

TABLE 1
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
CONTAMINANTS OF CONCERN

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH ⁽⁴⁾ (mg/kg)	Fluorene (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			1.2	490	5.8	58	30	27	2	500	240	180	18	24
Protection of Groundwater SSL ^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	0.54	1.3	0.006	0.019
SS01 @ 10'	7/15/2021	10 ft. bgs	0.078	<0.0050	4.6	5.1	59	9.3	0.092	5,210	0.0818	0.00611	0.485	0.885
SS02 @ 20'	7/20/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS03 @ 20'	7/30/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS04 @ 18'	7/30/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.4	<0.00500	<0.00500	<0.00500	<0.00500
SS05 @ 10'	7/30/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS06 @ 5'	7/30/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS07 @ 20'	8/2/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS08 @ 18'	8/2/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS09 @ 10'	8/2/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS10 @ 5'	8/2/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS11 @ 20'	8/3/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS12 @ 20'	8/3/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS13 @ 18'	8/3/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS14 @ 10'	8/3/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS15 @ 5'	8/3/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS16 @ 20'	8/4/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS17 @ 18'	8/4/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	0.56	<0.00500	<0.00500	<0.00500	<0.00500
SS18 @ 10'	8/4/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS19 @ 5'	8/4/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS20 @ 20'	8/4/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.5	<0.00500	<0.00500	<0.00500	<0.00500
SS21 @ 18'	8/4/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.9	<0.00500	<0.00500	<0.00500	<0.00500
SS22 @ 10'	8/4/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS23 @ 5'	8/4/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS24 @ 20'	8/4/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS25 @ 18'	8/4/2021	18 ft. bgs	<0.0020	<0.0050	0.010	0.075	0.037	0.028	<0.0038	6.5	<0.00500	<0.00500	<0.00500	<0.00500
SS26 @ 10'	8/4/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS27 @ 5'	8/4/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS28 @ 18'	8/5/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS29 @ 10'	8/5/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS30 @ 5'	8/5/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS31 @ 20'	8/6/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS32 @ 18'	8/6/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS33 @ 10'	8/6/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS34 @ 5'	8/6/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS35 @ 20'	8/6/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS36 @ 18'	8/6/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS37 @ 10'	8/6/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS38 @ 5'	8/6/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS39 @ 20'	8/9/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS40 @ 18'	8/9/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS41 @ 10'	8/9/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS42 @ 5'	8/9/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS44 @ 20'	8/9/2021	20 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS45 @ 18'	8/9/2021	18 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS46 @ 10'	8/9/2021	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500
SS47 @ 5'	8/9/2021	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

- Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.

COGCC = Colorado Oil and Gas Conservation Commission

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

TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH-ORO = Total extactable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

M = Methylnaphthalene

= Source material characterization sample

ft. = Feet

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard and above 1.25x background concentration.

TABLE 2
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard ⁽¹⁾			6-8.3	<4	<6	2
SS01 @ 10'	7/15/2021	10 ft. bgs	8.06	0.841	2.19	0.373
SS43 @ 2.5'	8/9/2021	2.5 ft. bgs	8.13	0.978	2.27	0.167

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.

COGCC = Colorado Oil and Gas Conservation Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

Source material characterization sample

ft. = Feet

bgs = Below ground surface

TABLE 3
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - PAHs

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^(1,2,3)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
SS01 @ 10'	7/15/2021	10 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0818	<0.00500	0.00611	0.485	0.885

Notes:
1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with
COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
PAHs = Polycyclic aromatic hydrocarbons
Benz(a) = Benzanthracene
Benzo(a) = Benzopyrene
Benzo(b) = Benzofluoranthene
Benzo(k) = Benzofluoranthene
A,H = Dibenzoanthracene
1,2,3-CD = Indenopyrene
M = Methylnaphthalene
mg/kg = Milligrams per kilogram
= Source material characterization sample
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.

TABLE 4
FORMER DINNER 14 B-1 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
METALS

Sample ID	Date Sampled	Depth	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)
Residential SSL ^(1,2)			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL ^(1,2,3)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
SS01 @ 10'	7/15/2021	10 ft. bgs	0.695	22.2	<0.229	<0.30 ⁽⁴⁾	0.478	3.17	1.67	<0.298 ⁽⁵⁾	<0.0229	9.58
BKG01 @ 2.5'	7/15/2021	2.5 ft. bgs	0.993	44.3	<0.215	<0.30 ⁽⁴⁾	2.46	4.32	4.22	0.622	0.0258	16.5
BKG02 @ 5'	8/9/2021	5 ft. bgs	1.21	45.6	<0.212	<0.30 ⁽⁴⁾	2.92	4.46	2.65	<0.276 ⁽⁵⁾	0.0340	17.3
BKG02 @ 10'	8/9/2021	10 ft. bgs	1.03	45.3	<0.232	<0.30 ⁽⁴⁾	3.35	4.33	2.67	0.353	<0.0232	18.2
BKG02 @ 18'	8/9/2021	18 ft. bgs	2.29	34.2	<0.251	<0.30 ⁽⁴⁾	4.74	5.36	2.67	<0.326 ⁽⁵⁾	<0.0251	20.4

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.

2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.

3. SSLs are applicable if a pathway for communication with groundwater is present.

4. Compound falls within COGCC Table 915-1 Footnote 9.

5. Compound falls within COGCC Table 915-1 Footnote 9. Additionally, observed background observations are higher than respective reporting limit.

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = Milligrams per kilogram

= Source material characterization sample

ft. = Feet

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

BOLD = Analytical result is in exceedance of applicable standard, but within 1.25x background concentration.

TABLE 5
FORMER DINNER 14 B-1 WELLHEAD
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	Depth to Water ⁽²⁾ (ft.)	Groundwater Elevation (ft. AMSL)
COGCC Table 915-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	140	67	67	-	-
GW01	7/19/2021	12	<1.0	34	280	36	420	150	11	NA

Notes:

- Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.
 - Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.
- TMB = Trimethylbenzene
COGCC = Colorado Oil and Gas Conservation Commission
µg/L = Micrograms per liter
(<) = Analytical result is less than the indicated laboratory reporting limit.
ft. = Feet
AMSL = Above Mean Sea Level
BOLD = Analytical result is in exceedance of applicable standard.
NA = Not applicable

TABLE 6
FORMER DINNER 14 B-1 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
SS01 @ 10'	7/15/2021	10 ft. bgs	NC	NC	NC	1,519
SS02 @ 20'	7/20/2021	20 ft. bgs	NC	NC	NC	10.7
SS03 @ 20'	7/30/2021	20 ft. bgs	NC	NC	NC	3.2
SS04 @ 18'	7/30/2021	18 ft. bgs	40.306306	-104.747127	1.6	4.0
SS05 @ 10'	7/30/2021	10 ft. bgs	40.306306	-104.747127	1.6	0.3
SS06 @ 5'	7/30/2021	5 ft. bgs	40.306306	-104.747127	1.6	0.2
SS07 @ 20'	8/2/2021	20 ft. bgs	NC	NC	NC	0.6
SS08 @ 18'	8/2/2021	18 ft. bgs	40.306343	-104.747084	0.9	0.8
SS09 @ 10'	8/2/2021	10 ft. bgs	40.306343	-104.747084	0.9	0.3
SS10 @ 5'	8/2/2021	5 ft. bgs	40.306343	-104.747084	0.9	0.2
SS11 @ 20'	8/3/2021	20 ft. bgs	NC	NC	NC	1.3
SS12 @ 20'	8/3/2021	20 ft. bgs	NC	NC	NC	0.8
SS13 @ 18'	8/3/2021	18 ft. bgs	40.306405	-104.747085	1.0	0.9
SS14 @ 10'	8/3/2021	10 ft. bgs	40.306405	-104.747085	1.0	0.3
SS15 @ 5'	8/3/2021	5 ft. bgs	40.306405	-104.747085	1.0	0.4
SS16 @ 20'	8/4/2021	20 ft. bgs	NC	NC	NC	1.5
SS17 @ 18'	8/4/2021	18 ft. bgs	40.306455	-104.747118	0.9	2.8
SS18 @ 10'	8/4/2021	10 ft. bgs	40.306455	-104.747118	0.9	0.7
SS19 @ 5'	8/4/2021	5 ft. bgs	40.306455	-104.747118	0.9	0.5
SS20 @ 20'	8/4/2021	20 ft. bgs	NC	NC	NC	0.9
SS21 @ 18'	8/4/2021	18 ft. bgs	40.306454	-104.747203	1.0	1.1
SS22 @ 10'	8/4/2021	10 ft. bgs	40.306454	-104.747203	1.0	0.5
SS23 @ 5'	8/4/2021	5 ft. bgs	40.306454	-104.747203	1.0	0.3
SS24 @ 20'	8/4/2021	20 ft. bgs	NC	NC	NC	1.4
SS25 @ 18'	8/4/2021	18 ft. bgs	40.306409	-104.747253	0.9	9.6
SS26 @ 10'	8/4/2021	10 ft. bgs	40.306409	-104.747253	0.9	0.4
SS27 @ 5'	8/4/2021	5 ft. bgs	40.306409	-104.747253	0.9	0.3
SS28 @ 18'	8/5/2021	18 ft. bgs	40.306411	-104.747265	1.0	1.1
SS29 @ 10'	8/5/2021	10 ft. bgs	40.306411	-104.747265	1.0	0.6
SS30 @ 5'	8/5/2021	5 ft. bgs	40.306411	-104.747265	1.0	0.1
SS31 @ 20'	8/6/2021	20 ft. bgs	NC	NC	NC	0.6
SS32 @ 18'	8/6/2021	18 ft. bgs	40.306258	-104.747170	1.0	0.9
SS33 @ 10'	8/6/2021	10 ft. bgs	40.306258	-104.747170	1.0	0.2
SS34 @ 5'	8/6/2021	5 ft. bgs	40.306258	-104.747170	1.0	0.1
SS35 @ 20'	8/6/2021	20 ft. bgs	NC	NC	NC	0.4
SS36 @ 18'	8/6/2021	18 ft. bgs	40.306350	-104.747293	1.0	0.4
SS37 @ 10'	8/6/2021	10 ft. bgs	40.306350	-104.747293	1.0	0.3
SS38 @ 5'	8/6/2021	5 ft. bgs	40.306350	-104.747293	1.0	0.1
SS39 @ 20'	8/9/2021	20 ft. bgs	NC	NC	NC	2.3
SS40 @ 18'	8/9/2021	18 ft. bgs	40.306259	-104.747236	1.1	1.8

TABLE 6
FORMER DINNER 14 B-1 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
SS41 @ 10'	8/9/2021	10 ft. bgs	40.306259	-104.747236	1.1	0.6
SS42 @ 5'	8/9/2021	5 ft. bgs	40.306259	-104.747236	1.1	0.1
SS43 @ 2.5'	8/9/2021	2.5 ft. bgs	40.306259	-104.747236	1.1	0.1
SS44 @ 20'	8/9/2021	20 ft. bgs	NC	NC	NC	1.2
SS45 @ 18'	8/9/2021	18 ft. bgs	40.306287	40.306287	0.9	0.9
SS46 @ 10'	8/9/2021	10 ft. bgs	40.306287	40.306287	0.9	0.4
SS47 @ 5'	8/9/2021	5 ft. bgs	40.306287	40.306287	0.9	0.8
BKG01 @ 2.5'	7/15/2021	2.5 ft. bgs	40.306560	-104.747179	1.1	0.2
BKG02 @ 5'	8/9/2021	5 ft. bgs	40.306539	-104.747405	0.9	0.3
BKG02 @ 10'	8/9/2021	10 ft. bgs	40.306539	-104.747405	0.9	0.4
BKG02 @ 18'	8/9/2021	18 ft. bgs	40.306539	-104.747405	0.9	0.3

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using World Geodetic System (WGS) 84 UTM Zone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

 = Source material characterization sample

ft. = Feet

bgs = Below ground surface

NC = Data not collected

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 22, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2107203

Enclosed are the results of analyses for samples received by Summit Scientific on 07/15/21 18:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@10'	2107203-01	Soil	07/15/21 11:27	07/15/21 18:20
BKG01@2.5'	2107203-02	Soil	07/15/21 09:48	07/15/21 18:20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2107203

Summit Scientific

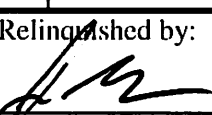
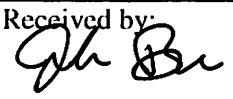
S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14 B-1 Wellhead
Sampler Name: J. Marcus Project Number: n/a

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR	VOC-915	PAH-915	Metals-915		
1	SS01@10'	7/15/21	1127	3			X			X			X	X	X	X	X	X	X	X	X	pH, EC, SAR by saturated paste
2	BK601@2.5'	↓	0948	1			X			X										X		
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished by: 	Date/Time: 7/15/21 1330	Received by: Tasman's Lock Box	Date/Time: 7/15/21 1330	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: <u>6</u> Samples Intact: <input checked="" type="checkbox"/> Yes No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 7/15/21 1815	Received by: 	Date/Time: 7/15/21 1815		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2107203

Client: PDC / Tasman Client Project ID: Dinner 14 B-1 Wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C) 6

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>On ice.</i>
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Same day.</i>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

JB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

JB 6 7/15/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

SS01@10'
2107203-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/15/21 11:27									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.078	0.0020	mg/kg	1	BEG0273	07/15/21	07/15/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	4.6	0.50	"	100	"	"	"	"	
Xylenes (total)	5.1	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	59	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	9.3	0.50	"	"	"	"	"	"	
Naphthalene	0.092	0.0038	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	4400	50	"	100	"	"	"	"	

Date Sampled: 07/15/21 11:27									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		210 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/15/21 11:27									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	810	50	mg/kg	1	BEG0274	07/15/21	07/15/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 07/15/21 11:27									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

SS01@10'
2107203-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0283	07/16/21	07/18/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0818	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00611	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.485	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.885	0.00500	"	"	"	"	"	"	

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.373	0.0100	mg/L	1	BEG0288	07/16/21	07/19/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

SS01@10'
2107203-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.695	0.229	mg/kg dry	1	BEG0287	07/16/21	07/19/21	EPA 6020B
Barium	22.2	0.458	"	"	"	"	"	"
Cadmium	ND	0.229	"	"	"	"	"	"
Copper	0.478	0.458	"	"	"	"	"	"
Lead	3.17	0.229	"	"	"	"	"	"
Nickel	1.67	0.458	"	"	"	"	"	"
Selenium	ND	0.298	"	"	"	"	"	"
Silver	ND	0.0229	"	"	"	"	"	"
Zinc	9.58	0.458	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEG0295	07/16/21	07/16/21	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	74.5	0.0573	mg/L dry	1	BEG0289	07/16/21	07/19/21	EPA 6020B	
Magnesium	19.1	0.0573	"	"	"	"	"	"	
Sodium	81.9	0.0573	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.19	0.00100	units	1	BEG0368	07/21/21	07/21/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

SS01@10'
2107203-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.3			%	1	BEG0275	07/16/21	07/16/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.841	0.0100		mmhos/cm	1	BEG0308	07/19/21	07/19/21	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **07/15/21 11:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.06			pH Units	1	BEG0307	07/19/21	07/19/21	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

BKG01@2.5'
2107203-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.993	0.215	mg/kg dry	1	BEG0287	07/16/21	07/19/21	EPA 6020B	
Barium	44.3	0.430	"	"	"	"	"	"	
Cadmium	ND	0.215	"	"	"	"	"	"	
Copper	2.46	0.430	"	"	"	"	"	"	
Lead	4.32	0.215	"	"	"	"	"	"	
Nickel	4.22	0.430	"	"	"	"	"	"	
Selenium	0.622	0.280	"	"	"	"	"	"	
Silver	0.0258	0.0215	"	"	"	"	"	"	
Zinc	16.5	0.430	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEG0295	07/16/21	07/16/21	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/15/21 09:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	92.9		%	1	BEG0275	07/16/21	07/16/21	Calculation	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0273 - EPA 5030 Soil MS

Blank (BEG0273-BLK1)

Prepared & Analyzed: 07/15/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.5	23-173			
Surrogate: Toluene-d8	0.0445		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0429		"	0.0400		107	21-167			

LCS (BEG0273-BS1)

Prepared & Analyzed: 07/15/21

Benzene	0.171	0.0020	mg/kg	0.150		114	70-130			
Toluene	0.160	0.0050	"	0.150		107	70-130			
Ethylbenzene	0.138	0.0050	"	0.150		91.9	70-130			
m,p-Xylene	0.275	0.010	"	0.300		91.5	70-130			
o-Xylene	0.139	0.0050	"	0.150		92.6	70-130			
1,2,4-Trimethylbenzene	0.125	0.0050	"	0.150		83.4	70-130			
1,3,5-Trimethylbenzene	0.124	0.0050	"	0.150		82.8	70-130			
Naphthalene	0.143	0.0038	"	0.150		95.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0389		"	0.0400		97.4	23-173			
Surrogate: Toluene-d8	0.0457		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0400		108	21-167			

Matrix Spike (BEG0273-MS1)

Source: 2107202-01

Prepared & Analyzed: 07/15/21

Benzene	0.159	0.0020	mg/kg	0.150	ND	106	70-130			
Toluene	0.149	0.0050	"	0.150	ND	99.0	70-130			
Ethylbenzene	0.130	0.0050	"	0.150	ND	86.9	70-130			
m,p-Xylene	0.257	0.010	"	0.300	ND	85.7	70-130			
o-Xylene	0.130	0.0050	"	0.150	ND	86.8	70-130			
1,2,4-Trimethylbenzene	0.117	0.0050	"	0.150	ND	78.3	70-130			
1,3,5-Trimethylbenzene	0.118	0.0050	"	0.150	ND	78.5	70-130			
Naphthalene	0.145	0.0038	"	0.150	ND	96.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0451		"	0.0400		113	20-170			
Surrogate: 4-Bromofluorobenzene	0.0440		"	0.0400		110	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0273 - EPA 5030 Soil MS

Matrix Spike Dup (BEG0273-MSD1)	Source: 2107202-01			Prepared & Analyzed: 07/15/21						
Benzene	0.150	0.0020	mg/kg	0.150	ND	100	70-130	5.79	30	
Toluene	0.142	0.0050	"	0.150	ND	94.5	70-130	4.67	30	
Ethylbenzene	0.122	0.0050	"	0.150	ND	81.2	70-130	6.76	30	
m,p-Xylene	0.240	0.010	"	0.300	ND	80.1	70-130	6.82	30	
o-Xylene	0.121	0.0050	"	0.150	ND	81.0	70-130	6.98	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.150	ND	73.4	70-130	6.46	30	
1,3,5-Trimethylbenzene	0.110	0.0050	"	0.150	ND	73.3	70-130	6.90	30	
Naphthalene	0.144	0.0038	"	0.150	ND	96.0	70-130	0.520	30	
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0459		"	0.0400		115	20-170			
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0400		107	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0274 - EPA 3550A

Blank (BEG0274-BLK1)

Prepared: 07/15/21 Analyzed: 07/16/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEG0274-BS1)

Prepared: 07/15/21 Analyzed: 07/16/21

C10-C28 (DRO)	491	50	mg/kg	500	98.2	70-130
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Matrix Spike (BEG0274-MS1)

Source: 2107202-01

Prepared: 07/15/21 Analyzed: 07/16/21

C10-C28 (DRO)	494	50	mg/kg	500	22.1	94.5	70-130
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Matrix Spike Dup (BEG0274-MSD1)

Source: 2107202-01

Prepared: 07/15/21 Analyzed: 07/16/21

C10-C28 (DRO)	518	50	mg/kg	500	22.1	99.1	70-130	4.59	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result		%REC	Limits	RPD	Limit

Batch BEG0283 - EPA 5030 Soil MS

Blank (BEG0283-BLK1)

Prepared: 07/16/21 Analyzed: 07/18/21

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333		52.3		40-150			
Surrogate: Fluoranthene-d10	0.0229		"	0.0333		68.8		40-150			

LCS (BEG0283-BS1)

Prepared: 07/16/21 Analyzed: 07/18/21

Acenaphthene	0.0228	0.00500	mg/kg	0.0333		68.5		31-137			
Anthracene	0.0226	0.00500	"	0.0333		67.7		30-120			
Benzo (a) anthracene	0.0234	0.00500	"	0.0333		70.1		30-120			
Benzo (a) pyrene	0.0231	0.00500	"	0.0333		69.4		30-120			
Benzo (b) fluoranthene	0.0268	0.00500	"	0.0333		80.4		30-120			
Benzo (k) fluoranthene	0.0291	0.00500	"	0.0333		87.4		30-120			
Chrysene	0.0233	0.00500	"	0.0333		69.9		30-120			
Dibenz (a,h) anthracene	0.0225	0.00500	"	0.0333		67.5		30-120			
Fluoranthene	0.0245	0.00500	"	0.0333		73.4		30-120			
Fluorene	0.0237	0.00500	"	0.0333		71.2		30-120			
Indeno (1,2,3-cd) pyrene	0.0204	0.00500	"	0.0333		61.2		30-120			
Pyrene	0.0244	0.00500	"	0.0333		73.3		35-142			
1-Methylnaphthalene	0.0227	0.00500	"	0.0333		68.1		35-142			
2-Methylnaphthalene	0.0215	0.00500	"	0.0333		64.5		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0226		"	0.0333		67.8		40-150			
Surrogate: Fluoranthene-d10	0.0244		"	0.0333		73.1		40-150			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0283 - EPA 5030 Soil MS

Matrix Spike (BEG0283-MS1)		Source: 2107192-01		Prepared: 07/16/21 Analyzed: 07/18/21						
Acenaphthene	0.0216	0.00500	mg/kg	0.0333	ND	64.7	31-137			
Anthracene	0.0211	0.00500	"	0.0333	ND	63.4	30-120			
Benzo (a) anthracene	0.0209	0.00500	"	0.0333	ND	62.8	30-120			
Benzo (a) pyrene	0.0208	0.00500	"	0.0333	ND	62.5	30-120			
Benzo (b) fluoranthene	0.0241	0.00500	"	0.0333	ND	72.3	30-120			
Benzo (k) fluoranthene	0.0270	0.00500	"	0.0333	ND	81.0	30-120			
Chrysene	0.0214	0.00500	"	0.0333	ND	64.2	30-120			
Dibenz (a,h) anthracene	0.0220	0.00500	"	0.0333	ND	65.9	30-120			
Fluoranthene	0.0239	0.00500	"	0.0333	ND	71.6	30-120			
Fluorene	0.0224	0.00500	"	0.0333	ND	67.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120			
Pyrene	0.0233	0.00500	"	0.0333	ND	69.8	35-142			
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	61.0	15-130			
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.3	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0202		"	0.0333		60.7	40-150			
Surrogate: Fluoranthene-d10	0.0231		"	0.0333		69.4	40-150			

Matrix Spike Dup (BEG0283-MSD1)		Source: 2107192-01		Prepared: 07/16/21 Analyzed: 07/18/21						
Acenaphthene	0.0232	0.00500	mg/kg	0.0333	ND	69.6	31-137	7.27	30	
Anthracene	0.0225	0.00500	"	0.0333	ND	67.6	30-120	6.38	30	
Benzo (a) anthracene	0.0223	0.00500	"	0.0333	ND	67.0	30-120	6.57	30	
Benzo (a) pyrene	0.0221	0.00500	"	0.0333	ND	66.4	30-120	6.05	30	
Benzo (b) fluoranthene	0.0252	0.00500	"	0.0333	ND	75.6	30-120	4.55	30	
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333	ND	82.7	30-120	2.09	30	
Chrysene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	4.35	30	
Dibenz (a,h) anthracene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	13.3	30	
Fluoranthene	0.0244	0.00500	"	0.0333	ND	73.1	30-120	2.10	30	
Fluorene	0.0238	0.00500	"	0.0333	ND	71.5	30-120	6.15	30	
Indeno (1,2,3-cd) pyrene	0.0185	0.00500	"	0.0333	ND	55.5	30-120	16.1	30	
Pyrene	0.0240	0.00500	"	0.0333	ND	72.1	35-142	3.34	30	
1-Methylnaphthalene	0.0232	0.00500	"	0.0333	ND	69.7	15-130	13.4	50	
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130	8.01	50	
Surrogate: 2-Methylnaphthalene-d10	0.0224		"	0.0333		67.3	40-150			
Surrogate: Fluoranthene-d10	0.0236		"	0.0333		70.8	40-150			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0288 - EPA 3050B

Blank (BEG0288-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Boron ND 0.0100 mg/L

LCS (BEG0288-BS1)

Prepared: 07/16/21 Analyzed: 07/19/21

Boron 5.40 0.0100 mg/L 5.00 108 80-120

Duplicate (BEG0288-DUP1)

Source: 2107203-01

Prepared: 07/16/21 Analyzed: 07/19/21

Boron 0.323 0.0100 mg/L 0.373 14.6 20

Matrix Spike (BEG0288-MS1)

Source: 2107203-01

Prepared: 07/16/21 Analyzed: 07/19/21

Boron 5.41 0.0100 mg/L 5.00 0.373 101 75-125

Matrix Spike Dup (BEG0288-MSD1)

Source: 2107203-01

Prepared: 07/16/21 Analyzed: 07/19/21

Boron 5.33 0.0100 mg/L 5.00 0.373 99.2 75-125 1.49 25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0287 - EPA 3050B

Blank (BEG0287-BLK1)

Prepared: 07/16/21 Analyzed: 07/18/21

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BEG0287-BS1)

Prepared: 07/16/21 Analyzed: 07/18/21

Arsenic	42.6	0.200	mg/kg wet	40.0	107	80-120
Barium	34.8	0.400	"	40.0	87.1	80-120
Cadmium	1.82	0.200	"	2.00	91.0	80-120
Copper	39.1	0.400	"	40.0	97.7	80-120
Lead	17.3	0.200	"	20.0	86.3	80-120
Nickel	39.8	0.400	"	40.0	99.6	80-120
Selenium	4.50	0.260	"	4.00	113	80-120
Silver	1.80	0.0200	"	2.00	89.9	80-120
Zinc	41.8	0.400	"	40.0	104	80-120

Duplicate (BEG0287-DUP1)

Source: 2106379-01

Prepared: 07/16/21 Analyzed: 07/18/21

Arsenic	2.03	0.228	mg/kg dry	1.97	3.02	20	
Barium	75.6	0.456	"	87.2	14.3	20	
Cadmium	0.122	0.228	"	0.136	10.6	20	
Copper	4.19	0.456	"	4.05	3.26	20	
Lead	4.84	0.228	"	4.92	1.59	20	
Nickel	6.61	0.456	"	6.53	1.20	20	
Selenium	0.694	0.296	"	0.437	45.4	20	QR-04
Silver	0.0673	0.0228	"	0.0283	81.4	20	QR-04
Zinc	19.9	0.456	"	20.0	0.605	20	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0287 - EPA 3050B

Matrix Spike (BEG0287-MS1)		Source: 2106379-01			Prepared: 07/16/21		Analyzed: 07/18/21			
Arsenic	45.7	0.228	mg/kg dry	45.6	1.97	95.9	75-125			
Barium	122	0.456	"	45.6	87.2	76.3	75-125			
Cadmium	2.20	0.228	"	2.28	0.136	90.6	75-125			
Copper	48.4	0.456	"	45.6	4.05	97.4	75-125			
Lead	24.2	0.228	"	22.8	4.92	84.8	75-125			
Nickel	50.1	0.456	"	45.6	6.53	95.5	75-125			
Selenium	4.16	0.296	"	4.56	0.437	81.6	75-125			
Silver	2.06	0.0228	"	2.28	0.0283	89.0	75-125			
Zinc	68.0	0.456	"	45.6	20.0	105	75-125			

Matrix Spike Dup (BEG0287-MSD1)		Source: 2106379-01			Prepared: 07/16/21		Analyzed: 07/18/21			
Arsenic	43.9	0.228	mg/kg dry	45.6	1.97	91.9	75-125	4.15	25	
Barium	123	0.456	"	45.6	87.2	79.3	75-125	1.10	25	
Cadmium	2.05	0.228	"	2.28	0.136	84.2	75-125	6.85	25	
Copper	46.2	0.456	"	45.6	4.05	92.4	75-125	4.79	25	
Lead	22.9	0.228	"	22.8	4.92	79.0	75-125	5.53	25	
Nickel	47.8	0.456	"	45.6	6.53	90.6	75-125	4.58	25	
Selenium	4.24	0.296	"	4.56	0.437	83.4	75-125	1.95	25	
Silver	1.87	0.0228	"	2.28	0.0283	80.6	75-125	9.74	25	
Zinc	63.5	0.456	"	45.6	20.0	95.3	75-125	6.89	25	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0295 - 3060A Mod

Blank (BEG0295-BLK1)

Prepared & Analyzed: 07/16/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEG0295-BS1)

Prepared & Analyzed: 07/16/21

Chromium, Hexavalent 24.2 0.30 mg/kg wet 25.0 97.0 80-120

Duplicate (BEG0295-DUP1)

Source: 2106379-01

Prepared & Analyzed: 07/16/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEG0295-MS1)

Source: 2106379-01

Prepared & Analyzed: 07/16/21

Chromium, Hexavalent 24.2 0.30 mg/kg dry 28.5 ND 85.0 75-125

Matrix Spike Dup (BEG0295-MSD1)

Source: 2106379-01

Prepared & Analyzed: 07/16/21

Chromium, Hexavalent 24.0 0.30 mg/kg dry 28.5 ND 84.2 75-125 0.946 20

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0289 - General Preparation

Blank (BEG0289-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BEG0289-BS1)

Prepared: 07/16/21 Analyzed: 07/19/21

Calcium	5.42	0.0500	mg/L wet	5.00	108	70-130
Magnesium	5.79	0.0500	"	5.00	116	70-130
Sodium	4.97	0.0500	"	5.00	99.3	70-130

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0275 - General Preparation

Duplicate (BEG0275-DUP1)		Source: 2106379-01			Prepared & Analyzed: 07/16/21					
% Solids	88.1		%		87.7		0.454		20	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0308 - General Preparation

Blank (BEG0308-BLK1)

Prepared & Analyzed: 07/19/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEG0308-BS1)

Prepared & Analyzed: 07/19/21

Specific Conductance (EC) 0.144 0.0100 mmhos/cm 0.150 96.0 90-110

Duplicate (BEG0308-DUP1)

Source: 2107203-01

Prepared & Analyzed: 07/19/21

Specific Conductance (EC) 0.842 0.0100 mmhos/cm 0.841 0.0475 20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:

07/22/21 17:23

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0307 - General Preparation

LCS (BEG0307-BS1)

Prepared & Analyzed: 07/19/21

pH	9.34	pH Units	9.21	101	95-105
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Duplicate (BEG0307-DUP1)

Source: 2107203-01

Prepared & Analyzed: 07/19/21

pH	8.08	pH Units	8.06	0.248	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
07/22/21 17:23

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 20, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2107260

Enclosed are the results of analyses for samples received by Summit Scientific on 07/19/21 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury

President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
07/20/21 05:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2107260-01	Water	07/19/21 10:17	07/19/21 18:05

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

S₂

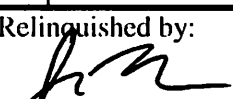
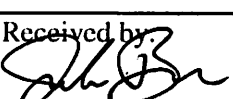
2107260

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client:	PDC / Tasman	Project Manager:	Mark Longhurst
Address:	6855 W 119th Ave	E-Mail:	mark.longhurst@PDCE.com
City/State/Zip:	Broomfield/ CO/ 80020		
Phone:	303-487-1228	Project Name:	Diner 14 B-1 Wellhead
Sampler Name:	J. Marus	Project Number:	N/A

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions			
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR							
1	6W01	7/19/21	1017	3			X		X					X	X									pH, EC, SAR by saturated paste
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
	7/19/21 1645	Tasman's Lock Box	7/19/21 1645	Same Day	X 72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Tasman's Lock Box	7/19/21 1805		7/19/21 1805	48 hours		
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	Temperature Upon Receipt:	
					3	
				Samples Intact:	(Yes) No	

Sample Receipt Checklist

S2 Work Order 2107260

Client: PDC / Tasman Client Project ID: Dinner 14 B-1 Wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: _____
(Describe)

Temp (°C)	3
-----------	---

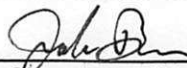
Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice.
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same day.
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

JB
Custodian Printed Name or Initials


Signature of Custodian

7/19/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/20/21 05:55

GW01
2107260-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/19/21 10:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	12	1.0	ug/l	1	BEG0326	07/19/21	07/19/21	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	34	1.0	"	"	"	"	"	"	
Xylenes (total)	280	2.0	"	"	"	"	"	"	
Naphthalene	36	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	420	100	"	100	"	"	"	"	
1,3,5-Trimethylbenzene	150	1.0	"	1	"	"	"	"	

Date Sampled: **07/19/21 10:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		89.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/20/21 05:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0326 - EPA 5030 Water MS

Blank (BEG0326-BLK1)

Prepared & Analyzed: 07/19/21

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.3		"	13.3		85.0	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.0	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.7	21-167			

LCS (BEG0326-BS1)

Prepared & Analyzed: 07/19/21

Benzene	40.8	1.0	ug/l	41.7		97.8	51-132			
Toluene	40.3	1.0	"	41.7		96.7	51-138			
Ethylbenzene	41.6	1.0	"	41.7		99.8	58-146			
m,p-Xylene	83.4	2.0	"	83.3		100	57-144			
o-Xylene	41.7	1.0	"	41.7		100	53-146			
Naphthalene	37.2	1.0	"	41.7		89.4	70-130			
1,2,4-Trimethylbenzene	35.7	1.0	"	41.7		85.7	70-130			
1,3,5-Trimethylbenzene	44.1	1.0	"	41.7		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	11.8		"	13.3		88.9	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.7	21-167			

Matrix Spike (BEG0326-MS1)

Source: 2107257-01

Prepared & Analyzed: 07/19/21

Benzene	40.5	1.0	ug/l	41.7	ND	97.3	34-141			
Toluene	41.8	1.0	"	41.7	ND	100	27-151			
Ethylbenzene	40.9	1.0	"	41.7	ND	98.2	29-160			
m,p-Xylene	83.0	2.0	"	83.3	ND	99.6	20-166			
o-Xylene	40.6	1.0	"	41.7	ND	97.5	33-159			
Naphthalene	46.3	1.0	"	41.7	ND	111	70-130			
1,2,4-Trimethylbenzene	35.3	1.0	"	41.7	ND	84.8	70-130			
1,3,5-Trimethylbenzene	43.3	1.0	"	41.7	ND	104	70-130			
Surrogate: 1,2-Dichloroethane-d4	11.9		"	13.3		89.2	23-173			
Surrogate: Toluene-d8	13.4		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.1	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/20/21 05:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0326 - EPA 5030 Water MS

Matrix Spike Dup (BEG0326-MSD1)	Source: 2107257-01			Prepared: 07/19/21 Analyzed: 07/20/21						
Benzene	40.2	1.0	ug/l	41.7	ND	96.4	34-141	0.942	30	
Toluene	40.4	1.0	"	41.7	ND	97.0	27-151	3.48	30	
Ethylbenzene	40.1	1.0	"	41.7	ND	96.3	29-160	2.00	30	
m,p-Xylene	81.0	2.0	"	83.3	ND	97.2	20-166	2.40	30	
o-Xylene	40.0	1.0	"	41.7	ND	95.9	33-159	1.66	30	
Naphthalene	49.0	1.0	"	41.7	ND	118	70-130	5.56	30	
1,2,4-Trimethylbenzene	34.6	1.0	"	41.7	ND	83.1	70-130	2.09	30	
1,3,5-Trimethylbenzene	42.0	1.0	"	41.7	ND	101	70-130	3.02	30	
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.3		94.1	23-173			
Surrogate: Toluene-d8	13.2		"	13.3		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.2	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
07/20/21 05:55

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 19, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000


Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2107276

Enclosed are the results of analyses for samples received by Summit Scientific on 07/20/21 18:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@20'	2107276-01	Soil	07/20/21 11:43	07/20/21 18:15

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

S₂

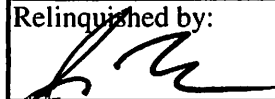
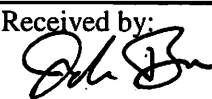
2107276

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14 B-1 wellhead
Sampler Name: J. Marcus Project Number: 119

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR			
1	5502070'	7/20/21	1143	3			X			X				X	X	X				pH, EC, SAR by saturated paste
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: 	Date/Time: 7/20/21 1600	Received by: Tasman's Lock Box	Date/Time: 7/20/21 1600	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: 4 Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 7/20/21 1815	Received by: 	Date/Time: 7/20/21 1815		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2107276

Client: PDL / Tasman Client Project ID: Dinner 14 B-1 wellhead

Shipped Via: ☐ H.D. ☒ P.U. ☐ FedEx ☐ UPS ☐ USPS ☐ Other _____ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C) 4

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>On ice.</u>
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day.</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

JB
Custodian Printed Name or Initials

John Brown
Signature of Custodian

7/20/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

SS02@20'
2107276-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEG0350	07/20/21	07/20/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		77.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		126 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0351	07/20/21	07/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

SS02@20'
2107276-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0156	08/10/21	08/12/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/20/21 11:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		44.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		49.6 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0350 - EPA 5030 Soil MS

Blank (BEG0350-BLK1)

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0357		"	0.0400		89.2	23-173			
Surrogate: Toluene-d8	0.0447		"	0.0400		112	20-170			
Surrogate: 4-Bromofluorobenzene	0.0448		"	0.0400		112	21-167			

LCS (BEG0350-BS1)

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.0919	0.0020	mg/kg	0.100		91.9	70-130			
Toluene	0.125	0.0050	"	0.100		125	70-130			
Ethylbenzene	0.0908	0.0050	"	0.100		90.8	70-130			
m,p-Xylene	0.176	0.010	"	0.200		88.0	70-130			
o-Xylene	0.0881	0.0050	"	0.100		88.1	70-130			
1,2,4-Trimethylbenzene	0.0941	0.0050	"	0.100		94.1	70-130			
1,3,5-Trimethylbenzene	0.0932	0.0050	"	0.100		93.2	70-130			
Naphthalene	0.0887	0.0038	"	0.100		88.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0400		89.6	23-173			
Surrogate: Toluene-d8	0.0446		"	0.0400		112	20-170			
Surrogate: 4-Bromofluorobenzene	0.0445		"	0.0400		111	21-167			

Matrix Spike (BEG0350-MS1)

Source: 2107273-01

Prepared: 07/20/21 Analyzed: 07/21/21

Benzene	0.0930	0.0020	mg/kg	0.100	ND	93.0	70-130			
Toluene	0.125	0.0050	"	0.100	ND	125	70-130			
Ethylbenzene	0.0898	0.0050	"	0.100	ND	89.8	70-130			
m,p-Xylene	0.175	0.010	"	0.200	ND	87.7	70-130			
o-Xylene	0.0868	0.0050	"	0.100	ND	86.8	70-130			
1,2,4-Trimethylbenzene	0.0945	0.0050	"	0.100	ND	94.5	70-130			
1,3,5-Trimethylbenzene	0.0932	0.0050	"	0.100	ND	93.2	70-130			
Naphthalene	0.0998	0.0038	"	0.100	ND	99.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0400		93.7	23-173			
Surrogate: Toluene-d8	0.0453		"	0.0400		113	20-170			
Surrogate: 4-Bromofluorobenzene	0.0448		"	0.0400		112	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0350 - EPA 5030 Soil MS

Matrix Spike Dup (BEG0350-MSD1)	Source: 2107273-01			Prepared: 07/20/21 Analyzed: 07/21/21						
Benzene	0.0998	0.0020	mg/kg	0.100	ND	99.8	70-130	7.07	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	18.3	30	
Ethylbenzene	0.0988	0.0050	"	0.100	ND	98.8	70-130	9.55	30	
m,p-Xylene	0.192	0.010	"	0.200	ND	96.1	70-130	9.21	30	
o-Xylene	0.0953	0.0050	"	0.100	ND	95.3	70-130	9.32	30	
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130	5.70	30	
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	7.97	30	
Naphthalene	0.0972	0.0038	"	0.100	ND	97.2	70-130	2.62	30	
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.6	23-173			
Surrogate: Toluene-d8	0.0458		"	0.0400		115	20-170			
Surrogate: 4-Bromofluorobenzene	0.0449		"	0.0400		112	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0351 - EPA 3550A

Blank (BEG0351-BLK1)

Prepared: 07/20/21 Analyzed: 07/21/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEG0351-BS1)

Prepared: 07/20/21 Analyzed: 07/21/21

C10-C28 (DRO)	506	50	mg/kg	500	101	70-130
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Matrix Spike (BEG0351-MS1)

Source: 2107273-01

Prepared: 07/20/21 Analyzed: 07/21/21

C10-C28 (DRO)	531	50	mg/kg	500	19.8	102	70-130
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Matrix Spike Dup (BEG0351-MSD1)

Source: 2107273-01

Prepared: 07/20/21 Analyzed: 07/21/21

C10-C28 (DRO)	490	50	mg/kg	500	19.8	94.0	70-130	7.98	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0156 - EPA 5030 Soil MS

Blank (BEH0156-BLK1)

Prepared: 08/10/21 Analyzed: 08/12/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0199		"	0.0333		59.8	40-150			
Surrogate: Fluoranthene-d10	0.0215		"	0.0333		64.4	40-150			

LCS (BEH0156-BS1)

Prepared: 08/10/21 Analyzed: 08/12/21

Acenaphthene	0.0243	0.00500	mg/kg	0.0333		72.9	31-137			
Anthracene	0.0240	0.00500	"	0.0333		72.0	30-120			
Benzo (a) anthracene	0.0239	0.00500	"	0.0333		71.8	30-120			
Benzo (a) pyrene	0.0233	0.00500	"	0.0333		69.8	30-120			
Benzo (b) fluoranthene	0.0159	0.00500	"	0.0333		47.8	30-120			
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333		43.8	30-120			
Chrysene	0.0242	0.00500	"	0.0333		72.6	30-120			
Dibenz (a,h) anthracene	0.0294	0.00500	"	0.0333		88.2	30-120			
Fluoranthene	0.0251	0.00500	"	0.0333		75.4	30-120			
Fluorene	0.0252	0.00500	"	0.0333		75.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0207	0.00500	"	0.0333		62.0	30-120			
Pyrene	0.0238	0.00500	"	0.0333		71.5	35-142			
1-Methylnaphthalene	0.0201	0.00500	"	0.0333		60.2	35-142			
2-Methylnaphthalene	0.0193	0.00500	"	0.0333		57.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0195		"	0.0333		58.6	40-150			
Surrogate: Fluoranthene-d10	0.0162		"	0.0333		48.7	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0156 - EPA 5030 Soil MS

Matrix Spike (BEH0156-MS1)			Source: 2107202-01		Prepared: 08/10/21		Analyzed: 08/12/21			
Acenaphthene	0.0230	0.00500	mg/kg	0.0333	ND	69.0	31-137			
Anthracene	0.0224	0.00500	"	0.0333	ND	67.2	30-120			
Benzo (a) anthracene	0.0221	0.00500	"	0.0333	ND	66.2	30-120			
Benzo (a) pyrene	0.0211	0.00500	"	0.0333	ND	63.3	30-120			
Benzo (b) fluoranthene	0.0145	0.00500	"	0.0333	ND	43.5	30-120			
Benzo (k) fluoranthene	0.0132	0.00500	"	0.0333	ND	39.7	30-120			
Chrysene	0.0223	0.00500	"	0.0333	ND	66.9	30-120			
Dibenz (a,h) anthracene	0.0274	0.00500	"	0.0333	ND	82.3	30-120			
Fluoranthene	0.0231	0.00500	"	0.0333	ND	69.3	30-120			
Fluorene	0.0239	0.00500	"	0.0333	ND	71.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0188	0.00500	"	0.0333	ND	56.4	30-120			
Pyrene	0.0221	0.00500	"	0.0333	ND	66.2	35-142			
1-Methylnaphthalene	0.0195	0.00500	"	0.0333	ND	58.4	15-130			
2-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0137		"	0.0333		41.2	40-150			
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.4	40-150			

Matrix Spike Dup (BEH0156-MSD1)			Source: 2107202-01		Prepared: 08/10/21		Analyzed: 08/12/21			
Acenaphthene	0.0246	0.00500	mg/kg	0.0333	ND	73.9	31-137	6.81	30	
Anthracene	0.0246	0.00500	"	0.0333	ND	73.9	30-120	9.52	30	
Benzo (a) anthracene	0.0243	0.00500	"	0.0333	ND	72.8	30-120	9.50	30	
Benzo (a) pyrene	0.0231	0.00500	"	0.0333	ND	69.3	30-120	8.93	30	
Benzo (b) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	12.6	30	
Benzo (k) fluoranthene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	12.2	30	
Chrysene	0.0246	0.00500	"	0.0333	ND	73.7	30-120	9.63	30	
Dibenz (a,h) anthracene	0.0297	0.00500	"	0.0333	ND	89.0	30-120	7.86	30	
Fluoranthene	0.0251	0.00500	"	0.0333	ND	75.3	30-120	8.26	30	
Fluorene	0.0254	0.00500	"	0.0333	ND	76.3	30-120	6.35	30	
Indeno (1,2,3-cd) pyrene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	12.8	30	
Pyrene	0.0246	0.00500	"	0.0333	ND	73.9	35-142	10.9	30	
1-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.6	15-130	10.1	50	
2-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.9	15-130	11.0	50	
Surrogate: 2-Methylnaphthalene-d10	0.0156		"	0.0333		46.8	40-150			
Surrogate: Fluoranthene-d10	0.0174		"	0.0333		52.1	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
08/19/21 09:44

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 27, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2107455

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/21 17:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS03@20'	2107455-01	Soil	07/30/21 10:32	07/30/21 17:50
SS04@18'	2107455-02	Soil	07/30/21 11:54	07/30/21 17:50
SS05@10'	2107455-03	Soil	07/30/21 12:02	07/30/21 17:50
SS06@5'	2107455-04	Soil	07/30/21 12:08	07/30/21 17:50

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2107455

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020 Project Name: Dinner 14 B-1 Wellhead
Phone: 303-487-1228 Project Number:
Sampler Name: Cody Miller

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁴¹⁵	TPH - (C6 - C36) ⁴¹⁵	pH, EC, SAR ⁴¹⁵	Boron - HWS ⁴¹⁵	VOC - 915	PAH - 915	Metals - 915	
1	5503 220	7/30/21	1032				X			X			X	X					X	pH, EC, SAR by saturated paste
2	5504 218	↓	1154				X			X			X	X				X		
3	5505 210	↓	1202				X			X			X	X				X		
4	5506 251	↓	1208				X			X			X	X				X		
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: Cody Miller	Date/Time: 7/30/21 1615	Received by: Tasman's Lock Box	Date/Time: 7/30/21 1615	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: 14 Samples Intact: <input checked="" type="checkbox"/> Yes No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 7/30/21 1750	Received by: [Signature]	Date/Time: 7/30/21 1750		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 21074JS

Client: PDC / Tasman

Client Project ID: Dinner 14 B-1 Wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)

14

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>On ice.</u>
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day.</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

JD
Custodian Printed Name or Initials

Josh Bm
Signature of Custodian

7/30/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS03@20'
2107455-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEG0586	07/30/21	08/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0587	07/30/21	08/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS03@20'
2107455-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0156	08/10/21	08/12/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/30/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		32.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		34.0 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS04@18'
2107455-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEG0586	07/30/21	08/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.4	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0587	07/30/21	08/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS04@18'
2107455-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0156	08/10/21	08/12/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/30/21 11:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		49.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.1 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS05@10'
2107455-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0586	07/30/21	08/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0587	07/30/21	08/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		82.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS05@10'
2107455-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0156	08/10/21	08/12/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		50.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.0 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS06@5'
2107455-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0586	07/30/21	08/01/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0587	07/30/21	08/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		85.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

SS06@5'
2107455-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0156	08/10/21	08/12/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/30/21 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.8 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0586 - EPA 5030 Soil MS

Blank (BEG0586-BLK1)

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0414		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		103	21-167			

LCS (BEG0586-BS1)

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.117	0.0020	mg/kg	0.100		117	70-130			
Toluene	0.114	0.0050	"	0.100		114	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.225	0.010	"	0.200		113	70-130			
o-Xylene	0.107	0.0050	"	0.100		107	70-130			
1,2,4-Trimethylbenzene	0.114	0.0050	"	0.100		114	70-130			
1,3,5-Trimethylbenzene	0.112	0.0050	"	0.100		112	70-130			
Naphthalene	0.0932	0.0038	"	0.100		93.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	21-167			

Matrix Spike (BEG0586-MS1)

Source: 2107452-01

Prepared: 07/30/21 Analyzed: 07/31/21

Benzene	0.111	0.0020	mg/kg	0.100	ND	111	70-130			
Toluene	0.108	0.0050	"	0.100	ND	108	70-130			
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130			
m,p-Xylene	0.206	0.010	"	0.200	ND	103	70-130			
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130			
1,2,4-Trimethylbenzene	0.0990	0.0050	"	0.100	ND	99.0	70-130			
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
Naphthalene	0.0894	0.0038	"	0.100	ND	89.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0408		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0586 - EPA 5030 Soil MS

Matrix Spike Dup (BEG0586-MSD1)	Source: 2107452-01			Prepared: 07/30/21 Analyzed: 07/31/21						
Benzene	0.101	0.0020	mg/kg	0.100	ND	101	70-130	8.84	30	
Toluene	0.0989	0.0050	"	0.100	ND	98.9	70-130	8.93	30	
Ethylbenzene	0.0972	0.0050	"	0.100	ND	97.2	70-130	8.06	30	
m,p-Xylene	0.192	0.010	"	0.200	ND	95.9	70-130	7.13	30	
o-Xylene	0.0916	0.0050	"	0.100	ND	91.6	70-130	9.18	30	
1,2,4-Trimethylbenzene	0.0947	0.0050	"	0.100	ND	94.7	70-130	4.37	30	
1,3,5-Trimethylbenzene	0.0949	0.0050	"	0.100	ND	94.9	70-130	8.88	30	
Naphthalene	0.0880	0.0038	"	0.100	ND	88.0	70-130	1.49	30	
Surrogate: 1,2-Dichloroethane-d4	0.0429		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEG0587 - EPA 3550A

Blank (BEG0587-BLK1)

Prepared: 07/30/21 Analyzed: 07/31/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEG0587-BS1)

Prepared: 07/30/21 Analyzed: 07/31/21

C10-C28 (DRO)	474	50	mg/kg	500	94.7	70-130
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Matrix Spike (BEG0587-MS1)

Source: 2107453-01

Prepared: 07/30/21 Analyzed: 07/31/21

C10-C28 (DRO)	577	50	mg/kg	500	16.1	112	70-130
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Matrix Spike Dup (BEG0587-MSD1)

Source: 2107453-01

Prepared: 07/30/21 Analyzed: 07/31/21

C10-C28 (DRO)	568	50	mg/kg	500	16.1	110	70-130	1.52	20
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Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0156 - EPA 5030 Soil MS

Blank (BEH0156-BLK1)

Prepared: 08/10/21 Analyzed: 08/12/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0199		"	0.0333		59.8	40-150			
Surrogate: Fluoranthene-d10	0.0215		"	0.0333		64.4	40-150			

LCS (BEH0156-BS1)

Prepared: 08/10/21 Analyzed: 08/12/21

Acenaphthene	0.0243	0.00500	mg/kg	0.0333		72.9	31-137			
Anthracene	0.0240	0.00500	"	0.0333		72.0	30-120			
Benzo (a) anthracene	0.0239	0.00500	"	0.0333		71.8	30-120			
Benzo (a) pyrene	0.0233	0.00500	"	0.0333		69.8	30-120			
Benzo (b) fluoranthene	0.0159	0.00500	"	0.0333		47.8	30-120			
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333		43.8	30-120			
Chrysene	0.0242	0.00500	"	0.0333		72.6	30-120			
Dibenz (a,h) anthracene	0.0294	0.00500	"	0.0333		88.2	30-120			
Fluoranthene	0.0251	0.00500	"	0.0333		75.4	30-120			
Fluorene	0.0252	0.00500	"	0.0333		75.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0207	0.00500	"	0.0333		62.0	30-120			
Pyrene	0.0238	0.00500	"	0.0333		71.5	35-142			
1-Methylnaphthalene	0.0201	0.00500	"	0.0333		60.2	35-142			
2-Methylnaphthalene	0.0193	0.00500	"	0.0333		57.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0195		"	0.0333		58.6	40-150			
Surrogate: Fluoranthene-d10	0.0162		"	0.0333		48.7	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0156 - EPA 5030 Soil MS

Matrix Spike (BEH0156-MS1)			Source: 2107202-01		Prepared: 08/10/21		Analyzed: 08/12/21	
Acenaphthene	0.0230	0.00500	mg/kg	0.0333	ND	69.0	31-137	
Anthracene	0.0224	0.00500	"	0.0333	ND	67.2	30-120	
Benzo (a) anthracene	0.0221	0.00500	"	0.0333	ND	66.2	30-120	
Benzo (a) pyrene	0.0211	0.00500	"	0.0333	ND	63.3	30-120	
Benzo (b) fluoranthene	0.0145	0.00500	"	0.0333	ND	43.5	30-120	
Benzo (k) fluoranthene	0.0132	0.00500	"	0.0333	ND	39.7	30-120	
Chrysene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	
Dibenz (a,h) anthracene	0.0274	0.00500	"	0.0333	ND	82.3	30-120	
Fluoranthene	0.0231	0.00500	"	0.0333	ND	69.3	30-120	
Fluorene	0.0239	0.00500	"	0.0333	ND	71.6	30-120	
Indeno (1,2,3-cd) pyrene	0.0188	0.00500	"	0.0333	ND	56.4	30-120	
Pyrene	0.0221	0.00500	"	0.0333	ND	66.2	35-142	
1-Methylnaphthalene	0.0195	0.00500	"	0.0333	ND	58.4	15-130	
2-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.8	15-130	
Surrogate: 2-Methylnaphthalene-d10	0.0137		"	0.0333		41.2	40-150	
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.4	40-150	

Matrix Spike Dup (BEH0156-MSD1)			Source: 2107202-01		Prepared: 08/10/21		Analyzed: 08/12/21	
Acenaphthene	0.0246	0.00500	mg/kg	0.0333	ND	73.9	31-137	6.81 30
Anthracene	0.0246	0.00500	"	0.0333	ND	73.9	30-120	9.52 30
Benzo (a) anthracene	0.0243	0.00500	"	0.0333	ND	72.8	30-120	9.50 30
Benzo (a) pyrene	0.0231	0.00500	"	0.0333	ND	69.3	30-120	8.93 30
Benzo (b) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	12.6 30
Benzo (k) fluoranthene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	12.2 30
Chrysene	0.0246	0.00500	"	0.0333	ND	73.7	30-120	9.63 30
Dibenz (a,h) anthracene	0.0297	0.00500	"	0.0333	ND	89.0	30-120	7.86 30
Fluoranthene	0.0251	0.00500	"	0.0333	ND	75.3	30-120	8.26 30
Fluorene	0.0254	0.00500	"	0.0333	ND	76.3	30-120	6.35 30
Indeno (1,2,3-cd) pyrene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	12.8 30
Pyrene	0.0246	0.00500	"	0.0333	ND	73.9	35-142	10.9 30
1-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.6	15-130	10.1 50
2-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.9	15-130	11.0 50
Surrogate: 2-Methylnaphthalene-d10	0.0156		"	0.0333		46.8	40-150	
Surrogate: Fluoranthene-d10	0.0174		"	0.0333		52.1	40-150	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/27/21 10:31

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 09, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

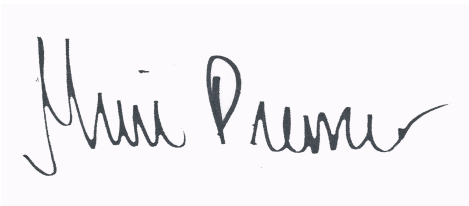
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2108005

Enclosed are the results of analyses for samples received by Summit Scientific on 08/02/21 17:41. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS07@20'	2108005-01	Soil	08/02/21 12:30	08/02/21 17:41
SS08@18'	2108005-02	Soil	08/02/21 12:35	08/02/21 17:41
SS09@10'	2108005-03	Soil	08/02/21 12:50	08/02/21 17:41
SS10@5'	2108005-04	Soil	08/02/21 12:54	08/02/21 17:41

Summit Scientific

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Summit Scientific

2108005

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman
Address: 6855 W 119th Ave
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228
Sampler Name: Cody Miller

Project Manager: Mark Longhurst
E-Mail: mark.longhurst@PDCE.com
Project Name: Dinner 14 B-1 Wellhead
Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - 915	Metals - 915	TMBA, (1,2,4) & (1,3,5) ⁹¹⁵					
1	5507 @ 20'	8/2/21	1230	3			X			X				X	X				X						pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylphthalene, 2-Methylphthalene
2	5508 @ 18'	↓	1235	3			X			X				X	X			X							
3	5509 @ 10'	↓	1250	3			X			X				X	X			X							
4	5510 @ 5'	↓	1254	3			X			X				X	X			X							
5																									
6																									
7																									
8																									
9																									
10																									

Relinquished by: Cody Miller	Date/Time: 8/2/21 1600	Received by: Tasman's Lock Box	Date/Time: 8/2/21 1600	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours 48 hours	Notes:
Relinquished by: Tasman's Lock Box	Date/Time:	Received by: Will John	Date/Time: 8/2/21 17:30	Sample Integrity: Temperature Upon Receipt: 8	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Samples Intact: <input checked="" type="checkbox"/> Yes No	

Sample Receipt Checklist

S2 Work Order 2108005

Client: PDC/Tasman Client Project ID: Dinner 14 B-1 wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C) _____

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

WG
Custodian Printed Name or Initials

Will Sahi
Signature of Custodian

8/2/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS07@20'
2108005-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0019	08/02/21	08/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		70.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		125 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0020	08/02/21	08/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS07@20'
2108005-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0025	08/03/21	08/04/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		74.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		73.8 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS08@18'
2108005-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0019	08/02/21	08/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		63.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		125 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0020	08/02/21	08/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		83.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS08@18'
2108005-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0025	08/03/21	08/04/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		70.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.0 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS09@10'
2108005-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0019	08/02/21	08/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0020	08/02/21	08/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		79.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS09@10'
2108005-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0025	08/03/21	08/04/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		68.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.4 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS10@5'
2108005-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0019	08/02/21	08/02/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0020	08/02/21	08/02/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

SS10@5'
2108005-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0025	08/03/21	08/04/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/02/21 12:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		62.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.9 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0019 - EPA 5030 Soil MS

Blank (BEH0019-BLK1)

Prepared & Analyzed: 08/02/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0273		"	0.0400		68.2	23-173			
Surrogate: Toluene-d8	0.0498		"	0.0400		125	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.5	21-167			

LCS (BEH0019-BS1)

Prepared & Analyzed: 08/02/21

Benzene	0.0461	0.0020	mg/kg	0.0500		92.3	70-130			
Toluene	0.0420	0.0050	"	0.0500		84.1	70-130			
Ethylbenzene	0.0500	0.0050	"	0.0500		100	70-130			
m,p-Xylene	0.102	0.010	"	0.100		102	70-130			
o-Xylene	0.0496	0.0050	"	0.0500		99.2	70-130			
1,2,4-Trimethylbenzene	0.0508	0.0050	"	0.0500		102	70-130			
1,3,5-Trimethylbenzene	0.0504	0.0050	"	0.0500		101	70-130			
Naphthalene	0.0469	0.0038	"	0.0500		93.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0159		"	0.0400		39.7	23-173			
Surrogate: Toluene-d8	0.0447		"	0.0400		112	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.1	21-167			

Matrix Spike (BEH0019-MS1)

Source: 2107333-07

Prepared & Analyzed: 08/02/21

Benzene	0.0476	0.0020	mg/kg	0.0500	ND	95.2	70-130			
Toluene	0.0461	0.0050	"	0.0500	ND	92.2	70-130			
Ethylbenzene	0.0491	0.0050	"	0.0500	ND	98.2	70-130			
m,p-Xylene	0.101	0.010	"	0.100	ND	101	70-130			
o-Xylene	0.0500	0.0050	"	0.0500	ND	100	70-130			
1,2,4-Trimethylbenzene	0.0539	0.0050	"	0.0500	ND	108	70-130			
1,3,5-Trimethylbenzene	0.0514	0.0050	"	0.0500	ND	103	70-130			
Naphthalene	0.0561	0.0038	"	0.0500	ND	112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0185		"	0.0400		46.4	23-173			
Surrogate: Toluene-d8	0.0475		"	0.0400		119	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0019 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0019-MSD1)	Source: 2107333-07			Prepared & Analyzed: 08/02/21						
Benzene	0.0470	0.0020	mg/kg	0.0500	ND	93.9	70-130	1.33	30	
Toluene	0.0419	0.0050	"	0.0500	ND	83.8	70-130	9.48	30	
Ethylbenzene	0.0499	0.0050	"	0.0500	ND	99.8	70-130	1.58	30	
m,p-Xylene	0.0994	0.010	"	0.100	ND	99.4	70-130	1.17	30	
o-Xylene	0.0496	0.0050	"	0.0500	ND	99.3	70-130	0.782	30	
1,2,4-Trimethylbenzene	0.0523	0.0050	"	0.0500	ND	105	70-130	3.16	30	
1,3,5-Trimethylbenzene	0.0506	0.0050	"	0.0500	ND	101	70-130	1.53	30	
Naphthalene	0.0543	0.0038	"	0.0500	ND	109	70-130	3.32	30	
Surrogate: 1,2-Dichloroethane-d4	0.0190		"	0.0400		47.5	23-173			
Surrogate: Toluene-d8	0.0438		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.5	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD		
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	

Batch BEH0020 - EPA 3550A

Blank (BEH0020-BLK1)

Prepared & Analyzed: 08/02/21

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								

LCS (BEH0020-BS1)

Prepared & Analyzed: 08/02/21

C10-C28 (DRO)	497	50	mg/kg	500		99.4	70-130				
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Matrix Spike (BEH0020-MS1)

Source: 2107333-07

Prepared & Analyzed: 08/02/21

C10-C28 (DRO)	540	50	mg/kg	500	ND	108	70-130				
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Matrix Spike Dup (BEH0020-MSD1)

Source: 2107333-07

Prepared & Analyzed: 08/02/21

C10-C28 (DRO)	482	50	mg/kg	500	ND	96.4	70-130	11.3	20		
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Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0025 - EPA 5030 Soil MS

Blank (BEH0025-BLK1)

Prepared & Analyzed: 08/03/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0244		"	0.0333		73.2	40-150			
Surrogate: Fluoranthene-d10	0.0267		"	0.0333		80.1	40-150			

LCS (BEH0025-BS1)

Prepared & Analyzed: 08/03/21

Acenaphthene	0.0241	0.00500	mg/kg	0.0333		72.3	31-137			
Anthracene	0.0256	0.00500	"	0.0333		76.7	30-120			
Benzo (a) anthracene	0.0266	0.00500	"	0.0333		79.7	30-120			
Benzo (a) pyrene	0.0216	0.00500	"	0.0333		64.8	30-120			
Benzo (b) fluoranthene	0.0214	0.00500	"	0.0333		64.1	30-120			
Benzo (k) fluoranthene	0.0208	0.00500	"	0.0333		62.5	30-120			
Chrysene	0.0266	0.00500	"	0.0333		79.8	30-120			
Dibenz (a,h) anthracene	0.0236	0.00500	"	0.0333		70.9	30-120			
Fluoranthene	0.0256	0.00500	"	0.0333		76.9	30-120			
Fluorene	0.0250	0.00500	"	0.0333		75.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0229	0.00500	"	0.0333		68.8	30-120			
Pyrene	0.0249	0.00500	"	0.0333		74.7	35-142			
1-Methylnaphthalene	0.0243	0.00500	"	0.0333		73.0	35-142			
2-Methylnaphthalene	0.0244	0.00500	"	0.0333		73.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0243		"	0.0333		72.8	40-150			
Surrogate: Fluoranthene-d10	0.0263		"	0.0333		78.9	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0025 - EPA 5030 Soil MS

Matrix Spike (BEH0025-MS1)			Source: 2107460-01		Prepared & Analyzed: 08/03/21					
Acenaphthene	0.0318	0.00500	mg/kg	0.0333	ND	95.3	31-137			
Anthracene	0.0318	0.00500	"	0.0333	0.00203	89.3	30-120			
Benzo (a) anthracene	0.0321	0.00500	"	0.0333	ND	96.3	30-120			
Benzo (a) pyrene	0.0308	0.00500	"	0.0333	ND	92.3	30-120			
Benzo (b) fluoranthene	0.0292	0.00500	"	0.0333	ND	87.7	30-120			
Benzo (k) fluoranthene	0.0297	0.00500	"	0.0333	ND	89.2	30-120			
Chrysene	0.0321	0.00500	"	0.0333	ND	96.2	30-120			
Dibenz (a,h) anthracene	0.0332	0.00500	"	0.0333	ND	99.5	30-120			
Fluoranthene	0.0307	0.00500	"	0.0333	ND	92.2	30-120			
Fluorene	0.0308	0.00500	"	0.0333	ND	92.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0315	0.00500	"	0.0333	ND	94.4	30-120			
Pyrene	0.0338	0.00500	"	0.0333	ND	101	35-142			
1-Methylnaphthalene	0.0347	0.00500	"	0.0333	ND	104	15-130			
2-Methylnaphthalene	0.0363	0.00500	"	0.0333	ND	109	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0328		"	0.0333		98.5	40-150			
Surrogate: Fluoranthene-d10	0.0289		"	0.0333		86.6	40-150			

Matrix Spike Dup (BEH0025-MSD1)			Source: 2107460-01		Prepared: 08/03/21 Analyzed: 08/04/21					
Acenaphthene	0.0308	0.00500	mg/kg	0.0333	ND	92.5	31-137	2.99	30	
Anthracene	0.0317	0.00500	"	0.0333	0.00203	89.1	30-120	0.270	30	
Benzo (a) anthracene	0.0304	0.00500	"	0.0333	ND	91.2	30-120	5.39	30	
Benzo (a) pyrene	0.0292	0.00500	"	0.0333	ND	87.6	30-120	5.18	30	
Benzo (b) fluoranthene	0.0278	0.00500	"	0.0333	ND	83.4	30-120	5.06	30	
Benzo (k) fluoranthene	0.0281	0.00500	"	0.0333	ND	84.4	30-120	5.62	30	
Chrysene	0.0304	0.00500	"	0.0333	ND	91.3	30-120	5.29	30	
Dibenz (a,h) anthracene	0.0321	0.00500	"	0.0333	ND	96.3	30-120	3.29	30	
Fluoranthene	0.0300	0.00500	"	0.0333	ND	90.0	30-120	2.45	30	
Fluorene	0.0301	0.00500	"	0.0333	ND	90.3	30-120	2.19	30	
Indeno (1,2,3-cd) pyrene	0.0309	0.00500	"	0.0333	ND	92.8	30-120	1.66	30	
Pyrene	0.0318	0.00500	"	0.0333	ND	95.3	35-142	6.13	30	
1-Methylnaphthalene	0.0303	0.00500	"	0.0333	ND	90.9	15-130	13.5	50	
2-Methylnaphthalene	0.0304	0.00500	"	0.0333	ND	91.1	15-130	17.8	50	
Surrogate: 2-Methylnaphthalene-d10	0.0307		"	0.0333		92.2	40-150			
Surrogate: Fluoranthene-d10	0.0286		"	0.0333		85.7	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 15:26

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 09, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

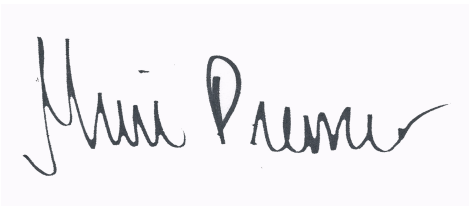
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2108019

Enclosed are the results of analyses for samples received by Summit Scientific on 08/03/21 16:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS11@20'	2108019-01	Soil	08/03/21 09:40	08/03/21 16:10
SS12@20'	2108019-02	Soil	08/03/21 10:04	08/03/21 16:10
SS13@18'	2108019-03	Soil	08/03/21 10:10	08/03/21 16:10
SS14@10'	2108019-04	Soil	08/03/21 10:42	08/03/21 16:10
SS15@5'	2108019-05	Soil	08/03/21 10:50	08/03/21 16:10

Summit Scientific

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Summit Scientific

2108019

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14 B-1 Wellhead
Sampler Name: Cody Miller Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - CM ^{CM}	Metals - 915	TMBS (1,2,4) & (1,3,5) ⁹¹⁵			
1	SS 11 @ 20'	8/3/21	0940	3			X			X				X	X				X		X	pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene	
2	SS 12 @ 20'		1004	3			X			X				X	X			X		X			
3	SS 13 @ 18'		1010	3			X			X				X	X			X		X			
4	SS 14 @ 10'		1042	3			X			X				X	X			X		X			
5	SS 15 @ 5'		1050	3			X			X				X	X			X		X			
6																							
7																							
8																							
9																							
10																							

Relinquished by: Cody Miller	Date/Time: 8/3/21 / 1610	Received by: Tasman's Lock Box	Date/Time: 8/3/21 / 1610	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours 48 hours	Notes:
Relinquished by: Tasman's Lock Box	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 8	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 2108019

Client: PDC/HASMAN Client Project ID: Dinner 14-B1 wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C) 8

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

NG
Custodian Printed Name or Initials

Will Salin
Signature of Custodian

8/3/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS11@20'
2108019-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0039	08/03/21	08/03/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0040	08/03/21	08/03/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS11@20'
2108019-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0047	08/04/21	08/05/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/03/21 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		52.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.3 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS12@20'
2108019-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0039	08/03/21	08/03/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0040	08/03/21	08/03/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		89.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS12@20'
2108019-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0047	08/04/21	08/05/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		44.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.7 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS13@18'
2108019-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0039	08/03/21	08/03/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0040	08/03/21	08/03/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS13@18'
2108019-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0047	08/04/21	08/05/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		43.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		109 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS14@10'
2108019-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0039	08/03/21	08/03/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		83.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0040	08/03/21	08/03/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS14@10'
2108019-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0047	08/04/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		54.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		87.1 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS15@5'
2108019-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0039	08/03/21	08/03/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		85.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0040	08/03/21	08/03/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		93.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

SS15@5'
2108019-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0047	08/04/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/03/21 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		51.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		41.9 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0039 - EPA 5030 Soil MS

Blank (BEH0039-BLK1)

Prepared & Analyzed: 08/03/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0182		"	0.0400		45.5	23-173			
Surrogate: Toluene-d8	0.0556		"	0.0400		139	20-170			
Surrogate: 4-Bromofluorobenzene	0.0360		"	0.0400		90.0	21-167			

LCS (BEH0039-BS1)

Prepared & Analyzed: 08/03/21

Benzene	0.0596	0.0020	mg/kg	0.0500		119	70-130			
Toluene	0.0486	0.0050	"	0.0500		97.2	70-130			
Ethylbenzene	0.0516	0.0050	"	0.0500		103	70-130			
m,p-Xylene	0.106	0.010	"	0.100		106	70-130			
o-Xylene	0.0519	0.0050	"	0.0500		104	70-130			
1,2,4-Trimethylbenzene	0.0548	0.0050	"	0.0500		110	70-130			
1,3,5-Trimethylbenzene	0.0537	0.0050	"	0.0500		107	70-130			
Naphthalene	0.0492	0.0038	"	0.0500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0156		"	0.0400		38.9	23-173			
Surrogate: Toluene-d8	0.0500		"	0.0400		125	20-170			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	21-167			

Matrix Spike (BEH0039-MS1)

Source: 2108017-01

Prepared & Analyzed: 08/03/21

Benzene	0.0482	0.0020	mg/kg	0.0500	ND	96.4	70-130			
Toluene	0.0441	0.0050	"	0.0500	ND	88.3	70-130			
Ethylbenzene	0.0532	0.0050	"	0.0500	ND	106	70-130			
m,p-Xylene	0.104	0.010	"	0.100	ND	104	70-130			
o-Xylene	0.0515	0.0050	"	0.0500	ND	103	70-130			
1,2,4-Trimethylbenzene	0.0529	0.0050	"	0.0500	ND	106	70-130			
1,3,5-Trimethylbenzene	0.0524	0.0050	"	0.0500	ND	105	70-130			
Naphthalene	0.0528	0.0038	"	0.0500	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0169		"	0.0400		42.2	23-173			
Surrogate: Toluene-d8	0.0446		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0367		"	0.0400		91.8	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0039 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0039-MSD1)	Source: 2108017-01			Prepared & Analyzed: 08/03/21						
Benzene	0.0488	0.0020	mg/kg	0.0500	ND	97.7	70-130	1.36	30	
Toluene	0.0436	0.0050	"	0.0500	ND	87.1	70-130	1.30	30	
Ethylbenzene	0.0459	0.0050	"	0.0500	ND	91.7	70-130	14.8	30	
m,p-Xylene	0.0953	0.010	"	0.100	ND	95.3	70-130	8.27	30	
o-Xylene	0.0476	0.0050	"	0.0500	ND	95.1	70-130	7.94	30	
1,2,4-Trimethylbenzene	0.0508	0.0050	"	0.0500	ND	102	70-130	4.05	30	
1,3,5-Trimethylbenzene	0.0487	0.0050	"	0.0500	ND	97.4	70-130	7.18	30	
Naphthalene	0.0537	0.0038	"	0.0500	ND	107	70-130	1.75	30	
Surrogate: 1,2-Dichloroethane-d4	0.0182		"	0.0400		45.4	23-173			
Surrogate: Toluene-d8	0.0514		"	0.0400		128	20-170			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0400		94.4	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0040 - EPA 3550A

Blank (BEH0040-BLK1)

Prepared & Analyzed: 08/03/21

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								

LCS (BEH0040-BS1)

Prepared & Analyzed: 08/03/21

C10-C28 (DRO)	483	50	mg/kg	500	96.7	70-130					
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Matrix Spike (BEH0040-MS1)

Source: 2108017-01

Prepared & Analyzed: 08/03/21

C10-C28 (DRO)	464	50	mg/kg	500	17.5	89.3	70-130				
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Matrix Spike Dup (BEH0040-MSD1)

Source: 2108017-01

Prepared & Analyzed: 08/03/21

C10-C28 (DRO)	439	50	mg/kg	500	17.5	84.3	70-130	5.51	20		
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Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0047 - EPA 5030 Soil MS

Blank (BEH0047-BLK1)

Prepared: 08/04/21 Analyzed: 08/05/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0190		"	0.0333		57.1	40-150			
Surrogate: Fluoranthene-d10	0.0240		"	0.0333		72.0	40-150			

LCS (BEH0047-BS1)

Prepared: 08/04/21 Analyzed: 08/05/21

Acenaphthene	0.0266	0.00500	mg/kg	0.0333		79.8	31-137			
Anthracene	0.0300	0.00500	"	0.0333		89.9	30-120			
Benzo (a) anthracene	0.0275	0.00500	"	0.0333		82.4	30-120			
Benzo (a) pyrene	0.0208	0.00500	"	0.0333		62.3	30-120			
Benzo (b) fluoranthene	0.0220	0.00500	"	0.0333		65.9	30-120			
Benzo (k) fluoranthene	0.0241	0.00500	"	0.0333		72.3	30-120			
Chrysene	0.0274	0.00500	"	0.0333		82.3	30-120			
Dibenz (a,h) anthracene	0.0115	0.00500	"	0.0333		34.6	30-120			
Fluoranthene	0.0288	0.00500	"	0.0333		86.5	30-120			
Fluorene	0.0281	0.00500	"	0.0333		84.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0104	0.00500	"	0.0333		31.2	30-120			
Naphthalene	0.0263	0.00500	"	0.0333		78.8	30-120			
Pyrene	0.0215	0.00500	"	0.0333		64.4	35-142			
1-Methylnaphthalene	0.0260	0.00500	"	0.0333		78.0	35-142			
2-Methylnaphthalene	0.0261	0.00500	"	0.0333		78.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0238		"	0.0333		71.4	40-150			
Surrogate: Fluoranthene-d10	0.0326		"	0.0333		97.8	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0047 - EPA 5030 Soil MS

Matrix Spike (BEH0047-MS1)		Source: 2106293-01		Prepared: 08/04/21		Analyzed: 08/05/21	
Acenaphthene	0.0272	0.00500	mg/kg	0.0333	ND	81.7	31-137
Anthracene	0.0248	0.00500	"	0.0333	ND	74.4	30-120
Benzo (a) anthracene	0.0156	0.00500	"	0.0333	ND	46.8	30-120
Benzo (a) pyrene	0.0127	0.00500	"	0.0333	ND	38.2	30-120
Benzo (b) fluoranthene	0.0168	0.00500	"	0.0333	ND	50.4	30-120
Benzo (k) fluoranthene	0.0126	0.00500	"	0.0333	ND	37.9	30-120
Chrysene	0.0156	0.00500	"	0.0333	ND	46.8	30-120
Dibenz (a,h) anthracene	0.0115	0.00500	"	0.0333	ND	34.6	30-120
Fluoranthene	0.0250	0.00500	"	0.0333	ND	74.9	30-120
Fluorene	0.0277	0.00500	"	0.0333	ND	83.2	30-120
Indeno (1,2,3-cd) pyrene	0.0170	0.00500	"	0.0333	ND	51.1	30-120
Naphthalene	0.0289	0.00500	"	0.0333	ND	86.8	30-120
Pyrene	0.0127	0.00500	"	0.0333	ND	38.2	35-142
1-Methylnaphthalene	0.0218	0.00500	"	0.0333	ND	65.4	15-130
2-Methylnaphthalene	0.0268	0.00500	"	0.0333	ND	80.4	15-130
Surrogate: 2-Methylnaphthalene-d10	0.0242		"	0.0333		72.6	40-150
Surrogate: Fluoranthene-d10	0.0254		"	0.0333		76.2	40-150

Matrix Spike Dup (BEH0047-MSD1)	Source: 2106293-01			Prepared: 08/04/21	Analyzed: 08/05/21				
Acenaphthene	0.0231	0.00500	mg/kg	0.0333	ND	69.3	31-137	16.5	30
Anthracene	0.0214	0.00500	"	0.0333	ND	64.3	30-120	14.5	30
Benzo (a) anthracene	0.0205	0.00500	"	0.0333	ND	61.4	30-120	26.9	30
Benzo (a) pyrene	0.0165	0.00500	"	0.0333	ND	49.6	30-120	26.1	30
Benzo (b) fluoranthene	0.0208	0.00500	"	0.0333	ND	62.5	30-120	21.5	30
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.8	30-120	14.4	30
Chrysene	0.0204	0.00500	"	0.0333	ND	61.3	30-120	26.9	30
Dibenz (a,h) anthracene	0.0136	0.00500	"	0.0333	ND	40.9	30-120	16.8	30
Fluoranthene	0.0217	0.00500	"	0.0333	ND	65.2	30-120	13.9	30
Fluorene	0.0229	0.00500	"	0.0333	ND	68.7	30-120	19.1	30
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	8.13	30
Naphthalene	0.0217	0.00500	"	0.0333	ND	65.0	30-120	28.7	30
Pyrene	0.0162	0.00500	"	0.0333	ND	48.5	35-142	23.9	30
1-Methylnaphthalene	0.0218	0.00500	"	0.0333	ND	65.5	15-130	0.150	50
2-Methylnaphthalene	0.0235	0.00500	"	0.0333	ND	70.6	15-130	13.0	50
Surrogate: 2-Methylnaphthalene-d10	0.0215		"	0.0333		64.5	40-150		
Surrogate: Fluoranthene-d10	0.0207		"	0.0333		62.0	40-150		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
08/09/21 16:52

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 10, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Dinner 14 B-1 Wellhead
Work Order #2108037

Enclosed are the results of analyses for samples received by Summit Scientific on 08/04/21 18:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS16@20'	2108037-01	Soil	08/04/21 10:52	08/04/21 18:20
SS17@18'	2108037-02	Soil	08/04/21 11:00	08/04/21 18:20
SS18@10'	2108037-03	Soil	08/04/21 11:24	08/04/21 18:20
SS19@5'	2108037-04	Soil	08/04/21 11:30	08/04/21 18:20
SS20@20'	2108037-05	Soil	08/04/21 13:05	08/04/21 18:20
SS21@18'	2108037-06	Soil	08/04/21 13:14	08/04/21 18:20
SS22@10'	2108037-07	Soil	08/04/21 13:26	08/04/21 18:20
SS23@5'	2108037-08	Soil	08/04/21 13:32	08/04/21 18:20
SS24@20'	2108037-09	Soil	08/04/21 14:30	08/04/21 18:20
SS25@18'	2108037-10	Soil	08/04/21 14:38	08/04/21 18:20
SS26@10'	2108037-11	Soil	08/04/21 14:52	08/04/21 18:20
SS27@5'	2108037-12	Soil	08/04/21 14:58	08/04/21 18:20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2108037.1

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 2

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14 B-1 Wellhead
Sampler Name: Cody Miller Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	⁹¹⁵ GBTEXN - 8260B	⁴¹⁵ TPH - (C6 - C36)	⁹¹⁵ pH, EC, SAR	⁹¹⁵ Boron - HWS	VOC - 915	PAH - ^{GM}	Metals - 915	TMBS (124)(135) ⁴¹⁵	
1	SS 16 @ 20'	8/4/21	1052	3			X			X				X	X			X		X	pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene
2	SS 17 @ 18'		1100	3			X			X				X	X			X		X	
3	SS 18 @ 10'		1124	3			X			X				X	X			X		X	
4	SS 19 @ 5'		1130	3			X			X				X	X			X		X	
5	SS 20 @ 20'		1305	3			X			X				X	X			X		X	
6	SS 21 @ 18'		1314	3			X			X				X	X			X		X	
7	SS 22 @ 10'		1326	3			X			X				X	X			X		X	
8	SS 23 @ 5'		1332	3			X			X				X	X			X		X	
9	SS 24 @ 20'		1430	3			X			X				X	X			X		X	
10	SS 25 @ 18'	✓	1438	3			X			X				X	X			X		X	
Relinquished by: <u>Cody Miller</u>		Date/Time: <u>8/4/21 1625</u>		Received by: <u>Tasman's Lock Box</u>		Date/Time: <u>8/4/21 11625</u>		Turn Around Time (Check)				Notes:									
Relinquished by: <u>Tasman's Lock Box</u>		Date/Time: <u>8/4/21 1800</u>		Received by: <u>W. J. Sahin</u>		Date/Time: <u>8/4/21 1800</u>		Same Day <u>X</u> 72 hours <u>—</u>													
								24 hours <u>—</u> Standard <u>—</u>													
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours <u>—</u>				Sample Integrity: <u>6</u>									
Relinquished by:		Date/Time:		Received by:		Date/Time:		Temperature Upon Receipt: <u>6</u>				Samples Intact: <u>Yes</u> No									

2108037.2

Page 2 of 2

Project Name: Dinner 14 B-1 Wellhead
Project Number:

Sampler Name: <u>Cody Miller</u>					Project Number:					Analysis Requested										Special Instructions		
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HVS ⁹¹⁵	VOC - 915	PAH - 915 64	Metals - 915	TMBS (124) & (136) ⁹¹⁵		
1	SS 26 @ 10'	8/4/21	1452	3			X			X			X	X				X		X		pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene
2	SS 27 @ 5'	↓	1458	3			X			X			X	X				X		X		
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished by: <u>Cody Miller</u>	Date/Time: <u>8/4/21 1625</u>	Received by: <u>Tasman's Lock Box</u>	Date/Time: <u>8/4/21 1625</u>	Turn Around Time (Check)	Same Day <u>X</u> 72 hours <u>—</u> 24 hours <u>—</u> Standard <u>—</u> 48 hours <u>—</u> Sample Integrity: <u>6</u> Temperature Upon Receipt: <u>6</u> Samples Intact: <u>Yes</u> No	Notes:
Relinquished by: <u>Tasman's Lock Box</u>	Date/Time: <u>8/4/21 1800</u>	Received by: <u>[Signature]</u>	Date/Time: <u>8/4/21 1800</u>			
Relinquished by:	Date/Time:	Received by:	Date/Time:			

Sample Receipt Checklist

S2 Work Order 2108032

Client: PDC/TASMAN

Client Project ID: Dinner 14 B-1 Wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒

Airbill #:

Matrix (check all that apply):

☐ Air

☒ Soil/Solid

☐ Water

☐ Other:

(Describe)

Temp (°C)

6

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

WG
Custodian Printed Name or Initials

Will Elsh
Signature of Custodian

8/4/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS16@20'
2108037-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		65.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		87.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS16@20'
2108037-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		54.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		46.3 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS17@18'
2108037-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.56	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		69.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS17@18'
2108037-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		40.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		100 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS18@10'
2108037-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		71.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		118 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		82.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS18@10'
2108037-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		50.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS19@5'
2108037-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		73.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		123 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS19@5'
2108037-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		56.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.0 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS20@20'
2108037-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.5	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		70.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		79.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS20@20'
2108037-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		62.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		96.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS21@18'
2108037-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.9	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		54.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		80.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS21@18'
2108037-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		56.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		58.2 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS22@10'
2108037-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		80.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS22@10'
2108037-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		48.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		86.2 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS23@5'
2108037-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		80.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS23@5'
2108037-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 13:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		41.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.0 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS24@20'
2108037-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS24@20'
2108037-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.2 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS25@18'
2108037-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.010	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.075	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.037	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.028	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	6.5	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/05/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		82.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS25@18'
2108037-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:38**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		55.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS26@10'
2108037-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS26@10'
2108037-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/06/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		51.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS27@5'
2108037-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0069	08/04/21	08/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0070	08/04/21	08/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		91.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

SS27@5'
2108037-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0074	08/05/21	08/07/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/04/21 14:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		53.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.9 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0069 - EPA 5030 Soil MS

Blank (BEH0069-BLK1)

Prepared & Analyzed: 08/04/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0446		"	0.0400		112	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0370		"	0.0400		92.5	21-167			

LCS (BEH0069-BS1)

Prepared: 08/04/21 Analyzed: 08/05/21

Benzene	0.134	0.0020	mg/kg	0.150		89.4	70-130			
Toluene	0.147	0.0050	"	0.150		97.8	70-130			
Ethylbenzene	0.185	0.0050	"	0.150		123	70-130			
m,p-Xylene	0.362	0.010	"	0.300		121	70-130			
o-Xylene	0.191	0.0050	"	0.150		127	70-130			
1,2,4-Trimethylbenzene	0.184	0.0050	"	0.150		123	70-130			
1,3,5-Trimethylbenzene	0.186	0.0050	"	0.150		124	70-130			
Naphthalene	0.168	0.0038	"	0.150		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0414		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0400		92.8	21-167			

Matrix Spike (BEH0069-MS1)

Source: 2108037-01

Prepared: 08/04/21 Analyzed: 08/05/21

Benzene	0.127	0.0020	mg/kg	0.150	ND	84.9	70-130			
Toluene	0.138	0.0050	"	0.150	ND	91.9	70-130			
Ethylbenzene	0.172	0.0050	"	0.150	ND	114	70-130			
m,p-Xylene	0.327	0.010	"	0.300	ND	109	70-130			
o-Xylene	0.179	0.0050	"	0.150	ND	119	70-130			
1,2,4-Trimethylbenzene	0.153	0.0050	"	0.150	ND	102	70-130			
1,3,5-Trimethylbenzene	0.176	0.0050	"	0.150	ND	117	70-130			
Naphthalene	0.175	0.0038	"	0.150	ND	116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0069 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0069-MSD1)	Source: 2108037-01			Prepared: 08/04/21 Analyzed: 08/05/21						
Benzene	0.125	0.0020	mg/kg	0.150	ND	83.2	70-130	2.07	30	
Toluene	0.134	0.0050	"	0.150	ND	89.0	70-130	3.12	30	
Ethylbenzene	0.167	0.0050	"	0.150	ND	111	70-130	3.03	30	
m,p-Xylene	0.317	0.010	"	0.300	ND	106	70-130	3.07	30	
o-Xylene	0.174	0.0050	"	0.150	ND	116	70-130	2.71	30	
1,2,4-Trimethylbenzene	0.143	0.0050	"	0.150	ND	95.6	70-130	6.65	30	
1,3,5-Trimethylbenzene	0.171	0.0050	"	0.150	ND	114	70-130	3.19	30	
Naphthalene	0.182	0.0038	"	0.150	ND	122	70-130	4.32	30	
Surrogate: 1,2-Dichloroethane-d4	0.0417		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.2	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0070 - EPA 3550A

Blank (BEH0070-BLK1)

Prepared: 08/04/21 Analyzed: 08/05/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEH0070-BS1)

Prepared: 08/04/21 Analyzed: 08/05/21

C10-C28 (DRO)	601	50	mg/kg	500	120	70-130
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Matrix Spike (BEH0070-MS1)

Source: 2108037-01

Prepared: 08/04/21 Analyzed: 08/05/21

C10-C28 (DRO)	521	50	mg/kg	500	14.2	101	70-130
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Matrix Spike Dup (BEH0070-MSD1)

Source: 2108037-01

Prepared: 08/04/21 Analyzed: 08/05/21

C10-C28 (DRO)	510	50	mg/kg	500	14.2	99.1	70-130	2.25	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0074 - EPA 5030 Soil MS

Blank (BEH0074-BLK1)

Prepared: 08/05/21 Analyzed: 08/06/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0155		"	0.0333		46.5	40-150			
Surrogate: Fluoranthene-d10	0.0175		"	0.0333		52.4	40-150			

LCS (BEH0074-BS1)

Prepared: 08/05/21 Analyzed: 08/06/21

Acenaphthene	0.0274	0.00500	mg/kg	0.0333		82.3	31-137			
Anthracene	0.0289	0.00500	"	0.0333		86.8	30-120			
Benzo (a) anthracene	0.0254	0.00500	"	0.0333		76.1	30-120			
Benzo (a) pyrene	0.0205	0.00500	"	0.0333		61.4	30-120			
Benzo (b) fluoranthene	0.0238	0.00500	"	0.0333		71.4	30-120			
Benzo (k) fluoranthene	0.0204	0.00500	"	0.0333		61.2	30-120			
Chrysene	0.0253	0.00500	"	0.0333		76.0	30-120			
Dibenz (a,h) anthracene	0.0242	0.00500	"	0.0333		72.6	30-120			
Fluoranthene	0.0282	0.00500	"	0.0333		84.7	30-120			
Fluorene	0.0292	0.00500	"	0.0333		87.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0377	0.00500	"	0.0333		113	30-120			
Naphthalene	0.0311	0.00500	"	0.0333		93.4	30-120			
Pyrene	0.0133	0.00500	"	0.0333		40.0	35-142			
1-Methylnaphthalene	0.0312	0.00500	"	0.0333		93.5	35-142			
2-Methylnaphthalene	0.0319	0.00500	"	0.0333		95.8	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0282		"	0.0333		84.7	40-150			
Surrogate: Fluoranthene-d10	0.0298		"	0.0333		89.4	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0074 - EPA 5030 Soil MS

Matrix Spike (BEH0074-MS1)

Source: 2108033-01

Prepared: 08/05/21 Analyzed: 08/06/21

Acenaphthene	0.0267	0.00500	mg/kg	0.0333	ND	80.1	31-137		
Anthracene	0.0319	0.00500	"	0.0333	ND	95.6	30-120		
Benzo (a) anthracene	0.0257	0.00500	"	0.0333	ND	77.0	30-120		
Benzo (a) pyrene	0.0238	0.00500	"	0.0333	ND	71.4	30-120		
Benzo (b) fluoranthene	0.0251	0.00500	"	0.0333	ND	75.3	30-120		
Benzo (k) fluoranthene	0.0206	0.00500	"	0.0333	ND	61.9	30-120		
Chrysene	0.0256	0.00500	"	0.0333	ND	76.9	30-120		
Dibenz (a,h) anthracene	0.0291	0.00500	"	0.0333	ND	87.2	30-120		
Fluoranthene	0.0276	0.00500	"	0.0333	ND	82.9	30-120		
Fluorene	0.0308	0.00500	"	0.0333	ND	92.5	30-120		
Indeno (1,2,3-cd) pyrene	0.0271	0.00500	"	0.0333	ND	81.4	30-120		
Naphthalene	0.0290	0.00500	"	0.0333	ND	86.9	30-120		
Pyrene	0.0297	0.00500	"	0.0333	ND	89.0	35-142		
1-Methylnaphthalene	0.0296	0.00500	"	0.0333	ND	88.8	15-130		
2-Methylnaphthalene	0.0311	0.00500	"	0.0333	ND	93.2	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0280		"	0.0333		83.9	40-150		
Surrogate: Fluoranthene-d10	0.0300		"	0.0333		89.9	40-150		

Matrix Spike Dup (BEH0074-MSD1)

Source: 2108033-01

Prepared: 08/05/21 Analyzed: 08/06/21

Acenaphthene	0.0286	0.00500	mg/kg	0.0333	ND	85.9	31-137	6.96	30
Anthracene	0.0297	0.00500	"	0.0333	ND	89.0	30-120	7.13	30
Benzo (a) anthracene	0.0258	0.00500	"	0.0333	ND	77.3	30-120	0.390	30
Benzo (a) pyrene	0.0208	0.00500	"	0.0333	ND	62.3	30-120	13.6	30
Benzo (b) fluoranthene	0.0228	0.00500	"	0.0333	ND	68.4	30-120	9.49	30
Benzo (k) fluoranthene	0.0194	0.00500	"	0.0333	ND	58.2	30-120	6.18	30
Chrysene	0.0257	0.00500	"	0.0333	ND	77.2	30-120	0.471	30
Dibenz (a,h) anthracene	0.0271	0.00500	"	0.0333	ND	81.3	30-120	7.01	30
Fluoranthene	0.0257	0.00500	"	0.0333	ND	77.2	30-120	7.10	30
Fluorene	0.0298	0.00500	"	0.0333	ND	89.4	30-120	3.41	30
Indeno (1,2,3-cd) pyrene	0.0252	0.00500	"	0.0333	ND	75.6	30-120	7.35	30
Naphthalene	0.0273	0.00500	"	0.0333	ND	81.9	30-120	5.99	30
Pyrene	0.0279	0.00500	"	0.0333	ND	83.7	35-142	6.17	30
1-Methylnaphthalene	0.0303	0.00500	"	0.0333	ND	90.8	15-130	2.22	50
2-Methylnaphthalene	0.0281	0.00500	"	0.0333	ND	84.4	15-130	9.94	50
Surrogate: 2-Methylnaphthalene-d10	0.0263		"	0.0333		78.8	40-150		
Surrogate: Fluoranthene-d10	0.0424		"	0.0333		127	40-150		

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/10/21 14:49

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 11, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

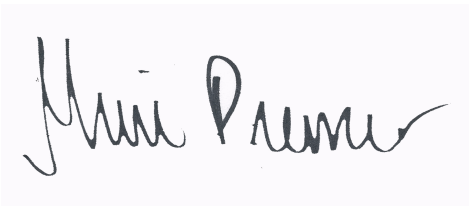
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2108066

Enclosed are the results of analyses for samples received by Summit Scientific on 08/05/21 17:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS28@18'	2108066-01	Soil	08/05/21 08:35	08/05/21 17:50
SS29@10'	2108066-02	Soil	08/05/21 08:44	08/05/21 17:50
SS30@5'	2108066-03	Soil	08/05/21 08:50	08/05/21 17:50

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2108066

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14B-1 Wellhead
Sampler Name: Cody Miller Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - 915	Metals - 915	THU8, (124D & 035) ⁹¹⁵				
1	SS28 @ 18'	8/5/21	0835	3			X			X				X	X				X					pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene
2	SS29 @ 10'	↓	0844	3			X			X				X	X			X						
3	SS30 @ 5'	↓	0850	3			X			X				X	X			X						
4																								
5																								
6																								
7																								
8																								
9																								
10																								

Relinquished by: Cody Miller	Date/Time: 8/5/21 / 1605	Received by: Tasman's Lock Box	Date/Time: 8/5/21 / 1605	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: 10.2 Samples Intact: <input checked="" type="radio"/> Yes No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 8/5/21 1750	Received by: [Signature]	Date/Time: 8/5/21 1750		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2108066

Client: PDC/TASMAN Client Project ID: Dinner 14B-1 wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C) 10.2

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

W/G
Custodian Printed Name or Initials

Hell-Mohr
Signature of Custodian

8/5/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS28@18'
2108066-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0091	08/05/21	08/05/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0090	08/05/21	08/05/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		85.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS28@18'
2108066-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0096	08/06/21	08/07/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		46.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		56.5 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS29@10'
2108066-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0091	08/05/21	08/05/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0090	08/05/21	08/05/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		84.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS29@10'
2108066-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0096	08/06/21	08/07/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		51.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		70.9 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS30@5'
2108066-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0091	08/05/21	08/05/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0090	08/05/21	08/05/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		88.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

SS30@5'
2108066-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0096	08/06/21	08/07/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/05/21 08:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		50.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.8 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0091 - EPA 5030 Soil MS

Blank (BEH0091-BLK1)

Prepared & Analyzed: 08/05/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0187		"	0.0400		46.8	23-173			
Surrogate: Toluene-d8	0.0542		"	0.0400		136	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (BEH0091-BS1)

Prepared & Analyzed: 08/05/21

Benzene	0.0955	0.0020	mg/kg	0.100		95.5	70-130			
Toluene	0.110	0.0050	"	0.100		110	70-130			
Ethylbenzene	0.116	0.0050	"	0.100		116	70-130			
m,p-Xylene	0.226	0.010	"	0.200		113	70-130			
o-Xylene	0.102	0.0050	"	0.100		102	70-130			
1,2,4-Trimethylbenzene	0.117	0.0050	"	0.100		117	70-130			
1,3,5-Trimethylbenzene	0.0879	0.0050	"	0.100		87.9	70-130			
Naphthalene	0.0782	0.0038	"	0.100		78.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0152		"	0.0400		37.9	23-173			
Surrogate: Toluene-d8	0.0470		"	0.0400		117	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		99.9	21-167			

Matrix Spike (BEH0091-MS1)

Source: 2108056-01

Prepared & Analyzed: 08/05/21

Benzene	0.0999	0.0020	mg/kg	0.100	ND	99.9	70-130			
Toluene	0.0988	0.0050	"	0.100	ND	98.8	70-130			
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
m,p-Xylene	0.215	0.010	"	0.200	ND	108	70-130			
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130			
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130			
1,3,5-Trimethylbenzene	0.0900	0.0050	"	0.100	ND	90.0	70-130			
Naphthalene	0.0916	0.0038	"	0.100	ND	91.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0177		"	0.0400		44.2	23-173			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0091 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0091-MSD1)	Source: 2108056-01			Prepared: 08/05/21 Analyzed: 08/06/21						
Benzene	0.0916	0.0020	mg/kg	0.100	ND	91.6	70-130	8.74	30	
Toluene	0.0849	0.0050	"	0.100	ND	84.9	70-130	15.1	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	10.7	30	
m,p-Xylene	0.195	0.010	"	0.200	ND	97.6	70-130	9.71	30	
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130	8.44	30	
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	11.2	30	
1,3,5-Trimethylbenzene	0.0955	0.0050	"	0.100	ND	95.5	70-130	5.85	30	
Naphthalene	0.0883	0.0038	"	0.100	ND	88.3	70-130	3.60	30	
Surrogate: 1,2-Dichloroethane-d4	0.0192		"	0.0400		48.0	23-173			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		94.9	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0090 - EPA 3550A

Blank (BEH0090-BLK1)

Prepared: 08/05/21 Analyzed: 08/06/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEH0090-BS1)

Prepared: 08/05/21 Analyzed: 08/06/21

C10-C28 (DRO)	494	50	mg/kg	500	98.8	70-130
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Matrix Spike (BEH0090-MS1)

Source: 2108056-01

Prepared: 08/05/21 Analyzed: 08/06/21

C10-C28 (DRO)	494	50	mg/kg	500	13.9	96.0	70-130
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Matrix Spike Dup (BEH0090-MSD1)

Source: 2108056-01

Prepared: 08/05/21 Analyzed: 08/06/21

C10-C28 (DRO)	502	50	mg/kg	500	13.9	97.6	70-130	1.60	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike		Source		%REC		RPD	
	Result	Limit	Units	Level		Result		%REC	Limits	RPD	Limit

Batch BEH0096 - EPA 5030 Soil MS

Blank (BEH0096-BLK1)

Prepared: 08/06/21 Analyzed: 08/07/21

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Naphthalene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0203		"	0.0333		60.8		40-150			
Surrogate: Fluoranthene-d10	0.0262		"	0.0333		78.5		40-150			

LCS (BEH0096-BS1)

Prepared: 08/06/21 Analyzed: 08/07/21

Acenaphthene	0.0263	0.00500	mg/kg	0.0333		79.0		31-137			
Anthracene	0.0271	0.00500	"	0.0333		81.3		30-120			
Benzo (a) anthracene	0.0227	0.00500	"	0.0333		68.2		30-120			
Benzo (a) pyrene	0.0196	0.00500	"	0.0333		58.7		30-120			
Benzo (b) fluoranthene	0.0210	0.00500	"	0.0333		62.9		30-120			
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333		82.7		30-120			
Chrysene	0.0227	0.00500	"	0.0333		68.1		30-120			
Dibenz (a,h) anthracene	0.0177	0.00500	"	0.0333		53.2		30-120			
Fluoranthene	0.0271	0.00500	"	0.0333		81.3		30-120			
Fluorene	0.0280	0.00500	"	0.0333		83.9		30-120			
Indeno (1,2,3-cd) pyrene	0.0165	0.00500	"	0.0333		49.6		30-120			
Naphthalene	0.0275	0.00500	"	0.0333		82.5		30-120			
Pyrene	0.0200	0.00500	"	0.0333		60.0		35-142			
1-Methylnaphthalene	0.0267	0.00500	"	0.0333		80.0		35-142			
2-Methylnaphthalene	0.0273	0.00500	"	0.0333		81.8		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.8		40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.7		40-150			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0096 - EPA 5030 Soil MS

Matrix Spike (BEH0096-MS1)			Source: 2106486-02		Prepared: 08/06/21		Analyzed: 08/07/21	
Acenaphthene	0.0282	0.00500	mg/kg	0.0333	ND	84.5	31-137	
Anthracene	0.0307	0.00500	"	0.0333	ND	92.1	30-120	
Benzo (a) anthracene	0.0259	0.00500	"	0.0333	ND	77.7	30-120	
Benzo (a) pyrene	0.0217	0.00500	"	0.0333	ND	65.1	30-120	
Benzo (b) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.1	30-120	
Benzo (k) fluoranthene	0.0301	0.00500	"	0.0333	ND	90.2	30-120	
Chrysene	0.0259	0.00500	"	0.0333	ND	77.7	30-120	
Dibenz (a,h) anthracene	0.0183	0.00500	"	0.0333	ND	54.9	30-120	
Fluoranthene	0.0303	0.00500	"	0.0333	ND	90.8	30-120	
Fluorene	0.0298	0.00500	"	0.0333	ND	89.5	30-120	
Indeno (1,2,3-cd) pyrene	0.0171	0.00500	"	0.0333	ND	51.4	30-120	
Naphthalene	0.0266	0.00500	"	0.0333	ND	79.9	30-120	
Pyrene	0.0236	0.00500	"	0.0333	ND	70.7	35-142	
1-Methylnaphthalene	0.0259	0.00500	"	0.0333	ND	77.8	15-130	
2-Methylnaphthalene	0.0277	0.00500	"	0.0333	ND	83.1	15-130	
Surrogate: 2-Methylnaphthalene-d10	0.0237		"	0.0333		71.2	40-150	
Surrogate: Fluoranthene-d10	0.0311		"	0.0333		93.3	40-150	

Matrix Spike Dup (BEH0096-MSD1)			Source: 2106486-02		Prepared: 08/06/21		Analyzed: 08/07/21	
Acenaphthene	0.0294	0.00500	mg/kg	0.0333	ND	88.2	31-137	4.31 30
Anthracene	0.0291	0.00500	"	0.0333	ND	87.2	30-120	5.48 30
Benzo (a) anthracene	0.0246	0.00500	"	0.0333	ND	73.7	30-120	5.33 30
Benzo (a) pyrene	0.0212	0.00500	"	0.0333	ND	63.5	30-120	2.46 30
Benzo (b) fluoranthene	0.0213	0.00500	"	0.0333	ND	63.9	30-120	6.47 30
Benzo (k) fluoranthene	0.0285	0.00500	"	0.0333	ND	85.6	30-120	5.29 30
Chrysene	0.0245	0.00500	"	0.0333	ND	73.6	30-120	5.40 30
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	6.00 30
Fluoranthene	0.0293	0.00500	"	0.0333	ND	87.9	30-120	3.23 30
Fluorene	0.0307	0.00500	"	0.0333	ND	92.2	30-120	2.96 30
Indeno (1,2,3-cd) pyrene	0.0187	0.00500	"	0.0333	ND	56.0	30-120	8.51 30
Naphthalene	0.0292	0.00500	"	0.0333	ND	87.7	30-120	9.33 30
Pyrene	0.0216	0.00500	"	0.0333	ND	64.9	35-142	8.61 30
1-Methylnaphthalene	0.0290	0.00500	"	0.0333	ND	87.1	15-130	11.2 50
2-Methylnaphthalene	0.0311	0.00500	"	0.0333	ND	93.2	15-130	11.4 50
Surrogate: 2-Methylnaphthalene-d10	0.0258		"	0.0333		77.5	40-150	
Surrogate: Fluoranthene-d10	0.0301		"	0.0333		90.2	40-150	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
08/11/21 17:03

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 18, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

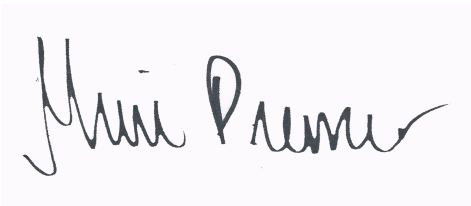
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2108094

Enclosed are the results of analyses for samples received by Summit Scientific on 08/06/21 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer", on a light blue background.

Muri Premer For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS 31 @ 20'	2108094-01	Soil	08/06/21 07:54	08/06/21 18:00
SS 32 @ 18'	2108094-02	Soil	08/06/21 08:00	08/06/21 18:00
SS 33 @ 10'	2108094-03	Soil	08/06/21 08:35	08/06/21 18:00
SS 34 @ 5'	2108094-04	Soil	08/06/21 08:42	08/06/21 18:00
SS 35 @ 20'	2108094-05	Soil	08/06/21 11:34	08/06/21 18:00
SS 36 @ 18'	2108094-06	Soil	08/06/21 11:42	08/06/21 18:00
SS 37 @ 10'	2108094-07	Soil	08/06/21 12:00	08/06/21 18:00
SS 38 @ 5'	2108094-08	Soil	08/06/21 12:06	08/06/21 18:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2108094

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303-487-1228 Project Name: Dinner 14 B-1 Wellhead
Sampler Name: Cody Miller Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - CM	Metals - 915	TMBS (C12, C14, C15) ⁹¹⁵			
1	SS31 20'	8/6/21	0754	3			X			X				X	X				X				pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene
2	SS32 218'		0800	3			X			X				X	X			X					
3	SS33 210'		0835	3			X			X				X	X			X					
4	SS34 25'		0842	3			X			X				X	X			X					
5	SS35 220'		1134	3			X			X				X	X			X					
6	SS36 218'		1142	3			X			X				X	X			X					
7	SS37 210'		1200	3			X			X				X	X			X					
8	SS38 25'	↓	1206	3			X			X				X	X			X					
9																							
10																							

Relinquished by: Cody Miller	Date/Time: 8/6/21 1605	Received by: Tasman's Lock Box	Date/Time: 8/6/21 1605	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: 6 Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 8/6/21 1800	Received by: Will Galt	Date/Time: 8/6/21 1800		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2108094

Client: PDC/TASMAN Client Project ID: Dinner 14 B-1 wellhead

Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Temp (°C) 6

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SAME day
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

WG
Custodian Printed Name or Initials

Will Mahli
Signature of Custodian

8/6/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 31 @ 20'
2108094-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/06/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 31 @ 20'
2108094-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/16/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 07:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		82.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.1 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 32 @ 18'
2108094-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/06/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 32 @ 18'
2108094-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		78.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		63.4 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 33 @ 10'
2108094-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		82.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 33 @ 10'
2108094-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		84.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.9 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 34 @ 5'
2108094-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		82.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 34 @ 5'
2108094-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 08:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		86.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.6 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 35 @ 20'
2108094-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 35 @ 20'
2108094-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		83.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 36 @ 18'
2108094-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.5 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		83.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 36 @ 18'
2108094-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 11:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		89.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.0 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 37 @ 10'
2108094-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		84.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 37 @ 10'
2108094-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		78.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.7 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 38 @ 5'
2108094-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0109	08/06/21	08/07/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0110	"	08/07/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		83.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

SS 38 @ 5'
2108094-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0233	08/16/21	08/17/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/06/21 12:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		91.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.2 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0109 - EPA 5030 Soil MS

Blank (BEH0109-BLK1)

Prepared & Analyzed: 08/06/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0414		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.2	21-167			

LCS (BEH0109-BS1)

Prepared & Analyzed: 08/06/21

Benzene	0.0704	0.0020	mg/kg	0.100		70.4	70-130			
Toluene	0.0718	0.0050	"	0.100		71.8	70-130			
Ethylbenzene	0.0904	0.0050	"	0.100		90.4	70-130			
m,p-Xylene	0.177	0.010	"	0.200		88.7	70-130			
o-Xylene	0.0893	0.0050	"	0.100		89.3	70-130			
1,2,4-Trimethylbenzene	0.0914	0.0050	"	0.100		91.4	70-130			
1,3,5-Trimethylbenzene	0.0914	0.0050	"	0.100		91.4	70-130			
Naphthalene	0.115	0.0038	"	0.100		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.3	21-167			

Matrix Spike (BEH0109-MS1)

Source: 2108092-01

Prepared & Analyzed: 08/06/21

Benzene	0.0707	0.0020	mg/kg	0.100	ND	70.7	70-130			
Toluene	0.0739	0.0050	"	0.100	ND	73.9	70-130			
Ethylbenzene	0.0902	0.0050	"	0.100	ND	90.2	70-130			
m,p-Xylene	0.176	0.010	"	0.200	ND	87.9	70-130			
o-Xylene	0.0891	0.0050	"	0.100	ND	89.1	70-130			
1,2,4-Trimethylbenzene	0.0904	0.0050	"	0.100	ND	90.4	70-130			
1,3,5-Trimethylbenzene	0.0902	0.0050	"	0.100	ND	90.2	70-130			
Naphthalene	0.119	0.0038	"	0.100	ND	119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0375		"	0.0400		93.7	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0109 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0109-MSD1)	Source: 2108092-01			Prepared & Analyzed: 08/06/21						
Benzene	0.0739	0.0020	mg/kg	0.100	ND	73.9	70-130	4.36	30	
Toluene	0.0700	0.0050	"	0.100	ND	70.0	70-130	5.38	30	
Ethylbenzene	0.0868	0.0050	"	0.100	ND	86.8	70-130	3.83	30	
m,p-Xylene	0.170	0.010	"	0.200	ND	84.9	70-130	3.47	30	
o-Xylene	0.0845	0.0050	"	0.100	ND	84.5	70-130	5.32	30	
1,2,4-Trimethylbenzene	0.0871	0.0050	"	0.100	ND	87.1	70-130	3.72	30	
1,3,5-Trimethylbenzene	0.0866	0.0050	"	0.100	ND	86.6	70-130	4.04	30	
Naphthalene	0.120	0.0038	"	0.100	ND	120	70-130	1.20	30	
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0375		"	0.0400		93.7	21-167			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike	Source	%REC		RPD	
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0110 - EPA 3550A

Blank (BEH0110-BLK1)

Prepared & Analyzed: 08/06/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEH0110-BS1)

Prepared & Analyzed: 08/06/21

C10-C28 (DRO)	584	50	mg/kg	500	117	70-130
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Matrix Spike (BEH0110-MS1)

Source: 2108092-01

Prepared & Analyzed: 08/06/21

C10-C28 (DRO)	591	50	mg/kg	500	16.5	115	70-130
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Matrix Spike Dup (BEH0110-MSD1)

Source: 2108092-01

Prepared & Analyzed: 08/06/21

C10-C28 (DRO)	586	50	mg/kg	500	16.5	114	70-130	0.916	20
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Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0233 - EPA 5030 Soil MS

Blank (BEH0233-BLK1)

Prepared & Analyzed: 08/16/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0330		"	0.0333		99.1	40-150			
Surrogate: Fluoranthene-d10	0.0231		"	0.0333		69.4	40-150			

LCS (BEH0233-BS1)

Prepared & Analyzed: 08/16/21

Acenaphthene	0.0241	0.00500	mg/kg	0.0333		72.4	31-137			
Anthracene	0.0223	0.00500	"	0.0333		66.8	30-120			
Benzo (a) anthracene	0.0239	0.00500	"	0.0333		71.7	30-120			
Benzo (a) pyrene	0.0237	0.00500	"	0.0333		71.0	30-120			
Benzo (b) fluoranthene	0.0266	0.00500	"	0.0333		79.8	30-120			
Benzo (k) fluoranthene	0.0265	0.00500	"	0.0333		79.6	30-120			
Chrysene	0.0234	0.00500	"	0.0333		70.1	30-120			
Dibenz (a,h) anthracene	0.0293	0.00500	"	0.0333		87.8	30-120			
Fluoranthene	0.0222	0.00500	"	0.0333		66.7	30-120			
Fluorene	0.0255	0.00500	"	0.0333		76.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0295	0.00500	"	0.0333		88.4	30-120			
Pyrene	0.0225	0.00500	"	0.0333		67.5	35-142			
1-Methylnaphthalene	0.0242	0.00500	"	0.0333		72.5	35-142			
2-Methylnaphthalene	0.0210	0.00500	"	0.0333		62.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0307		"	0.0333		92.1	40-150			
Surrogate: Fluoranthene-d10	0.0247		"	0.0333		74.1	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Reporting				Spike	Source	%REC			RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0233 - EPA 5030 Soil MS

Matrix Spike (BEH0233-MS1)

Source: 2108094-01

Prepared & Analyzed: 08/16/21

Acenaphthene	0.0221	0.00500	mg/kg	0.0333	ND	66.3	31-137		
Anthracene	0.0200	0.00500	"	0.0333	ND	60.0	30-120		
Benzo (a) anthracene	0.0206	0.00500	"	0.0333	ND	61.7	30-120		
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.8	30-120		
Benzo (b) fluoranthene	0.0229	0.00500	"	0.0333	ND	68.7	30-120		
Benzo (k) fluoranthene	0.0229	0.00500	"	0.0333	ND	68.8	30-120		
Chrysene	0.0201	0.00500	"	0.0333	ND	60.3	30-120		
Dibenz (a,h) anthracene	0.0250	0.00500	"	0.0333	ND	74.9	30-120		
Fluoranthene	0.0202	0.00500	"	0.0333	ND	60.6	30-120		
Fluorene	0.0232	0.00500	"	0.0333	ND	69.7	30-120		
Indeno (1,2,3-cd) pyrene	0.0250	0.00500	"	0.0333	ND	74.9	30-120		
Pyrene	0.0184	0.00500	"	0.0333	ND	55.2	35-142		
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.9	15-130		
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.9	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0278		"	0.0333		83.5	40-150		
Surrogate: Fluoranthene-d10	0.0223		"	0.0333		66.9	40-150		

Matrix Spike Dup (BEH0233-MSD1)

Source: 2108094-01

Prepared & Analyzed: 08/16/21

Acenaphthene	0.0237	0.00500	mg/kg	0.0333	ND	71.0	31-137	6.82	30
Anthracene	0.0228	0.00500	"	0.0333	ND	68.3	30-120	13.0	30
Benzo (a) anthracene	0.0257	0.00500	"	0.0333	ND	77.1	30-120	22.3	30
Benzo (a) pyrene	0.0248	0.00500	"	0.0333	ND	74.3	30-120	18.5	30
Benzo (b) fluoranthene	0.0260	0.00500	"	0.0333	ND	77.9	30-120	12.5	30
Benzo (k) fluoranthene	0.0254	0.00500	"	0.0333	ND	76.4	30-120	10.5	30
Chrysene	0.0251	0.00500	"	0.0333	ND	75.3	30-120	22.1	30
Dibenz (a,h) anthracene	0.0302	0.00500	"	0.0333	ND	90.6	30-120	18.9	30
Fluoranthene	0.0219	0.00500	"	0.0333	ND	65.7	30-120	8.09	30
Fluorene	0.0251	0.00500	"	0.0333	ND	75.3	30-120	7.73	30
Indeno (1,2,3-cd) pyrene	0.0300	0.00500	"	0.0333	ND	90.0	30-120	18.4	30
Pyrene	0.0231	0.00500	"	0.0333	ND	69.3	35-142	22.7	30
1-Methylnaphthalene	0.0232	0.00500	"	0.0333	ND	69.7	15-130	13.4	50
2-Methylnaphthalene	0.0192	0.00500	"	0.0333	ND	57.7	15-130	4.94	50
Surrogate: 2-Methylnaphthalene-d10	0.0304		"	0.0333		91.2	40-150		
Surrogate: Fluoranthene-d10	0.0256		"	0.0333		76.8	40-150		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
08/18/21 12:09

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 13, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

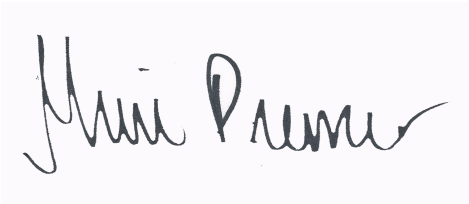
Denver, CO 80203

RE: Dinner 14 B-1 Wellhead

Work Order #2108118

Enclosed are the results of analyses for samples received by Summit Scientific on 08/09/21 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS39@20'	2108118-01	Soil	08/09/21 12:42	08/09/21 18:00
SS40@18'	2108118-02	Soil	08/09/21 12:50	08/09/21 18:00
SS41@10'	2108118-03	Soil	08/09/21 13:10	08/09/21 18:00
SS42@5'	2108118-04	Soil	08/09/21 13:18	08/09/21 18:00
SS43@2.5'	2108118-05	Soil	08/09/21 13:24	08/09/21 18:00
SS44@20'	2108118-06	Soil	08/09/21 14:44	08/09/21 18:00
SS45@18'	2108118-07	Soil	08/09/21 14:52	08/09/21 18:00
SS46@10'	2108118-08	Soil	08/09/21 14:58	08/09/21 18:00
SS47@5'	2108118-09	Soil	08/09/21 15:02	08/09/21 18:00
BKG02@5'	2108118-10	Soil	08/09/21 15:35	08/09/21 18:00
BKG02@10'	2108118-11	Soil	08/09/21 15:40	08/09/21 18:00
BKG02@18'	2108118-12	Soil	08/09/21 15:47	08/09/21 18:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Summit Scientific

2108118.1

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 2

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
 City/State/Zip: Broomfield/ CO/ 80020
 Phone: 303-487-1228 Project Name: Dinner 14 B-1 Wellhead
 Sampler Name: Cody Miller Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEX-N - 8260B ⁹¹⁵	TPH - (C6 - C36) ⁹¹⁵	pH, EC, SAR ⁹¹⁵	Boron - HWS ⁹¹⁵	VOC - 915	PAH - 004 ⁰⁰⁴	Metals - 915	TM, L, V, P, S, F ⁹¹⁵	
1	SS39 @ 20'	8/9/21	1242	3			X			X			X	X			X		X	pH, EC, SAR by saturated paste PAHs = Fluorene, Pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene	
2	SS40 @ 18'		1250	3			X			X			X	X			X		X		
3	SS41 @ 10'		1310	3			X			X			X	X			X		X		
4	SS42 @ 5'		1318	3			X			X			X	X			X		X		
5	SS43 @ 2.5'		1324	3			X			X					X	X					
6	SS44 @ 20'		1444	3			X			X			X	X			X		X		
7	SS45 @ 18'		1452	3			X			X			X	X			X		X		
8	SS46 @ 10'		1458	3			X			X			X	X			X		X		
9	SS47 @ 5'		1502	3			X			X			X	X			X		X		
10	BK602 @ 5'	✓	1535	1			X			X								X			

Relinquished by: Cody Miller	Date/Time: 8/9/21 1645	Received by: Tasman's Lock Box	Date/Time: 8/9/21 1645	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/>	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 8/9/21 1800	Received by: Will [Signature]	Date/Time: 8/9/21 1800	Sample Integrity: 4	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Temperature Upon Receipt: 4 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

2108182

303-277-9310

Page 2 of 2

Project Number:

[illegible]

Sample Receipt Checklist

S2 Work Order 2108118

Client: PDX/TASMAN

Client Project ID: Dinner 14 B-1 wellhead

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

Matrix (check all that apply):

☒ Air

☐ Soil/Solid

☐ Water

☐ Other:

(Describe)

Temp (°C)

4

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SAME DAY
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

WGA
Custodian Printed Name or Initials

WGA
Signature of Custodian

8/9/21
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS39@20'
2108118-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		125 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS39@20'
2108118-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		49.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		60.9 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS40@18'
2108118-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS40@18'
2108118-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		50.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.1 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS41@10'
2108118-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		99.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS41@10'
2108118-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		51.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.4 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS42@5'
2108118-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		99.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS42@5'
2108118-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 13:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		58.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		65.5 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS43@2.5'
2108118-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.167	0.0100	mg/L	1	BEH0148	08/10/21	08/13/21	EPA 6020B	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	73.9	0.0541	mg/L dry	1	BEH0147	08/10/21	08/14/21	EPA 6020B	
Magnesium	18.5	0.0541	"	"	"	"	"	"	
Sodium	84.2	0.0541	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Sodium Adsorption Ratio	2.27	0.00100	units	1	BEH0256	08/16/21	08/16/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
% Solids	92.5		%	1	BEH0159	08/11/21	08/12/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Specific Conductance (EC)	0.978	0.0100	mmhos/cm	1	BEH0164	08/11/21	08/11/21	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS43@2.5'
2108118-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/09/21 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.13			pH Units	1	BEH0163	08/11/21	08/11/21	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS44@20'
2108118-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS44@20'
2108118-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		51.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.5 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS45@18'
2108118-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/09/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS45@18'
2108118-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		50.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.2 %	40-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS46@10'
2108118-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/09/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/10/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS46@10'
2108118-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 14:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		53.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.7 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS47@5'
2108118-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEH0138	08/09/21	08/10/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEH0139	08/09/21	08/10/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

SS47@5'
2108118-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Fluorene	ND	0.00500	mg/kg	1	BEH0140	08/10/21	08/11/21	EPA 8270D SIM	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **08/09/21 15:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10		53.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		60.8 %	40-150		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

BKG02@5'
2108118-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/09/21 15:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.21	0.212	mg/kg dry	1	BEH0146	08/10/21	08/12/21	EPA 6020B	
Barium	45.6	0.424	"	"	"	"	"	"	
Cadmium	ND	0.212	"	"	"	"	"	"	
Copper	2.92	0.424	"	"	"	"	"	"	
Lead	4.46	0.212	"	"	"	"	"	"	
Nickel	2.65	0.424	"	"	"	"	"	"	
Selenium	ND	0.276	"	"	"	"	"	"	
Silver	0.0340	0.0212	"	"	"	"	"	"	
Zinc	17.3	0.424	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/09/21 15:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEH0162	08/11/21	08/12/21	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/21 15:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	94.4		%	1	BEH0159	08/11/21	08/12/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/09/21 15:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.33		pH Units	1	BEI0253	09/13/21	09/13/21	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

BKG02@10'
2108118-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/09/21 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.03	0.232	mg/kg dry	1	BEH0146	08/10/21	08/12/21	EPA 6020B	
Barium	45.3	0.464	"	"	"	"	"	"	
Cadmium	ND	0.232	"	"	"	"	"	"	
Copper	3.35	0.464	"	"	"	"	"	"	
Lead	4.33	0.232	"	"	"	"	"	"	
Nickel	2.67	0.464	"	"	"	"	"	"	
Selenium	0.353	0.302	"	"	"	"	"	"	
Silver	ND	0.0232	"	"	"	"	"	"	
Zinc	18.2	0.464	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/09/21 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEH0162	08/11/21	08/12/21	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/21 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	86.2		%	1	BEH0159	08/11/21	08/12/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/09/21 15:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.65		pH Units	1	BEI0253	09/13/21	09/13/21	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

BKG02@18'
2108118-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/09/21 15:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.29	0.251	mg/kg dry	1	BEH0146	08/10/21	08/12/21	EPA 6020B	
Barium	34.2	0.502	"	"	"	"	"	"	
Cadmium	ND	0.251	"	"	"	"	"	"	
Copper	4.74	0.502	"	"	"	"	"	"	
Lead	5.36	0.251	"	"	"	"	"	"	
Nickel	2.67	0.502	"	"	"	"	"	"	
Selenium	ND	0.326	"	"	"	"	"	"	
Silver	ND	0.0251	"	"	"	"	"	"	
Zinc	20.4	0.502	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/09/21 15:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEH0162	08/11/21	08/12/21	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/09/21 15:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	79.7		%	1	BEH0159	08/11/21	08/12/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **08/09/21 15:47**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.13		pH Units	1	BEI0253	09/13/21	09/13/21	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0138 - EPA 5030 Soil MS

Blank (BEH0138-BLK1)

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0368		"	0.0400		91.9	23-173			
Surrogate: Toluene-d8	0.0598		"	0.0400		150	20-170			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		105	21-167			

LCS (BEH0138-BS1)

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	0.0842	0.0020	mg/kg	0.100		84.2	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130			
m,p-Xylene	0.209	0.010	"	0.200		104	70-130			
o-Xylene	0.106	0.0050	"	0.100		106	70-130			
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
1,3,5-Trimethylbenzene	0.0886	0.0050	"	0.100		88.6	70-130			
Naphthalene	0.0939	0.0038	"	0.100		93.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0400		90.1	23-173			
Surrogate: Toluene-d8	0.0548		"	0.0400		137	20-170			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		108	21-167			

Matrix Spike (BEH0138-MS1)

Source: 2108110-01

Prepared: 08/09/21 Analyzed: 08/10/21

Benzene	0.0800	0.0020	mg/kg	0.100	ND	80.0	70-130			
Toluene	0.115	0.0050	"	0.100	ND	115	70-130			
Ethylbenzene	0.0980	0.0050	"	0.100	ND	98.0	70-130			
m,p-Xylene	0.191	0.010	"	0.200	ND	95.3	70-130			
o-Xylene	0.0964	0.0050	"	0.100	ND	96.4	70-130			
1,2,4-Trimethylbenzene	0.0951	0.0050	"	0.100	ND	95.1	70-130			
1,3,5-Trimethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
Naphthalene	0.102	0.0038	"	0.100	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0367		"	0.0400		91.7	23-173			
Surrogate: Toluene-d8	0.0502		"	0.0400		126	20-170			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BEH0138 - EPA 5030 Soil MS

Matrix Spike Dup (BEH0138-MSD1)	Source: 2108110-01			Prepared: 08/09/21 Analyzed: 08/10/21						
Benzene	0.0912	0.0020	mg/kg	0.100	ND	91.2	70-130	13.1	30	
Toluene	0.112	0.0050	"	0.100	ND	112	70-130	2.72	30	
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130	6.52	30	
m,p-Xylene	0.206	0.010	"	0.200	ND	103	70-130	7.96	30	
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130	7.38	30	
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130	9.44	30	
1,3,5-Trimethylbenzene	0.0939	0.0050	"	0.100	ND	93.9	70-130	1.84	30	
Naphthalene	0.110	0.0038	"	0.100	ND	110	70-130	7.15	30	
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0400		89.9	23-173			
Surrogate: Toluene-d8	0.0546		"	0.0400		136	20-170			
Surrogate: 4-Bromofluorobenzene	0.0437		"	0.0400		109	21-167			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Reporting				Spike	Source	%REC			RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	

Batch BEH0139 - EPA 3550A

Blank (BEH0139-BLK1)

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BEH0139-BS1)

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO)	480	50	mg/kg	500	95.9	70-130
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Matrix Spike (BEH0139-MS1)

Source: 2108110-01

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO)	427	50	mg/kg	500	17.4	82.0	70-130
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Matrix Spike Dup (BEH0139-MSD1)

Source: 2108110-01

Prepared: 08/09/21 Analyzed: 08/10/21

C10-C28 (DRO)	465	50	mg/kg	500	17.4	89.6	70-130	8.55	20
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Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0140 - EPA 5030 Soil MS

Blank (BEH0140-BLK1)

Prepared: 08/10/21 Analyzed: 08/11/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0224		"	0.0333		67.2	40-150			
Surrogate: Fluoranthene-d10	0.0244		"	0.0333		73.3	40-150			

LCS (BEH0140-BS1)

Prepared: 08/10/21 Analyzed: 08/11/21

Acenaphthene	0.0272	0.00500	mg/kg	0.0333		81.7	31-137			
Anthracene	0.0273	0.00500	"	0.0333		81.9	30-120			
Benzo (a) anthracene	0.0257	0.00500	"	0.0333		77.2	30-120			
Benzo (a) pyrene	0.0236	0.00500	"	0.0333		70.8	30-120			
Benzo (b) fluoranthene	0.0229	0.00500	"	0.0333		68.6	30-120			
Benzo (k) fluoranthene	0.0310	0.00500	"	0.0333		93.1	30-120			
Chrysene	0.0261	0.00500	"	0.0333		78.2	30-120			
Dibenz (a,h) anthracene	0.0242	0.00500	"	0.0333		72.6	30-120			
Fluoranthene	0.0270	0.00500	"	0.0333		81.0	30-120			
Fluorene	0.0276	0.00500	"	0.0333		82.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0227	0.00500	"	0.0333		68.1	30-120			
Naphthalene	0.0284	0.00500	"	0.0333		85.1	30-120			
Pyrene	0.0246	0.00500	"	0.0333		73.8	35-142			
1-Methylnaphthalene	0.0266	0.00500	"	0.0333		79.7	35-142			
2-Methylnaphthalene	0.0227	0.00500	"	0.0333		68.2	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0167		"	0.0333		50.0	40-150			
Surrogate: Fluoranthene-d10	0.0188		"	0.0333		56.5	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike Level	Source Result	%REC		RPD		Notes
	Result	Limit	Units			%REC	Limits	RPD	Limit	

Batch BEH0140 - EPA 5030 Soil MS

Matrix Spike (BEH0140-MS1)

Source: 2108114-02

Prepared: 08/10/21 Analyzed: 08/11/21

Acenaphthene	0.0219	0.00500	mg/kg	0.0333	ND	65.7	31-137			
Anthracene	0.0217	0.00500	"	0.0333	ND	65.2	30-120			
Benzo (a) anthracene	0.0216	0.00500	"	0.0333	ND	64.9	30-120			
Benzo (a) pyrene	0.0204	0.00500	"	0.0333	ND	61.2	30-120			
Benzo (b) fluoranthene	0.0211	0.00500	"	0.0333	ND	63.4	30-120			
Benzo (k) fluoranthene	0.0131	0.00500	"	0.0333	ND	39.2	30-120			
Chrysene	0.0219	0.00500	"	0.0333	ND	65.8	30-120			
Dibenz (a,h) anthracene	0.0241	0.00500	"	0.0333	ND	72.3	30-120			
Fluoranthene	0.0222	0.00500	"	0.0333	ND	66.7	30-120			
Fluorene	0.0220	0.00500	"	0.0333	ND	65.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0178	0.00500	"	0.0333	ND	53.4	30-120			
Naphthalene	0.0220	0.00500	"	0.0333	ND	65.9	30-120			
Pyrene	0.0206	0.00500	"	0.0333	ND	61.9	35-142			
1-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.9	15-130			
2-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0150		"	0.0333		45.1	40-150			
Surrogate: Fluoranthene-d10	0.0201		"	0.0333		60.3	40-150			

Matrix Spike Dup (BEH0140-MSD1)

Source: 2108114-02

Prepared: 08/10/21 Analyzed: 08/11/21

Acenaphthene	0.0249	0.00500	mg/kg	0.0333	ND	74.8	31-137	13.0	30	
Anthracene	0.0253	0.00500	"	0.0333	ND	75.9	30-120	15.2	30	
Benzo (a) anthracene	0.0258	0.00500	"	0.0333	ND	77.3	30-120	17.5	30	
Benzo (a) pyrene	0.0234	0.00500	"	0.0333	ND	70.2	30-120	13.7	30	
Benzo (b) fluoranthene	0.0282	0.00500	"	0.0333	ND	84.5	30-120	28.5	30	
Benzo (k) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120	26.1	30	
Chrysene	0.0261	0.00500	"	0.0333	ND	78.4	30-120	17.4	30	
Dibenz (a,h) anthracene	0.0233	0.00500	"	0.0333	ND	70.0	30-120	3.35	30	
Fluoranthene	0.0259	0.00500	"	0.0333	ND	77.6	30-120	15.1	30	
Fluorene	0.0255	0.00500	"	0.0333	ND	76.4	30-120	14.8	30	
Indeno (1,2,3-cd) pyrene	0.0217	0.00500	"	0.0333	ND	65.1	30-120	19.9	30	
Naphthalene	0.0239	0.00500	"	0.0333	ND	71.6	30-120	8.33	30	
Pyrene	0.0240	0.00500	"	0.0333	ND	71.9	35-142	15.0	30	
1-Methylnaphthalene	0.0223	0.00500	"	0.0333	ND	66.9	15-130	9.38	50	
2-Methylnaphthalene	0.0184	0.00500	"	0.0333	ND	55.3	15-130	10.2	50	
Surrogate: 2-Methylnaphthalene-d10	0.0155		"	0.0333		46.4	40-150			
Surrogate: Fluoranthene-d10	0.0197		"	0.0333		59.1	40-150			

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0148 - EPA 3050B

Blank (BEH0148-BLK1)

Prepared: 08/10/21 Analyzed: 08/13/21

Boron ND 0.0100 mg/L

LCS (BEH0148-BS1)

Prepared: 08/10/21 Analyzed: 08/13/21

Boron 4.50 0.0100 mg/L 5.00 90.0 80-120

Duplicate (BEH0148-DUP1)

Source: 2107436-07

Prepared: 08/10/21 Analyzed: 08/13/21

Boron 0.178 0.0100 mg/L 0.183 2.73 20

Matrix Spike (BEH0148-MS1)

Source: 2107436-07

Prepared: 08/10/21 Analyzed: 08/13/21

Boron 4.35 0.0100 mg/L 5.00 0.183 83.4 75-125

Matrix Spike Dup (BEH0148-MSD1)

Source: 2107436-07

Prepared: 08/10/21 Analyzed: 08/13/21

Boron 4.38 0.0100 mg/L 5.00 0.183 83.9 75-125 0.520 25

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike Level	Source		%REC		RPD	
	Result	Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0146 - EPA 3050B

Blank (BEH0146-BLK1)

Prepared: 08/10/21 Analyzed: 08/11/21

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BEH0146-BS1)

Prepared: 08/10/21 Analyzed: 08/11/21

Arsenic	47.1	0.200	mg/kg wet	40.0	118	80-120
Barium	40.2	0.400	"	40.0	101	80-120
Cadmium	2.13	0.200	"	2.00	107	80-120
Copper	41.7	0.400	"	40.0	104	80-120
Lead	19.7	0.200	"	20.0	98.6	80-120
Nickel	39.9	0.400	"	40.0	99.7	80-120
Selenium	3.68	0.260	"	4.00	92.1	80-120
Silver	1.94	0.0200	"	2.00	96.9	80-120
Zinc	47.2	0.400	"	40.0	118	80-120

Duplicate (BEH0146-DUP1)

Source: 2108093-01

Prepared: 08/10/21 Analyzed: 08/11/21

Arsenic	2.01	0.245	mg/kg dry	1.99	1.03	20
Barium	45.8	0.489	"	43.3	5.78	20
Cadmium	0.177	0.245	"	0.186	4.87	20
Copper	23.6	0.489	"	25.3	6.77	20
Lead	21.2	0.245	"	20.4	3.79	20
Nickel	22.6	0.489	"	24.5	8.36	20
Selenium	0.642	0.318	"	0.721	11.6	20
Silver	0.0443	0.0245	"	0.0396	11.3	20
Zinc	133	0.489	"	136	1.89	20

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Total Metals by EPA 6020B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0146 - EPA 3050B

Matrix Spike (BEH0146-MS1)	Source: 2108093-01			Prepared: 08/10/21 Analyzed: 08/12/21						
Arsenic	55.5	0.245	mg/kg dry	48.9	1.99	109	75-125			
Barium	96.5	0.489	"	48.9	43.3	109	75-125			
Cadmium	2.76	0.245	"	2.45	0.186	105	75-125			
Copper	77.1	0.489	"	48.9	25.3	106	75-125			
Lead	43.0	0.245	"	24.5	20.4	92.3	75-125			
Nickel	63.1	0.489	"	48.9	24.5	78.8	75-125			
Selenium	4.75	0.318	"	4.89	0.721	82.3	75-125			
Silver	2.46	0.0245	"	2.45	0.0396	98.9	75-125			
Zinc	184	0.489	"	48.9	136	98.9	75-125			

Matrix Spike Dup (BEH0146-MSD1)	Source: 2108093-01			Prepared: 08/10/21 Analyzed: 08/12/21						
Arsenic	53.3	0.245	mg/kg dry	48.9	1.99	105	75-125	3.98	25	
Barium	104	0.489	"	48.9	43.3	125	75-125	7.87	25	
Cadmium	2.74	0.245	"	2.45	0.186	104	75-125	0.918	25	
Copper	67.4	0.489	"	48.9	25.3	86.1	75-125	13.4	25	
Lead	41.1	0.245	"	24.5	20.4	84.6	75-125	4.52	25	
Nickel	75.1	0.489	"	48.9	24.5	103	75-125	17.5	25	
Selenium	4.43	0.318	"	4.89	0.721	75.9	75-125	6.86	25	
Silver	2.36	0.0245	"	2.45	0.0396	94.7	75-125	4.23	25	
Zinc	180	0.489	"	48.9	136	90.1	75-125	2.38	25	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0162 - 3060A Mod

Blank (BEH0162-BLK1)

Prepared: 08/11/21 Analyzed: 08/12/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEH0162-BS1)

Prepared: 08/11/21 Analyzed: 08/12/21

Chromium, Hexavalent 24.2 0.30 mg/kg wet 25.0 97.0 80-120

Duplicate (BEH0162-DUP1)

Source: 2108093-01

Prepared: 08/11/21 Analyzed: 08/12/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEH0162-MS1)

Source: 2108093-01

Prepared: 08/11/21 Analyzed: 08/12/21

Chromium, Hexavalent 26.0 0.30 mg/kg dry 30.6 ND 85.0 75-125

Matrix Spike Dup (BEH0162-MSD1)

Source: 2108093-01

Prepared: 08/11/21 Analyzed: 08/12/21

Chromium, Hexavalent 26.1 0.30 mg/kg dry 30.6 ND 85.4 75-125 0.469 20

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0147 - General Preparation

Blank (BEH0147-BLK1)

Prepared: 08/10/21 Analyzed: 08/13/21

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

LCS (BEH0147-BS1)

Prepared: 08/10/21 Analyzed: 08/13/21

Calcium	5.38	0.0500	mg/L wet	5.00	108	70-130
Magnesium	5.01	0.0500	"	5.00	100	70-130
Sodium	4.99	0.0500	"	5.00	99.8	70-130

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD	Limit	Notes
		Limit	Units			%REC	Limits			

Batch BEH0159 - General Preparation

Duplicate (BEH0159-DUP1)		Source: 2107436-07		Prepared: 08/11/21 Analyzed: 08/12/21	
% Solids	87.2		%	87.3	0.143 20

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Result	Reporting			Spike Level	Source		%REC		RPD	
		Limit	Units	Result		%REC	Limits	RPD	Limit	Notes	

Batch BEH0164 - General Preparation

Blank (BEH0164-BLK1)

Prepared & Analyzed: 08/11/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEH0164-BS1)

Prepared & Analyzed: 08/11/21

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 90-110

Duplicate (BEH0164-DUP1)

Source: 2107436-07

Prepared & Analyzed: 08/11/21

Specific Conductance (EC) 0.950 0.0100 mmhos/cm 0.952 0.210 20

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BEH0163 - General Preparation

LCS (BEH0163-BS1)

Prepared & Analyzed: 08/11/21

pH	9.27		pH Units	9.21	101	95-105
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Duplicate (BEH0163-DUP1)

Source: 2107436-07

Prepared & Analyzed: 08/11/21

pH	8.39		pH Units	8.38		0.119	20
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Batch BEI0253 - General Preparation

LCS (BEI0253-BS1)

Prepared & Analyzed: 09/13/21

pH	9.31		pH Units	9.21	101	95-105
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Duplicate (BEI0253-DUP1)

Source: 2108118-10

Prepared & Analyzed: 09/13/21

pH	8.08		pH Units	8.33		3.05	20
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Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Dinner 14 B-1 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
09/13/21 16:54

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference