sample ID	FB-W-191204	FB-W-191205	EB-WE-191205	FB-W-191205	EB-WE-191205							
Date	12/4/2019	12/5/2019	12/5/2019	12/5/2019	12/5/2019							
Matrix	WATER	WATER	WATER	WATER	WATER							
Parameter						Result Count	Detection Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean
1,4-Dioxane	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	8	2	2.2	5.6	75%	0.4	1.28

**Notes:**

All values are provided in micrograms per liter (mg/kg)

< : Indicates the analyte was analyzed for but not detected.

J : The compound was not detected above the reported sample quantitation limit. Reported limit is approximate and may or may not represent the actual limit of Quantitation

Table 4-9  
 PFAS Analytical Results  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		DB-8A	DC-2	ITMW-25	SWMW-21	SWMW-59	SWMW-59	ITMW-2	ITMW-2	SWMW-140							
Field Sample ID	Units	DB-8A-W-191028	DC-2-W-191028	ITMW-25-W-191028	SWMW-21-W-191029	SWMW-59-W-191029	FD-1-WF1-191029	ITMW-2-W-191031	FD-1-W-191031	SWMW-140-W-191031	Result Count	Detect Count	Minimum Detection	Maximum Detection	Non Detection Frequency (%)	Maximum Non Detection	Arithmetic Mean
Date		10/28/2019	10/28/2019	10/28/2019	10/29/2019	10/29/2019	10/29/2019	10/31/2019	10/31/2019	10/31/2019							
1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	ng/L	3.2 J	2.5 J	6.8 J	< 17 J	< 19	< 20	11 J	12 J	< 18	9	5	2.5	12	44%	20	12.17
1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	ng/L	< 16	< 18	< 18 J	< 17 J	< 19 J	< 20	< 18	< 18	< 18	9	0	0	0	100%	20	18.00
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine (N-ethylperfluorooctanesulfonamidoacetic acid (NEFOSAA))	ng/L	< 16	< 18	< 18	< 17	< 19	< 20	< 18	< 18	< 18	9	0	0	0	100%	20	18.00
2-(N-methyl perfluorooctanesulfonamido) acetic acid (N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA))	ng/L	< 16	< 18	< 18	< 17	< 19	< 20	< 18	< 18	< 18	9	0	0	0	100%	20	18.00
Perfluorobutanesulfonic acid (PFBS)	ng/L	< 1.6	< 1.8	1.1 J	< 1.7	1.1 J	0.69 J	1.6 J	1.4 J	1.3 J	9	6	0.69	1.6	33%	1.8	1.37
Perfluorobutanoic acid (PFBA)	ng/L	2.3 B	0.44 B	12	3.8 J	7.4	6.2	5.1	5.4	3 B	9	9	0.44	12	0%	0	5.07
Perfluorodecanesulfonic acid (PFDS)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	0	0	0	100%	2	1.80
Perfluorodecanoic acid (PFDA)	ng/L	< 1.6	< 1.8	1.2 J	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	1	1.2	1.2	89%	2	1.73
Perfluorododecanoic acid (PFDoA)	ng/L	< 1.6	0.69 J	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	1	0.69	0.69	89%	2	1.68
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	0.39 J	9	1	0.39	0.39	89%	2	1.64
Perfluoroheptanoic acid (PFHpA)	ng/L	< 1.6	< 1.8	9	0.97 J	2.7	2.3	9.1	8.9	0.56 J	9	7	0.56	9.1	22%	1.8	4.10
Perfluorohexanesulfonic acid (PFHxS)	ng/L	< 1.6	< 1.8	1.4 J	< 1.7	< 1.9	1.2 J	0.48 B	0.58 B	1.9	9	5	0.48	1.9	44%	1.9	1.40
Perfluorohexanoic acid (PFHxA)	ng/L	< 1.6	< 1.8	8.9	< 1.7	3.5	2.6	6	5.6	0.61 J	9	6	0.61	8.9	33%	1.8	3.59
Perfluorononanoic acid (PFNA)	ng/L	< 1.6	< 1.8	1.2 J	< 1.7	0.81 J	0.84 J	0.35 J	0.31 J	0.5 J	9	6	0.31	1.2	33%	1.8	1.01
Perfluorooctanesulfonamide (FOSA)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	0	0	0	100%	2	1.80
Perfluorooctanesulfonic acid (PFOS)	ng/L	1.3 J	< 1.8	10	5.9 J	6.8 J	7 J	1.5 J	1.6 J	15	9	8	1.3	15	11%	1.8	5.66
Perfluorooctanoic acid (PFOA)	ng/L	10	< 1.8	10	3.6	6	5.2	5	5	3.7	9	8	3.6	10	11%	1.8	5.59
Perfluoropentanoic acid (PFPeA)	ng/L	0.81 J	< 1.8	13	1.3 J	3.8	3.4	5.5	5.6	0.6 J	9	8	0.6	13	11%	1.8	3.98
Perfluorotetradecanoic acid (PFTeA)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	0	0	0	100%	2	1.80
Perfluorotridecanoic acid (PFTriA)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9 J	< 2	< 1.8	< 1.8	< 1.8	9	0	0	0	100%	2	1.80
Perfluoroundecanoic acid (PFUnA)	ng/L	< 1.6	< 1.8	< 1.8	< 1.7	< 1.9	< 2	< 1.8	< 1.8	< 1.8	9	0	0	0	100%	2	1.80
<b>Total PFAS</b>	<b>ng/L</b>	<b>15.31</b>	<b>3.19</b>	<b>74.6</b>	<b>15.57</b>	<b>32.11</b>	<b>29.43</b>	<b>45.15</b>	<b>45.81</b>	<b>24.56</b>							

**Notes:**

All values are provided in nanograms per liter (ng/L).

< : Indicates the analyte was analyzed for but not detected.

J : The compound was not detected above the reported sample quantitation limit. Reported limit is approximate and may or may not represent the actual limit of Quantitation

B: The compound has been detected in blank sample

Table 5-1  
 Surface Water Data Summary  
 Chevron Environmental Management Company  
 Former Texaco Research Center  
 Beacon (Glenham), NY

Parameter Name	Parameter Code	New York Class C Ambient Water Quality Standards	Total Count	No. Detect	Frequency of Detects	Detection Frequency (%)	Detect Range	Minimum Non-Detect	Maximum Non-Detect	Median Value	Arithmetic Average	New York Class C Ambient Water Quality Standards
<b>Metals</b>												
Aluminum	7429-90-5	<b>100</b>	12	12	12/12	100	36.5-192			70	83.9	2
Iron	7439-89-6	<b>300</b>	12	12	12/12	100	122-350			164	182	1
Mercury	7439-97-6	<b>0.0026</b>	12	3	3/12	25	0.00305-0.0039	0.0028	0.0028	0.0014	0.0019	3
Mercury_Filtered	7439-97-6	<b>0.0026</b>	12	2	2/12	16.7	0.00344-0.004	0.0028	0.0028	0.0014	0.00179	2

Table 5-2  
 Sediment Data Summary  
 Chevron Environmental Management Company  
 Former Texaco Research Center  
 Beacon (Glenham), NY

Parameter Name	Freshwater Class A Sediment	Freshwater Class C Sediment	Detection Frequency	Total Count	Result Count	Detection Frequency (%)	Minimum Non-Detect	Maximum Non-Detect	Median Value	Arithmetic Average	Freshwater Class A Sediment	Freshwater Class C Sediment
<b>Semivolatile Organic Compounds</b>												
Total PAH	<b>4000</b>	<b>35000</b>	80/80	80	80	100			294	5130	1	1
<b>Metals</b>												
Arsenic	<b>10</b>	<b>33</b>	80/80	80	80	100			4	4.27	1	0
Chromium	<b>43</b>	<b>110</b>	80/80	80	80	100			20.3	22.4	3	0
Cobalt	--	--	80/80	80	80	100			11.2	11.4	0	0
Copper	<b>32</b>	<b>150</b>	80/80	80	80	100			17.9	23.1	17	0
Lead	<b>36</b>	<b>130</b>	80/80	80	80	100			16.3	22.6	16	0
Nickel	<b>23</b>	<b>49</b>	80/80	80	80	100			27.3	27.7	60	0
Potassium	--	--	80/80	80	80	100			1200	1320	0	0
Selenium	--	--	66/80	66	80	82.5	0.106	0.129	0.302	0.427	0	0
Silver	<b>1</b>	<b>2.2</b>	60/80	60	80	75	0.0198	0.0308	0.0595	0.145	1	0
Zinc	<b>120</b>	<b>460</b>	80/80	80	80	100			80.8	106	25	0
Mercury	<b>0.2</b>	<b>1</b>	39/80	39	80	48.8	0.0098	0.569	0.106	0.124	4	0

**Notes:**

Grey Background: Result Exceeds Class A Sediment Guidance Values

**Bolded:** Result Exceeds Class C Sediment Guidance Values

< = Not detected at the laboratory method detection limit.

J = Result detected between the reporting limit and the method detection limit.

g = grams

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

ft = feet

AVS/SEM = Acid Volatile Sulfide/Simultaneous Extracted Metals

PAH = polycyclic aromatic hydrocarbon

**Table 5-2**  
**Sediment Data Summary**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

**Notes:**

Grey Background: Result Exceeds Class A Sediment Guidance Values

**Bolded:** Result Exceeds Class C Sediment Guidance Values

< = Not detected at the laboratory method detection limit.

J = Result detected between the reporting limit and the method detection limit.

g = grams

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

ft = feet

AVS/SEM = Acid Volatile Sulfide/Simultaneous Extracted Metals

PAH = polycyclic aromatic hydrocarbon

Table 6-1  
 2016 OU-4 Soil Vapor Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		BLDG2A	BLDG2A	BLDG2B	BLDG3A	BLDG3A	BLDG3A	BLDG3A	BLDG3B
Sample Delivery Group (SDG)		1676174	1676174	1676174	1606698	1676174	1606698	1606698	1606698
Lab Sample ID		8445495	8445494	8445496	1606698-02	8445499	1606698-04	1606698-03	1606698-07
Lab Method		EPA TO-15	EPA TO-15	EPA TO-15	EPA 1631	EPA TO-15	EPA 1631	EPA 1631	EPA 1631
Sample Date		6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016
Field Sample ID		BLDG2A-A-SUBSLAB-160622	BLDG2A-AD-SUBSLAB-160622	BLDG2B-A-SUBSLAB-160622	BLDG3A-A-CS-160622	BLDG3A-A-CS-160622	BLDG3A-A-FF-160622	BLDG3A-AD-CS-160622	BLDG3B-A-CS-160622
Sample Purpose		REG	FD	REG	REG	REG	REG	FD	REG
Parameter Name	Parameter Code								
Volatile Organic Compounds									
1,1-Dichloroethene	75-35-4	< 0.79	< 0.79	< 0.79	--	< 0.79	--	--	--
1,1,1-Trichloroethane	71-55-6	3.1 J	3.9 J	2.2 J	--	< 1.1	--	--	--
1,1,2,2-Tetrachloroethane	79-34-5	< 1.4	< 1.4	< 1.4	--	< 1.4	--	--	--
1,1,2-Trichloroethane	79-00-5	< 1.1	< 1.1	< 1.1	--	< 1.1	--	--	--
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	< 3.8	< 3.8	< 3.8	--	< 3.8	--	--	--
1,1-Dichloroethane	75-34-3	< 0.81	< 0.81	< 0.81	--	< 0.81	--	--	--
1,2-Dibromoethane	106-93-4	< 1.5	< 1.5	< 1.5	--	< 1.5	--	--	--
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 1.2	< 1.2	< 1.2	--	< 1.2	--	--	--
1,2-Dichloroethane	107-06-2	< 0.81	< 0.81	< 0.81	--	< 0.81	--	--	--
1,2-Dichloropropane	78-87-5	< 0.92	< 0.92	< 0.92	--	< 0.92	--	--	--
1,3-Dichlorobenzene	541-73-1	< 1.2	< 1.2	< 1.2	--	< 1.2	--	--	--
1,4-Dichlorobenzene	106-46-7	< 1.2	< 1.2	< 1.2	--	< 1.2	--	--	--
2-Butanone (Methyl ethyl ketone)	78-93-3	7.4	4.4 J	4.8 J	--	< 1.5	--	--	--
2-Hexanone	591-78-6	< 2	< 2	< 8.2 J	--	< 2	--	--	--
4-Methyl-2-pentanone	108-10-1	< 2	< 2	< 2	--	< 2	--	--	--
Acetone	67-64-1	64	31	23	--	9.8	--	--	--
Benzene	71-43-2	< 0.64	1.4 J	< 0.64	--	< 0.64	--	--	--
Bromodichloromethane	75-27-4	< 1.3	< 1.3	< 1.3	--	< 1.3	--	--	--
Bromoform	75-25-2	< 2.1	< 2.1	< 2.1	--	< 2.1	--	--	--
Bromomethane (Methyl bromide)	74-83-9	< 0.78	< 0.78	< 0.78	--	< 0.78	--	--	--
Carbon disulfide	75-15-0	1.7 J	2.3 J	< 1.6	--	< 1.6	--	--	--
Carbon Tetrachloride	56-23-5	2.3 J	2.9 J	2.2 J	--	< 1.3	--	--	--
Chlorobenzene	108-90-7	< 0.92	< 0.92	< 0.92	--	< 0.92	--	--	--
Chloroethane	75-00-3	< 0.53	< 0.53	< 0.53	--	< 0.53	--	--	--
Chloroform	67-66-3	1.9 J	2.2 J	1.8 J	--	< 0.98	--	--	--
Chloromethane (Methyl chloride)	74-87-3	< 0.41	< 0.41	< 0.41	--	< 0.41	--	--	--
cis-1,2-Dichloroethene	156-59-2	0.83 J	< 0.79	< 0.79	--	< 0.79	--	--	--
cis-1,3-Dichloropropene	10061-01-5	< 0.91	< 0.91	< 0.91	--	< 0.91	--	--	--
Dibromochloromethane	124-48-1	< 1.7	< 1.7	< 1.7	--	< 1.7	--	--	--
Dichlorodifluoromethane (Freon 12)	75-71-8	3.3 J	3.9 J	7.1	--	3 J	--	--	--
Ethylbenzene	100-41-4	1 J	3.1 J	1.5 J	--	< 0.87	--	--	--
Isopropylbenzene	98-82-8	< 0.98	< 0.98	< 0.98	--	< 0.98	--	--	--
m,p-Xylenes	XYLENES-MP	< 4.3 J	10	5.3	--	< 0.87	--	--	--
Methyl-t-butyl ether	1634-04-4	< 0.72	< 0.72	< 0.72	--	< 0.72	--	--	--
Methylene chloride (Dichloromethane)	75-09-2	< 0.69	< 0.69	< 0.69	--	0.74 J	--	--	--
o-Xylene	95-47-6	< 0.87	4.5	2 J	--	< 0.87	--	--	--
Styrene	100-42-5	< 0.85	< 0.85	< 4.3 J	--	< 0.85	--	--	--

Table 6-1  
 2016 OU-4 Soil Vapor Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		BLDG2A	BLDG2A	BLDG2B	BLDG3A	BLDG3A	BLDG3A	BLDG3A	BLDG3B
Sample Delivery Group (SDG)		1676174	1676174	1676174	1606698	1676174	1606698	1606698	1606698
Lab Sample ID		8445495	8445494	8445496	1606698-02	8445499	1606698-04	1606698-03	1606698-07
Lab Method		EPA TO-15	EPA TO-15	EPA TO-15	EPA 1631	EPA TO-15	EPA 1631	EPA 1631	EPA 1631
Sample Date		6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016	6/22/2016
Field Sample ID		BLDG2A-A-SUBSLAB-160622	BLDG2A-AD-SUBSLAB-160622	BLDG2B-A-SUBSLAB-160622	BLDG3A-A-CS-160622	BLDG3A-A-CS-160622	BLDG3A-A-FF-160622	BLDG3A-AD-CS-160622	BLDG3B-A-CS-160622
Sample Purpose		REG	FD	REG	REG	REG	REG	FD	REG
Parameter Name	Parameter Code								
Tetrachloroethene	127-18-4	1.7 J	< 1.4	2 J	--	< 1.4	--	--	--
Toluene	108-88-3	< 3.8 J	8.9	4	--	3.7 J	--	--	--
trans-1,2-Dichloroethene	156-60-5	< 0.79	< 0.79	< 0.79	--	< 0.79	--	--	--
trans-1,3-Dichloropropene	10061-02-6	< 0.91	< 0.91	< 0.91	--	< 0.91	--	--	--
Trichloroethene (Trichloroethylene)	79-01-6	3 J	3 J	5.5	--	< 1.1	--	--	--
Trichlorofluoromethane (Freon 11)	75-69-4	4.5 J	5.2 J	16	--	4.2 J	--	--	--
Vinyl chloride (Chloroethene)	75-01-4	< 0.51	< 0.51	< 0.51	--	< 0.51	--	--	--
<b>Semivolatile Organic Compounds</b>									
Hexachloroethane	67-72-1	< 1.9	< 1.9	< 1.9	--	< 1.9	--	--	--
<b>Metals</b>									
Mercury	7439-97-6	--	--	--	0.411 D	--	0.372 D	0.571 D	2.28 D

Notes are on last page.

Table 6-1  
 2016 OU-4 Soil Vapor Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		BLDG3B	BLDG3B	BLDG4	BLDG5	BLDG5	BLDG5	BLDG5	BLDG5	BLDG5
Sample Delivery Group (SDG)		1676174	1606698	1676174	1680774	1699526	1676174	1699526	1699526	1699526
Lab Sample ID		8445500	1606698-05	8445497	8466518	8548231	8445498	8548229	8548230	8548228
Lab Method		EPA TO-15	EPA 1631	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15
Sample Date		6/22/2016	6/22/2016	6/22/2016	6/22/2016	8/23/2016	6/22/2016	8/23/2016	8/23/2016	8/23/2016
Field Sample ID		BLDG3B-A-CS-160622	BLDG3B-A-FF-160622	BLDG4-A-SUBSLAB-160622	BLDG5-A-IA-160622	BLDG5-A-IA-160823	BLDG5-A-SUBSLAB-160622	BLDG5-A-SUBSLAB-160823	BLDG5-AD-IA-160823	BLDG5-AD-SUBSLAB-160823
Sample Purpose		REG	REG	REG	REG	REG	REG	REG	FD	FD
Parameter Name	Parameter Code									
Volatile Organic Compounds										
1,1-Dichloroethene	75-35-4	< 0.79	--	< 0.79	< 0.79	< 0.79	< 7.9	< 79	< 0.79	< 79
1,1,1-Trichloroethane	71-55-6	< 1.1	--	< 1.1	< 1.1	< 1.1	< 11	< 110	< 1.1	< 110
1,1,2,2-Tetrachloroethane	79-34-5	< 1.4	--	< 1.4	< 1.4	< 1.4	< 14	< 140	< 1.4	< 140
1,1,2-Trichloroethane	79-00-5	< 1.1	--	< 1.1	< 1.1	< 1.1	< 11	< 110	< 1.1	< 110
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	< 3.8	--	< 3.8	< 3.8	< 3.8	< 38	< 380	< 3.8	< 380
1,1-Dichloroethane	75-34-3	< 0.81	--	< 0.81	< 0.81	< 0.81	< 8.1	< 81	< 0.81	< 81
1,2-Dibromoethane	106-93-4	< 1.5	--	< 1.5	< 1.5	< 1.5	< 15	< 150	< 1.5	< 150
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 1.2	--	3.2 J	< 1.2	< 1.2	< 12	< 120	< 1.2	< 120
1,2-Dichloroethane	107-06-2	< 0.81	--	< 0.81	< 0.81	< 0.81	< 8.1	< 81	< 0.81	< 81
1,2-Dichloropropane	78-87-5	< 0.92	--	< 0.92	< 0.92	< 0.92	< 9.2	< 92	< 0.92	< 92
1,3-Dichlorobenzene	541-73-1	< 1.2	--	2.3 J	< 1.2	< 1.2	< 12	< 120	< 1.2	< 120
1,4-Dichlorobenzene	106-46-7	< 1.2	--	2.7 J	< 1.2	< 1.2	< 12	< 120	< 1.2	< 120
2-Butanone (Methyl ethyl ketone)	78-93-3	< 1.5	--	34	6.2	< 1.5	< 15	< 150	5.3 J	< 150
2-Hexanone	591-78-6	< 2	--	36	< 2	< 2	< 20	< 200	< 2	< 200
4-Methyl-2-pentanone	108-10-1	< 2	--	< 2	< 2	< 2	< 20	< 200	< 2	< 200
Acetone	67-64-1	13	--	190	< 67	47	110	1,200	51	760
Benzene	71-43-2	< 0.64	--	2.5 J	3.3	2.8 J	12 J	< 64	3 J	< 64
Bromodichloromethane	75-27-4	< 1.3	--	< 1.3	< 1.3	< 1.3	< 13	< 130	< 1.3	< 130
Bromoform	75-25-2	< 2.1	--	< 2.1	< 2.1	< 2.1	< 21	< 210	< 2.1	< 210
Bromomethane (Methyl bromide)	74-83-9	< 0.78	--	< 0.78	< 0.78	< 0.78	< 7.8	< 78	< 0.78	< 78
Carbon disulfide	75-15-0	< 1.6	--	6.7	< 1.6	< 1.6	< 16	280 J	< 1.6	190 J
Carbon Tetrachloride	56-23-5	< 1.3	--	< 1.3	< 1.3	< 1.3	22 J	< 130	< 1.3	< 130
Chlorobenzene	108-90-7	< 0.92	--	< 0.92	< 0.92	< 0.92	< 9.2	< 92	< 0.92	< 92
Chloroethane	75-00-3	< 0.53	--	< 0.53	< 0.53	< 0.53	< 5.3	< 53	< 0.53	< 53
Chloroform	67-66-3	< 0.98	--	< 0.98	< 0.98	< 0.98	< 9.8	< 98	< 0.98	< 98
Chloromethane (Methyl chloride)	74-87-3	< 0.41	--	< 0.41	< 0.41	< 0.41	< 4.1	< 41	< 0.41	< 41
cis-1,2-Dichloroethene	156-59-2	< 0.79	--	< 0.79	< 0.79	< 0.79	< 7.9	< 79	< 0.79	< 79
cis-1,3-Dichloropropene	10061-01-5	< 0.91	--	< 0.91	< 0.91	< 0.91	< 9.1	< 91	< 0.91	< 91
Dibromochloromethane	124-48-1	< 1.7	--	< 1.7	< 1.7	< 1.7	< 17	< 170	< 1.7	< 170
Dichlorodifluoromethane (Freon 12)	75-71-8	3.1 J	--	2.8 J	3.1 J	3.4 J	< 9.9	< 99	3.7 J	< 99
Ethylbenzene	100-41-4	< 0.87	--	15	2.5 J	1.4 J	< 8.7	< 87	1.2 J	< 87
Isopropylbenzene	98-82-8	< 0.98	--	1.8 J	< 0.98	< 0.98	< 9.8	< 98	< 0.98	< 98
m,p-Xylenes	XYLENES-MP	< 0.87	--	79	8.9	4.3	15 J	< 87	3.8 J	< 87
Methyl-t-butyl ether	1634-04-4	< 0.72	--	< 0.72	< 0.72	< 0.72	< 7.2	< 72	< 0.72	< 72
Methylene chloride (Dichloromethane)	75-09-2	0.88 J	--	4.3	< 0.69	< 0.69	< 6.9	5,700	< 0.69	2,500
o-Xylene	95-47-6	< 0.87	--	23	3.4 J	2 J	< 8.7	< 87	1.8 J	< 87
Styrene	100-42-5	< 0.85	--	< 0.85	< 0.85	< 0.85	< 8.5	< 85	< 0.85	< 85

Table 6-1  
 2016 OU-4 Soil Vapor Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		BLDG3B	BLDG3B	BLDG4	BLDG5	BLDG5	BLDG5	BLDG5	BLDG5	BLDG5
Sample Delivery Group (SDG)		1676174	1606698	1676174	1680774	1699526	1676174	1699526	1699526	1699526
Lab Sample ID		8445500	1606698-05	8445497	8466518	8548231	8445498	8548229	8548230	8548228
Lab Method		EPA TO-15	EPA 1631	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15
Sample Date		6/22/2016	6/22/2016	6/22/2016	6/22/2016	8/23/2016	6/22/2016	8/23/2016	8/23/2016	8/23/2016
Field Sample ID		BLDG3B-A-CS-160622	BLDG3B-A-FF-160622	BLDG4-A-SUBSLAB-160622	BLDG5-A-IA-160622	BLDG5-A-IA-160823	BLDG5-A-SUBSLAB-160622	BLDG5-A-SUBSLAB-160823	BLDG5-AD-IA-160823	BLDG5-AD-SUBSLAB-160823
Sample Purpose		REG	REG	REG	REG	REG	REG	REG	FD	FD
Parameter Name	Parameter Code									
Tetrachloroethene	127-18-4	< 1.4	--	2.3 J	< 1.4	< 1.4	< 14	< 140	< 1.4	< 140
Toluene	108-88-3	2.9 J	--	8.6	18	7.6	10 J	160 J	8.6	120 J
trans-1,2-Dichloroethene	156-60-5	< 0.79	--	< 0.79	< 0.79	< 0.79	< 7.9	< 79	< 0.79	< 79
trans-1,3-Dichloropropene	10061-02-6	< 0.91	--	< 0.91	< 0.91	< 0.91	< 9.1	< 91	< 0.91	< 91
Trichloroethene (Trichloroethylene)	79-01-6	1.4 J	--	8.2	51	< 1.1	6,800	13,000	< 1.1	13,000
Trichlorofluoromethane (Freon 11)	75-69-4	2.2 J	--	2 J	4.7 J	5.7	< 11	< 110	6	< 110
Vinyl chloride (Chloroethene)	75-01-4	< 0.51	--	< 0.51	< 0.51	< 0.51	< 5.1	< 51	< 0.51	< 51
<b>Semivolatile Organic Compounds</b>										
Hexachloroethane	67-72-1	< 1.9	--	< 1.9	< 1.9	< 1.9	< 19	< 190	< 1.9	< 190
<b>Metals</b>										
Mercury	7439-97-6	--	0.479 D	--	--	--	--	--	--	--

Notes are on last page.

**Table 6-1**  
**2016 OU-4 Soil Vapor Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

**Notes:**

Report units are in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

< : Not detected at the detection limit.

B = Analyte is found in the blank as well as the sample.

D1 = Sample required dilution due to matrix

D2 = Sample required dilution due to high concentration of target analyte.

E = Concentration exceeds upper level calibration range.

J = Result detected between the reporting limit and the method detection limit.

P = Greater than 25 percent difference for detected concentration in two GC columns.

V = Surrogate recovery is not within method control limits.

**Table 6-2**  
**2018 Active Soil Vapor Point Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Location ID		OU1EASV01	OU1EASV03	OU1EASV04	OU1EASV04
Sample Delivery Group (SDG)		1812330	1812330	1812330	1812330
Lab Sample ID		1812330-03A	1812330-04A	1812330-01A	1812330-02A
Lab Method		EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EASV01-A-N-20181210	OU1EASV03-A-N-20181210	OU1EASV04-A-N-20181210	OU1EASVD04-A-N-20181210
Sample Purpose		REG	REG	REG	FD
Parameter Name	Parameter Code				
1,1-Dichloroethene	75-35-4	< 4.3	< 4.5	< 4.2	< 4.2
1,1,1-Trichloroethane	71-55-6	< 5.9	< 6.2	< 5.8	< 5.8
1,1,2,2-Tetrachloroethane	79-34-5	< 7.5	< 7.9	< 7.3	< 7.2
1,1,2-Trichloroethane	79-00-5	< 5.9	< 6.2	< 5.8	< 5.8
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	< 8.4	< 8.8	< 8.2	< 8.1
1,1-Dichloroethane	75-34-3	< 4.4	< 4.6	< 4.3	< 4.3
1,2,4-Trichlorobenzene	120-82-1	< 32	< 34	< 32	< 31
1,2-Dibromoethane	106-93-4	< 8.4	< 8.8	< 8.2	< 8.1
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 6.6	< 6.9	< 6.4	< 6.3
1,2-Dichloroethane	107-06-2	< 4.4	< 4.6	< 4.3	< 4.3
1,2-Dichloropropane	78-87-5	< 5	< 5.3	< 4.9	< 4.9
1,3-Dichlorobenzene	541-73-1	< 6.6	< 6.9	< 6.4	< 6.3
1,4-Dichlorobenzene	106-46-7	< 6.6	< 6.9	< 6.4	< 6.3
2-Butanone (Methyl ethyl ketone)	78-93-3	< 13	< 14	< 13	< 12
2-Hexanone	591-78-6	< 18	< 19	< 18	< 17
4-Methyl-2-pentanone	108-10-1	< 4.5	< 4.7	< 4.4	< 4.3
Acetone	67-64-1	38	40	48	110
Benzene	71-43-2	< 3.5	< 3.6	4.1	4.6
Bromodichloromethane	75-27-4	< 7.3	< 7.7	< 7.2	< 7.1
Bromoform	75-25-2	< 11	< 12	< 11	< 11
Bromomethane (Methyl bromide)	74-83-9	< 42	< 44	< 42	< 41
Carbon disulfide	75-15-0	< 14	< 14	< 13	< 13
Carbon Tetrachloride	56-23-5	< 6.8	< 7.2	< 6.7	< 6.6
Chlorobenzene	108-90-7	< 5	< 5.3	< 4.9	< 4.8
Chloroethane	75-00-3	< 12	< 12	< 11	< 11
Chloroform	67-66-3	< 5.3	< 5.6	< 5.2	< 5.2
Chloromethane (Methyl chloride)	74-87-3	< 22 J	< 24 J	< 22 J	< 22 J
cis-1,2-Dichloroethene	156-59-2	< 4.3	< 4.5	< 4.2	< 4.2
cis-1,3-Dichloropropene	10061-01-5	< 4.9	< 5.2	< 4.8	< 4.8
Cyclohexane	110-82-7	< 3.8	< 3.9	< 3.7	< 3.6
Dibromochloromethane	124-48-1	< 9.3	< 9.8	< 9.1	< 9
Dichlorodifluoromethane (Freon 12)	75-71-8	< 5.4	< 5.7	< 5.3	< 5.2
Ethylbenzene	100-41-4	< 4.7	< 5	< 4.6	< 4.6

Table 6-2  
 2018 Active Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EASV01	OU1EASV03	OU1EASV04	OU1EASV04
Sample Delivery Group (SDG)		1812330	1812330	1812330	1812330
Lab Sample ID		1812330-03A	1812330-04A	1812330-01A	1812330-02A
Lab Method		EPA TO-15	EPA TO-15	EPA TO-15	EPA TO-15
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EASV01-A-N-20181210	OU1EASV03-A-N-20181210	OU1EASV04-A-N-20181210	OU1EASVD04-A-N-20181210
Sample Purpose		REG	REG	REG	FD
Parameter Name	Parameter Code				
Isopropylbenzene	98-82-8	< 5.4	< 5.6	< 5.2	< 5.2
m,p-Xylenes	XYLENES-MP	12	5.7	8.4	10
Methyl-t-butyl ether	1634-04-4	< 16	< 16	< 15	< 15
Methylene chloride (Dichloromethane)	75-09-2	< 38	< 40	< 37	< 37
o-Xylene	95-47-6	< 4.7	< 5	< 4.6	< 4.6
Styrene	100-42-5	< 4.6	< 4.9	< 4.6	< 4.5
Tetrachloroethene	127-18-4	< 7.4	< 7.8	< 7.2	< 7.2
Toluene	108-88-3	19	7.2	23	25
trans-1,2-Dichloroethene	156-60-5	< 4.3	< 4.5	< 4.2	< 4.2
trans-1,3-Dichloropropene	10061-02-6	< 4.9	< 5.2	< 4.8	< 4.8
Trichloroethene (Trichloroethylene)	79-01-6	< 5.8	< 6.2	< 5.8	< 5.7
Trichlorofluoromethane (Freon 11)	75-69-4	< 6.1	< 6.4	< 6	< 5.9
Vinyl chloride (Chloroethene)	75-01-4	< 2.8	< 2.9	< 2.7	< 2.7
<b>Semivolatile Organic Compounds</b>					
1,4-Dioxane	123-91-1	< 16	< 16	< 15	< 15
Hexachlorobutadiene	87-68-3	< 46	< 49	< 46	< 45

**Notes:**

Report units are in micrograms per cubic meter (ug/m<sup>3</sup>).

< = Not detected at the laboratory method detection limit.

J = Result detected between the reporting limit and the method detection limit.

Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EPSV001	OU1EPSV002	OU1EPSV013	OU1EPSV014	OU1EPSV015	OU1EPSV016
Sample Delivery Group (SDG)		1812284R1	1812284R1	1812285R1	1812285R1	1812285R1	1812284R1
Lab Sample ID		1812284R1-18A	1812284R1-19A	1812285R1-09A	1812285R1-08A	1812285R1-10A	1812284R1-06A
Lab Method		EPA TO-17					
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EPSV001-A-N-20181210	OU1EPSV002-A-N-20181210	OU1EPSV013-A-N-20181210	OU1EPSV014-A-N-20181210	OU1EPSV015-A-N-20181210	OU1EPSV016-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 9.7	< 9.7	< 12	< 12	< 12	< 14
1,1,1-Trichloroethane	71-55-6	< 2.2	< 2.2	< 2.7	< 2.7	< 2.7	< 3.3
1,1,2,2-Tetrachloroethane	79-34-5	< 0.75	< 0.75	< 0.89	< 0.89	< 0.89	< 1.1
1,1,2-Trichloroethane	79-00-5	< 1.3	< 1.3	< 1.5	< 1.5	< 1.5	< 1.9
1,1-Dichloroethane	75-34-3	< 2.2	< 2.2	< 2.6	< 2.6	< 2.6	< 3.2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.41	< 0.41	< 0.49	< 0.49	< 0.5	< 0.61
1,2-Dichloroethane	107-06-2	< 1.5	< 1.5	< 1.8	< 1.8	< 1.8	< 2.2
1,3-Dichlorobenzene	541-73-1	< 0.47	< 0.47	< 0.55	< 0.55	< 0.56	< 0.69
1,4-Dichlorobenzene	106-46-7	< 0.45	< 0.45	< 0.53	< 0.53	< 0.54	< 0.66
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.3	< 2.3	< 2.7	< 2.7	< 2.7	< 3.4
4-Methyl-2-pentanone	108-10-1	< 2.7	< 2.7	< 3.2	< 3.2	< 3.2	< 3.9
Benzene	71-43-2	< 6.1	< 6.1	< 7.3	< 7.3	< 7.3	< 9
Carbon Tetrachloride	56-23-5	< 1.9	< 1.9	< 2.2	< 2.2	< 2.3	< 2.8
Chlorobenzene	108-90-7	< 0.93	< 0.93	< 1.1	< 1.1	< 1.1	< 1.4
Chloroform	67-66-3	< 1.7	< 1.7	< 2	< 2	< 2	< 2.5
Chloromethane (Methyl chloride)	74-87-3	< 11	< 11	< 13	< 13	< 13	< 16
cis-1,2-Dichloroethene	156-59-2	< 1.7	< 1.7	< 2.1	< 2.1	< 2.1	< 2.6
Cyclohexane	110-82-7	< 1.7	< 1.7	< 2	< 2	< 2	< 2.5
Ethylbenzene	100-41-4	< 0.8	< 0.8	< 0.95	< 0.95	< 0.96	< 1.2
m,p-Xylenes	XYLENES-MP	< 0.8	< 0.8	1	< 0.95	1	< 1.2
Methyl-t-butyl ether	1634-04-4	< 2.1	< 2.1	< 2.5	< 2.5	< 2.5	< 3.1
o-Xylene	95-47-6	< 0.75	< 0.75	< 0.89	< 0.89	< 0.89	< 1.1
Styrene	100-42-5	< 0.75	< 0.75	< 0.89	< 0.89	< 0.89	< 1.1
Tetrachloroethene	127-18-4	< 0.86	< 0.86	< 1	6.6	< 1	< 1.3
Toluene	108-88-3	< 2.2	< 2.2	< 2.7	< 2.7	11	13
trans-1,2-Dichloroethene	156-60-5	< 4.1	< 4.1	< 4.9	< 4.9	< 5	< 6.1
Trichloroethene (Trichloroethylene)	79-01-6	< 1.3	< 1.3	< 1.5	< 1.5	< 1.5	< 1.9
Vinyl chloride (Chloroethene)	75-01-4	< 11	< 11	< 13	< 13	< 13	< 16
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.75	< 0.75	< 0.89	< 0.89	< 0.89	< 1.1

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
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 Glenham, New York

Location ID		OU1EPSV017	OU1EPSV018	OU1EPSV019	OU1EPSV020	OU1EPSV021	OU1EPSV022
Sample Delivery Group (SDG)		1812284R1	1812284R1	1812283R2	1812283R2	1812283R2	1812284R1
Lab Sample ID		1812284R1-05A	1812284R1-07A	1812283R2-22A	1812283R2-23A	1812283R2-24A	1812284R1-20A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/11/2018	12/11/2018	12/11/2018	12/11/2018	12/10/2018
Field Sample ID		OU1EPSV017-A-N-20181211	OU1EPSV018-A-N-20181211	OU1EPSV019-A-N-20181211	OU1EPSV020-A-N-20181211	OU1EPSV021-A-N-20181211	OU1EPSV022-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 14	< 14	< 12	< 12	< 12	< 9.8
1,1,1-Trichloroethane	71-55-6	< 3.2	< 3.2	< 2.7	< 2.7	< 2.7	< 2.2
1,1,2,2-Tetrachloroethane	79-34-5	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75
1,1,2-Trichloroethane	79-00-5	< 1.8	< 1.8	< 1.6	< 1.6	< 1.6	< 1.3
1,1-Dichloroethane	75-34-3	< 3	< 3	< 2.6	< 2.6	< 2.6	< 2.2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.59	< 0.59	< 0.5	< 0.5	< 0.5	< 0.42
1,2-Dichloroethane	107-06-2	< 2.1	< 2.1	< 1.8	< 1.8	< 1.8	< 1.5
1,3-Dichlorobenzene	541-73-1	< 0.66	< 0.66	< 0.56	< 0.56	< 0.56	< 0.47
1,4-Dichlorobenzene	106-46-7	< 0.63	< 0.63	< 0.54	< 0.54	< 0.54	< 0.45
2-Butanone (Methyl ethyl ketone)	78-93-3	< 3.2	< 3.2	< 2.8	< 2.8	< 2.8	< 2.3
4-Methyl-2-pentanone	108-10-1	< 3.8	< 3.8	< 3.2	< 3.2	< 3.2	< 2.7
Benzene	71-43-2	< 8.7	< 8.7	< 7.4	< 7.4	< 7.4	< 6.2
Carbon Tetrachloride	56-23-5	< 2.7	< 2.7	< 2.3	< 2.3	< 2.3	< 1.9
Chlorobenzene	108-90-7	< 1.3	< 1.3	< 1.1	< 1.1	< 1.1	< 0.94
Chloroform	67-66-3	< 2.4	< 2.4	< 2.1	< 2.1	< 2.1	< 1.7
Chloromethane (Methyl chloride)	74-87-3	< 16	< 16	< 13	< 14	< 14	< 11
cis-1,2-Dichloroethene	156-59-2	< 2.5	< 2.5	< 2.1	< 2.1	< 2.1	< 1.8
Cyclohexane	110-82-7	< 2.4	< 2.4	2.1	< 2	< 2	< 1.7
Ethylbenzene	100-41-4	< 1.1	< 1.1	< 0.96	< 0.96	< 0.96	< 0.8
m,p-Xylenes	XYLENES-MP	< 1.1	< 1.1	1.1	< 0.96	< 0.96	< 0.8
Methyl-t-butyl ether	1634-04-4	< 3	< 3	< 2.5	< 2.5	< 2.5	< 2.1
o-Xylene	95-47-6	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75
Styrene	100-42-5	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75
Tetrachloroethene	127-18-4	< 1.2	< 1.2	< 1	< 1	< 1	< 0.86
Toluene	108-88-3	19	5.1	4.6	2.1	< 1.4	< 2.2
trans-1,2-Dichloroethene	156-60-5	< 5.9	< 5.9	< 5	< 5	< 5	< 4.2
Trichloroethene (Trichloroethylene)	79-01-6	< 1.8	< 1.8	< 1.5	< 1.5	< 1.5	< 1.3
Vinyl chloride (Chloroethene)	75-01-4	< 15	< 15	< 13	< 13	< 13	< 11
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
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Location ID		OU1EPSV023	OU1EPSV031	OU1EPSV032	OU1EPSV033	OU1EPSV035	OU1EPSV040
Sample Delivery Group (SDG)		1812284R1	1812285R1	1812285R1	1812285R1	1812285R1	1812284R1
Lab Sample ID		1812284R1-21A	1812285R1-11A	1812285R1-12A	1812285R1-13A	1812285R1-07A	1812284R1-04A
Lab Method		EPA TO-17					
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/11/2018
Field Sample ID		OU1EPSV023-A-N-20181210	OU1EPSV031-A-N-20181210	OU1EPSV032-A-N-20181210	OU1EPSV033-A-N-20181210	OU1EPSV035-A-N-20181210	OU1EPSV040-A-N-20181211
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 9.8	< 12	< 12	< 12	< 11	< 12
1,1,1-Trichloroethane	71-55-6	17	< 2.7	< 2.7	< 2.7	< 2.5	< 2.7
1,1,2,2-Tetrachloroethane	79-34-5	< 0.75	< 0.89	< 0.89	< 0.89	< 0.82	< 0.89
1,1,2-Trichloroethane	79-00-5	< 1.3	< 1.5	< 1.5	< 1.5	< 1.4	< 1.5
1,1-Dichloroethane	75-34-3	< 2.2	< 2.6	< 2.6	< 2.6	< 2.4	< 2.6
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.42	< 0.49	< 0.49	< 0.49	< 0.46	< 0.49
1,2-Dichloroethane	107-06-2	< 1.5	< 1.8	< 1.8	< 1.8	< 1.6	< 1.8
1,3-Dichlorobenzene	541-73-1	< 0.47	< 0.56	< 0.56	< 0.56	< 0.52	< 0.56
1,4-Dichlorobenzene	106-46-7	< 0.45	< 0.53	< 0.53	< 0.53	< 0.5	< 0.53
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.3	< 2.7	< 2.7	< 2.7	< 2.5	< 2.7
4-Methyl-2-pentanone	108-10-1	< 2.7	< 3.2	< 3.2	< 3.2	< 2.9	< 3.2
Benzene	71-43-2	< 6.2	< 7.3	< 7.3	< 7.3	< 6.8	< 7.3
Carbon Tetrachloride	56-23-5	< 1.9	< 2.3	< 2.3	< 2.2	< 2.1	< 2.2
Chlorobenzene	108-90-7	< 0.94	< 1.1	< 1.1	< 1.1	< 1	< 1.1
Chloroform	67-66-3	< 1.7	< 2	< 2	< 2	< 1.9	< 2
Chloromethane (Methyl chloride)	74-87-3	< 11	< 13	< 13	< 13	< 12	< 13
cis-1,2-Dichloroethene	156-59-2	< 1.8	< 2.1	< 2.1	< 2.1	< 1.9	< 2.1
Cyclohexane	110-82-7	< 1.7	< 2	< 2	< 2	< 1.9	< 2
Ethylbenzene	100-41-4	< 0.8	< 0.95	< 0.95	< 0.95	< 0.88	< 0.95
m,p-Xylenes	XYLENES-MP	< 0.8	3.6	1	< 0.95	< 0.88	1.7
Methyl-t-butyl ether	1634-04-4	< 2.1	< 2.5	< 2.5	< 2.5	< 2.3	< 2.5
o-Xylene	95-47-6	< 0.75	3.5	< 0.89	< 0.89	< 0.82	< 0.89
Styrene	100-42-5	< 0.75	< 0.89	< 0.89	< 0.89	< 0.82	< 0.89
Tetrachloroethene	127-18-4	< 0.86	< 1	< 1	< 1	< 0.95	< 1
Toluene	108-88-3	< 2.2	7	< 2.7	< 2.7	< 2.5	3.4
trans-1,2-Dichloroethene	156-60-5	< 4.2	< 4.9	< 4.9	< 4.9	< 4.6	< 4.9
Trichloroethene (Trichloroethylene)	79-01-6	< 1.3	< 1.5	< 1.5	< 1.5	< 1.4	< 1.5
Vinyl chloride (Chloroethene)	75-01-4	< 11	< 13	< 13	< 13	< 12	< 13
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.75	< 0.89	< 0.89	< 0.89	< 0.82	< 0.89

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
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Location ID		OU1EPSV041	OU1EPSV042	OU1EPSV043	OU1EPSV044	OU1EPSV045	OU1EPSV046
Sample Delivery Group (SDG)		1812285R1	1812285R1	1812285R1	1812284R1	1812284R1	1812284R1
Lab Sample ID		1812285R1-14A	1812285R1-15A	1812285R1-16A	1812284R1-08A	1812284R1-09A	1812284R1-10A
Lab Method		EPA TO-17					
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EPSV041-A-N-20181210	OU1EPSV042-A-N-20181210	OU1EPSV043-A-N-20181210	OU1EPSV044-A-N-20181210	OU1EPSV045-A-N-20181210	OU1EPSV046-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 12	< 12	< 12	< 14	< 14	< 14
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.7	< 2.7	< 3.3	< 3.3	< 3.3
1,1,2,2-Tetrachloroethane	79-34-5	< 0.89	< 0.89	< 0.89	< 1.1	< 1.1	< 1.1
1,1,2-Trichloroethane	79-00-5	< 1.5	< 1.5	< 1.5	< 1.9	< 1.9	< 1.9
1,1-Dichloroethane	75-34-3	< 2.6	< 2.6	< 2.6	< 3.2	< 3.2	< 3.2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.5	< 0.5	< 0.61	< 0.61	< 0.61
1,2-Dichloroethane	107-06-2	< 1.8	< 1.8	< 1.8	< 2.2	< 2.2	< 2.2
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.56	< 0.56	< 0.69	< 0.69	< 0.69
1,4-Dichlorobenzene	106-46-7	< 0.54	< 0.54	< 0.54	< 0.66	< 0.66	< 0.66
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.7	< 2.7	< 2.7	< 3.4	< 3.4	< 3.4
4-Methyl-2-pentanone	108-10-1	< 3.2	< 3.2	< 3.2	< 3.9	< 3.9	< 3.9
Benzene	71-43-2	< 7.4	< 7.4	< 7.4	< 9	< 9	< 9
Carbon Tetrachloride	56-23-5	< 2.3	< 2.3	< 2.3	< 2.8	< 2.8	< 2.8
Chlorobenzene	108-90-7	< 1.1	< 1.1	< 1.1	< 1.4	< 1.4	< 1.4
Chloroform	67-66-3	< 2.1	< 2.1	< 2.1	< 2.5	< 2.5	< 2.5
Chloromethane (Methyl chloride)	74-87-3	< 13	< 13	< 13	< 16	< 16	< 16
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 2.1	< 2.1	< 2.6	< 2.6	< 2.6
Cyclohexane	110-82-7	< 2	3.4	< 2	< 2.5	< 2.5	< 2.5
Ethylbenzene	100-41-4	< 0.96	< 0.96	1.4	< 1.2	< 1.2	< 1.2
m,p-Xylenes	XYLENES-MP	< 0.96	< 0.96	2	< 1.2	< 1.2	< 1.2
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.5	< 2.5	< 3.1	< 3.1	< 3.1
o-Xylene	95-47-6	< 0.89	< 0.89	< 0.89	< 1.1	< 1.1	< 1.1
Styrene	100-42-5	< 0.89	< 0.89	< 0.89	< 1.1	< 1.1	< 1.1
Tetrachloroethene	127-18-4	< 1	< 1	< 1	< 1.3	< 1.3	< 1.3
Toluene	108-88-3	< 2.7	< 2.7	40	< 3.3	9.8	< 3.3
trans-1,2-Dichloroethene	156-60-5	< 5	< 5	< 5	< 6.1	< 6.1	< 6.1
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.5	< 1.5	< 1.9	< 1.9	< 1.9
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 13	< 13	< 16	< 16	< 16
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.89	< 0.89	< 0.89	< 1.1	< 1.1	< 1.1

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
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 Former Texaco Research Center Beacon  
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Location ID		OU1EPSV047	OU1EPSV048	OU1EPSV049	OU1EPSV050	OU1EPSV051	OU1EPSV052
Sample Delivery Group (SDG)		1812284R1	1812284R1	1812283R2	1812283R2	1812283R2	1812284R1
Lab Sample ID		1812284R1-11A	1812284R1-12A	1812283R2-19A	1812283R2-15A	1812283R2-16A	1812284R1-13A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/11/2018	12/11/2018	12/11/2018	12/11/2018	12/11/2018
Field Sample ID		OU1EPSV047-A-N-20181211	OU1EPSV048-A-N-20181211	OU1EPSV049-A-N-20181211	OU1EPSV050-A-N-20181211	OU1EPSV051-A-N-20181211	OU1EPSV052-A-N-20181211
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 14	< 14	< 12	< 12	< 12	< 9.7
1,1,1-Trichloroethane	71-55-6	< 3.2	< 3.2	< 2.7	< 2.7	< 2.7	< 2.2
1,1,2,2-Tetrachloroethane	79-34-5	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75
1,1,2-Trichloroethane	79-00-5	< 1.8	< 1.8	< 1.6	< 1.6	< 1.6	< 1.3
1,1-Dichloroethane	75-34-3	< 3	< 3	< 2.6	< 2.6	< 2.6	< 2.2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.59	< 0.59	< 0.5	< 0.5	< 0.5	< 0.41
1,2-Dichloroethane	107-06-2	< 2.1	< 2.1	< 1.8	< 1.8	< 1.8	< 1.5
1,3-Dichlorobenzene	541-73-1	< 0.66	< 0.66	< 0.56	< 0.56	< 0.56	< 0.47
1,4-Dichlorobenzene	106-46-7	< 0.63	< 0.63	< 0.54	< 0.54	< 0.54	< 0.45
2-Butanone (Methyl ethyl ketone)	78-93-3	< 3.2	< 3.2	< 2.8	< 2.8	< 2.8	< 2.3
4-Methyl-2-pentanone	108-10-1	< 3.8	< 3.8	< 3.2	< 3.2	< 3.2	< 2.7
Benzene	71-43-2	< 8.7	< 8.7	< 7.4	< 7.4	< 7.4	< 6.1
Carbon Tetrachloride	56-23-5	< 2.7	< 2.7	< 2.3	< 2.3	< 2.3	< 1.9
Chlorobenzene	108-90-7	< 1.3	< 1.3	< 1.1	< 1.1	< 1.1	< 0.93
Chloroform	67-66-3	< 2.4	< 2.4	< 2.1	< 2.1	< 2.1	< 1.7
Chloromethane (Methyl chloride)	74-87-3	< 16	< 16	< 13	< 13	< 14	< 11
cis-1,2-Dichloroethene	156-59-2	< 2.5	< 2.5	< 2.1	< 2.1	< 2.1	< 1.7
Cyclohexane	110-82-7	< 2.4	< 2.4	< 2	< 2	< 2	< 1.7
Ethylbenzene	100-41-4	< 1.1	< 1.1	< 0.96	< 0.96	< 0.96	< 0.8
m,p-Xylenes	XYLENES-MP	< 1.1	< 1.1	< 0.96	1.1	< 0.96	< 0.8
Methyl-t-butyl ether	1634-04-4	< 3	< 3	< 2.5	< 2.5	< 2.5	< 2.1
o-Xylene	95-47-6	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75
Styrene	100-42-5	< 1	< 1	< 0.9	< 0.9	0.96	< 0.75
Tetrachloroethene	127-18-4	< 1.2	< 1.2	< 1	< 1	< 1	< 0.86
Toluene	108-88-3	14	< 3.2	< 2.7	< 2.7	39	< 2.2
trans-1,2-Dichloroethene	156-60-5	< 5.9	< 5.9	< 5	< 5	< 5	< 4.1
Trichloroethene (Trichloroethylene)	79-01-6	< 1.8	< 1.8	< 1.5	< 1.5	< 1.5	< 1.3
Vinyl chloride (Chloroethene)	75-01-4	< 15	< 15	< 13	< 13	< 13	< 11
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 1	< 1	< 0.9	< 0.9	< 0.9	< 0.75

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EPSV053	OU1EPSV054	OU1EPSV055	OU1EPSV056	OU1EPSV057	OU1EPSV058
Sample Delivery Group (SDG)		1812283R2	1812283R2	1812284R1	1812284R1	1812284R1	1812285R1
Lab Sample ID		1812283R2-17A	1812283R2-18A	1812284R1-22A	1812284R1-23A	1812284R1-24A	1812285R1-05A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/11/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EPSV053-A-N-20181211	OU1EPSV054-A-N-20181211	OU1EPSV055-A-N-20181210	OU1EPSV056-A-N-20181210	OU1EPSV057-A-N-20181210	OU1EPSV058-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 12	< 12	< 9.8	< 9.8	< 9.8	< 11
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.7	< 2.2	< 2.2	< 2.2	< 2.5
1,1,2,2-Tetrachloroethane	79-34-5	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.83
1,1,2-Trichloroethane	79-00-5	< 1.6	< 1.6	< 1.3	< 1.3	< 1.3	< 1.4
1,1-Dichloroethane	75-34-3	< 2.6	< 2.6	< 2.2	< 2.2	< 2.2	< 2.4
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.5	< 0.42	< 0.42	< 0.42	< 0.46
1,2-Dichloroethane	107-06-2	< 1.8	< 1.8	< 1.5	< 1.5	< 1.5	< 1.6
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.56	< 0.47	< 0.47	< 0.47	< 0.52
1,4-Dichlorobenzene	106-46-7	< 0.54	< 0.54	< 0.45	< 0.45	< 0.45	< 0.5
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.8	< 2.8	< 2.3	< 2.3	< 2.3	< 2.5
4-Methyl-2-pentanone	108-10-1	< 3.2	< 3.2	< 2.7	< 2.7	< 2.7	< 3
Benzene	71-43-2	< 7.4	< 7.4	< 6.1	< 6.1	< 6.2	< 6.8
Carbon Tetrachloride	56-23-5	< 2.3	< 2.3	< 1.9	< 1.9	< 1.9	< 2.1
Chlorobenzene	108-90-7	< 1.1	< 1.1	< 0.93	< 0.94	< 0.94	< 1
Chloroform	67-66-3	< 2.1	< 2.1	< 1.7	< 1.7	< 1.7	< 1.9
Chloromethane (Methyl chloride)	74-87-3	< 14	< 14	< 11	< 11	< 11	< 12
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 2.1	< 1.8	< 1.8	< 1.8	< 1.9
Cyclohexane	110-82-7	< 2	< 2	< 1.7	< 1.7	< 1.7	< 1.9
Ethylbenzene	100-41-4	< 0.96	< 0.96	< 0.8	< 0.8	< 0.8	< 0.88
m,p-Xylenes	XYLENES-MP	< 0.96	0.98	< 0.8	< 0.8	< 0.8	< 0.88
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.5	< 2.1	< 2.1	< 2.1	< 2.3
o-Xylene	95-47-6	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.83
Styrene	100-42-5	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.83
Tetrachloroethene	127-18-4	< 1	< 1	< 0.86	< 0.86	< 0.86	< 0.95
Toluene	108-88-3	< 2.7	3.8	< 2.2	< 2.2	< 2.2	< 2.5
trans-1,2-Dichloroethene	156-60-5	< 5	< 5	< 4.2	< 4.2	< 4.2	< 4.6
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.5	< 1.3	< 1.3	< 1.3	< 1.4
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 13	< 11	< 11	< 11	< 12
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.83

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EPSV059	OU1EPSV064	OU1EPSV065	OU1EPSV070	OU1EPSV072	OU1EPSV073
Sample Delivery Group (SDG)		1812285R1	1812285R1	1812285R1	1812284R1	1812283R2	1812284R1
Lab Sample ID		1812285R1-06A	1812285R1-17A	1812285R1-18A	1812284R1-14A	1812283R2-25A	1812284R1-01A
Lab Method		EPA TO-17					
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/11/2018	12/11/2018	12/11/2018
Field Sample ID		OU1EPSV059-A-N-20181210	OU1EPSV064-A-N-20181210	OU1EPSV065-A-N-20181210	OU1EPSV070-A-N-20181211	OU1EPSV072-A-N-20181211	OU1EPSV073-A-N-20181211
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 11	< 12	< 12	< 14	< 12	< 12
1,1,1-Trichloroethane	71-55-6	< 2.5	< 2.7	< 2.7	< 3.2	< 2.7	< 2.7
1,1,2,2-Tetrachloroethane	79-34-5	< 0.82	< 0.89	< 0.9	< 1	< 0.9	< 0.9
1,1,2-Trichloroethane	79-00-5	< 1.4	< 1.5	< 1.5	< 1.8	< 1.6	< 1.6
1,1-Dichloroethane	75-34-3	< 2.4	< 2.6	< 2.6	< 3	< 2.6	< 2.6
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.46	< 0.5	< 0.5	< 0.59	< 0.5	< 0.5
1,2-Dichloroethane	107-06-2	< 1.6	< 1.8	< 1.8	< 2.1	< 1.8	< 1.8
1,3-Dichlorobenzene	541-73-1	< 0.52	< 0.56	< 0.56	< 0.66	< 0.56	< 0.56
1,4-Dichlorobenzene	106-46-7	< 0.5	< 0.54	< 0.54	< 0.64	< 0.54	< 0.54
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.5	< 2.7	< 2.7	< 3.2	< 2.8	< 2.8
4-Methyl-2-pentanone	108-10-1	< 2.9	< 3.2	< 3.2	< 3.8	< 3.2	< 3.2
Benzene	71-43-2	< 6.8	< 7.4	< 7.4	< 8.7	< 7.4	< 7.4
Carbon Tetrachloride	56-23-5	< 2.1	< 2.3	< 2.3	< 2.7	< 2.3	< 2.3
Chlorobenzene	108-90-7	< 1	< 1.1	< 1.1	< 1.3	< 1.1	< 1.1
Chloroform	67-66-3	< 1.9	< 2.1	< 2.1	< 2.4	< 2.1	< 2.1
Chloromethane (Methyl chloride)	74-87-3	< 12	< 13	< 13	< 16	< 14	< 14
cis-1,2-Dichloroethene	156-59-2	< 1.9	< 2.1	< 2.1	< 2.5	< 2.1	< 2.1
Cyclohexane	110-82-7	< 1.9	< 2	< 2	< 2.4	< 2	< 2
Ethylbenzene	100-41-4	< 0.88	< 0.96	< 0.96	< 1.1	< 0.96	< 0.96
m,p-Xylenes	XYLENES-MP	< 0.88	< 0.96	1	< 1.1	1.5	< 0.96
Methyl-t-butyl ether	1634-04-4	< 2.3	< 2.5	< 2.5	< 3	< 2.5	< 2.5
o-Xylene	95-47-6	< 0.82	20	< 0.9	< 1	< 0.9	< 0.9
Styrene	100-42-5	< 0.82	< 0.89	< 0.9	< 1	< 0.9	< 0.9
Tetrachloroethene	127-18-4	< 0.95	< 1	< 1	< 1.2	< 1	< 1
Toluene	108-88-3	< 2.5	< 2.7	< 2.7	< 3.2	2.5	< 2.7
trans-1,2-Dichloroethene	156-60-5	< 4.6	< 5	< 5	< 5.9	< 5	< 5
Trichloroethene (Trichloroethylene)	79-01-6	< 1.4	< 1.5	< 1.5	< 1.8	< 1.5	< 1.5
Vinyl chloride (Chloroethene)	75-01-4	< 12	< 13	< 13	< 15	< 13	< 13
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.82	< 0.89	< 0.9	< 1	< 0.9	< 0.9

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**Table 6-3**  
**2018 Passive Soil Vapor Point Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Location ID		OU1EPSV074	OU1EPSV075	OU1EPSV076	OU1EPSV080	OU1EPSV086	OU1EPSV088
Sample Delivery Group (SDG)		1812284R1	1812284R1	1812284R1	1812283R2	1812283R2	1812284R1
Lab Sample ID		1812284R1-15A	1812284R1-02A	1812284R1-03A	1812283R2-01A	1812283R2-09A	1812284R1-16A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/11/2018
Field Sample ID		OU1EPSV074-A-N-20181211	OU1EPSV075-A-N-20181210	OU1EPSV076-A-N-20181210	OU1EPSV080-A-N-20181210	OU1EPSV086-A-N-20181210	OU1EPSV088-A-N-20181211
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 14	< 12	< 12	< 12	< 12	< 14
1,1,1-Trichloroethane	71-55-6	< 3.2	< 2.8	< 2.8	< 2.7	< 2.7	< 3.2
1,1,2,2-Tetrachloroethane	79-34-5	< 1.1	< 0.92	< 0.92	< 0.89	< 0.9	< 1
1,1,2-Trichloroethane	79-00-5	< 1.8	< 1.6	< 1.6	< 1.5	< 1.5	< 1.8
1,1-Dichloroethane	75-34-3	< 3.1	< 2.7	< 2.7	< 2.6	< 2.6	< 3
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.59	< 0.51	< 0.51	< 0.5	< 0.5	< 0.59
1,2-Dichloroethane	107-06-2	< 2.1	< 1.8	< 1.8	< 1.8	< 1.8	< 2.1
1,3-Dichlorobenzene	541-73-1	< 0.66	< 0.58	< 0.58	< 0.56	< 0.56	< 0.66
1,4-Dichlorobenzene	106-46-7	< 0.64	< 0.55	< 0.55	< 0.54	< 0.54	< 0.64
2-Butanone (Methyl ethyl ketone)	78-93-3	< 3.2	< 2.8	< 2.8	< 2.7	< 2.8	< 3.2
4-Methyl-2-pentanone	108-10-1	< 3.8	< 3.3	< 3.3	< 3.2	< 3.2	< 3.8
Benzene	71-43-2	< 8.7	< 7.6	< 7.6	< 7.4	< 7.4	< 8.7
Carbon Tetrachloride	56-23-5	< 2.7	< 2.4	< 2.3	< 2.3	< 2.3	< 2.7
Chlorobenzene	108-90-7	< 1.3	< 1.2	< 1.2	< 1.1	< 1.1	< 1.3
Chloroform	67-66-3	< 2.4	< 2.1	< 2.1	< 2.1	< 2.1	< 2.4
Chloromethane (Methyl chloride)	74-87-3	< 16	< 14	< 14	< 13	< 13	< 16
cis-1,2-Dichloroethene	156-59-2	< 2.5	< 2.2	< 2.2	< 2.1	< 2.1	< 2.5
Cyclohexane	110-82-7	< 2.4	< 2.1	< 2.1	< 2	< 2	< 2.4
Ethylbenzene	100-41-4	< 1.1	< 0.99	< 0.99	< 0.96	< 0.96	< 1.1
m,p-Xylenes	XYLENES-MP	< 1.1	< 0.99	1.4	< 0.96	< 0.96	2.1
Methyl-t-butyl ether	1634-04-4	< 3	< 2.6	< 2.6	< 2.5	< 2.5	< 3
o-Xylene	95-47-6	< 1.1	< 0.92	< 0.92	< 0.89	< 0.9	1.3
Styrene	100-42-5	< 1.1	< 0.92	< 0.92	< 0.89	< 0.9	< 1
Tetrachloroethene	127-18-4	< 1.2	< 1.1	< 1.1	< 1	< 1	< 1.2
Toluene	108-88-3	< 3.2	< 2.8	< 2.8	< 2.7	< 2.7	12
trans-1,2-Dichloroethene	156-60-5	< 5.9	< 5.1	< 5.1	< 5	< 5	< 5.9
Trichloroethene (Trichloroethylene)	79-01-6	< 1.8	< 1.6	< 1.6	< 1.5	< 1.5	< 1.8
Vinyl chloride (Chloroethene)	75-01-4	< 16	< 14	< 14	< 13	< 13	< 15
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 1.1	< 0.92	< 0.92	< 0.89	< 0.9	< 1

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EPSV089	OU1EPSV090	OU1EPSV094	OU1EPSV095	OU1EPSV097	OU1EPSV098
Sample Delivery Group (SDG)		1812283R2	1812283R2	1812284R1	1812285R1	1812285R1	1812285R1
Lab Sample ID		1812283R2-20A	1812283R2-21A	1812284R1-25A	1812285R1-01A	1812285R1-02A	1812285R1-03A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/11/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EPSV089-A-N-20181211	OU1EPSV090-A-N-20181211	OU1EPSV094-A-N-20181210	OU1EPSV095-A-N-20181210	OU1EPSV097-A-N-20181210	OU1EPSV098-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 12	< 12	< 9.7	< 9.7	< 9.8	< 9.8
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.7	< 2.2	4.1	< 2.2	< 2.2
1,1,2,2-Tetrachloroethane	79-34-5	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.75
1,1,2-Trichloroethane	79-00-5	< 1.5	< 1.5	< 1.3	2.5	< 1.3	< 1.3
1,1-Dichloroethane	75-34-3	< 2.6	< 2.6	< 2.2	4.1	< 2.2	< 2.2
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.5	< 0.42	0.65	< 0.42	< 0.42
1,2-Dichloroethane	107-06-2	< 1.8	< 1.8	< 1.5	2.7	< 1.5	< 1.5
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.56	< 0.47	0.82	< 0.47	< 0.47
1,4-Dichlorobenzene	106-46-7	< 0.54	< 0.54	< 0.45	0.76	< 0.45	< 0.45
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.7	3	< 2.3	3.4	< 2.3	< 2.3
4-Methyl-2-pentanone	108-10-1	< 3.2	< 3.2	< 2.7	< 2.7	< 2.7	< 2.7
Benzene	71-43-2	< 7.4	< 7.4	< 6.1	< 6.1	< 6.2	< 6.1
Carbon Tetrachloride	56-23-5	< 2.3	< 2.3	< 1.9	3.5	< 1.9	< 1.9
Chlorobenzene	108-90-7	< 1.1	< 1.1	< 0.93	1.7	< 0.94	< 0.93
Chloroform	67-66-3	< 2.1	< 2.1	< 1.7	3.3	< 1.7	< 1.7
Chloromethane (Methyl chloride)	74-87-3	< 13	< 13	< 11	< 11	< 11	< 11
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 2.1	< 1.8	3.2	< 1.8	< 1.8
Cyclohexane	110-82-7	< 2	< 2	< 1.7	3.5	< 1.7	< 1.7
Ethylbenzene	100-41-4	1.1	< 0.96	< 0.8	1.6	< 0.8	< 0.8
m,p-Xylenes	XYLENES-MP	2.1	< 0.96	< 0.8	3	< 0.8	< 0.8
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.5	< 2.1	3.9	< 2.1	< 2.1
o-Xylene	95-47-6	1.3	< 0.9	< 0.75	1.4	< 0.75	< 0.75
Styrene	100-42-5	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.75
Tetrachloroethene	127-18-4	< 1	< 1	< 0.86	1.8	< 0.86	< 0.86
Toluene	108-88-3	50	< 1.3	< 2.2	2.6	< 2.2	< 2.2
trans-1,2-Dichloroethene	156-60-5	< 5	< 5	< 4.2	4.2	< 4.2	< 4.2
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.5	< 1.3	3.1	< 1.3	< 1.3
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 13	< 11	< 11	< 11	< 11
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.9	< 0.9	< 0.75	< 0.75	< 0.75	< 0.75

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Table 6-3  
 2018 Passive Soil Vapor Point Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		OU1EPSV101	OU1EPSV102	OU1EPSV108	OU1EPSV109	OU1EPSV110	OU1EPSV111
Sample Delivery Group (SDG)		1812285R1	1812285R1	1812283R2	1812283R2	1812283R2	1812283R2
Lab Sample ID		1812285R1-19A	1812285R1-20A	1812283R2-02A	1812283R2-10A	1812283R2-11A	1812283R2-12A
Lab Method		EPA TO-17					
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/11/2018
Field Sample ID		OU1EPSV101-A-N-20181210	OU1EPSV102-A-N-20181210	OU1EPSV108-A-N-20181210	OU1EPSV109-A-N-20181210	OU1EPSV110-A-N-20181210	OU1EPSV111-A-N-20181211
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 12	< 12	< 12	< 12	< 12	< 12
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.7	< 2.7	< 2.8	< 2.8	< 2.7
1,1,2,2-Tetrachloroethane	79-34-5	< 0.9	< 0.9	< 0.89	< 0.92	< 0.92	< 0.9
1,1,2-Trichloroethane	79-00-5	< 1.5	< 1.5	< 1.5	< 1.6	< 1.6	< 1.5
1,1-Dichloroethane	75-34-3	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.5	< 0.49	< 0.51	< 0.51	< 0.5
1,2-Dichloroethane	107-06-2	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.56	< 0.56	< 0.57	< 0.58	< 0.56
1,4-Dichlorobenzene	106-46-7	< 0.54	< 0.54	< 0.53	< 0.55	< 0.55	< 0.54
2-Butanone (Methyl ethyl ketone)	78-93-3	3.9	< 2.7	< 2.7	< 2.8	< 2.8	< 2.7
4-Methyl-2-pentanone	108-10-1	< 3.2	< 3.2	< 3.2	< 3.3	< 3.3	< 3.2
Benzene	71-43-2	< 7.4	< 7.4	< 7.3	< 7.6	< 7.6	< 7.4
Carbon Tetrachloride	56-23-5	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
Chlorobenzene	108-90-7	< 1.1	< 1.1	< 1.1	< 1.1	< 1.2	< 1.1
Chloroform	67-66-3	< 2.1	< 2.1	< 2	< 2.1	< 2.1	< 2.1
Chloromethane (Methyl chloride)	74-87-3	< 13	< 13	< 13	< 14	< 14	< 13
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 2.1	< 2.1	< 2.2	< 2.2	< 2.1
Cyclohexane	110-82-7	< 2	< 2	< 2	< 2.1	< 2.1	< 2
Ethylbenzene	100-41-4	< 0.96	< 0.96	< 0.95	< 0.98	< 0.99	< 0.96
m,p-Xylenes	XYLENES-MP	< 0.96	< 0.96	< 0.95	1.2	< 0.99	3.5
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.5	< 2.5	< 2.6	< 2.6	< 2.5
o-Xylene	95-47-6	< 0.9	< 0.9	< 0.89	< 0.92	< 0.92	2.1
Styrene	100-42-5	< 0.9	< 0.9	< 0.89	< 0.92	< 0.92	< 0.9
Tetrachloroethene	127-18-4	< 1	< 1	< 1	< 1.1	< 1.1	< 1
Toluene	108-88-3	2.8	< 2.7	< 2.7	3.1	7.2	2.8
trans-1,2-Dichloroethene	156-60-5	< 5	< 5	< 4.9	< 5.1	< 5.1	< 5
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.5	< 1.5	< 1.6	< 1.6	< 1.5
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 13	< 13	< 13	< 13	< 13
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.9	< 0.9	< 0.89	< 0.92	< 0.92	< 0.9

Notes are on last page.

**Table 6-3**  
**2018 Passive Soil Vapor Point Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Location ID		OU1EPSV112	OU1EPSV114	OU1EPSV117	OU1EPSV118	OU1EPSV119	OU1EPSV120
Sample Delivery Group (SDG)		1812283R2	1812285R1	1812283R2	1812283R2	1812283R2	1812283R2
Lab Sample ID		1812283R2-13A	1812285R1-04A	1812283R2-03A	1812283R2-04A	1812283R2-05A	1812283R2-06A
Lab Method		EPA TO-17					
Sample Date		12/11/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018	12/10/2018
Field Sample ID		OU1EPSV112-A-N-20181211	OU1EPSV114-A-N-20181210	OU1EPSV117-A-N-20181210	OU1EPSV118-A-N-20181210	OU1EPSV119-A-N-20181210	OU1EPSV120-A-N-20181210
Sample Purpose		REG	REG	REG	REG	REG	REG
Parameter Name	Parameter Code						
<b>Volatile Organic Compounds</b>							
1,1-Dichloroethene	75-35-4	< 12	< 9.8	< 12	< 12	< 12	< 12
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.2	< 2.7	< 2.7	< 2.7	< 2.7
1,1,2,2-Tetrachloroethane	79-34-5	< 0.9	< 0.75	< 0.89	< 0.89	< 0.89	< 0.89
1,1,2-Trichloroethane	79-00-5	< 1.5	< 1.3	< 1.5	< 1.5	< 1.5	< 1.5
1,1-Dichloroethane	75-34-3	< 2.6	< 2.2	< 2.6	< 2.6	< 2.6	< 2.6
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.42	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	107-06-2	< 1.8	< 1.5	< 1.8	< 1.8	< 1.8	< 1.8
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.47	< 0.56	< 0.56	< 0.56	< 0.56
1,4-Dichlorobenzene	106-46-7	< 0.54	< 0.45	< 0.54	< 0.54	< 0.54	< 0.54
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.7	< 2.3	< 2.7	< 2.7	< 2.7	< 2.7
4-Methyl-2-pentanone	108-10-1	< 3.2	< 2.7	< 3.2	< 3.2	< 3.2	< 3.2
Benzene	71-43-2	< 7.4	< 6.1	< 7.3	< 7.3	< 7.3	< 7.3
Carbon Tetrachloride	56-23-5	< 2.3	< 1.9	< 2.3	< 2.3	< 2.3	< 2.3
Chlorobenzene	108-90-7	< 1.1	< 0.93	< 1.1	< 1.1	< 1.1	< 1.1
Chloroform	67-66-3	< 2.1	< 1.7	< 2	< 2	< 2	< 2.1
Chloromethane (Methyl chloride)	74-87-3	< 13	< 11	< 13	< 13	< 13	< 13
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 1.8	< 2.1	< 2.1	< 2.1	< 2.1
Cyclohexane	110-82-7	< 2	< 1.7	< 2	< 2	< 2	< 2
Ethylbenzene	100-41-4	< 0.96	< 0.8	< 0.96	< 0.96	< 0.96	< 0.96
m,p-Xylenes	XYLENES-MP	2.1	< 0.8	< 0.96	< 0.96	< 0.96	< 0.96
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.1	< 2.5	< 2.5	< 2.5	< 2.5
o-Xylene	95-47-6	1	< 0.75	< 0.89	< 0.89	< 0.89	< 0.89
Styrene	100-42-5	< 0.9	< 0.75	< 0.89	< 0.89	< 0.89	< 0.89
Tetrachloroethene	127-18-4	< 1	< 0.86	< 1	< 1	< 1	< 1
Toluene	108-88-3	4.6	< 2.2	< 2.7	< 2.7	< 2.7	< 2.7
trans-1,2-Dichloroethene	156-60-5	< 5	< 4.2	< 5	< 5	< 5	< 5
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.3	< 1.5	< 1.5	< 1.5	< 1.5
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 11	< 13	< 13	< 13	< 13
<b>Semivolatile Organic Compounds</b>							
Naphthalene	91-20-3	< 0.9	< 0.75	< 0.89	< 0.89	< 0.89	< 0.89

Notes are on last page.

**Table 6-3**  
**2018 Passive Soil Vapor Point Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

Location ID		OU1EPSV124	OU1EPSV125	OU1EPSV126	OU1EPSV127
Sample Delivery Group (SDG)		1812283R2	1812283R2	1812283R2	1812284R1
Lab Sample ID		1812283R2-07A	1812283R2-08A	1812283R2-14A	1812284R1-17A
Lab Method		EPA TO-17	EPA TO-17	EPA TO-17	EPA TO-17
Sample Date		12/10/2018	12/10/2018	12/10/2018	12/11/2018
Field Sample ID		OU1EPSV124-A-N-20181210	OU1EPSV125-A-N-20181210	OU1EPSV126-A-N-20181210	OU1EPSV127-A-N-20181211
Sample Purpose		REG	REG	REG	REG
Parameter Name	Parameter Code				
<b>Volatile Organic Compounds</b>					
1,1-Dichloroethene	75-35-4	< 12	< 12	< 12	< 14
1,1,1-Trichloroethane	71-55-6	< 2.7	< 2.7	< 2.8	< 3.2
1,1,2,2-Tetrachloroethane	79-34-5	< 0.89	< 0.89	< 0.92	< 1
1,1,2-Trichloroethane	79-00-5	< 1.5	< 1.5	< 1.6	< 1.8
1,1-Dichloroethane	75-34-3	< 2.6	< 2.6	< 2.6	< 3
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	< 0.5	< 0.5	< 0.51	< 0.59
1,2-Dichloroethane	107-06-2	< 1.8	< 1.8	< 1.8	< 2.1
1,3-Dichlorobenzene	541-73-1	< 0.56	< 0.56	< 0.57	< 0.66
1,4-Dichlorobenzene	106-46-7	< 0.53	< 0.54	< 0.55	< 0.63
2-Butanone (Methyl ethyl ketone)	78-93-3	< 2.7	< 2.7	< 2.8	< 3.2
4-Methyl-2-pentanone	108-10-1	< 3.2	< 3.2	< 3.3	< 3.8
Benzene	71-43-2	< 7.3	< 7.3	< 7.6	< 8.7
Carbon Tetrachloride	56-23-5	< 2.3	< 2.3	< 2.3	< 2.7
Chlorobenzene	108-90-7	< 1.1	< 1.1	< 1.1	< 1.3
Chloroform	67-66-3	< 2	< 2	< 2.1	< 2.4
Chloromethane (Methyl chloride)	74-87-3	< 13	< 13	< 14	< 16
cis-1,2-Dichloroethene	156-59-2	< 2.1	< 2.1	< 2.2	< 2.5
Cyclohexane	110-82-7	< 2	< 2	< 2.1	< 2.4
Ethylbenzene	100-41-4	< 0.95	< 0.96	< 0.98	< 1.1
m,p-Xylenes	XYLENES-MP	< 0.95	< 0.96	1.8	< 1.1
Methyl-t-butyl ether	1634-04-4	< 2.5	< 2.5	< 2.6	< 3
o-Xylene	95-47-6	< 0.89	< 0.89	< 0.92	< 1
Styrene	100-42-5	< 0.89	< 0.89	< 0.92	< 1
Tetrachloroethene	127-18-4	< 1	< 1	< 1.1	< 1.2
Toluene	108-88-3	9.6	6.2	7.4	< 3.2
trans-1,2-Dichloroethene	156-60-5	< 5	< 5	< 5.1	< 5.9
Trichloroethene (Trichloroethylene)	79-01-6	< 1.5	< 1.5	< 1.6	< 1.8
Vinyl chloride (Chloroethene)	75-01-4	< 13	< 13	< 13	< 15
<b>Semivolatile Organic Compounds</b>					
Naphthalene	91-20-3	< 0.89	< 0.89	< 0.92	< 1

Notes are on last page.

**Table 6-3**  
**2018 Passive Soil Vapor Point Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

**Notes:**

Report units are in micrograms per cubic meter (ug/m<sup>3</sup>).

< = Not detected at the laboratory method detection limit.

J = Result detected between the reporting limit and the method detection limit.

Table 6-4  
 2020 OU-4 Soil Vapor Intrusion Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		2017 NYSDOH Indoor Air Screening Matrix Value	2017 NYSDOH Sub-Slab Soil Gas Screening Matrix Value	B2-IA-01 2/21/2020 B2-IA-01-A-N- 20200221 Indoor Air	B2-SS-01 2/21/2020 B2-SS-01-A-N- 20200221 Sub-Slab Soil Gas	B2-SS-01 (DUP) 2/21/2020 DUP-01-A-N- 20200221 Sub-Slab Soil Gas	B2-IA-02 2/21/2020 B2-IA-02-A-N- 20200221 Indoor Air	B2-SS-02 2/21/2020 B2-SS-02-A-N- 20200221 Sub-Slab Soil Gas	B3-IA-01 2/21/2020 B3-IA-01-A-N- 20200221 Indoor Air	B3-CS-01 2/21/2020 B3-CS-01-A-N- 20200221 Crawlspace Air	B3-IA-02 2/21/2020 B3-IA-02-A-N- 20200221 Indoor Air
Sample Date											
Field Sample ID											
Sample Type											
Parameter Name	CAS Number										
<b>Volatile Organic Compounds</b>											
1,1 Dichloroethene	75-35-4	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.063	< 0.061	< 0.061	< 0.063	< 0.061	< 0.058	< 0.059	< 0.060
1,1,1-Trichloroethane	71-55-6	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 0.17	<b>0.36</b>	<b>0.35</b>	< 0.17	<b>1.8</b>	< 0.16	< 0.16	< 0.16
1,1,2,2-Tetrachloroethane	79-34-5	--	--	< 0.22	< 0.21	< 0.21	< 0.22	< 0.21	< 0.20	< 0.20	< 0.21
1,1,2-Trichloroethane	79-00-5	--	--	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.16	< 0.16	< 0.16
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	--	--	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.1	< 1.1	< 1.2
1,1-Dichloroethane	75-34-3	--	--	< 0.13	< 0.12	< 0.12	< 0.13	<b>0.24</b>	< 0.12	< 0.12	< 0.12
1,2-Dibromoethane	106-93-4	--	--	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.22	< 0.23	< 0.23
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	--	--	< 0.96	< 0.93	< 0.93	< 0.95	< 0.92	< 0.88	< 0.89	< 0.91
1,2-Dichloroethane	107-06-2	--	--	< 0.13	< 0.12	< 0.12	< 0.13	< 0.12	< 0.12	< 0.12	< 0.12
1,2-Dichloropropane	78-87-5	--	--	< 0.74	< 0.72	< 0.72	< 0.73	< 0.71	< 0.67	< 0.68	< 0.70
1,3-Dichlorobenzene	541-73-1	--	--	< 0.96	< 0.93	< 0.93	< 0.95	< 0.92	< 0.88	< 0.89	< 0.91
1,4-Dichlorobenzene	106-46-7	--	--	< 0.19	< 0.19	< 0.19	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18
2-Butanone (Methyl ethyl ketone)	78-93-3	--	--	< 2.4	< 2.3	<b>2.4</b>	< 2.3	< 2.2	< 2.2	< 2.2	< 2.2
2-Hexanone	591-78-6	--	--	< 3.3	< 3.2	< 3.2	< 3.2	< 3.1	< 3.0	< 3.0	< 3.1
4-Methyl-2-pentanone	108-10-1	--	--	< 0.66	< 0.63	< 0.63	< 0.65	< 0.63	< 0.60	< 0.61	< 0.62
Acetone	67-64-1	--	--	<b>44</b>	<b>16</b>	<b>24</b>	<b>13</b>	<b>7.4</b>	<b>9.4</b>	<b>6.1</b>	<b>18</b>
Benzene	71-43-2	--	--	<b>0.59</b>	< 0.25	< 0.25	<b>0.66</b>	< 0.24	<b>0.39</b>	<b>0.36</b>	<b>0.42</b>
Bromodichloromethane	75-27-4	--	--	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 0.98	< 0.99	< 1.0
Bromoform	75-25-2	--	--	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.5	< 1.5	< 1.6
Bromomethane (Methyl bromide)	74-83-9	--	--	< 3.1	< 3.0	< 3.0	< 3.1	< 3.0	< 2.8	< 2.9	< 3.0
Carbon disulfide	75-15-0	--	--	< 2.5	< 2.4	< 2.4	< 2.5	< 2.4	< 2.3	< 2.3	< 2.4
Carbon Tetrachloride	56-23-5	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	<b>0.41</b>	<b>0.84</b>	<b>0.91</b>	<b>0.46</b>	<b>1.7</b>	<b>0.48</b>	<b>0.54</b>	<b>0.44</b>
Chlorobenzene	108-90-7	--	--	< 0.74	< 0.71	< 0.71	< 0.73	< 0.70	< 0.67	< 0.68	< 0.70
Chloroethane	75-00-3	--	--	< 0.21	< 0.20	< 0.20	< 0.21	< 0.20	< 0.19	< 0.20	< 0.20
Chloroform	67-66-3	--	--	< 0.16	<b>0.42</b>	<b>0.42</b>	< 0.15	<b>1.4</b>	< 0.14	< 0.14	< 0.15
Chloromethane (Methyl chloride)	74-87-3	--	--	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.5	< 1.5	< 1.6
cis-1,2-Dichloroethene	156-59-2	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.13	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
cis-1,3-Dichloropropene	10061-01-5	--	--	< 0.73	< 0.70	< 0.70	< 0.72	< 0.69	< 0.66	< 0.67	< 0.69
Dibromochloromethane	124-48-1	--	--	< 1.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.2	< 1.3	< 1.3
Dichlorodifluoromethane (Freon 12)	75-71-8	--	--	<b>2.9</b>	<b>2.4</b>	<b>2.4</b>	<b>2.9</b>	<b>3.2</b>	<b>2.3</b>	<b>2.3</b>	<b>2.4</b>
Ethylbenzene	100-41-4	--	--	<b>0.39</b>	<b>0.16</b>	<b>0.2</b>	<b>0.43</b>	< 0.13	<b>0.34</b>	<b>0.22</b>	<b>0.44</b>
Isopropylbenzene	98-82-8	--	--	< 0.79	< 0.76	< 0.76	< 0.78	< 0.75	< 0.72	< 0.73	< 0.75
m,p-Xylenes	XYLENES-MP	--	--	<b>0.78</b>	<b>0.56</b>	<b>0.66</b>	<b>0.98</b>	<b>0.38</b>	<b>0.91</b>	<b>0.62</b>	<b>0.92</b>
Methyl-t-butyl ether	1634-04-4	--	--	< 0.58	< 0.56	< 0.56	< 0.57	< 0.55	< 0.53	< 0.53	< 0.55
Methylene chloride (Dichloromethane)	75-09-2	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.0	< 1.0	< 1.0
o-Xylene	95-47-6	--	--	<b>0.32</b>	<b>0.24</b>	<b>0.29</b>	<b>0.42</b>	<b>0.18</b>	<b>0.32</b>	<b>0.27</b>	<b>0.34</b>
Styrene	100-42-5	--	--	< 0.68	< 0.66	< 0.66	< 0.67	< 0.65	< 0.62	< 0.63	< 0.65

Table 6-4  
 2020 OU-4 Soil Vapor Intrusion Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID				B2-IA-01 2/21/2020 B2-IA-01-A-N- 20200221 Indoor Air	B2-SS-01 2/21/2020 B2-SS-01-A-N- 20200221 Sub-Slab Soil Gas	B2-SS-01 (DUP) 2/21/2020 DUP-01-A-N- 20200221 Sub-Slab Soil Gas	B2-IA-02 2/21/2020 B2-IA-02-A-N- 20200221 Indoor Air	B2-SS-02 2/21/2020 B2-SS-02-A-N- 20200221 Sub-Slab Soil Gas	B3-IA-01 2/21/2020 B3-IA-01-A-N- 20200221 Indoor Air	B3-CS-01 2/21/2020 B3-CS-01-A-N- 20200221 Crawlspace Air	B3-IA-02 2/21/2020 B3-IA-02-A-N- 20200221 Indoor Air
Sample Date		2017 NYSDOH Indoor Air Screening Matrix Value	2017 NYSDOH Sub-Slab Soil Gas Screening Matrix Value								
Field Sample ID											
Sample Type											
Parameter Name	CAS Number										
Tetrachloroethene	127-18-4	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 0.22	<b>0.35</b>	<b>0.34</b>	<b>0.22</b>	<b>1.8</b>	< 0.20	<b>0.32</b>	< 0.21
Toluene	108-88-3	--	--	<b>1</b>	<b>0.38</b>	<b>0.44</b>	<b>1.2</b>	< 0.29	<b>0.5</b>	<b>0.43</b>	<b>0.54</b>
trans-1,2-Dichloroethene	156-60-5	--	--	< 0.63	< 0.61	< 0.61	< 0.63	< 0.61	< 0.58	< 0.59	< 0.60
trans-1,3-Dichloropropene	10061-02-6	--	--	< 0.73	< 0.70	< 0.70	< 0.72	< 0.69	< 0.66	< 0.67	< 0.69
Trichloroethene (Trichloroethylene)	79-01-6	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.17	<b>0.23</b>	<b>0.23</b>	< 0.17	<b>2.6</b>	< 0.16	<b>0.25</b>	< 0.16
Trichlorofluoromethane (Freon 11)	75-69-4	--	--	<b>2</b>	<b>1.5</b>	<b>1.5</b>	<b>2</b>	<b>1.8</b>	<b>1.3</b>	<b>1.5</b>	<b>1.4</b>
Vinyl chloride (Chloroethene)	75-01-4	< 0.2 / 0.2<	< 6 / 6-60 / 60<	< 0.041	< 0.040	< 0.040	< 0.040	< 0.039	< 0.037	< 0.038	< 0.039
1,1,1,2-Tetrachloroethane	630-20-6	--	--	< 5.5	< 5.3	< 5.3	< 5.4	< 5.2	< 5.0	< 5.1	< 5.2
1,2,3-Trichloropropane	96-18-4	--	--	< 4.8	< 4.7	< 4.7	< 4.8	< 4.6	< 4.4	< 4.5	< 4.6
1,2,4-Trimethylbenzene	95-63-6	--	--	< 0.79	< 0.76	< 0.76	< 0.78	< 0.75	< 0.72	< 0.73	< 0.75
1,3,5-Trimethylbenzene	108-67-8	--	--	< 0.79	< 0.76	< 0.76	< 0.78	< 0.75	< 0.72	< 0.73	< 0.75
1,3-Butadiene	106-99-0	--	--	< 0.35	< 0.34	< 0.34	< 0.35	< 0.34	< 0.32	< 0.33	< 0.34
4-Ethyltoluene	622-96-8	--	--	< 0.79	< 0.76	< 0.76	< 0.78	< 0.75	< 0.72	< 0.73	< 0.75
Allyl chloride (3-Chloropropene)	107-05-1	--	--	< 2.5	< 2.4	< 2.4	< 2.5	< 2.4	< 2.3	< 2.3	< 2.4
Bromobenzene	108-86-1	--	--	< 5.1	< 5.0	< 5.0	< 5.1	< 4.9	< 4.7	< 4.8	< 4.9
Dibromomethane (Methylene bromide)	74-95-3	--	--	< 5.7	< 5.5	< 5.5	< 5.6	< 5.4	< 5.2	< 5.3	< 5.4
Dichlorofluoromethane	75-43-4	--	--	< 3.4	< 3.3	< 3.3	< 3.3	< 3.2	< 3.1	< 3.1	< 3.2
Freon 114	76-14-2	--	--	< 0.22	< 0.22	< 0.22	< 0.22	< 0.21	< 0.20	< 0.21	< 0.21
Freon 22 (Chlorodifluoromethane)	75-45-6	--	--	< 2.8	< 2.8	< 2.8	< 2.8	< 2.7	< 2.6	< 2.6	< 2.7
Heptane	142-82-5	--	--	< 3.3	< 3.2	< 3.2	< 3.2	< 3.1	< 3.0	< 3.0	< 3.1
Hexane	110-54-3	--	--	< 2.8	< 2.7	< 2.7	< 2.8	< 2.7	< 2.6	< 2.6	< 2.7
Isooctane	540-84-1	--	--	< 3.7	< 3.6	< 3.6	< 3.7	< 3.6	< 3.4	< 3.4	< 3.6
Octane	111-65-9	--	--	< 3.7	< 3.6	< 3.6	< 3.7	< 3.6	< 3.4	< 3.4	< 3.6
Pentane	109-66-0	--	--	<b>2.5</b>	< 2.3	< 2.3	<b>3</b>	< 2.2	< 2.2	< 2.2	< 2.2
<b>Semivolatile Organic Compounds</b>											
Hexachloroethane	67-72-1	--	--	< 7.7	< 7.5	< 7.5	< 7.6	< 7.4	< 7.1	< 7.2	< 7.4
<b>Metals</b>											
Mercury	7439-97-6	--	--	<b>0.92</b>	<b>1.5</b>	<b>1.5</b>	<b>0.78</b>	< 0.16	<b>0.26</b>	<b>1.1</b>	<b>0.59</b>

Notes are on last page.

Table 6-4  
 2020 OU-4 Soil Vapor Intrusion Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		2017 NYSDOH Indoor Air Screening Matrix Value	2017 NYSDOH Sub-Slab Soil Gas Screening Matrix Value	B3-IA-02 (DUP) 2/21/2020 DUP-02-A-N- 20200221 Indoor Air	B3-CS-02 2/21/2020 B3-CS-02-A-N- 20200221 Crawlspace Air	B4-IA-01 2/21/2020 B4-IA-01-A-N- 20200221 Indoor Air	B4-SS-01 2/21/2020 B4-SS-01-A-N- 20200221 Sub-Slab Soil Gas	B5-IA-01 2/21/2020 B5-IA-01-A-N- 20200221 Indoor Air	B5-SS-01 2/21/2020 B5-SS-01-A-N- 20200221 Sub-Slab Soil Gas	AA-01 2/21/2020 AA-01-A-N- 20200221 Ambient Air	AA-02 2/21/2020 AA-02-A-N- 20200221 Ambient Air
Sample Date											
Field Sample ID											
Sample Type											
Parameter Name	CAS Number										
<b>Volatile Organic Compounds</b>											
1,1-Dichloroethene	75-35-4	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.062	< 0.059	< 0.064	< 0.059	< 0.063	< 0.59	< 0.057	< 0.058
1,1,1-Trichloroethane	71-55-6	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 0.17	< 0.16	< 0.18	< 0.16	< 0.17	<b>2.3</b>	< 0.16	< 0.16
1,1,2,2-Tetrachloroethane	79-34-5	--	--	< 0.21	< 0.20	< 0.22	< 0.20	< 0.22	< 2.0	< 0.20	< 0.20
1,1,2-Trichloroethane	79-00-5	--	--	< 0.17	< 0.16	< 0.18	< 0.16	< 0.17	< 1.6	< 0.16	< 0.16
1,1,2-Trichlorotrifluoroethane (Freon 113)	76-13-1	--	--	< 1.2	< 1.1	< 1.2	< 1.1	< 1.2	< 11	< 1.1	< 1.1
1,1-Dichloroethane	75-34-3	--	--	< 0.13	< 0.12	< 0.13	< 0.12	< 0.13	< 1.2	< 0.12	< 0.12
1,2-Dibromoethane	106-93-4	--	--	< 0.24	< 0.23	< 0.25	< 0.23	< 0.24	< 2.3	< 0.22	< 0.22
1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	--	--	< 0.94	< 0.90	< 0.97	< 0.90	< 0.96	< 9.0	< 0.86	< 0.88
1,2-Dichloroethane	107-06-2	--	--	< 0.13	< 0.12	< 0.13	< 0.12	< 0.13	< 1.2	< 0.12	< 0.12
1,2-Dichloropropane	78-87-5	--	--	< 0.72	< 0.69	< 0.74	< 0.69	< 0.73	< 6.9	< 0.66	< 0.67
1,3-Dichlorobenzene	541-73-1	--	--	< 0.94	< 0.90	< 0.97	< 0.90	< 0.96	< 9.0	< 0.86	< 0.88
1,4-Dichlorobenzene	106-46-7	--	--	< 0.19	< 0.18	< 0.19	< 0.18	< 0.19	< 1.8	< 0.17	< 0.18
2-Butanone (Methyl ethyl ketone)	78-93-3	--	--	< 2.3	< 2.2	< 2.4	< 2.2	< 2.3	< 22	< 2.1	< 2.2
2-Hexanone	591-78-6	--	--	< 3.2	< 3.0	< 3.3	< 3.0	< 3.2	< 30	< 2.9	< 3.0
4-Methyl-2-pentanone	108-10-1	--	--	< 0.64	< 0.61	< 0.66	< 0.61	< 0.65	< 6.1	< 0.58	< 0.60
Acetone	67-64-1	--	--	<b>11</b>	<b>7.7</b>	<b>9.2</b>	<b>8.9</b>	<b>10</b>	<b>53</b>	<b>7.5</b>	<b>15</b>
Benzene	71-43-2	--	--	<b>0.41 J</b>	<b>0.27</b>	<b>2.5</b>	< 0.24	<b>2 J</b>	< 2.4	<b>0.48</b>	<b>0.43</b>
Bromodichloromethane	75-27-4	--	--	< 1.0	< 1.0	< 1.1	< 1.0	< 1.1	< 10	< 0.96	< 0.98
Bromoform	75-25-2	--	--	< 1.6	< 1.5	< 1.7	< 1.5	< 1.6	< 15	< 1.5	< 1.5
Bromomethane (Methyl bromide)	74-83-9	--	--	< 3.0	< 2.9	< 3.1	< 2.9	< 3.1	< 29	< 2.8	< 2.8
Carbon disulfide	75-15-0	--	--	< 2.4	< 2.3	< 2.5	< 2.3	< 2.5	< 23	< 2.2	< 2.3
Carbon Tetrachloride	56-23-5	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	<b>0.47</b>	<b>0.46</b>	<b>0.4</b>	<b>0.8</b>	<b>0.41</b>	<b>7.1</b>	<b>0.33</b>	<b>0.41</b>
Chlorobenzene	108-90-7	--	--	< 0.72	< 0.68	< 0.74	< 0.68	< 0.73	< 6.8	< 0.66	< 0.67
Chloroethane	75-00-3	--	--	< 0.20	< 0.20	< 0.21	< 0.20	< 0.21	< 2.0	< 0.19	< 0.19
Chloroform	67-66-3	--	--	< 0.15	<b>0.15</b>	< 0.16	<b>0.22</b>	< 0.16	<b>3.5</b>	< 0.14	< 0.14
Chloromethane (Methyl chloride)	74-87-3	--	--	< 1.6	< 1.5	< 1.7	< 1.5	< 1.6	< 15	< 1.5	<b>1.5</b>
cis-1,2-Dichloroethene	156-59-2	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.12	< 0.12	< 0.13	< 0.12	< 0.13	< 1.2	< 0.11	< 0.12
cis-1,3-Dichloropropene	10061-01-5	--	--	< 0.71	< 0.68	< 0.73	< 0.68	< 0.72	< 6.8	< 0.65	< 0.66
Dibromochloromethane	124-48-1	--	--	< 1.3	< 1.3	< 1.4	< 1.3	< 1.4	< 13	< 1.2	< 1.2
Dichlorodifluoromethane (Freon 12)	75-71-8	--	--	<b>2.2</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.6</b>	<b>2.3</b>	<b>2.3</b>
Ethylbenzene	100-41-4	--	--	<b>0.55</b>	<b>0.16</b>	<b>0.63</b>	<b>0.13</b>	<b>0.63</b>	< 1.3	<b>0.14</b>	< 0.13
Isopropylbenzene	98-82-8	--	--	< 0.77	< 0.73	< 0.79	< 0.73	< 0.78	< 7.3	< 0.70	< 0.72
m,p-Xylenes	XYLENES-MP	--	--	<b>0.83 J</b>	<b>0.46</b>	<b>1.5</b>	<b>0.39</b>	<b>1.4 J</b>	< 2.6	<b>0.4</b>	< 0.25
Methyl-t-butyl ether	1634-04-4	--	--	< 0.56	< 0.54	< 0.58	< 0.54	< 0.57	< 5.4	< 0.52	< 0.53
Methylene chloride (Dichloromethane)	75-09-2	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 1.1	< 1.0	< 1.1	< 1.0	< 1.1	< 10	< 0.99	< 1.0
o-Xylene	95-47-6	--	--	<b>0.29 J</b>	<b>0.22</b>	<b>0.56</b>	<b>0.21</b>	<b>0.57 J</b>	< 1.3	<b>0.21</b>	< 0.13
Styrene	100-42-5	--	--	< 0.66	< 0.63	< 0.68	< 0.63	< 0.68	< 6.3	< 0.61	< 0.62

Table 6-4  
 2020 OU-4 Soil Vapor Intrusion Data  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

Location ID		2017 NYSDOH Indoor Air Screening Matrix Value	2017 NYSDOH Sub-Slab Soil Gas Screening Matrix Value	B3-IA-02 (DUP) 2/21/2020 DUP-02-A-N- 20200221 Indoor Air	B3-CS-02 2/21/2020 B3-CS-02-A-N- 20200221 Crawlspace Air	B4-IA-01 2/21/2020 B4-IA-01-A-N- 20200221 Indoor Air	B4-SS-01 2/21/2020 B4-SS-01-A-N- 20200221 Sub-Slab Soil Gas	B5-IA-01 2/21/2020 B5-IA-01-A-N- 20200221 Indoor Air	B5-SS-01 2/21/2020 B5-SS-01-A-N- 20200221 Sub-Slab Soil Gas	AA-01 2/21/2020 AA-01-A-N- 20200221 Ambient Air	AA-02 2/21/2020 AA-02-A-N- 20200221 Ambient Air
Sample Date											
Field Sample ID											
Sample Type											
Parameter Name	CAS Number										
Tetrachloroethene	127-18-4	< 3 / 3-10 / 10<	< 100 / 100-1000 / 1000<	< 0.21	< 0.20	< 0.22	<b>0.37</b>	< 0.22	<b>6</b>	< 0.19	< 0.20
Toluene	108-88-3	--	--	<b>0.54 J</b>	<b>0.34</b>	<b>5.2</b>	<b>0.59</b>	<b>4.3 J</b>	< 2.8	<b>0.44</b>	<b>0.35</b>
trans-1,2-Dichloroethene	156-60-5	--	--	< 0.62	< 0.59	< 0.64	< 0.59	< 0.63	< 5.9	< 0.57	< 0.58
trans-1,3-Dichloropropene	10061-02-6	--	--	< 0.71	< 0.68	< 0.73	< 0.68	< 0.72	< 6.8	< 0.65	< 0.66
Trichloroethene (Trichloroethylene)	79-01-6	< 0.2 / 0.2-1 / 1<	< 6 / 6-60 / 60<	< 0.17	< 0.16	< 0.17	<b>0.41</b>	< 0.17	<b>1,500</b>	< 0.15	< 0.16
Trichlorofluoromethane (Freon 11)	75-69-4	--	--	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.4</b>	< 8.4	<b>1.2</b>	<b>1.3</b>
Vinyl chloride (Chloroethene)	75-01-4	< 0.2 / 0.2<	< 6 / 6-60 / 60<	< 0.040	< 0.038	< 0.041	< 0.038	< 0.041	< 0.38	< 0.036	< 0.037
1,1,1,2-Tetrachloroethane	630-20-6	--	--	< 5.4	< 5.1	< 5.5	< 5.1	< 5.4	< 51	< 4.9	< 5.0
1,2,3-Trichloropropane	96-18-4	--	--	< 4.7	< 4.5	< 4.8	< 4.5	< 4.8	< 45	< 4.3	< 4.4
1,2,4-Trimethylbenzene	95-63-6	--	--	< 0.77	< 0.73	< 0.79	< 0.73	< 0.78	< 7.3	< 0.70	< 0.72
1,3,5-Trimethylbenzene	108-67-8	--	--	< 0.77	< 0.73	< 0.79	< 0.73	< 0.78	< 7.3	< 0.70	< 0.72
1,3-Butadiene	106-99-0	--	--	< 0.34	< 0.33	< 0.36	< 0.33	< 0.35	< 3.3	< 0.32	< 0.32
4-Ethyltoluene	622-96-8	--	--	< 0.77	< 0.73	< 0.79	< 0.73	< 0.78	< 7.3	< 0.70	< 0.72
Allyl chloride (3-Chloropropene)	107-05-1	--	--	< 2.4	< 2.3	< 2.5	< 2.3	< 2.5	< 23	< 2.2	< 2.3
Bromobenzene	108-86-1	--	--	< 5.0	< 4.8	< 5.2	< 4.8	< 5.1	< 48	< 4.6	< 4.7
Dibromomethane (Methylene bromide)	74-95-3	--	--	< 5.5	< 5.3	< 5.7	< 5.3	< 5.6	< 53	< 5.1	< 5.2
Dichlorofluoromethane	75-43-4	--	--	< 3.3	< 3.1	< 3.4	< 3.1	< 3.3	< 31	< 3.0	< 3.1
Freon 114	76-14-2	--	--	< 0.22	< 0.21	< 0.22	< 0.21	< 0.22	< 2.1	< 0.20	< 0.20
Freon 22 (Chlorodifluoromethane)	75-45-6	--	--	< 2.8	< 2.6	< 2.8	< 2.6	< 2.8	< 26	< 2.5	< 2.6
Heptane	142-82-5	--	--	< 3.2	< 3.0	< 3.3	< 3.0	< 3.2	< 30	< 2.9	< 3.0
Hexane	110-54-3	--	--	< 2.7	< 2.6	<b>8.8</b>	< 2.6	<b>6.9</b>	< 26	< 2.5	< 2.6
Isooctane	540-84-1	--	--	< 3.6	< 3.5	<b>9.8</b>	< 3.5	<b>7.4</b>	< 35	< 3.3	< 3.4
Octane	111-65-9	--	--	< 3.6	< 3.5	< 3.8	< 3.5	< 3.7	< 35	< 3.3	< 3.4
Pentane	109-66-0	--	--	< 2.3	< 2.2	<b>21</b>	< 2.2	<b>17</b>	< 22	< 2.1	< 2.2
<b>Semivolatile Organic Compounds</b>											
Hexachloroethane	67-72-1	--	--	< 7.6	< 7.2	< 7.8	< 7.2	< 7.7	< 72	< 6.9	< 7.1
<b>Metals</b>											
Mercury	7439-97-6	--	--	<b>0.44</b>	<b>1.4</b>	<b>0.3</b>	< 0.1	<b>0.21</b>	< 0.16	< 0.14	< 0.081

Notes are on last page.

**Table 6-4**  
**2020 OU-4 Soil Vapor Intrusion Data**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

**Notes:**

1. All concentrations are in units of micrograms per cubic meter.
2. Detected concentrations are shown in **bold**.
3. Gray shading indicates concentration exceeded lowest NYSDOH Vapor Intrusion Guidance Decision Matrix screening value. Crawlspace results compared to indoor air screening values.
4. Samples analyzed via USEPA Method TO-15 (volatile organic compounds and semivolatile organic compounds) and NIOSH 6009 (metals).
5. Abbreviations/Definitions:
  - < = Analyte not detected at reporting limit. Reporting limit shown.
  - J = Result detected between the reporting limit and method detection limit.
  - NYSDOH = New York State Department of Health
  - NIOSH = National Institute for Occupational Safety and Health
  - USEPA = United States Environmental Protection Agency

Table 7-1  
 Surface Soil Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	Soil Cleanup Objectives for Protection of Ecological Resources <sup>1</sup> (mg/kg)	Number of Soil Samples	Number of Detected Concentrations	Range of Detected Concentrations (mg/kg)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (mg/kg)
<b>Background Analytical Data</b>						
<b>Pesticides</b>						
4,4-DDE	0.0033	41	36	0.00042-0.027	13	<b>0.00625</b>
4,4-DDT	0.0033	41	28	0.00049-0.017	11	<b>0.00397</b>
<b>Metals</b>						
Aluminum	10000	204	204	6020-27600	201	<b>19032</b>
Arsenic	13	204	204	3.02-14.3	3	7.611
Calcium	10000	204	204	142-103000	21	9354
Cobalt	20	204	204	1.71-29.5	1	10.27
Copper	50	204	204	5.95-106	3	23.36
Lead	63	204	204	9.66-445	34	<b>64.59</b>
Manganese	1600	204	204	210-4600	7	842.9
Nickel	30	204	204	10.1-47.9	11	22.34
Vanadium	39	204	204	17.4-53.8	19	30.63
Zinc	109	204	204	46.1-409	31	98.75
Mercury	0.18	251	251	0.0197-0.456	19	0.0925
<b>OU-1A</b>						
<b>Volatile Organic Compounds</b>						
Xylene (total)	0.26	279	44	0.001-37	10	<b>1.548</b>
<b>Semivolatile Organic Compounds</b>						
Benzo(a)pyrene	2.6	323	267	0.004-43	14	1.93
Di-n-butylphthalate	0.014	322	2	0.1-0.15	2	<b>0.15</b> <sup>3</sup>
<b>Pesticides</b>						
4,4-DDD	0.0033	17	1	0.0043-0.0043	1	<b>0.0043</b> <sup>3</sup>
4,4-DDE	0.0033	17	14	0.00047-1.4	7	<b>0.726</b>
4,4-DDT	0.0033	17	12	0.00091-0.23	8	<b>0.123</b>
ENDRIN	0.014	17	1	0.032-0.032	1	<b>0.032</b> <sup>3</sup>
<b>Metals</b>						
Aluminum	10000	301	301	622-35400	273	<b>15725</b>
Arsenic	13	301	300	1.87-527	113	<b>38.27</b>
Calcium	10000	301	301	338-216000	97	<b>20511</b>
Cobalt	20	301	300	1.66-37.6	2	9.7
Copper	50	301	301	1.86-369	27	40.47
Lead	63	301	299	3.79-34100	146	<b>148.9</b>
Manganese	1600	301	301	125-4630	6	649.7
Nickel	30	301	301	1.63-143	12	20.5
Silver	2	301	171	0.0321-13	2	0.48
Vanadium	39	301	301	4.16-222	17	27.88
Zinc	109	301	301	2.06-597	99	<b>133.1</b>
Mercury	0.18	301	276	0.0144-18.2	138	<b>0.857</b>

Table 7-1  
 Surface Soil Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	Soil Cleanup Objectives for Protection of Ecological Resources <sup>1</sup> (mg/kg)	Number of Soil Samples	Number of Detected Concentrations	Range of Detected Concentrations (mg/kg)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (mg/kg)
<b>OU-1B</b>						
<b>Pesticides</b>						
4,4-DDD	0.0033	54	12	0.00064-0.0061	2	0.00136
4,4-DDE	0.0033	54	48	0.00049-0.059	33	<b>0.021</b>
4,4-DDT	0.0033	54	46	0.00045-0.073	28	<b>0.019</b>
<b>Metals</b>						
Aluminum	10000	89	89	5050-32300	84	<b>21930</b>
Arsenic	13	89	89	3.8-34	17	11.22
Calcium	10000	89	89	108-21200	1	2318
Cobalt	20	89	89	3.86-28.7	4	11.11
Copper	50	89	89	11.3-112	12	38.44
Lead	63	89	89	13.1-564	42	<b>134.1</b>
Manganese	1600	89	89	111-5270	11	1206
Nickel	30	89	89	13.1-89.9	8	23.65
Selenium	3.9	89	62	0.291-5.04	1	0.914
Silver	2	89	78	0.0305-2.93	1	0.225
Thallium	5	89	75	0.109-8.19	1	1.286
Vanadium	39	89	89	14-145	53	<b>57.19</b>
Zinc	109	89	89	32.9-804	16	<b>118.5</b>
Mercury	0.18	107	107	0.0293-0.734	48	<b>0.241</b>
<b>OU-1C</b>						
<b>Pesticides</b>						
4,4-DDT	0.0033	8	6	0.00048-0.0042	2	0.00256
<b>Metals</b>						
Aluminum	10000	70	70	9250-27400	69	<b>18713</b>
Arsenic	13	71	71	3.3-506	48	<b>157.1</b>
Calcium	10000	71	71	211-41900	9	6882
Copper	50	71	71	13-137	11	41.17
Lead	63	71	71	13.2-665	29	<b>104.7</b>
Manganese	1600	71	71	228-2730	1	810
Nickel	30	71	71	12.7-70.4	16	28.6
Selenium	3.9	71	67	0.131-30.9	1	2.716
Vanadium	39	71	71	12.2-94.1	6	30.6
Zinc	109	71	71	43.8-659	39	<b>233.1</b>
Mercury	0.18	71	71	0.0184-1.47	33	<b>0.267</b>
<b>OU-1D</b>						
<b>Pesticides</b>						
4,4-DDD	0.0033	9	3	0.0005-0.0039	1	<b>0.0039</b> <sup>3</sup>
4,4-DDE	0.0033	9	9	0.002-0.2	3	<b>0.2</b> <sup>3</sup>
4,4-DDT	0.0033	9	9	0.0009-0.096	7	<b>0.0758</b>
<b>Metals</b>						
Aluminum	10000	46	46	8590-21500	44	<b>15786</b>
Arsenic	13	46	46	4.68-149	27	<b>63.22</b>
Calcium	10000	46	46	175-67000	13	<b>24202</b>
Copper	50	46	46	15-51.6	1	31.14
Lead	63	46	46	9.48-107	12	48.79
Manganese	1600	46	46	385-2790	1	813.1
Nickel	30	46	46	12.8-62.1	6	27.4
Vanadium	39	46	46	14.1-508	4	<b>104.2</b>
Zinc	109	46	46	52.1-173	7	98.28
Mercury	0.18	46	46	0.027-2.66	25	<b>0.636</b>

Table 7-1  
 Surface Soil Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	Soil Cleanup Objectives for Protection of Ecological Resources <sup>1</sup> (mg/kg)	Number of Soil Samples	Number of Detected Concentrations	Range of Detected Concentrations (mg/kg)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (mg/kg)
<b>OU-1E</b>						
<b>Semivolatile Organic Compounds</b>						
Benzo(a)pyrene	2.6	334	221	0.004-7.3	2	0.225
<b>Pesticides</b>						
4,4-DDE	0.0033	78	49	0.00043-0.0045	5	0.00123
<b>Metals</b>						
Aluminum	10000	334	334	8620-41500	331	<b>18582</b>
Arsenic	13	334	334	3.62-88.5	9	8.308
Calcium	10000	334	334	145-49100	9	2550
Cobalt	20	334	334	4.65-20.8	1	10.63
Lead	63	334	334	6.81-65.2	2	23.62
Manganese	1600	334	334	193-4060	6	786.3
Nickel	30	334	334	10.2-53.1	20	22.76
Vanadium	39	334	334	13.5-126	26	29.36
Zinc	109	334	334	38.6-196	18	79.07
Mercury	0.18	334	334	0.0207-1.28	14	0.101
<b>OU-3</b>						
<b>Semivolatile Organic Compounds</b>						
Di-n-butylphthalate	0.014	21	1	0.86-0.86	1	<b>0.86</b> <sup>3</sup>
<b>Pesticides</b>						
4,4-DDE	0.0033	5	5	0.0019-0.011	4	<b>0.011</b> <sup>3</sup>
4,4-DDT	0.0033	5	5	0.00052-0.004	1	<b>0.004</b> <sup>3</sup>
<b>Metals</b>						
Aluminum	10000	21	21	12000-22500	21	<b>18745</b>
Cobalt	20	21	21	6.8-20.7	1	13.17
Nickel	30	21	21	14.9-32.8	2	25.02
Vanadium	39	21	21	21.5-48	3	34.26
Mercury	0.18	21	21	0.0209-0.217	1	0.105
<b>OU-4</b>						
<b>Metals</b>						
Arsenic	13	59	59	1.5-21	2	7.858
Copper	50	59	59	11.8-1340	4	<b>154.7</b>
Lead	63	59	59	11.9-514	6	<b>96.03</b>
Manganese	1600	59	59	266-1760	1	734.3
Nickel	30	59	59	11.1-50.4	22	28.91
Selenium	3.9	59	21	0.826-4.19	1	1.164
Zinc	109	59	59	58.9-331	10	102.6
Mercury	0.18	82	81	0.0151-1.75	46	<b>0.461</b>

**Notes:**

1 = Soil Cleanup Objectives sourced from:

NYSDEC. 2010. CP-51/Soil Cleanup Guidance. October 21 - Table 1

NYSDEC. 2006. 6 NYCRR Part 375 Environmental Remediation Programs. December 14 - Table 375-6.8(b)

2 = Maximum concentration presented if there were insufficient number of detects to calculate UCL or if the UCL was greater than the maximum.

3=Maximum concentration presented.

**Bolded** = Exceeds Soil Cleanup Objective

mg/kg = milligrams per kilogram

UCL = 95 percent upper confidence limit on the mean

Table 7-2  
 Groundwater Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	New York Class C Ambient Water Quality Standards <sup>1</sup> (ug/L)	Number of Groundwater Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/L)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (ug/L)
<b>OU-1A, Bedrock Groundwater</b>						
<b>Volatile Organic Compounds</b>						
Benzene	210	595	237	0.5-560	3	13.84
Ethylbenzene	17	389	62	0.8-580	19	13.24
Toluene	100	389	75	0.7-340	5	12.52
Xylene (total)	65	389	67	0.8-980	11	20.35
<b>Semivolatile Organic Compounds</b>						
Acenaphthene	5.3	352	59	0.1-31	5	0.997
Benzo(a)anthracene	0.03	352	12	0.2-1.2	12	<b>0.0471</b>
Fluorene	0.54	352	58	0.1-12	41	<b>0.572</b>
Naphthalene	13	358	71	0.1-130	10	0.833
Phenanthrene	5	352	37	0.1-38	2	0.193
Pyrene	4.6	352	25	0.1-8	2	0.289
<b>Metals</b>						
Aluminum	100	335	257	0.32-71500	237	<b>2894</b>
Cadmium	2.9	335	33	0.009-8.6	3	0.475
Chromium	103	334	119	0.01-230	1	8.492
Cobalt	5	335	34	0.072-25.9	6	1.283
Copper	13	335	101	0.027-160	13	5.719
Iron	300	335	320	0.85-80700	236	<b>7788</b>
Lead	5.9	335	61	0.082-844	53	<b>17.93</b>
Selenium	4.6	335	5	0.005-11.8	4	2.153
Silver	0.1	335	2	1.7-1.9	2	<b>1.9<sup>3</sup></b>
Thallium	8	335	12	6.1-21.4	5	1.763
Vanadium	14	335	101	0.062-84.4	14	4.726
Zinc	117	334	217	0.027-1560	22	61.49
Mercury	0.0026	335	17	0.0004-33	15	<b>0.565</b>

Table 7-2  
Groundwater Summary Statistics  
Chevron Environmental Management Company  
Former Texaco Research Center Beacon  
Glenham, New York

	New York Class C Ambient Water Quality Standards <sup>1</sup> (ug/L)	Number of Groundwater Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/L)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (ug/L)
<b>OU-1A, Overburden Groundwater</b>						
<b>Volatile Organic Compounds</b>						
Benzene	210	295	97	0.5-850	13.0095	56.32
Ethylbenzene	17	164	27	1-101	10.004	6.837
Xylene (total)	65	164	35	0.9-160	4	11.61
<b>Semivolatile Organic Compounds</b>						
Acenaphthene	5.3	159	40	0.2-63	7	<b>6.944</b>
Anthracene	3.8	159	30	0.1-32	6	0.384
Benzo(a)anthracene	0.03	159	31	0.1-26	31	<b>0.535</b>
Fluorene	0.54	159	46	0.2-210	42	<b>8.073</b>
Naphthalene	13	159	49	0.1-1500	8	<b>55.26</b>
Phenanthrene	5	159	46	0.1-340	14	1.485
Pyrene	4.6	159	48	0.2-49	13	1.561
<b>Metals</b>						
Aluminum	100	153	141	8.5-1020000	135	<b>135524</b>
Arsenic	150	156	60	7-704	11	75.31
Cadmium	2.9	156	36	0.4-20.3	16	1.723
Chromium	103	156	102	0.024-3740	30	<b>2439</b>
Cobalt	5	153	67	1.4-740	45	<b>97.64</b>
Copper	13	153	94	0.021-1930	52	<b>247.2</b>
Iron	300	153	151	17.4-3050000	138	<b>304010</b>
Lead	5.9	156	85	0.01-7400	84	<b>578.3</b>
Nickel	73	153	80	1.3-748	30	<b>113.7</b>
Selenium	4.6	156	9	7.8-43.3	9	2.852
Silver	0.1	156	14	1.6-75.4	14	<b>3.094</b>
Thallium	8	153	23	5.8-117	16	<b>9.595</b>
Vanadium	14	153	107	1.5-1730	49	<b>216.1</b>
Zinc	117	153	125	0.058-5700	47	<b>744.4</b>
Mercury	0.0026	156	54	0.06-89.6	54	<b>5.882</b>

Table 7-2  
 Groundwater Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	New York Class C Ambient Water Quality Standards <sup>1</sup> (ug/L)	Number of Groundwater Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/L)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (ug/L)
<b>OU-1C</b>						
<b>Volatile Organic Compounds</b>						
Benzene	210	258	69	0.5-550	11	36.45
Ethylbenzene	17	225	13	0.9-580	7	13
Xylene (total)	65	220	32	0.9-1500	4	49.05
<b>Semivolatile Organic Compounds</b>						
Benzo(a)anthracene	0.03	216	5	0.1-0.4	4.9896	0.0217
Fluorene	0.54	216	50	0.1-7	44.928	<b>1.221</b>
Naphthalene	13	218	22	0.1-260	7	11.94
Phenanthrene	5	216	36	0.1-11	7	1.024
<b>Metals</b>						
Aluminum	100	143	119	87.4-30200	117	<b>5015</b>
Arsenic	150	143	63	8.4-233	4	41.08
Cadmium	2.9	143	14	0.43-9	4	0.712
Chromium	103	143	74	1.1-968	5	59.11
Cobalt	5	143	62	0.71-33.6	23	3.932
Copper	13	143	68	1.9-121	24	16.28
Iron	300	143	140	55.2-66200	129	<b>11432</b>
Lead	5.9	170	76	3-131	68	<b>11.57</b>
Nickel	73	143	66	1.1-189	4	8.04
Selenium	4.6	143	2	7.7-12.3	2	<b>12.3</b> <sup>3</sup>
Silver	0.1	143	6	1.3-8.1	6	<b>1.019</b> <sup>4</sup>
Thallium	8	143	2	7.4-8.5	1	<b>8.5</b> <sup>3</sup>
Vanadium	14	143	64	1.1-45	11	4.324
Zinc	117	143	106	2.7-415	8	50.39
Mercury	0.0026	143	4	0.064-0.3	4	<b>0.3</b> <sup>3</sup>
<b>OU-1D</b>						
<b>Metals</b>						
Iron	300	8	8	2810-674000	8	<b>372944</b>

Table 7-2  
 Groundwater Summary Statistics  
 Chevron Environmental Management Company  
 Former Texaco Research Center Beacon  
 Glenham, New York

	New York Class C Ambient Water Quality Standards <sup>1</sup> (ug/L)	Number of Groundwater Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/L)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (ug/L)
<b>OU-1E</b>						
<b>Semivolatile Organic Compounds</b>						
Benzo(a)anthracene	0.03	218	9	0.1-4	9	<b>0.187</b>
Pyrene	4.6	218	20	0.1-9	2	0.431
<b>Metals</b>						
Iron	300	3	3	30200-64600	3	<b>64600</b>
<b>OU-3</b>						
<b>Semivolatile Organic Compounds</b>						
Benzo(a)anthracene	0.03	2	1	0.3-0.3	1	<b>0.3<sup>3</sup></b>
<b>Metals</b>						
Iron	300	2	2	220000-2040000	2	<b>2040000</b>
Aluminum (Dissolved)	100	2	1	1320-1320	1	<b>1320<sup>3</sup></b>
Cadmium (Dissolved)	2.9	2	1	5.2-5.2	1	<b>5.2<sup>3</sup></b>
Cobalt (Dissolved)	5	2	2	3.6-352	1	<b>352<sup>3</sup></b>
Copper (Dissolved)	13	2	1	15.1-15.1	1	<b>15.1<sup>3</sup></b>
Nickel (Dissolved)	73	2	2	5.7-233	1	<b>233<sup>3</sup></b>
Zinc (Dissolved)	117	2	1	190-190	1	<b>190<sup>3</sup></b>
<b>OU-4</b>						
<b>Volatile Organic Compounds</b>						
Chlorobenzene	5	53	18	1-44	13.992	<b>9.104</b>
<b>Semivolatile Organic Compounds</b>						
Benzo(a)anthracene	0.03	42	4	2-5	3.9984	<b>5<sup>3</sup></b>
Fluorene	0.54	42	3	0.6-2	2.9988	<b>2<sup>3</sup></b>
Phenanthrene	5	42	5	0.1-8	1.9992	1.159
Pyrene	4.6	42	6	0.3-10	2.9988	1.564
<b>Metals</b>						
Iron	300	36	36	69-26000	26	<b>5406</b>
Selenium (Dissolved)	4.6	4	1	9.3-9.3	1	<b>9.3<sup>3</sup></b>
Mercury (Dissolved)	0.0026	4	2	0.026-0.026	2	<b>0.026<sup>3</sup></b>

**Notes:**

- 1 = Water quality standards selected are the more conservative of the Aquatic or Wildlife Protection based value sourced from the following:  
 NYSDEC. 2020. 6-CRR-NY 703.5 Water Quality Standards for Taste-, Color- and Odor-Producing, Toxic and Other Deleterious Substances. January 31 -Tal  
 NYSDEC. 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June - Table 1  
 Cadmium, chromium, copper, lead, nickel, and zinc criteria calculated using A(C) standard and hardness of 150 parts per million (ppm).
- 2 = Maximum concentration presented if there were insufficient number of detects to calculate UCL or if the UCL was greater than the maximum.
- 3 = Maximum concentration presented.
- 4 = 95%UCL for silver is biased low because of the number of ND values that were included in the calculation.

**Bolded: Exceeds NY Class C surface water standards**

ug/L = micrograms per liter

UCL = 95 percent upper confidence limit on the mean

**Table 7-3**  
**Sediment Summary Statistics**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

	Units	Freshwater Class A Sediment Guidance Values <sup>1</sup>	Freshwater Class C Sediment Guidance Values <sup>1</sup>	Number of Sediment Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/kg)	Number of Samples in Exceedance of Freshwater Class A Sediment	Number of Samples in Exceedance of Freshwater Class C Sediment	95% UCL or Max <sup>2</sup>
<b>OU1F</b>									
<b>Semivolatile Organic Compounds</b>									
Total PAH	ug/kg	4000	35000	80	80	0.9-364700	2	1	<b>24961</b>
<b>Metals</b>									
Arsenic	mg/kg	10	33	80	80	1.26-10.9	1	0	4.658
Chromium	mg/kg	43	110	80	80	6.7-55.7	3	0	24.17
Copper	mg/kg	32	150	80	80	7.13-62.4	17	0	25.95
Lead	mg/kg	36	130	80	80	5.26-56.7	16	0	29.36
Nickel	mg/kg	23	49	80	80	9.94-49.4	60	1	<b>29.13</b>
Silver	mg/kg	1	2.2	80	60	0.0263-1.26	1	0	0.183
Zinc	mg/kg	120	460	80	80	34.5-266	25	0	115.7
Mercury	mg/kg	0.2	1	80	39	0.0119-1.3	4	1	0.177

**Notes:**

1 = guidance values sourced from: NYSDEC. 2014. Screening and Assessment of Contaminated Sediment. June 24 - Table 5

2 = UCL presented where sufficient detections were available to calculate. Maximum concentration presented if UCL was not able to be calculated.

**Bold: Result Exceeds Class A Sediment Guidance Values**

UCL = 95 percent upper confidence limit on the mean

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

PAH = polycyclic aromatic hydrocarbon

**Table 7-4**  
**Surface Water Summary Statistics**  
**Chevron Environmental Management Company**  
**Former Texaco Research Center Beacon**  
**Glenham, New York**

	New York Class C Ambient Water Quality Standards <sup>1</sup> (ug/L)	Number of Surface Water Samples	Number of Detected Concentrations	Range of Detected Concentrations (ug/L)	Number of Samples in Exceedance of Benchmarks	95% UCL or Max <sup>2</sup> (ug/L)
<b>OU1F</b>						
<b>Metals</b>						
Iron	300	12	12	122-350	1	215.4
Mercury (Dissolved)	0.0026	12	2	0.00344-0.004	2	<b>0.004</b> <sup>3</sup>

**Notes:**

1 = Water quality standards selected are the more conservative of the Aquatic or Wildlife Protection based value sourced from the following:

NYSDEC. 2020. 6-CRR-NY 703.5 Water Quality Standards for Taste-, Color- and Odor-Producing, Toxic and Other Deleterious Substances. January 31 -

NYSDEC. 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June - Table 1

2 = UCL presented where sufficient detections were available to calculate. Maximum concentration presented if UCL was not able to be calculated.

3=Maximum concentration presented.

Metals data presented are representative of the appropriate screening criteria basis

ug/L = micrograms per liter

UCL = 95 percent upper confidence limit on the mean