

TABLE 1
C STREET DIRECTIONAL (BITTERSWEET 3-1-13)
WASTE CHARACTERIZATION SAMPLES
SOIL ANALYTICAL DATA - VOCs

Soil Sample Location	Depth	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
COGCC Organic Compounds in Soils ⁽¹⁾			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
COGCC Organic Compounds in Soils ⁽²⁾			1.2	490	5.8	58	2	500			30	27
WC-01	0-6"	08/30/2023	0.045	0.19	0.0180	0.27	<0.0038	7.8	600	130	0.063	0.036
BKWC-01	0-6"	08/30/2023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

VOCs = Volatile Organic Compounds

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

1,2,4 - TMB = 1,2,4 - Trimethylbenzene

1,3,5 - TMB = 1,3,5 - Trimethylbenzene

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 2
C STREET DIRECTIONAL (BITTERSWEET 3-1-13)
WASTE CHARACTERIZATION SAMPLES
SOIL ANALYTICAL DATA - VOCs

Soil Sample Lc	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
COGCC Organic Compounds in Soils ⁽¹⁾			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
COGCC Organic Compounds in Soils ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
WC-01	0-6"	08/30/2023	<0.00500	<0.00500	0.121	0.00820	<0.00500	<0.00500	0.0817	<0.00500	0.0383	<0.00500	<0.00500	0.0559	0.192	0.0345
BKWC-01	0-6"	08/30/2023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

PAHs = Polycyclic Aromatic Hydrocarbons

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(c) = Analytical result is less than the indicated laboratory reporting limit

mg/kg = milligrams per kilogram

Benzo(a)A = Benzo(a)Anthracene

Benzo(b)F = Benzo(b)Fluoranthene

Benzo(k)F = Benzo(k)Fluoranthene

Benzo(a)P = Benzo(a)Pyrene

D (a,h) A = Dibenzo(a,h)Anthracene

1,2,3-CD = Indeno(1,2,3-cd)Pyrene

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 3
C STREET DIRECTIONAL (BITTERSWEET 3-1-13)
WASTE CHARACTERIZATION SAMPLES
SOIL ANALYTICAL DATA - METALS

Soil Sample Location	Depth	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC Metals in Soils ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
COGCC Metals in Soils ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
WC-01	0-6"	08/30/2023	0.762*	101*	0.258	<0.30	2.48	2.34	2.24	<0.260	<0.0200	43.4
BK-WC01	0-6"	08/30/2023	0.834	99.3	<0.200	<0.30	3.54	6.30	2.83	<0.260	0.0272	11.8

Notes:

(1) Standards for soil are taken from COGCC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory minimum detection limit

mg/kg = milligrams per kilogram

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Metals in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations

Average background concentration x1.25

Italics = Laboratory minimum detection limit exceeds the COGCC Table 915-1 Standard

* Result exceeded the COGCC Table 915-1 standard, but was within site-specific 1.25x background multiplier levels

TABLE 4
C STREET DIRECTIONAL (BITTERSWEET 3-1-13)
WASTE CHARACTERIZATION SAMPLES
SOIL ANALYTICAL DATA - VOCs

Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
COGCC Soil Suitability for Reclamation ⁽¹⁾			6 - 8.3	< 6	< 4	2
WC-01	0-6"	08/30/2023	6.38	35.4	20.2	17.0
BK-WC01	0-6"	08/30/2023	7.23	0.281	0.924	0.789

Notes:

(1) Standards for soil are taken from COGCC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

pH = Potential of Hydrogen

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Soil Suitability for Reclamation Concentrations

Average background concentration

* Result exceeded the COGCC Table 915-1 standard, but was within site-specific background concentrations