

TABLE 1  
SOIL ANALYTICAL RESULTS  
GAMMA STATE 14-15D DRILLING PIT  
MOFFAT COUNTY, COLORADO  
SWN PRODUCTION COMPANY LLC

Parameter	COGCC Table 910-1 Concentration Levels	Units	BGW-01	BGS-01	BGE-01	BGN-01	NW01	EW01	EW02	SW01	WW01	WW02	PB01	PB02
Sample Date			4/28/2015	4/28/2015	4/28/2015	4/28/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015	7/14/2015
Sample Type			Background - West	Background - South	Background - East	Background - North	Side Wall	Side Wall	Side Wall	Side Wall	Side Wall	Side Wall	Pit Floor	Pit Floor
Depth (feet bgs)			Surface	Surface	Surface	Surface	6	6	6	6	6	6	9	9
Benzene	0.17	mg/kg	--	--	--	--	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	<0.034
Toluene	85	mg/kg	--	--	--	--	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	0.034
Ethylbenzene	100	mg/kg	--	--	--	--	<0.032	<0.034	<0.033	<0.034	<0.033	<0.033	<0.033	<0.034
Total Xylenes	175	mg/kg	--	--	--	--	<0.095	<0.10	<0.098	<0.10	<0.10	<0.10	<0.099	0.15
TEPH-DRO	--	mg/kg	--	--	--	--	47	64	100	36	7,500	2,600	1,200	5,700
TVPH-GRO	--	mg/kg	--	--	--	--	<2.7	<2.8	<2.7	<2.9	<2.8	<2.8	<2.7	<2.8
TPH Total	500	mg/kg	--	--	--	--	47	64	100	36	<b>7,500</b>	<b>2,600</b>	<b>1,200</b>	<b>5,700</b>
Arsenic	0.39	mg/kg	<b>5.0</b>	<b>4.0</b>	<b>3.6</b>	<b>3.1</b>	<b>2.5</b>	<b>4.0</b>	<b>2.9</b>	<b>4.5</b>	<b>5.2</b>	<b>3.3</b>	<b>2.7</b>	<b>4.8</b>
Barium	15,000	mg/kg	--	--	--	--	50	140	92	120	340	310	110	290
Cadmium	70	mg/kg	--	--	--	--	<0.71	<0.73	<0.84	<0.86	<0.87	<0.85	<0.81	<0.79
Chromium (III)	120,000	mg/kg	--	--	--	--	4.3	3.7	4.5	7.5	6.4	6.1	4.3	6.4
Chromium (VI)	23	mg/kg	--	--	--	--	<1.0	<1.1	<1.1	<1.1	<1.0	<1.1	<1.1	<1.1
Copper	3,100	mg/kg	--	--	--	--	4.5	5.6	5.4	5.0	6.3	5.6	4.8	8.4
Lead	400	mg/kg	--	--	--	--	2.1	2.0	2.4	3.4	4.5	3.2	2.2	5.7
Mercury	23	mg/kg	--	--	--	--	<0.014	<0.014	<0.014	<0.015	0.02	0.022	0.019	0.024
Nickel	1,600	mg/kg	--	--	--	--	7.4	8.0	8.2	11	13.0	12	12	13
Selenium	390	mg/kg	--	--	--	--	<0.71	<0.73	<0.84	<0.86	<0.87	<0.85	<0.81	1.3
Silver	390	mg/kg	--	--	--	--	<0.35	<0.36	<0.42	<0.43	<0.43	<0.42	<0.41	<0.40
Zinc	23,000	mg/kg	--	--	--	--	9.6	9.3	11	15	19	14	11	25
Acenaphthene	1,000	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	<0.0074
Anthracene	1,000	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	0.021	<0.0073	<0.0071	0.016
Benzo (A) anthracene	0.22	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	0.02	<0.0073	<0.0071	0.012
Benzo (B) fluoranthene	0.22	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.021
Benzo (K) fluoranthene	2.2	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.028
Benzo (A) pyrene	0.022	mg/kg	--	--	--	--	<0.0069	0.008	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.014
Chrysene	22	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	0.014	<0.0073	<0.0071	0.036
Dibenzo (A,H) anthracene	0.022	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.022
Fluoranthene	1,000	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	0.018	<0.0073	<0.0071	0.029
Fluorene	1,000	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	0.024	0.019	<0.074
Indeno (1,2,3,C,D) pyrene	0.22	mg/kg	--	--	--	--	<0.0069	<0.0072	<0.0070	<0.0076	<0.0073	<0.0073	<0.0071	0.02
Napthalene	23	mg/kg	--	--	--	--	<0.0069	0.012	<0.0070	<0.0076	0.092	<0.0073	0.010	0.23
Pyrene	1,000	mg/kg	--	--	--	--	<0.0069	0.0087	<0.0070	<0.0076	0.025	<0.0073	<0.0071	0.04
EC	4	mmhos/cm	--	--	--	--	1.7	3.5	<b>4.1</b>	1.5	<b>8.0</b>	<b>4.3</b>	<b>4.7</b>	<b>11.0</b>
pH	6 - 9	SU	--	--	--	--	8.2	8.7	8.4	8.5	7.8	8.0	8.3	8.2
SAR	12	unitless	--	--	--	--	1.4	10	7.3	2.6	4.2	2.7	8.4	5.3

**NOTES:**  
**BOLD** - indicates result exceeds the COGCC Table 910-1 Concentration Level  
bgs - below ground surface  
COGCC - Colorado Oil and Gas Conservation Commission  
EC - electrical conductivity  
mg/kg - milligrams per kilogram  
mmhos/cm - millimhos per centimeter in saturated paste extract  
SAR - sodium adsorption ratio  
SU - standard unit on saturated paste  
TEPH-DRO - total extractable petroleum hydrocarbon-diesel range organics  
TPH - total petroleum hydrocarbons  
TVPH-GRO - total volume petroleum hydrocarbon-gasoline range organics  
-- - not analyzed/no standard  
< - less than the stated analytical reporting limit

