

TABLE 1
RILEY 1
SOIL ANALYTICAL RESULTS
CAERUS OIL AND GAS
PICEANCE BASIN, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	BH-5	BH-5	BH-6	BH-6	BH-7	BH-7	BH-8	BH-8	BH-9	BH-9
Sample Depth		Feet	10-12	25.5-27	20-22	25.5-27	20-22	32-34	10-12	30-32	5-7	34-36
Sample Date			10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016	10/13/2016
Sample Type			Impacted Area	Clearance	Impacted Area	Clearance	Impacted Area	Clearance	Impacted Area	Clearance	Impacted Area	Clearance
Arsenic	0.39	mg/kg	12	23	16	23	16	16	13	16	11	17
Barium	15,000	mg/kg	220	290	210	310	160	240	310	310	250	550
Cadmium	70	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium (III)	120,000	mg/kg	11	13	12	14	11	14	14	13	13	12
Chromium (VI)	23	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	3,100	mg/kg	16	14	19	20	17	18	17	17	15	17
Lead	400	mg/kg	9.6	13	11	11	9.9	11	11	9.1	10	11
Mercury	23	mg/kg	ND	0.019	0.020	0.020	ND	0.024	ND	0.018	0.019	0.028
Nickel	1,600	mg/kg	18	18	23	24	18	22	18	18	17	20
Selenium	390	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	390	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	23,000	mg/kg	69	68	72	79	79	86	79	72	69	82
EC	4 or 2x background	mmhos/cm	3.2	1.2	5.7	1.0	0.90	1.7	5.9	1.4	3.1	1.4
pH	6-9	SU	8.1	8.2	8.3	7.8	8.2	8.1	8.3	8.1	8.3	8.2
SAR	12	unitless	6.1	2.2	1.0	2.2	1.9	2.0	7.0	1.9	8.5	1.8
TPH-DRO			1,500	10	500	10	130	7.9	50	8.3	2,200	7.9
TPH-GRO			3,300	ND	6,200	ND	930	ND	110	ND	6,900	ND
TPH	500	mg/kg	4,800	10	6,700	10	1,060	7.9	160	8.3	9,100	7.9
Benzene	0.17	mg/kg	ND	ND	ND	ND	0.11	ND	ND	ND	3.1	ND
Toluene	85	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	27	ND
Ethylbenzene	100	mg/kg	3.8	ND	9.8	ND	3.0	ND	0.15	ND	25	ND
Total Xylenes	175	mg/kg	36	ND	190	ND	40	ND	4.0	ND	540	ND
Acenaphthene	1,000	mg/kg	0.20	ND	ND	ND	ND	ND	ND	ND	0.11	ND
Anthracene	1,000	mg/kg	0.035	ND	ND	ND	ND	ND	ND	ND	0.10	ND
Benz(a)anthracene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	2.2	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	1,000	mg/kg	0.23	ND	0.045	ND	0.011	ND	ND	ND	0.36	ND
Indeno(1,2,3,c,d)pyrene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	23	mg/kg	2.4	ND	0.56	ND	0.36	ND	0.065	ND	5.1	ND
Pyrene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.021	ND

Notes:

< - less than the stated reporting limit

Highlight - 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

NA - not analyzed

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