

TABLE 1
SOIL ANALYTICAL RESULTS

POWDER WASH NORTH COMPRESSOR STATION SOUTH PIT
MOFFAT COUNTY, COLORADO
ANDEAVOR FIELD SERVICES LLC

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	PWN - PIT E	PWN - PIT N	PWN - PIT W	PWN - PIT S	PWN - PIT SE	PWN - PIT BOT	PWN - PIT BOT
Sample Date			11/5/2015	11/5/2015	11/5/2015	11/5/2015	11/5/2015	11/6/2015	11/6/2015
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Sample Range Depth		feet	28-31	16-16.5	16-16.5	28-31.6	28-32	12-16	20-22.5
Arsenic	0.39	mg/kg	9.7	2.3	2.9	4.0	7.5	6.0	2.9
Barium	15,000	mg/kg	43	47	45	49	80	100	30
Cadmium	70	mg/kg	1.4	<0.81	0.83	<0.74	<0.88	<0.88	1.1
Chromium (III)	120,000	mg/kg	3.7	13	19	13	19	18	5.5
Chromium (VI)	23	mg/kg	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.0
Copper	3,100	mg/kg	12	9.0	19	13	19	17	5.3
Lead	400	mg/kg	25	9.9	12	17	13	21	14
Mercury	23	mg/kg	<0.014	<0.015	0.024	<0.015	<0.014	<0.014	<0.013
Nickel	1,600	mg/kg	16	8.5	18	12	14	13	16
Selenium	390	mg/kg	1.8	1.1	<0.82	1.3	1.1	1.4	0.95
Silver	390	mg/kg	<0.45	<0.41	<0.41	<0.37	<0.44	<0.44	<0.39
Zinc	23,000	mg/kg	71	39	84	75	56	60	45
EC	4.0	mmhos/cm	3.7	3.6	7.5	4.2	1.9	4.1	5.4
pH	6 - 9	SU	7.5	8.1	7.6	5.6	7.7	7.6	7.1
SAR	12	unitless	4.9	5.7	4.4	4.0	2.9	0.14	0.30
TPH-GRO		mg/kg	<2.8	<2.8	<2.9	1,400	<2.8	2,700	1,500
TPH-DRO		mg/kg	<4.6	<4.6	<4.6	230	<4.5	570	370
TPH	500	mg/kg	<4.6	<4.6	<4.6	1,630	<4.5	3,270	1,870
Benzene	0.17	mg/kg	0.072	<0.034	<0.035	1.8	<0.033	14	0.72
Toluene	85	mg/kg	0.16	0.096	0.16	24	0.060	110	26
Ethylbenzene	100	mg/kg	<0.034	<0.034	<0.035	3.8	<0.033	15	8.6
Total Xylenes	175	mg/kg	<0.10	<0.10	<0.10	30	<0.10	74	44
Acenaphthene	1,000	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.013	<0.0073
Anthracene	1,000	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.028	<0.0073
Benzo(A)anthracene	0.22	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.031	<0.0073
Benzo(B)fluoranthene	0.22	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.045	<0.0073
Benzo(K)fluoranthene	2.2	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.016	<0.0073
Benzo(A)pyrene	0.022	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.034	<0.0073
Chrysene	22	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.041	<0.0073
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	<0.0075	<0.0073
Fluoranthene	1,000	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.099	<0.0073
Fluorene	1,000	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.025	<0.0073
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.025	<0.0073
Naphthalene	23	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.031	0.028
Pyrene	1,000	mg/kg	<0.0074	<0.0073	<0.0074	<0.0075	<0.0073	0.092	<0.0073

NOTES:

< - less than the stated reporting limit

NA - not analyzed

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

EC- electrical conductivity

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

SAR - Sodium Adsorption Ratio

SU - standard unit

TPH-GRO - total petroleum hydrocarbons-gasoline range organics

TPH-DRO - total petroleum hydrocarbons-diesel range organics

TPH - combination of TPH-GRO and TPH-DRO



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POWDER WASH NORTH COMPRESSOR STATION SOUTH PIT
MOFFAT COUNTY, COLORADO
ANDEAVOR FIELD SERVICES LLC

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	SB-01@30'-32'	SB-02@25'-27'	SB-02@30'-32'	SB-03@5'-7'	SB-03@30'-32'	SB-04@20'-22'	SB-04@30'-32'	SB-02@5-7'	SB-02@30-32'	SB-02@35.5-36.5'
Sample Date			10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/16/2018	10/16/2018	11/19/2019	11/19/2019	11/19/2019
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Sample Range Depth		feet	30-32	25-27	30-32	5-7	30-32	20-22	30-32	5-7	30-32	35.5-36.5
Arsenic	0.39	mg/kg	NA	NA	NA	NA	NA	NA	NA	5.6	4.8	4.0
Barium	15,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	49	47	30
Cadmium	70	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.38	1.3	7.7
Chromium (III)	120,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	5.8	16	9.2
Chromium (VI)	23	mg/kg	NA	NA	NA	NA	NA	NA	NA	<1.1	<1.3	<1.3
Copper	3,100	mg/kg	NA	NA	NA	NA	NA	NA	NA	6.5	33	10
Lead	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	15	16	12
Mercury	23	mg/kg	NA	NA	NA	NA	NA	NA	NA	<0.018	0.044	0.11
Nickel	1,600	mg/kg	NA	NA	NA	NA	NA	NA	NA	6.7	18	18
Selenium	390	mg/kg	NA	NA	NA	NA	NA	NA	NA	1.3	1.6	0.80
Silver	390	mg/kg	NA	NA	NA	NA	NA	NA	NA	<0.36	<0.44	<0.45
Zinc	23,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	23	220	67
EC	4.0	mmhos/cm	1.9	1.6	3.2	1.9	3.9	4.9	1.1	0.51	4.7	4.7
pH	6 - 9	SU	7.03	5.01	4.34	7.03	5.49	8.11	8.26	8.16	4.35	7.17
SAR	12	unitless	2.8	4.4	1.6	0.29	0.94	0.20	0.86	0.34	0.62	0.57
TPH-GRO		mg/kg	<7.0	95	1,100	3,600	9,200	2,200	17,000	44	57	1,200
TPH-DRO		mg/kg	<6.0	48	42	240	200	43	370	<5.1	27	14
TPH	500	mg/kg	<7.0	143	1,142	3,840	9,400	2,243	17,370	44	84	1,214
Benzene	0.17	mg/kg	<0.042	0.14	24	13	140	16	420	<0.034	0.83	18
Toluene	85	mg/kg	<0.042	0.11	85	370	640	89	140	<0.034	1.8	67
Ethylbenzene	100	mg/kg	<0.042	<0.045	6.2	110	120	35	94	<0.034	0.30	7.7
Total Xylenes	175	mg/kg	<0.13	0.48	48	1,100	520	130	410	<0.10	2.2	40
Acenaphthene	1,000	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Anthracene	1,000	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Benzo(A)anthracene	0.22	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	0.0096	<0.0076	<0.0044	<0.0052	<0.0054
Benzo(B)fluoranthene	0.22	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Benzo(K)fluoranthene	2.2	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Benzo(A)pyrene	0.022	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Chrysene	22	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Dibenzo(A,H)anthracene	0.022	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Fluoranthene	1,000	mg/kg	<0.040	<0.042	0.0091	<0.0078	<0.0074	0.018	<0.0076	<0.0044	<0.0052	<0.0054
Fluorene	1,000	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	<0.0080	<0.0076	<0.0044	<0.0052	<0.0054
Naphthalene	23	mg/kg	<0.040	0.23	0.094	0.69	0.85	<0.0080	0.87	<0.0044	0.024	0.12
Pyrene	1,000	mg/kg	<0.040	<0.042	<0.0082	<0.0078	<0.0074	0.018	<0.0076	<0.0044	<0.0052	<0.0054

NOTES:
< - less than the stated reporting limit
NA - not analyzed
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COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
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SAR - Sodium Adsorption Ratio
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TPH-GRO - total petroleum hydrocarbons-gasoline range organics
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Sample Date			11/19/2019	11/19/2019	11/19/2019	11/18/2019	11/18/2019	11/19/2019	11/20/2019	11/20/2019	11/20/2019
Sample Type			Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation	Confirmation
Sample Range Depth		feet	5-7	20-22	32-33.5	15-17	20-22	35-36.5	40-40.7	50-50.6	55-55.6
Arsenic	0.39	mg/kg	6.3	1.0	12	4.7	4.7	3.5	3.1	11	6.0
Barium	15,000	mg/kg	47	34	44	47	82	22	52	24	30
Cadmium	70	mg/kg	0.37	0.55	<1.8	0.36	3.1	2.5	0.30	0.22	0.80
Chromium (III)	120,000	mg/kg	5.9	5.5	19	6.3	7.5	11	12	6.6	9.6
Chromium (VI)	23	mg/kg	<1.2	<1.2	<1.2	<1.1	<1.2	<1.2	<1.3	<1.1	<1.1
Copper	3,100	mg/kg	6.6	8.4	31	5.9	8.4	4.5	4.5	3.1	6.8
Lead	400	mg/kg	15	6.2	35	11	22	9.4	7.8	5.0	8.4
Mercury	23	mg/kg	<0.023	<0.023	0.040	<0.020	<0.023	0.023	<0.021	<0.021	<0.021
Nickel	1,600	mg/kg	7.1	4.9	39	6.2	41	11	8.0	3.7	7.4
Selenium	390	mg/kg	1.4	1.1	5.8	1.0	1.2	0.51	<0.52	0.98	4.4
Silver	390	mg/kg	ND	<0.47	<4.6	<0.36	<0.40	<0.40	<0.52	<0.39	<0.39
Zinc	23,000	mg/kg	24	37	150	24	58	62	34	18	34
EC	4.0	mmhos/cm	4.7	1.4	4.9	1.8	1.4	4.7	0.22	0.24	0.26
pH	6 - 9	SU	7.73	7.78	7.37	7.48	6.71	7.55	7.43	6.80	6.46
SAR	12	unitless	0.18	3.2	0.71	0.099	0.31	0.73	1.9	1.7	1.8
TPH-GRO		mg/kg	<4.9	13,000	7,800	<5.3	1,300	65	28	36	55
TPH-DRO		mg/kg	<5.7	51	100	<5.5	48	ND	11	37	29
TPH	500	mg/kg	<5.7	13,051	7,900	<5.5	1,348	65	39	73	84
Benzene	0.17	mg/kg	<0.039	700	82	<0.038	0.34	1.3	<0.046	<0.034	<0.040
Toluene	85	mg/kg	<0.039	26	350	<0.038	16	7.5	0.18	<0.034	<0.040
Ethylbenzene	100	mg/kg	<0.039	470	53	<0.038	1.1	1.9	0.080	<0.034	<0.040
Total Xylenes	175	mg/kg	<0.12	21	310	<0.12	140	9.7	0.64	0.16	0.19
Acenaphthene	1,000	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
Anthracene	1,000	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
Benzo(A)anthracene	0.22	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	0.047	<0.0051	<0.0044	<0.012
Benzo(B)fluoranthene	0.22	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	0.020	<0.0051	<0.0044	<0.012
Benzo(K)fluoranthene	2.2	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
Benzo(A)pyrene	0.022	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
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Fluoranthene	1,000	mg/kg	<0.0047	0.0055	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
Fluorene	1,000	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012
Indeno(1,2,3,C,D)pyrene	0.22	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	0.021	<0.0051	<0.0044	<0.012
Naphthalene	23	mg/kg	<0.0047	0.099	0.34	<0.0046	<0.0049	0.023	<0.0051	<0.0044	<0.012
Pyrene	1,000	mg/kg	<0.0047	<0.0050	<0.0050	<0.0046	<0.0049	<0.015	<0.0051	<0.0044	<0.012

NOTES:

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