

TABLE 1  
PUCKETT 697-26A  
DRILL CUTTINGS ANALYTICAL RESULTS  
CAERUS OIL AND GAS LLC  
PICEANCE BASIN, COLORADO

PARAMETER	COGCC CONCENTRATION LEVELS	UNITS	20180430 - 26A (CUT-E)	20180430 - 26A (CUT-S)	20180430 - 26A (CUT-N)	20180430 - 26A (CUT-MID)	20180430 - 26A (CUT-MID01)	20180430 - 26A (CUT-MID02)	AS 1*	AS 2*	AS 3*
Sample Date			4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018	4/30/2018	5/4/2011	5/4/2011	5/4/2011
Sample Type			Composite	Composite	Composite	Composite	Composite	Composite	Background	Background	Background
Arsenic	0.39	mg/kg	9.2	10	7.7	9.1	9.6	11	23	28	44
Barium	15,000	mg/kg	500	440	510	860	410	390	NA	NA	NA
Cadmium	70	mg/kg	0.3	0.32	0.29	0.29	0.32	0.49	NA	NA	NA
Chromium (III)	120,000	mg/kg	23	18	25	18	16	17	NA	NA	NA
Chromium (VI)	23	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Copper	3,100	mg/kg	30	28	28	28	30	32	NA	NA	NA
Lead	400	mg/kg	9.4	11	9	8.4	8.9	9.6	NA	NA	NA
Mercury	23	mg/kg	0.021	0.042	0.032	0.029	0.029	0.046	NA	NA	NA
Nickel	1,600	mg/kg	14	14	13	14	14	15	NA	NA	NA
Selenium	390	mg/kg	3.5	3.3	3.5	3.7	3.7	3.5	NA	NA	NA
Silver	390	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Zinc	23,000	mg/kg	61	56	58	58	57	59	NA	NA	NA
EC	4 or 2x background	mmhos/cm	6.3	6.6	8.8	7.4	8.6	9.7	NA	NA	NA
pH	6-9	SU	8.94	8.5	8.4	9.4	8.3	8.2	NA	NA	NA
SAR	12	unitless	19	14	15	16	14	13	NA	NA	NA
TPH-DRO			100	110	110	160	130	130	NA	NA	NA
TPH-GRO			78	56	56	99	52	63	NA	NA	NA
TPH	500	mg/kg	178	166	166	259	182	193	NA	NA	NA
Benzene	0.17	mg/kg	1.9	0.91	1.5	1.0	1.2	0.75	NA	NA	NA
Toluene	85	mg/kg	4.5	2.6	3.3	2.4	2.3	2.1	NA	NA	NA
Ethylbenzene	100	mg/kg	0.49	0.33	0.32	0.24	0.29	0.26	NA	NA	NA
Total Xylenes	175	mg/kg	3.2	2.3	2.3	1.8	1.6	1.7	NA	NA	NA
Acenaphthene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Anthracene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Benzo(a)anthracene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Benzo(b)fluoranthene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Benzo(k)fluoranthene	2.2	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Benzo(a)pyrene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Chrysene	22	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Dibenzo(a,h)anthracene	0.022	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Fluoranthene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Fluorene	1,000	mg/kg	ND	ND	0.05	ND	0.094	0.047	NA	NA	NA
Indeno(1,2,3,c,d)pyrene	0.22	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA
Naphthalene	23	mg/kg	0.18	0.28	0.41	0.23	0.86	0.43	NA	NA	NA
Pyrene	1,000	mg/kg	ND	ND	ND	ND	ND	ND	NA	NA	NA

Notes:

\* These samples were collected from an undisturbed area near the Mesa 16 pad (COGCC Facility Number 335519)

< - 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