

Smith, Claudia

From: Smith, Claudia
Sent: Wednesday, September 27, 2017 11:11 AM
Subject: Notice of Issuance of Permit to Construct on the Uintah and Ouray Indian Reservation

This is to notify you that the EPA has issued a final Clean Air Act (CAA) true minor permit to construct for the Table Rock Minerals, LLC, Gilsonite Mine pursuant to the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR Part 49. The final MNSR permit, response to comments and administrative permit record will be available in PDF format on our website at: <http://www.epa.gov/caa-permitting/caa-permits-issued-epa-region-8>.

In accordance with the regulations at §49.159(a), the permit will be effective 30 days after the date of this notice, on October 27, 2017. Within 30 days after a final permit decision has been issued, any person who filed comments on the proposed permit or participated in the public hearing may petition the Environmental Appeals Board (EAB) to review any condition of the permit decision. The 30-day period within which a person may request review under this section begins when we have fulfilled the notice requirements for the final permit decision. Motions to reconsider a final order by the EAB must be filed within 10 days after service of the final order. A petition to the EAB is under Section 307(b) of the CAA, a prerequisite to seeking judicial review of the final agency action. For purposes of judicial review, final agency action occurs when we issue or deny a final permit and agency review procedures are exhausted.

Thank you,

Claudia Young Smith
Environmental Scientist
Air Program
U.S. Environmental Protection Agency, Region 8
Tel: (303) 312-6520
Email: smith.claudia@epa.gov
Web: <http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>
Mail: 1595 Wynkoop Street, Mail Code 8P-AR, Denver, Colorado 80202

Smith, Claudia

From: Smith, Claudia
Sent: Wednesday, September 27, 2017 11:07 AM
To: 'tablerocksmith@gmail.com'
Cc: Minnie Grant; Bruce Pargeets; 'Clark, Eric'; Jim Lekas; Fallon, Gail
Subject: Final MNSR Permit for Table Rock Minerals, LLC, Gilsonite Mine
Attachments: Table Rock Minerals RTC & Final Permit TMNSR-UO-007057-2017.001.pdf

Mr. Smith,

I have attached the final requested permit and the accompanying response to comments document for the Table Rock Minerals, LLC, Gilsonite Mine, issued pursuant to the Tribal Minor New Source Review (MNSR) Program at 40 CFR Part 49. We will also be posting the final MNSR permit, response to comments and administrative permit record in PDF format on our website at: <http://www.epa.gov/caa-permitting/caa-permits-issued-epa-region-8>.

In accordance with the regulations at §49.159(a), the permit will be effective 30 days after the date of this notice, on October 27, 2017. Within 30 days after a final permit decision has been issued, any person who filed comments on the proposed permit or participated in the public hearing may petition the Environmental Appeals Board (EAB) to review any condition of the permit decision. The 30-day period within which a person may request review under this section begins when we have fulfilled the notice requirements for the final permit decision. Motions to reconsider a final order by the EAB must be filed within 10 days after service of the final order. A petition to the EAB is under Section 307(b) of the CAA, a prerequisite to seeking judicial review of the final agency action. For purposes of judicial review, final agency action occurs when we issue or deny a final permit and agency review procedures are exhausted.

If you have any questions or concerns regarding this final permit action, or would like a paper copy, please contact me.

Thank you,

Claudia Young Smith

Environmental Scientist

Air Program

U.S. Environmental Protection Agency, Region 8

Tel: (303) 312-6520

Email: smith.claudia@epa.gov

Web: <http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

Mail: 1595 Wynkoop Street, Mail Code 8P-AR, Denver, Colorado 80202

Smith, Claudia

From: Clark, Eric <eric.clark@stantec.com>
Sent: Wednesday, August 16, 2017 4:31 PM
To: Smith, Claudia
Cc: Jim Lekas
Subject: Response to Table Rock Draft Permit
Attachments: Final_Table Rock EI_Update_8_15_17.xlsx; CAT 3412 Genset 9EP00418 DAQEM Information.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Claudia –

We have reviewed the proposed permit and have a couple of conditions requiring a modification to the language. They are listed below:

1. Page 5 item D-1 (d)
The current verbiage states that a 2014 model year or later is required and certain standards must be met. However, based on the manufacturer specifications and Tier certification documentation that was provided in the application, the engine in question was manufactured in 2000. In addition, the regulation set forth on page 12 of the attached document states that it is certified to EPA 40 CFR Part 89.2(2). The emissions data that we provided was for that specific engine (serial #3FZ01955). Based on the 40 CFR 89.112 standards, the size and age of the unit suggest the certification to be Tier 1. However, the manufacturer data demonstrates that the emissions are better than that for most pollutants. Therefore, we request that the language be updated to reflect the proper model year and minimum standard requirements.
2. Page 6 item E-2 (a)
The current verbiage states that the maximum fan cannot exceed 6,600 cfm. However, the application indicated two (2) pneumatic conveying systems each of which are operated by its own suction fan. Each fan is not exceeding 6,600 cfm. The total for the two pneumatic conveying systems is 13,200 cfm. Please modify the language to account for the two fans.

I believe the emission inventory inadvertently only calculated a total flow of 6,600 cfm. An updated file has been included that doubles the flow. As a result the PM emissions increased somewhat. Please see the attached spreadsheet. If you have any questions please don't hesitate to contact me. Thank you.

Eric Clark, P.E.

Project Engineer
727 East Riverpark Lane, Suite 150
Boise, Idaho 83706
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Cell: (208) 861-7182
Eric.clark@stantec.com

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**GEN SET PACKAGE PERFORMANCE DATA
[3FZ01955]**
MARCH 13, 2013
(3FZ01955)-ENGINE (4RJ00556)-GENERATOR (9EP00418)-GENSET

 For Help Desk Phone Numbers [Click here](#)

Performance Number: DM3428

 Change Level:

Sales Model: 3412CDITA	Combustion: DI	Aspr: TA
Engine Power:		
550 W/F EKW	574 W/O F EKW	Speed: 1,800 RPM
823 HP		After Cooler: JWAC
Manifold Type: DRY	Governor Type: HYDRA	After Cooler Temp(F): --
Turbo Quantity: 2	Engine App: GP	Turbo Arrangement:
Hertz: 60	Application Type: PACKAGE-DIE	Engine Rating: PGS
Rating Type: STANDBY	Certification:	Strategy:

General Performance Data

GEN W/F EKW	PERCENT LOAD	ENGINE POWER BHP	ENGINE BMEP PSI	FUEL BSFC LB/BHP-HR	FUEL RATE GPH	INTAKE MFLD TEMP DEG F	INTAKE MFLD P IN-HG	INTAKE AIR FLOW CFM	EXH MFLD TEMP DEG F	EXH STACK TEMP DEG F	EXH GAS FLOW CFM
550	100	824	219.59	0.35	40.66	193.46	49.42	1,755.14	1,138.1	893.48	4,654.48
495	90	745	198.7	0.34	36.69	190.94	42.94	1,628.01	1,100.48	879.44	4,269.55
440	80	666	177.67	0.35	32.92	188.6	36.48	1,500.87	1,063.94	865.22	3,888.15
412.5	75	627	167.23	0.35	31.09	187.52	33.26	1,433.78	1,046.66	858.02	3,690.39
385	70	588	156.64	0.35	29.3	186.44	30.03	1,363.15	1,029.2	850.82	3,492.62
330	60	509	135.76	0.35	25.73	184.64	23.6	1,228.95	994.46	835.52	3,097.1
275	50	430	114.73	0.36	22.19	183.02	17.44	1,091.22	956.48	816.26	2,701.57
220	40	355	94.57	0.37	18.81	181.58	12.82	974.69	894.2	771.98	2,330.77
165	30	277	73.97	0.39	15.37	180.32	8.82	865.21	814.1	711.32	1,963.5
137.5	25	238	63.38	0.4	13.63	179.78	7.08	812.24	767.12	674.24	1,783.39
110	20	198	52.79	0.42	11.89	179.24	5.48	773.39	713.84	632.12	1,620.94
55	10	116	30.89	0.5	8.35	178.52	2.78	713.36	588.92	532.22	1,349.02

Engine Heat Rejection Data

GEN W/F EKW	PERCENT LOAD	REJ TO JW BTU/MN	REJ TO ATMOS BTU/MN	REJ TO EXHAUST BTU/MN	EXH RCOV TO 350F BTU/MN	FROM OIL CLR BTU/MN	FROM AFT CLR BTU/MN	WORK ENERGY BTU/MN	LHV ENERGY BTU/MN	HHV ENERGY BTU/MN
550	100	20,245.7	6,369.4	32,017.7	17,686.5	2,826.4	4,179.9	34,918.1	87,807.1	93,551.0
495	90	18,312.1	5,516.4	29,060.5	15,923.6	2,667.2	3,230.2	31,562.8	79,276.6	84,451.8
440	80	16,435.4	4,833.9	26,217.0	14,274.3	2,496.6	2,365.8	28,264.3	71,144.2	75,750.7
412.5	75	15,582.3	4,663.3	24,795.3	13,421.3	2,405.6	1,962.0	26,615.1	67,163.3	71,599.2
385	70	14,672.4	4,492.7	23,316.7	12,568.2	2,320.3	1,586.7	24,909.0	63,296.2	67,390.8
330	60	12,909.5	4,151.5	20,530.0	10,919.0	2,149.7	915.6	21,610.6	55,561.9	59,144.7
275	50	11,203.4	3,867.1	17,686.5	9,269.8	1,979.1	358.3	18,255.2	47,941.3	51,012.3
220	40	9,554.1	3,924.0	14,786.2	7,450.0	1,785.7	-45.5	15,070.5	40,605.1	43,278.0
165	30	7,791.2	3,867.1	11,885.8	5,630.1	1,558.2	-352.6	11,772.1	33,155.1	35,373.1

137.5	25	6,938.1	3,810.3	10,464.1	4,720.2	1,444.5	-472.0	10,066.0	29,401.7	31,335.3
110	20	6,085.1	3,696.5	9,156.0	3,867.1	1,325.1	-563.0	8,359.9	25,648.3	27,354.4
55	10	4,265.2	3,241.6	6,710.6	2,274.8	1,063.5	-699.5	4,947.7	18,027.8	19,222.0

EXHAUST Sound Data: 4.92 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
550	100	109	98	108	109	108	101	99	97	88
495	90	108	97	107	108	107	100	98	97	87
440	80	107	97	107	107	107	100	97	96	86
412.5	75	107	96	106	107	106	99	97	96	86
385	70	106	96	106	106	106	99	96	95	85
330	60	106	95	105	106	105	98	96	94	85
275	50	105	94	104	105	104	97	95	94	84
220	40	104	93	103	104	103	96	94	93	83
165	30	103	92	102	103	102	95	93	92	82
137.5	25	102	92	102	103	102	95	93	91	82
110	20	102	91	101	102	101	94	92	91	81
55	10	101	90	100	101	100	93	91	90	80

EXHAUST Sound Data: 22.97 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
550	100	95	89	98	93	93	88	87	87	79
495	90	94	88	98	93	92	87	86	86	78
440	80	94	87	97	92	92	86	85	85	77
412.5	75	93	87	97	92	91	86	85	85	77
385	70	93	87	96	91	91	86	85	85	77
330	60	92	86	95	90	90	85	84	84	76
275	50	91	85	94	89	89	84	83	83	75
220	40	90	84	94	89	88	83	82	82	74
165	30	90	83	93	88	87	82	81	81	73
137.5	25	89	83	92	87	87	82	81	81	73
110	20	89	82	92	87	86	81	80	80	72
55	10	87	81	91	86	85	80	79	79	71

EXHAUST Sound Data: 49.21 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
550	100	89	82	92	87	86	81	80	80	72
495	90	88	81	91	86	86	80	79	79	71
440	80	87	81	90	85	85	80	79	79	71
412.5	75	87	80	90	85	85	79	78	78	70
385	70	86	80	89	84	84	79	78	78	70
330	60	86	79	89	84	83	78	77	77	69
275	50	85	78	88	83	83	77	76	76	68
220	40	84	77	87	82	82	76	75	75	67
165	30	83	76	86	81	81	75	74	74	67
137.5	25	82	76	86	81	80	75	74	74	66
110	20	82	76	85	80	80	75	74	74	66
55	10	81	74	84	79	79	73	72	72	64

MECHANICAL Sound Data: 3.28 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
550	100	105	104	113	104	101	99	97	82	78
495	90	105	104	113	104	101	99	97	82	78
440	80	105	104	113	104	101	99	97	82	78
412.5	75	105	104	113	104	101	99	97	82	78
385	70	105	104	113	104	101	99	97	82	78
330	60	105	104	113	104	101	99	97	82	78
275	50	105	104	113	104	101	99	97	82	78
220	40	105	104	113	104	101	99	97	82	78
165	30	105	104	113	104	101	99	97	82	78
137.5	25	105	104	113	104	101	99	97	82	78
110	20	105	104	113	104	101	99	97	82	78
55	10	105	104	113	104	101	99	97	82	78

MECHANICAL Sound Data: 22.97 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCJ 8000HZ DB
550	100	92	92	100	92	87	86	86	79	70
495	90	92	92	100	92	87	86	86	79	70
440	80	92	92	100	92	87	86	86	79	70
412.5	75	92	92	100	92	87	86	86	79	70
385	70	92	92	100	92	87	86	86	79	70
330	60	92	92	100	92	87	86	86	79	70
275	50	92	92	100	92	87	86	86	79	70
220	40	92	92	100	92	87	86	86	79	70
165	30	92	92	100	92	87	86	86	79	70
137.5	25	92	92	100	92	87	86	86	79	70
110	20	92	92	100	92	87	86	86	79	70
55	10	92	92	100	92	87	86	86	79	70

MECHANICAL Sound Data: 49.21 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
550	100	86	86	94	87	82	80	79	74	63
495	90	86	86	94	87	82	80	79	74	63
440	80	86	86	94	87	82	80	79	74	63
412.5	75	86	86	94	87	82	80	79	74	63
385	70	86	86	94	87	82	80	79	74	63
330	60	86	86	94	87	82	80	79	74	63
275	50	86	86	94	87	82	80	79	74	63
220	40	86	86	94	87	82	80	79	74	63
165	30	86	86	94	87	82	80	79	74	63
137.5	25	86	86	94	87	82	80	79	74	63
110	20	86	86	94	87	82	80	79	74	63
55	10	86	86	94	87	82	80	79	74	63

EMISSIONS DATA**Certification:**

To properly apply this data you must refer to performance parameter DM1176 for additional information...

REFERENCE EXHAUST STACK DIAMETER	8 IN
WET EXHAUST MASS	8,044.7 LB/HR
WET EXHAUST FLOW (892.40 F STACK TEMP)	4,654.48 CFM
WET EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	1,666.00 STD CFM
DRY EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	1,525.95 STD CFM
FUEL FLOW RATE	40 GAL/HR

RATED SPEED "Potential site variation"

GEN PWR EKW	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT	DRY SMOKE OPACITY PERCENT	BOSCH SMOKE NUMBER
550	100	824	13.8000	.4900	.1300	.8700	10.0000	4.9000	1.5700
412.5	75	627	11.1900	.2900	.1600	.4200	10.4000	3.5000	1.3600
275	50	430	8.5100	.1600	.1900	.3200	11.2000	2.6000	1.2800
137.5	25	238	5.7200	.1400	.1800	.2600	13.4000	1.7000	1.2800
55	10	116	3.6200	.1500	.2700	.2200	15.8000	1.4000	1.2900

RATED SPEED "Nominal Data"

GEN PWR EKW	PERCENT LOAD	ENGINE POWER BHP	TOTAL NOX (AS NO2) LB/HR	TOTAL CO LB/HR	TOTAL HC LB/HR	TOTAL CO2 LB/HR	PART MATTER LB/HR	OXYGEN IN EXHAUST PERCENT	DRY SMOKE OPACITY PERCENT	BOSCH SMOKE NUMBER
550	100	824	11.4000	.2600	.0700	911.1	.4400	10.0000	4.9000	1.5700
412.5	75	627	9.2500	.1600	.0900	695.2	.2200	10.4000	3.5000	1.3600
275	50	430	7.0300	.0900	.1000	494.5	.1600	11.2000	2.6000	1.2800
137.5	25	238	4.7300	.0800	.1000	307.9	.1300	13.4000	1.7000	1.2800
55	10	116	3.0000	.0800	.1400	189.2	.1100	15.8000	1.4000	1.2900

Altitude Capability Data(Corrected Power Altitude Capability)

Ambient Operating Temp.	50 F	68 F	86 F	104 F	122 F	NORMAL
Altitude						
0 F	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp
984.25 F	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp
1,640.42 F	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp
3,280.84 F	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp
4,921.26 F	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp	823.39 hp
6,561.68 F	823.39 hp	823.39 hp	823.39 hp	809.98 hp	784.5 hp	823.39 hp
8,202.1 F	823.39 hp	812.66 hp	785.84 hp	760.36 hp	737.56 hp	823.39 hp
9,842.52 F	789.86 hp	763.04 hp	737.56 hp	714.76 hp	691.97 hp	787.18 hp
11,482.94 F	741.58 hp	716.1 hp	691.97 hp	670.51 hp	649.05 hp	746.95 hp
13,123.36 F	694.65 hp	670.51 hp	649.05 hp	627.6 hp	608.82 hp	708.06 hp
14,763.78 F	650.39 hp	628.94 hp	607.48 hp	588.71 hp	569.93 hp	671.85 hp
16,404.2 F	608.82 hp	587.37 hp	568.59 hp	549.82 hp	533.73 hp	635.64 hp
18,044.62 F	568.59 hp	549.82 hp	531.04 hp	513.61 hp	498.86 hp	602.12 hp
19,685.04 F	531.04 hp	512.27 hp	496.18 hp	480.09 hp	465.33 hp	569.93 hp

The powers listed above and all the Powers displayed are Corrected Powers

Identification Reference and Notes

Engine Arrangement:	1483598	Lube Oil Press @ Rated Spd(PSI):	63.8
Effective Serial No:	3FZ00384	Piston Speed @ Rated Eng SPD (FT/Min):	1,773.6
Primary Engine Test Spec:	2T9814	Max Operating Altitude(FT):	8,366.1
Performance Parm Ref:	TM5739	PEEC Elect Control Module Ref	
Performance Data Ref:	DM3428	PEEC Personality Cont Mod Ref	
Aux Coolant Pump Perf Ref:			
Cooling System Perf Ref:		Turbocharger Model	TV8112-1.08VO
Certification Ref:		Fuel Injector	4W7020
Certification Year:		Timing-Static (DEG):	30.00
Compression Ratio:	14.5	Timing-Static Advance (DEG):	3.50
Combustion System:	DI	Timing-Static (MM):	13.00
Aftercooler Temperature (F):	--	Unit Injector Timing (MM):	--
Crankcase Blowby Rate(CFH):	--	Torque Rise (percent)	--
Fuel Rate (Rated RPM) No Load (Gal/HR):	--	Peak Torque Speed RPM	--
Lube Oil Press @ Low Idle Spd(PSI):	60.6	Peak Torque (LB/FT):	--

Reference**Number: DM3428**

EMODEL GS014

THIS DATA CURVE IS APPLICABLE TO TEST SPEC 0K0510 WITH ENGINE ARRANGEMENT 148-3599.

*

THIS PERFORMANCE CURVE IS ALSO APPLICABLE WITH TEST SPECS 0K0525 (HYDRA) AND 0K0527 (PSG) ON ENGINE ARRANGEMENTS 7E0159 (H) AND 7E0160 (P).

Parameters**Reference: TM5739****GEN SET - PACKAGED - DIESEL****TOLERANCES:**

AMBIENT AIR CONDITIONS AND FUEL USED WILL AFFECT THESE VALUES. EACH OF THE VALUES MAY VARY IN ACCORDANCE WITH THE FOLLOWING TOLERANCES.

Power	+/- 3%
Exhaust Stack Temperature	+/- 8%
Generator Power	+/- 5%
Inlet Airflow	+/- 5%
Intake Manifold Pressure-gage	+/- 10%
Exhaust Flow	+/- 6%
Specific Fuel Consumption	+/- 3%
Fuel Rate	+/- 5%
Heat Rejection	+/- 5%
Heat Rejection - Exhaust Only	+/- 10%

T4i Tolerance Exceptions**C15:** Power Tolerance +4% , -0%**C27:** Power Tolerance +0% , -4%**CONDITIONS:**

ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND TEMPERATURE IN ACCORDANCE WITH SAE J1349. ALSO INCLUDED IS A CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT 29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002 LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE DATA IS CORRECTED TO SAE J1349, ISO 3046-2 & 8665 & 2288 & 9249 & 1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL

AUXILIARIES INCLUDE COOLING FANS, AIR COMPRESSORS, AND CHARGING ALTERNATORS.

RATINGS MUST BE REDUCED TO COMPENSATE FOR ALTITUDE AND/OR AMBIENT TEMPERATURE CONDITIONS ACCORDING TO THE APPLICABLE DATA SHOWN ON THE PERFORMANCE DATA SET.

ALTITUDE:

ALTITUDE CAPABILITY - THE RECOMMENDED REDUCED POWER VALUES FOR SUSTAINED ENGINE OPERATION AT SPECIFIC ALTITUDE LEVELS AND AMBIENT TEMPERATURES.

COLUMN "N" DATA - THE FLYWHEEL POWER OUTPUT AT NORMAL AMBIENT TEMPERATURE.

AMBIENT TEMPERATURE - TO BE MEASURED AT THE AIR CLEANER AIR INLET DURING NORMAL ENGINE OPERATION.

NORMAL TEMPERATURE - THE NORMAL TEMPERATURE AT VARIOUS SPECIFIC ALTITUDE LEVELS IS FOUND ON TM2001.

THE GENERATOR POWER CURVE TABULAR DATA REPRESENTS THE NET ELECTRICAL POWER OUTPUT OF THE GENERATOR.

GENERATOR SET RATINGS

EMERGENCY STANDBY POWER (ESP)

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. AVERAGE POWER OUTPUT IS 70% OF THE ESP RATING. TYPICAL OPERATION IS 50 HOURS PER YEAR, WITH MAXIMUM EXPECTED USAGE OF 200 HOURS PER YEAR.

STANDBY POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. AVERAGE POWER OUTPUT IS 70% OF THE STANDBY POWER RATING. TYPICAL OPERATION IS 200 HOURS PER YEAR, WITH MAXIMUM EXPECTED USAGE OF 500 HOURS PER YEAR.

PRIME POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70% OF THE PRIME POWER RATING. TYPICAL PEAK DEMAND IS 100% OF PRIME RATED EKW WITH 10% OVERLOAD CAPABILITY FOR EMERGENCY USE FOR A MAXIMUM OF 1 HOUR IN 12. OVERLOAD OPERATION CANNOT EXCEED 25 HOURS PER YEAR.

CONTINUOUS POWER RATING

OUTPUT AVAILABLE WITH NON-VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70-100% OF THE CONTINUOUS POWER RATING. TYPICAL PEAK DEMAND IS 100% OF CONTINUOUS RATED EKW FOR 100% OF OPERATING HOURS.

SOUND DEFINITIONS:

Sound Power : [DM8702](#)

Sound Pressure : [TM7080](#)

Date Released : 03/14/12

Caterpillar Confidential: **Green**

Content Owner: Shane Gilles

Web Master(s): [PSG Web Based Systems Support](#)

Current Date: Wednesday, March 13, 2013 8:25:45 AM

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[Data Privacy Statement](#).

EMISSIONS DATA [3FZ01955]

MARCH 13, 2013

(3FZ01955)-ENGINE (4RJ00556)-GENERATOR (9EP00418)-GENSET

For Help Desk Phone Numbers [Click here](#)

Engine Emissions Data

For Emissions feedback and questions contact: engine_certification@cat.com

This link is case sensitive.

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	3FZ01955
Sales Model	3412
Build Date	2000-10-24
Interlock Code Progression	No Interlock Code Progression
As Shipped Data	
Engine Arrangement Number	1668590
Certification Arrangement	
Test Spec Number	0K0510
Certification	Stationary Use Only- EPA Reg (40 CFR Part 89.2(2))
Labeled Model Year	
Family Code	
Flash File	No Flash File Found
Flash File Progression	No Flash File Found
CORR FL Power at RPM	839 HP (626.0 KW) at 1800 rpms
Advertised Power	823hp 1,800RPM
Total Displacement	

This is not an official emission certificate. This is for emission data information only.

Caterpillar Confidential: **Green**
 Content Owner: Shane Gilles
 Web Master(s): [PSG Web Based Systems Support](#)
 Current Date: Wednesday, March 13, 2013 8:27:11 AM
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[Data Privacy Statement](#).

		lb/hr Nominal Data				
		PM	CO	VOC	NOx	SOx
100%	Engine	0.44	0.26	0.07	11.4	1.51
550		Tons per year				
		PM	CO	VOC	NOx	SOx
	PTE (8760 hr)	1.93	1.14	0.31	49.93	6.62
	Actual (2080 hr)	0.46	0.27	0.07	11.86	1.57

Pneumatic Conveyance (PM)					
	0.02 gr/scf		lb/hr	tpy	
	5377 scfm	PTE	1.84	8.07	
	7000 gr/lb	Actual	1.84	1.92	
PM combined					
		lb/hr		Tons per year	
		Nominal	Site Vary	Nominal	Site Vary
	PTE (8760 hr)	2.28	2.71	10.00	11.89
	Actual (2080 hr)	2.28	2.71	2.37	2.82

6600 acfm
 $scfm = acfm * (P/14.7)(519/T)$
P 12.23 psi
T 530 R

5000 ft elevation
70 F

BSFC (lb/bhp-hr)	Diesel Heat Value (Btu/lb)
0.35	19300

		lb/hr HAPs (AP 42, Section 3.3)								
Emission Factor		Benzene	Toluene	Xylenes	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Naphthalene	
	lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	8.48E-05	
100%	Engine	4.64E-03	2.04E-03	1.42E-03	1.95E-04	5.87E-03	3.82E-03	4.61E-04	4.22E-04	
		Tons per year								Total
	PTE (8760 hr)	2.03E-02	8.92E-03	6.21E-03	8.53E-04	2.57E-02	1.67E-02	2.02E-03	1.85E-03	8.27E-02
	Actual (2080 hr)	4.83E-03	2.12E-03	1.48E-03	2.02E-04	6.11E-03	3.97E-03	4.79E-04	4.39E-04	1.96E-02

	Emission Factor	GWP	lb/hr	Tpy (PTE)	TPY (Actual)	CO ₂ e (PTE)	CO ₂ e (Actual)	CO ₂ e MT (PTE)	CO ₂ e MT (Actual)
CO2	911.1 lb/hr	1	911.1	3991	948	3991	948	3620	860
CH4	3 g/MMBtu	25	3.29E-02	1.44E-01	3.42E-02	3.61	0.86	3.27	0.78
N2O	0.6 g/MMBtu	298	6.59E-03	2.88E-02	6.85E-03	8.60	2.04	7.80	1.85
			CO ₂ e	4003	950	4003	950	3631	862
			CO ₂ e (MT)	3631	862				

Smith, Claudia

From: Smith, Claudia
Sent: Monday, August 07, 2017 10:42 AM
Subject: Notice of Public Comment Period – Proposed Permit to Construct on the Uintah and Ouray Indian Reservation
Attachments: Bulletin Board Notice - TableRockMinerals Proposed TMNSR.pdf

In accordance with the regulations at 40 CFR 49.157, the EPA is hereby providing notification of the availability for public comment of the proposed Clean Air Act true minor New Source Review permit for the following source located on the Uintah and Ouray Indian Reservation:

Table Rock Minerals, LLC – Gilsonite Mine

Electronic copies of the proposed permit, technical support document, application and other supporting permit information may be viewed online at <http://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8> by the start of the public comment period.

Paper copies of the proposed permit, technical support document, application, and other supporting permit information may be reviewed by contacting the Federal and/or Tribal contacts identified on the attached public notice bulletin.

Comments may be sent by mail to:

US EPA Region 8
Air Program Office
1595 Wynkoop Street, 8P-AR
Denver, CO 80202
Attn: Tribal NSR Coordinator

or

Electronically to R8AirPermitting@epa.gov

In accordance with the regulations at §49.157, the Agency is providing a 30-day period from August 8, 2017, through September 7, 2017, for public comment on this proposed permit. Comments must be received by 5:00pm MT September 7, 2017, to be considered in the issuance of the final permit. If a public hearing is held regarding this permit, you will be sent a copy of the public hearing notice at least 30 days in advance of the hearing date.

Claudia Young Smith
Environmental Scientist
Air Program
U.S. Environmental Protection Agency, Region 8
Tel: (303) 312-6520
Email: smith.claudia@epa.gov

Web: <http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

Mail: 1595 Wynkoop Street, Mail Code 8P-AR, Denver, Colorado 80202

Smith, Claudia

From: Smith, Claudia
Sent: Monday, August 07, 2017 10:37 AM
To: 'tablerocksmith@gmail.com'
Cc: 'Clark, Eric'; Heiser, Dan; Jim Lekas; Minnie Grant; Bruce Pargeets; Fallon, Gail
Subject: Proposed True Minor NSR Permit: Table Rock Minerals, LLC - Gilsonite Mine
Attachments: Bulletin Board Notice - TableRockMinerals Proposed TMNSR.pdf; TableRockMinerals Proposed Permit & TSD TMNSR-UO-007057-2017 001.pdf

Mr. Smith,

I have attached the requested proposed permit, the accompanying technical support document, and the bulletin board notice for the Table Rock Minerals, LLC, Gilsonite Mine. We will also be posting the proposed permit, technical support document, application and other supporting permit information in PDF format on our website at <http://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8> by the start of the public comment period.

In accordance with the regulations at 40 CFR 49.157 and 49.158, we are providing a 30-day period from August 8, 2017, through September 7, 2017, for public comment on this proposed permit. Comments must be received by 5:00pm MT September 7, 2017, to be considered in the issuance of the final permit.

Please submit any written comments you may have concerning the terms and conditions of this permit. You may send them directly to me at smith.claudia@epa.gov, or to r8airpermitting@epa.gov. Should the EPA not accept any or all of these comments, you will be notified in writing and will be provided with the reasons for not accepting them.

Thank you,

Claudia Young Smith

Environmental Scientist

Air Program

U.S. Environmental Protection Agency, Region 8

Tel: (303) 312-6520

Email: smith.claudia@epa.gov

Web: <http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

Mail: 1595 Wynkoop Street, Mail Code 8P-AR, Denver, Colorado 80202

Smith, Claudia

From: Smith, Claudia
Sent: Friday, August 04, 2017 2:25 PM
To: minnieg@utetribes.com
Cc: Bruce Pargeets
Subject: RE: Proposed Minor NSR Permit and materials to be made available for public comment
Attachments: TableRockMinerals Proposed Permit TMNSR-UO-007057-2017 001_Admin Docket_Revised.pdf

Minnie,

We had to make some changes to the proposed permit and Technical Support Document after I sent you the email and paper/CD copies of the permit docket. The revised permit docket attached contains the corrected permit and TSD. I apologize for any inconvenience.

Thanks,

Claudia

From: Smith, Claudia
Sent: Thursday, August 03, 2017 2:31 PM
To: minnieg@utetribes.com
Cc: Bruce Pargeets <bpargeets@utetribes.com>
Subject: Proposed Minor NSR Permit and materials to be made available for public comment

Minnie,

Please find attached electronic copies of a transmittal letter, bulletin board public notice, proposed permit, technical support document, and other supporting materials for a true Minor New Source Review (MNSR) permit for the Table Rock Minerals, LLC, gilsonite mining operation. As stated in the transmittal letter, the public comment period will begin on Tuesday, August 8th and go through September 7th. Paper copies of these documents and a CD containing the same documents went in the mail to you today. The hope is that they will arrive by close of business Monday, August 7th, in time for the start of the public comment period.

Please contact me if you have any questions.

Thanks,

Claudia

Claudia Young Smith
Environmental Scientist
Air Program, Mail Code 8P-AR
US Environmental Protection Agency Region 8
1595 Wynkoop Street
Denver, Colorado 80202

Phone: (303) 312-6520

Fax: (303) 312-6064

<http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

Smith, Claudia

From: Smith, Claudia
Sent: Thursday, August 03, 2017 2:31 PM
To: minnieg@utetribes.com
Cc: Bruce Pargeets
Subject: Proposed Minor NSR Permit and materials to be made available for public comment
Attachments: TableRockMinerals Proposed Permit TMNSR-UO-007057-2017 001_Admin Docket.pdf; Bulletin Board Notice - TableRockMinerals Proposed TMNSR.pdf; Docket Transmittal Letter to Ute Tribe.pdf

Minnie,

Please find attached electronic copies of a transmittal letter, bulletin board public notice, proposed permit, technical support document, and other supporting materials for a true Minor New Source Review (MNSR) permit for the Table Rock Minerals, LLC, gilsonite mining operation. As stated in the transmittal letter, the public comment period will begin on Tuesday, August 8th and go through September 7th. Paper copies of these documents and a CD containing the same documents went in the mail to you today. The hope is that they will arrive by close of business Monday, August 7th, in time for the start of the public comment period.

Please contact me if you have any questions.

Thanks,

Claudia

Claudia Young Smith
Environmental Scientist
Air Program, Mail Code 8P-AR
US Environmental Protection Agency Region 8
1595 Wynkoop Street
Denver, Colorado 80202

Phone: (303) 312-6520

Fax: (303) 312-6064

<http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

Public Notice: Request For Comments

Proposed Air Quality Permit to Construct Table Rock Minerals, LLC Gilsonite Mine

Notice issued: August 8, 2017

Written comments due:
5 p.m., September 7, 2017

Where is the facility located?

Table Rock Minerals Gilsonite Mine:
Uintah and Ouray Indian Reservation
Uintah County, Utah
Sections 29 (S2NW4, NE4SW4, N2SE4)
and 33 (N2NE4), Township 10 South,
Range 21 East
Latitude 39.916875 N
Longitude -109.567328 W

What is being proposed?

The EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation in Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49.

The facility will consist of surface equipment supporting a mining process that will occur entirely underground, including:

1. A stationary diesel-fired generator engine to provide electricity to the mine;
2. A pneumatic gilsonite conveying system consisting of two (2) closed-system pneumatic conveyors each equipped with a suction fan that moves the gilsonite under negative pressure through piping from the underground mining operation through a fabric filter pulse jet dust collector sitting on top of each of two (2) enclosed silos before the material is deposited into the silos for storage through a rotary air lock. The silos are equipped with enclosed load chutes used to later transfer the stored gilsonite into enclosed haul trucks for transportation offsite; and
3. An unpaved on-lease access road.

Proposed equipment at the facility is estimated to emit low levels of nitrogen oxides (NO_x) and particulate matter (PM), and negligible levels of volatile organic compounds. Table Rock Minerals has proposed a limit on the hours of operation of the diesel-fired electric generator engine to reflect the planned operating schedule of the facility. Table Rock Minerals has also proposed to limit the production rate of gilsonite. The permit the EPA is proposing to issue reflects the incorporation of Table Rock Minerals proposed emission controls, operational and production limits, as well as our review of existing relevant regulations and existing federal and state permits for similar types of operations.

What are the effects on air quality?

Air quality in the project area is violating the 2015 ozone standard of 70 ppb, and NO_x and VOC are precursors to ozone formation. The estimated increase in VOC from the proposed project is considered negligible and the estimated increase in NO_x is not expected to cause or contribute to further violations of the ozone standard. We have determined that a refined modeling analysis is not required for this permit action.

Where can I send comments?

EPA accepts comments by mail, fax and e-mail.

US EPA Region 8 Air Program, 8P-AR
Attn: Federal Minor NSR Coordinator
1595 Wynkoop Street,
Denver, CO 80202
R8AirPermitting@epa.gov

How can I review documents?

You can review a paper or electronic copy of the proposed permit and related documents at the following locations:

Ute Indian Tribe Energy and Minerals
Department Office
988 South 7500 East, Annex Building
Fort Duchesne, Utah 84026
Contact: Minnie Grant, Air Coordinator,
(435) 725-4900, minnieg@utetribe.com

US EPA Region 8 Office:
1595 Wynkoop Street, Denver, CO 80202
Hours: Mon-Fri 8:00 a.m. – 5:00 p.m.
Contact: Claudia Smith, Environmental
Scientist, 303-312-6520,
smith.claudia@epa.gov

US EPA Region 8 Website:

<https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>

Permit number:

TMNSR-UO-007057-2017.001

What happens next?

The EPA will review and consider all comments received during the comment period. Following this review, the EPA may issue the permits as proposed, issue modified permits based on comments or deny the permits.

Tribal Minor New Source Review in Indian Country



United States Environmental Protection Agency

**Region 8
Air Program
1595 Wynkoop Street
Denver, CO 80202
Phone 800-227-8917**

<https://www.epa.gov/caa-permitting/tribal-nsr-permits-region-8>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

Ref: 8P-AR

Ms. Minnie Grant
Air Coordinator, Energy, Minerals, & Air
Energy and Minerals Department, Ute Indian Tribe
P.O. Box 70
Fort Duchesne, Utah 84026

AUG - 3 2017

Dear Ms. Grant:

The U.S. Environmental Protection Agency Region 8 is proposing to issue a permit in accordance with the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49, for the Table Rock Minerals, LLC, proposed gilsonite mine on Indian country lands within the Uintah and Ouray Indian Reservation. This permit would incorporate enforceable requirements for the surface installation and operation of air pollutant emitting equipment supporting an underground gilsonite mining operation. The proposed facility is estimated to be a true minor source with respect to MNSR-regulated pollutants.

A public comment period for the proposed permit will begin on August 8, 2017, and end on September 7, 2017.

We have enclosed a CD and paper copy containing the proposed permit and supporting documentation, and we ask that you please make this material available for public review until the end of the public comment period. In addition, we have provided copies of the bulletin board public notice announcement and would appreciate it if you could post this announcement in prominent locations in your area. All of these documents will also be available for review in electronic format on our website at: <https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>.

Thank you for your assistance in this matter. Should you have any questions regarding our request you may contact me at (303) 312-6520.

Sincerely,

A handwritten signature in black ink, appearing to read "Claudia Smith".

Claudia Smith
Air Permit Engineer

Enclosures

Cc (w/o enclosures):
Bruce Pargeets, Director, Energy, Minerals, and Air, Ute Indian Tribe



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

Ref: 8P-AR

John Smith
General Manager
Table Rock Minerals, LLC
P.O. Box 1530
Vernal, Utah 84078

AUG - 3 2017

Re: Table Rock Minerals, LLC, Gilsonite Mine, Permit # TMNSR-UO-007057-2017.001, Proposed Minor New Source Review Permit

Dear Mr. Smith:

The U.S. Environmental Protection Agency Region 8 has completed its review of Table Rock Minerals, LLC's application requesting a permit pursuant to the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49 for a proposed gilsonite mining operation, on Indian country lands within the Uintah and Ouray Indian Reservation, in Uintah County, Utah.

Enclosed are the proposed permit and the corresponding technical support document. The regulations at 40 CFR 49.157 require that the affected community and the general public have the opportunity to submit written comments on any proposed MNSR permit. All written comments submitted within 30 calendar days after the public notice is published will be considered by the EPA in making its final permit decision. Enclosed is a copy of the public notice which will be published on the EPA's website located at: <https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>, on August 8, 2017. The public comment period will end at 5:00 p.m. on September 7, 2017, 2017.

The conditions contained in the proposed permit will become effective and enforceable by the EPA if the permit is issued final. If you are unable to accept any term or condition of the draft permit, please submit your written comments, along with the reason(s) for non-acceptance to:

Tribal NSR Permit Contact
c/o Air Program (8P-AR)
U.S. EPA, Region 8
1595 Wynkoop Street
Denver, Colorado 80202

or

R8AirPermitting@epa.gov



If you have any questions concerning the enclosed proposed permit or technical support document, please contact Claudia Smith of my staff at (303) 312-6520.

Sincerely,



Monica S. Morales
Director, Air Program
Office of Partnerships and Regulatory Assistance

Enclosures (3)

cc: Bruce Pargeets, Director, Energy, Minerals and Air, Ute Indian Tribe
Minnie Grant, Air Coordinator, Energy, Minerals, and Air, Ute Indian Tribe

United States Environmental Protection Agency
Region 8 Air Program
1595 Wynkoop Street
Denver, CO 80202



**Air Pollution Control
Minor Source Permit to Construct**

40 CFR 49.151

#TMNSR-UO-007057-2017.001

Permit to construct to establish legally and practically enforceable limitations and requirements for emissions sources at a new facility

Permittee:

Table Rock Minerals, LLC

Permitted Facility:

Gilsonite Mine
Uintah and Ouray Indian Reservation
Uintah County, Utah

Summary

On May 1, 2017, the EPA received an application from Table Rock Minerals, LLC (Table Rock) requesting a permit for a true minor new source of air pollutant emissions in accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49. Table Rock submitted additional information to complete the application on May 5, 2017.

Through this permit action, the EPA is approving construction of a new gilsonite mining operation on Indian country lands within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation, in Uintah County, Utah. The facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program.

This proposed permit contains production limits, operating hours limits and emission control efficiency requirements, and associated monitoring, recordkeeping and reporting requirements for the mine and/or certain pollutant emission-generating units or activities approved for construction and installation.

The EPA determined that this approval will not contribute to violations of the National Ambient Air Quality Standards (NAAQS), or have potentially adverse effects on ambient air.

PROPOSED

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PROPOSED

I. Conditional Permit to Construct

A. General Information

Facility: Table Rock Minerals, LLC, Gilsonite Mine
Permit number: TMNSR-UO-007057-2017.001
NAICS Code and Description: 212399 – All Other Nonmetallic Mineral Mining

Site Location:
Table Rock Minerals, LLC Gilsonite Mine
Sections 29 (middle) and 33 (NE ¼)¹,
Township 10S and Range 21E
Latitude 39.916875N, Longitude -109.56732W
Uintah and Ouray Indian Reservation
Uintah County, Utah

Corporate Office Location:
Table Rock Minerals, LLC
P.O Box 1530
Vernal, Utah 84078

The equipment listed in this permit may only be operated by Table Rock Minerals, LLC (Table Rock) at the location described above.

B. Applicability

1. This Conditional Permit to Construct is being issued under authority of the MNSR Permit Program.
2. Any conditions for this facility or any specific pollutant emission-generating units or activities at this facility established pursuant to any permit to construct issued under the authority of the Prevention of Significant Deterioration (PSD) Permit Program at 40 CFR part 52 or the MNSR Permit Program shall continue to apply.
3. By issuing this permit, the EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner and/or Operator, if the conditions of this permit are not met by the Permittee, Owner and/or Operator.

C. Facility-Wide Requirements

1. The Permittee shall maintain and operate each approved emission unit or activity, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions of MNSR regulated pollutants and considering the manufacturer's recommended operating procedures at all times, including periods of start-up, shutdown, maintenance and malfunction. The EPA will determine whether the Permittee is using acceptable operating and maintenance procedures based on information available, which may include, but is not limited to, monitoring results, review of operating and maintenance procedures and inspection of the facility.
2. Only the emission units and activities that are operated, maintained and controlled as specified in this permit are approved for installation under this permit.

¹ The mine encompasses two leased areas that are not contiguous. The mining operation and supporting surface emitting equipment and activities will begin in the first area and then move to the second area once the gilsonite ore is depleted at the first area.

3. Operational and production limitations shall apply at all times, unless otherwise specified in this permit.

D. Diesel-Fired Electric Generator Engine Requirements

1. Construction and Operational Requirements: The Permittee shall install, operate and maintain no more than one (1) compression ignition engine used to drive an electric power generator, meeting the following specifications:

- (a) Fired only with diesel fuel containing no more than 0.0015% sulfur by weight, also known as ultra-low sulfur diesel (ULSD);
- (b) Sized for a maximum of 550 kilowatts (kW);
- (c) Limited to a maximum site rating of 824 horsepower (hp); and
- (d) Model year 2014 or later and certified to the applicable Tier standards in 40 CFR 89.112 and 40 CFR 1039.101 through 1039.104, for all pollutants, for the same model year and maximum engine power.

2. Operational Limits and Maintenance Requirements

- (a) The engine shall be operated for no more than 2,080 hours in any consecutive 12-month period, as measured using a non-resettable hour meter.
- (b) The Permittee shall follow the engine manufacturer's recommended maintenance schedule and procedures, or equivalent procedures developed by the Permittee or vendor, to ensure optimum performance of the engine.
- (c) The Permittee may rebuild an existing permitted engine or replace an existing permitted engine with an engine of the same hp rating, and configured to operate in the same manner as the engine being rebuilt or replaced. Any operational requirements that apply to the engine that is rebuilt or replaced shall also apply to the rebuilt or replaced engine.
- (d) Operational limits and maintenance requirements apply at all times.

3. Monitoring Requirements

- (a) The Permittee shall read and record the engine operating hours from the non-resettable hour meter at least once per calendar week. At the end of each month, beginning with the first calendar month that this permit is effective, the total operating hours for that month shall be calculated and recorded.
- (b) Prior to 12 full months of total operating hours calculation, add the total operating hours for that month to the calculated total operating hours for all previous calendar months and record the total. Thereafter, the Permittee shall, at the end of each calendar month, add the total operating hours for that month to the calculated total operating hours for the preceding 11 months and record a new 12-month total.
- (c) For each shipment of fuel used to power the engine, the Permittee shall obtain records of the fuel supplier certification showing the sulfur content of the fuel.

4. Recordkeeping Requirements: The Permittee shall keep the following records for the engine:

- (a) All engine maintenance conducted;
- (b) All engine rebuilds and engine replacements;

- (c) The total hours of operation for the engine for each calendar month and consecutive 12-month period; and
- (d) All fuel supplier certifications demonstrating that the engine fuel is ULSD.

E. Gilsonite Handling Requirements

1. Construction and Operational Requirements: The Permittee shall install, operate and maintain a pneumatic gilsonite conveying system with no more than two (2) enclosed pneumatic conveyors and two (2) enclosed storage silos, meeting the following specifications:

- (a) Each pneumatic conveyor shall be equipped with:
 - (i) A suction fan to move gilsonite from the underground mine through piping by supplying negative pressure; and
 - (ii) A fabric filter pulse jet dust collector to control particulate matter from the conveyed gilsonite before being deposited into the storage silo.
- (b) Each storage silo shall be equipped with:
 - (i) A rotary lock through which all conveyed gilsonite is deposited into the silo; and
 - (ii) Enclosed load chutes to transfer gilsonite to enclosed haul trucks for transportation off-site.

2. Production, Operational and Control Requirements

- (a) Source-wide production of gilsonite shall not exceed 6,600 cubic feet per minute.
- (b) Each pneumatic conveying system shall move gilsonite from the underground mine through enclosed conveyors that vent particulate matter emissions through a fabric filter pulse jet dust collector before the gilsonite is deposited into an enclosed storage silo through a rotary lock.
- (c) The fabric filter pulse jet dust collector on each pneumatic conveyor shall be designed and operated to achieve a particulate matter control efficiency of 0.02 grains per standard cubic feet (g/scf).
- (d) All conveyed and stored gilsonite shall be loaded from the storage silos through enclosed chutes to enclosed haul trucks for transportation off-site.
- (e) The Permittee shall comply with the Fugitive Dust Control Plan in Appendix B of this permit.

3. Monitoring Requirements

- (a) *Conveyor and Silo Inspections*: At least once per calendar month in which the permitted source operates, the Permittee shall visually inspect each conveyor (including the suction fan) and silo (including the enclosed truck loading chute) to ensure proper condition and functioning to support a closed system. The Permittee shall take appropriate corrective action to restore each device to normal operation. If any of the components are not in good working condition, they shall be repaired within 30 days of identification of the deficient condition.
- (b) *Fabric Filter Pulse Jet Dust Collector Inspections*: At least once per calendar month in which the permitted source operates, the Permittee shall physically inspect the interior and exterior of the fabric filters for evidence of leaking, damaged and/or missing filters, and take appropriate corrective actions to restore filters to proper operation before resuming normal

operations. If any of the components are not in good working condition, they shall be repaired within 30 days of identification of the deficient condition.

(c) *Fugitive Emissions Survey*: At least once per calendar week in which the facility operates, the Permittee shall visually survey the facility for fugitive emissions. If fugitive emissions are detected crossing the property line, the Permittee shall take corrective actions according to the Fugitive Dust Control Plan in Appendix B of this permit.

4. Recordkeeping Requirements: The Permittee shall keep the following records for gilsonite handling operations:

- (a) All maintenance conducted on the gilsonite conveyance system;
- (b) Each conveyor and silo inspection, including corrective actions taken;
- (c) Each fabric filter pulse jet dust collector inspection, including corrective actions taken; and
- (d) Each fugitive emissions survey, including corrective actions taken.

F. General Recordkeeping Requirements

- 1. The Permittee shall maintain the permit application and all documentation supporting that application, including manufacturer or vendor specifications, maintenance schedules, and maintenance procedures, for the duration of time that the affected emissions units are covered under this permit.
- 2. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.
- 3. Records shall be kept at the facility or the location that has day-to-day operational control over the facility.

G. Notification and Reporting Requirements

- 1. Notification of construction or modification and operations: The Permittee shall submit to the EPA a written notice (may be electronic) within 30 days from when the Permittee begins actual construction, and when the Permittee begins operations or resumes operations.
- 2. Annual Reports
 - (a) The Permittee shall submit to the EPA an annual report no later than April 1st of each calendar year. The annual report shall cover the period from January 1 to December 31 of the previous calendar year. All reports shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act (CAA) compliance for the Permittee.
 - (b) The report shall include:
 - (i) An evaluation of the permitted source's compliance status with the requirements in this permit;
 - (ii) Summaries of the required monitoring and recordkeeping in this permit; and
 - (iii) Summaries of deviation reports submitted pursuant to this permit.

3. Notification of Change in Ownership or Operator: If the permitted source changes ownership or operator, then the Permittee shall submit to the EPA a written notice (may be electronic) within 90 days before or after the change in ownership or operator is effective. In the report, the Permittee shall provide the reviewing authority a written agreement containing a specific date for the transfer of ownership or operator, and an effective date on which the new owner or operator assumes partial and/or full coverage and liability under this permit. The submittal shall identify the previous owner or operator, and update the name, street address, mailing address, contact information and any other information about the permitted source if it would change as a result of the change of ownership or operator. The Permittee shall ensure that the permitted source remains in compliance with this permit during any such transfer of ownership.
4. Notification of closure: The Permittee shall submit to the EPA a report of any permanent or indefinite closure in writing within 90 days after the cessation of all operations at the permitted source. The notification shall identify the owner and the operating location of the permitted source.

[Note: to help meet notification requirements, the EPA has developed forms “OWN” (for notifications of change in ownership) and “CLOSURE” (for notifications of facility closure). The forms may be found on the EPA’s website at: <https://www.epa.gov/caa-permitting/tribal-nsr-permits-region-8>.]

5. Any documents required to be submitted under this permit, shall be submitted to:

U.S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Documents may be submitted electronically to R8AirReportEnforcement@epa.gov.

6. Deviation Reports: The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements, including deviations attributable to start-ups, shutdowns and malfunctions.
 - (a) The deviation report shall include: the identity of the affected emissions unit or activity where the deviation occurred; the nature, duration and probable cause of the deviation; and any corrective actions or preventative measures taken to minimize emissions from the deviation and to prevent future deviations.
 - (b) A “prompt” deviation report is one that is post marked or submitted via electronic mail to R8AirReportEnforcement@epa.gov as follows:
 - (i) Within 72 hours of discovery for deviations from any hours of operation, throughput or other operational limit in this permit; and
 - (ii) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee’s ability to meet the limitations in this permit.

7. The Permittee shall submit any record or report required by this permit upon EPA request.

II. General Provisions

A. Conditional Approval

Pursuant to the authority of 40 CFR 49.151, the EPA hereby conditionally grants this permit to construct. This authorization is expressly conditioned as follows:

1. *Document Retention and Availability:* This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.
2. *Permit Application:* The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. The EPA shall be notified 10 days in advance of any significant deviation from this permit application as well as any plans, specifications or supporting data furnished.
3. *Permit Deviations:* The issuance of this permit may be suspended or revoked if the EPA determines that a significant deviation from the permit application, specifications, and supporting data furnished has been or is to be made. If the proposed source is constructed, operated, or modified not in accordance with the terms of this permit, the Permittee will be subject to appropriate enforcement action.
4. *Compliance with Permit:* The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted facility/source. Noncompliance with any permit term or condition is a violation of this permit and may constitute a violation of the Clean Air Act and is grounds for enforcement action and for a permit termination or revocation.
5. *Fugitive Emissions:* The Permittee shall take all reasonable precautions to prevent and/or minimize fugitive emissions during the construction period.
6. *National Ambient Air Quality Standard and PSD Increment:* The permitted source shall not cause or contribute to a National Ambient Air Quality Standard violation or a PSD increment violation.
7. *Compliance with Federal and Tribal Rules, Regulations, and Orders:* Issuance of this permit does not relieve the Permittee of the responsibility to comply fully with all other applicable federal and tribal rules, regulations, and orders now or hereafter in effect.
8. *Enforcement:* It is not a defense, for the Permittee, in an enforcement action, to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
9. *Modifications of Existing Emissions Units/Limits:* For proposed modifications, as defined at 40 CFR 49.152(d), that would increase an emissions unit's allowable emissions of pollutants above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit modification pursuant to the MNSR regulations approving the increase. For a proposed modification that is not otherwise subject to review under the PSD or MNSR regulations, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at 40 CFR 49.159(f).

10. *Relaxation of Legally and Practically Enforceable Limits:* At such time that a new or modified source within this permitted facility/source or modification of this permitted facility/source becomes a major stationary source or major modification solely by virtue of a relaxation in any legally and practically enforceable limitation which was established after August 7, 1980, on the capacity of the permitted facility/source to otherwise emit a pollutant, such as a restriction on hours of operation, then the requirements of the PSD regulations shall apply to the source or modification as though construction had not yet commenced on the source or modification.
11. *Revise, Reopen, Revoke and Reissue, or Terminate for Cause:* This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee, for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. The EPA may reopen this permit for a cause on its own initiative, e.g., if this permit contains a material mistake or the Permittee fails to assure compliance with the applicable requirements.
12. *Severability Clause:* The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.
13. *Property Rights:* This permit does not convey any property rights of any sort or any exclusive privilege.
14. *Information Requests:* The Permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating this permit or to determine compliance with this permit. For any such information claimed to be confidential, the Permittee shall also submit a claim of confidentiality in accordance with 40 CFR part 2, subpart B.
15. *Inspection and Entry:* The EPA or its authorized representatives may inspect this permitted facility/source during normal business hours for the purpose of ascertaining compliance with all conditions of this permit. Upon presentation of proper credentials, the Permittee shall allow the EPA or its authorized representative to:
 - (a) Enter upon the premises where this permitted facility/source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;
 - (c) Inspect, during normal business hours or while this permitted facility/source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements; and
 - (e) Record any inspection by use of written, electronic, magnetic and photographic media.
16. *Permit Effective Date:* This permit is effective immediately upon issuance unless comments resulted in a change in the proposed permit, in which case the permit is effective 30 days after issuance. The Permittee may notify the EPA, in writing, that this permit or a term or condition of

it is rejected. Such notice should be made within 30 days of receipt of this permit and should include the reason or reasons for rejection.

17. *Permit Transfers:* Permit transfers shall be made in accordance with 40 CFR 49.159(f). The Air Program Director shall be notified in writing at the address shown below if the company is sold or changes its name.

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

18. *Invalidation of Permit:* Unless the permitted source of emissions is an existing source, this permit becomes invalid if construction is not commenced within 18 months after the effective date of this permit, construction is discontinued for 18 months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between the construction of the approved phases of a phased construction project. The Permittee shall commence construction of each such phase within 18 months of the projected and approved commencement date.
19. *Notification of Start-Up:* The Permittee shall submit a notification of the anticipated date of initial start-up of this permitted source to the EPA within 60 days of such date, unless this permitted source of emissions is an existing source.

B. Authorization

Authorized by the United States Environmental Protection Agency, Region 8

Monica S. Morales
Director, Air Program
Office of Partnerships and Regulatory Assistance

Date

Appendix A

Definitions

Note: All terms not defined herein shall have the meaning given them in the CAA, in 40 CFR parts 60, 61 and 63, in the PSD regulations at 40 CFR part 52 or in the MNSR regulations at 40 CFR part 49. The following terms shall have the specific meanings given them. Definitions in this section were taken or derived from the definitions for the equivalent word or phrase in 40 CFR parts 60 and 63, the MNSR regulations at 40 CFR part 49 or from commonly used English language dictionaries.

For the purposes of this permit to construct:

Cause means with respect to the EPA's ability to terminate a permitted source's coverage under a permit that:

1. The Permittee is not in compliance with the provisions of this permit;
2. The EPA determines that the emissions resulting from the construction or modification of the permitted source significantly contribute to NAAQS violations, which are not adequately addressed by the requirements in this permit;
3. The EPA has reasonable cause to believe that the Permittee obtained approval of the request for a permit by fraud or misrepresentation; or
4. The Permittee failed to disclose a material fact required by the request for a permit or the regulations applicable to the permitted source of which the applicant had or should have had the knowledge at the time the Permittee submitted the request for a permit.

Begin construction means in general, initiation of physical on-site construction activities on emissions units which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipework and construction of permanent storage structures. With respect to a change in method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change. The following preparatory activities are excluded: engineering and design planning, geotechnical investigation (surface and subsurface explorations), clearing, grading, surveying, ordering of equipment and materials, storing of equipment or setting up temporary trailers to house construction management or staff and contractor personnel.

Maintenance means the routine recurring work required to keep an emissions unit in such condition that it may be continuously utilized, at its original or designed capacity and efficiency, for its intended purpose.

Malfunction means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical or operational change at a source that would cause an increase in the allowable emissions of a minor source for any regulated NSR pollutant, or that would cause the emission of any regulated NSR pollutant not previously emitted at levels that exceed the minor source thresholds in Table 1 of 40 CFR 49.153. The following exemptions apply:

1. A physical or operational change does not include routine maintenance, repair or replacement.

2. An increase in the hours of operation or in the production rate is not considered an operational change unless such change is prohibited under any permit condition that is enforceable as a practical matter.
3. A change in ownership at a stationary source.
4. The emissions units and activities listed in §49.153(c).

Permittee means the owner or operator of the permitted source.

Permitted source means the facility (gilsonite mining operation) for which the EPA has issued this permit to construct.

Start-up means the setting in operation of an affected facility for any purpose.

Shutdown means the cessation of operation of an affected facility for any purpose.

PROPOSED

Appendix B

Fugitive Dust Control Plan

1. Unpaved On-lease Access Road

- (a) The dust on the unpaved on-lease access road shall be controlled by applications of water, calcium chloride or other acceptable fugitive dust control compound approved by the reviewing authority. Applications of dust suppressants shall be done as often as necessary to meet all applicable conditions of this permit.
- (b) The road shall be swept between applications as necessary to meet all applicable conditions of this permit.
- (c) Any material spillage on roads shall be cleaned up immediately.

2. Truck Traffic

- (a) Vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within six (6) inches of the top of any side board, side panel or tail gate; otherwise, the truck shall be tarped.
- (b) A speed limit sign of 10 miles-per-hour or lower shall be posted on site so that it is visible to truck traffic.

3. Corrective Actions: If corrective action needs to be taken, the Permittee shall consider and use one or more of the following options: adjust the watering and/or sweeping frequencies, reduce drop distances, increase cover and/or take other actions to reduce fugitive dust emissions.

4. Revegetation: All disturbed areas no longer in use shall be revegetated within 1 year of discontinuing use.

**United States Environmental Protection Agency
Region 8 Air Program
Air Pollution Control Minor Source Permit to Construct
Technical Support Document for
Proposed Permit No. TMNSR-UO-007057-2017.001**



Table Rock Minerals, LLC
Gilsonite Mine
Uintah and Ouray Indian Reservation
Uintah County, Utah

In accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR part 49, this federal permit to construct is being issued under authority of the Clean Air Act (CAA). The EPA has prepared this technical support document describing the conditions of this permit and presents information that is germane to this permit action.

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I. Introduction

On May 1, 2017, the EPA received an application from Table Rock Minerals, LLC (Table Rock) requesting a permit for a true minor new source of air pollutant emissions in accordance with the requirements of the MNSR Permit Program. Table Rock submitted additional information to complete the application on May 5, 2017.

Through this permit action, the EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation, in Uintah County, Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program.

This proposed permit contains production limits, operating hours limits and emission control efficiency requirements, and associated monitoring, recordkeeping and reporting requirements for the mine and/or certain pollutant emission-generating units or activities approved for construction and installation.

II. Facility Description

The Table Rock Minerals' gilsonite mine, once constructed, will be located on Indian country lands within the Uintah and Ouray Indian Reservation in portions of Sections 29 (S2NW4, NE4SW4, N2SE4) and 33 (N2NE4), Township 10 South, and Range 21 East, Uintah County, Utah, at latitude 39.916875N and longitude -109.567328W. The facility will be a new gilsonite mining operation consisting of surface equipment supporting a mining process that will occur entirely underground. The mined gilsonite will be pneumatically conveyed via a closed system from underground and deposited into enclosed silos for storage until it is unloaded into haul trucks for transportation offsite. The mine is anticipated to operate 10 hours per day for 4 days per week for 52 weeks per year (2,080 hours per year). The surface equipment will consist of:

1. A stationary diesel-fired generator engine to provide electricity to the mine;
2. A pneumatic gilsonite conveying system consisting of two (2) closed-system pneumatic conveyors each equipped with a suction fan that moves the gilsonite under negative pressure through piping from the underground mining operation through a fabric filter pulse jet dust collector sitting on top of each of two (2) enclosed silos before the material is deposited into the silos for storage through a rotary air lock. The silos are equipped with enclosed load chutes used to later transfer the stored gilsonite into enclosed haul trucks for transportation offsite; and
3. An unpaved on-lease access road.

The mine will encompass two leased areas, consisting of 280 total acres, including a 200-acre block and an 80-acre block that are not contiguous. One block traverses the middle part of Section 29, Township 10S and Range 21E. The other block occupies the northwest portion of Section 33. The mining operation will begin at the 200-acre block and when that block is depleted, operations will relocate to the 80-acre block. An individual gilsonite mine shaft can only access approximately 1,000 feet of ore along the vein. It will take around 5 years to deplete that 1,000 feet of ore, depending on how wide and deep the vein is. Once the ore is depleted, the mine equipment will be disassembled and relocated 1,000 feet over along the vein and mining will continue for an additional 5 years. This process will be repeated until all available ore on the 200-acre block is depleted, and then operations will move over to the 80-acre block.

The emissions-generating units and activities identified in Table 1, Proposed Approved Stationary Emissions Units, are proposed to be approved for installation and operation at the facility. Table 2, Estimated Facility-Wide Emissions provides an accounting of uncontrolled (potential emissions) and controlled (allowable) emissions in tons per year (tpy). For the purposes of this permit action, since Table Rock requested enforceable limits on the hours of operation, production throughput and dust emissions control efficiency, the potential emissions listed assume full-time annual uncontrolled operation at 8,760 hours, while the allowable emissions listed account for limited annual operation is at 2,080 hours, limited annual gilsonite production of 6,600 cubic feet per minute (cfm), a fabric filter pulse jet dust collector control efficiency of 0.02 grains per standard cubic foot (g/scf), and one (1) roundtrip per day each on the unpaved on-lease road for a haul truck and a passenger vehicle.

Table 1 – Proposed Approved Stationary Emissions Units

Description	Maximum Operational Design and Proposed Limitations/Controls
Diesel-Fired 550 kilowatt Compression Ignition Electric Power Generating Engine	<ul style="list-style-type: none"> • 550 kilowatt(kW) • 824 horsepower (hp) • Ultra-low sulfur diesel fuel • 2,080 hours/year operation (10 hours/day, 4 days/week, 52 weeks/year)
Pneumatic gilsonite conveying system with two (2) pneumatic conveyors and two (2) enclosed storage silos	<ul style="list-style-type: none"> • 6,600 cfm maximum gilsonite throughput • Each pneumatic conveyor equipped with a suction fan supplying negative pressure operation to move gilsonite from underground mine through a fabric filter pulse jet dust collector with 0.02 g/scf particulate matter emissions control efficiency before being deposited into a storage silo through a rotary lock • Each silo equipped with enclosed load chutes to transfer gilsonite to enclosed haul trucks for transportation off-site
Unpaved on-lease access road	<ul style="list-style-type: none"> • 1,200 feet long by 12 feet wide • One (1) round trip haul truck/day • One (1) round trip passenger vehicle/day

Table 2 – Estimated Facility-Wide Emissions

Pollutant	Uncontrolled Potential Emissions (tpy)	Proposed Controlled (Allowable) Emissions (tpy)	
PM	6.08	1.46	PM - Particulate Matter PM ₁₀ – Particulate Matter less than 10 microns in size PM _{2.5} – Particulate Matter less than 2.5 microns in size SO ₂ - Sulfur Dioxide NO _x - Nitrogen Oxides CO - Carbon Monoxide VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates H ₂ SO ₄ - Sulfuric Acid Mist H ₂ S - Hydrogen Sulfide TRS - Total Reduced Sulfur RSC - Reduced Sulfur Compounds CO ₂ – Carbon dioxide CH ₄ – Methane N ₂ O – Nitrous oxide CO _{2e} – Equivalent CO ₂ : A measure used to compare the emissions from various greenhouse gases based upon their global warming potential MT – Metric tons
PM ₁₀	6.08	1.46	
PM _{2.5}	6.08	1.46	
SO ₂	6.62	1.57	
NO _x	49.90	11.90	
CO	1.14	0.27	
VOC	0.31	0.07	
Pb	NA	NA	
Fluorides	NA	NA	
H ₂ SO ₄	NA	NA	
H ₂ S	NA	NA	
TRS	NA	NA	
RSC	NA	NA	
Greenhouse Gases			
CO ₂	3,620	860	
CH ₄	3.27	0.78	
N ₂ O	7.80	1.85	
CO _{2e} (Total MT)	3,631	862	
Hazardous Air Pollutants (HAP)			
Formaldehyde	0.0257	0.00611	
Benzene	0.0203	0.00483	
Toluene	0.00892	0.00212	
Ethylbenzene	NA	NA	
Xylene	0.00621	0.00148	
1,3-Butadiene	0.000853	0.000202	
Acetaldehyde	0.0167	0.00397	
Acrolein	0.00202	0.000479	
Naphthalene	0.00185	0.000439	
Total HAP*	0.0827	0.0196	

*Total is inclusive of, but not limited to, the individual HAP listed above.

III. Proposed MNSR Permit Emission Limitations and Controls

According to the requirements at 40 CFR 49.154(c), the EPA must determine the emission limitations required in a true minor source site-specific MNSR permit by conducting a case-by-case control technology review to determine the appropriate level of control, if any, to assure that the National Ambient Air Quality Standard (NAAQS) are achieved. In carrying out this case-by case control technology review, the EPA must consider the following factors: 1) local air quality conditions; 2) typical control technology or other emission reduction measures used by similar sources in surrounding areas; 3) anticipated economic growth; and 4) cost effective emission reduction alternatives. For this permit, in addition to reviewing the applicant’s proposed operational restrictions and emissions controls, the EPA considered regulations that apply to the equipment at gilsonite mining operations. The Standards of Performance for Nonmetallic Mineral Processing Facilities at [40 CFR part 60, subpart 000](#) contain the primary requirements for the relevant process equipment for nonmetallic mineral processing, including storage silos (‘storage bins’ in subpart) and truck loading stations. Although subpart 000 does not apply to facilities located in underground mines or plants

without crushers or grinding mills above ground (see 40 CFR 60.670(a)(2)), it provides information on common emission control requirements for storage silos and truck loading. We also reviewed other federal and state air pollution control permits for the source category to determine typical control requirements.¹

The proposed gilsonite mining operation is estimated to generate combustion emissions from the diesel-fired electric power generator engine, primarily in the form of NO_x and SO₂. Table Rock has proposed using only low-sulfur diesel fuel to power the generator, as well as limit the hours of operation to a total of 2,080 hours in any consecutive 12-month period.

PM emissions are estimated to be generated from transport, transfer and storage of the underground mined gilsonite, including transfer from the storage silos to trucks for off-site transport. Misters and, where practical, shrouds or screens, baghouses or fabric filter dust collectors are commonly used to reduce PM emissions from transport, transfer and storage of materials. Table Rock has proposed using closed-system pneumatic conveyors equipped with a suction fan to convey the mined gilsonite under negative pressure, through fabric filter pulse jet dust collectors with a PM control efficiency of 0.02 g/scf, before being deposited into the storage silos through rotary air locks. The silos will be equipped with enclosed load chutes to transfer the stored gilsonite into enclosed haul trucks for transportation offsite.

Fugitive PM emissions are also expected from vehicle traffic on the unpaved on-lease access road. Unpaved roads are typically periodically sprayed with water or other wet substances as needed to suppress PM emissions.

Based on our review of Table Rock's proposed emissions controls and operational limits, and on our review of existing relevant regulations and existing federal and state permits for similar types of operations, we are proposing to require permit terms for construction and operation of the aboveground stationary emission units and activities at the mine that include:

1. The compression ignition diesel-fired electric power generator engine shall be model year 2014 or later and be certified by the manufacturer to the applicable tier standards in 40 CFR 1039.101 through 1039.104, for all pollutants, for the same model year and maximum engine power (824 hp);
2. Distillate fuel for the diesel-fired electric power generator engine shall be diesel containing no more than 15 parts per million (ppm)(0.0015%) sulfur by weight, also known as ultra-low sulfur diesel (ULSD);
3. Installation and operation of a pneumatic conveyance system with no more than two (2) pneumatic closed-system conveyance pipes each equipped with a fabric filter pulse jet dust collector to collect and control PM emissions from the pneumatically conveyed gilsonite to the storage silos through a rotary lock;
4. A conveyed gilsonite throughput limit of 6,600 cfm;
5. An hours of operation limit for the diesel-fired electric power generator engine of 2,080 hours in any consecutive 12-month period; and
6. Compliance with a fugitive dust control plan incorporated into the permit, including

¹ General Air Quality Permit for New or Modified Minor Source Stone Quarrying, Crushing, and Screening Facilities in Indian Country, accessible online at <https://www.epa.gov/tribal-air/5-source-categories-stone-quarrying-crushing-and-screening-facilities-final-rule>; The Background Document available contains links to state permits reviewed in developing the general permit.

periodic spraying of the unpaved on-lease access road as needed with water or other common non-toxic dust suppression substance.

We are proposing monitoring, recordkeeping, and reporting requirements to ensure compliance with the throughput, operational and emission control efficiency requirements, including:

1. For each shipment of fuel used to power the compression ignition electric generator engine, obtain and maintain records of the fuel supplier certification showing the sulfur content of the fuel;
2. Monthly inspections of the conveyors, fabric filter pulse jet dust collector and storage silos for integrity and optimal operation according to the manufacturer's specified optimal operating conditions and operation and maintenance procedures;
3. Weekly reading and recording of the compression ignition electric generator engine operating hours using a non-resettable hour meter;
4. Calculation and recording of total operational hours of the compression ignition electric generator engine at the end of each calendar month and for each consecutive 12-month period;
5. Weekly inspections for visible fugitive dust emissions and adherence to a fugitive dust suppression plan;
6. Notifications of beginning construction and operations;
7. Annual reports certifying compliance with the permit; and
8. Reports of permit deviations.

The proposed permit establishes emission control requirements that are consistent with what is required of nonmetallic mineral processing operations across the country in attainment, unclassifiable, and attainment/unclassifiable areas, including requirements for diesel generator engines. As such, the control technologies proposed by the applicant are considered reasonably available and, after considering anticipated economic growth in the area and more cost-effective alternatives, we determined that it was not necessary to make any significant additional changes to the proposed control technologies and associated monitoring at this time.

IV. Air Quality Review

The Federal MNSR Regulations at 40 CFR 49.154(d) require that an Air Quality Impact Assessment (AQIA) modeling analysis be performed if there is reason to be concerned that new construction would cause or contribute to a NAAQS or Prevention of Significant Deterioration (PSD) increment violation. If an AQIA reveals that the proposed construction could cause or contribute to a NAAQS or PSD increment violation, such impacts must be addressed before a pre-construction permit can be issued.

The location of the proposed mine is in Uintah County approximately 35 miles southeast of Roosevelt and 35 miles south of Vernal, in the Uinta Basin. The Uinta Basin including Uintah County is located in an arid region of eastern Utah, east of the Wasatch Mountains and south of the Uinta Mountains, and is characterized by low and highly variable precipitation, abundant sunshine and low relative humidity and moderate temperatures with large diurnal and annual ranges. The southern rim of the basin is formed by the Tavaputs Plateau of the Book Cliffs. The central portion of the basin has an elevation of 5,000 to 5,500 feet, and the surrounding mountains form a natural basin that is conducive to persistent cold air pool inversion during winter. The climate of the Uinta Basin is semi-arid, with occasionally severe winter cold. The population of the Uinta Basin is approximately 50,000 with most of the residents located in the major towns of Vernal and Roosevelt in the northern portion of the basin.

There is intensive energy development in the central and southern portion of the basin with primarily oil wells in the western portion and natural gas production wells in the eastern portion of the basin. Annual precipitation averages only approximately 6 inches of rain per year and 19 inches of snowfall, compared to 39 inches of average rainfall and 26 inches of average snowfall nationally at the similar latitudes. The typical number of days with measurable precipitation is about 18. The average high temperature observed in July is 92 degrees Fahrenheit (° F) and the average low temperature observed in January is 5° F. Uintah County experiences an average of 240 sunny days with an ultraviolet (UV) index of 4.6. The average UV index nationwide is 4.3.

The state of Utah, National Park Service (NPS) and the Ute Tribe operate ozone, PM_{2.5} and NO₂ monitors in and around the Uinta Basin. Table 3 provides the valid ambient air concentrations measured at the NPS and Ute Tribe stations in relation to the NAAQS for the years 2014 through 2016. The closest monitors to the proposed mine are the Ouray Monitor (about 10 miles) and the Redwash monitor (about 20 miles). Regulatory attainment of the NAAQS is determined using design values, which are available from the EPA at <https://www.epa.gov/air-trends/air-quality-design-values>. As of the date of the start of the public comment period for this proposed MNSR permit, the Utah Department of Environmental Quality (DEQ) has certified its 2016 data, while the Ute Tribe has not yet certified 2016 data. However, data from the Utah DEQ monitors are not complete for 2014-2016, and so are not shown in Table 3. In general, incomplete data² can be used to show a violation, but not to calculate an attaining design value.

Table 3 - Background Ambient Air Concentrations for the Project Area, 2014-2016

Site Name, Responsible Agency	Site Number	Pollutant	Design Value ^a	Valid?
Dinosaur NM, NPS	49-047-1002	Ozone	68 ppb	Yes
Myton, Ute Indian Tribe	49-013-7011	Ozone	72 ppb	Yes
Redwash, Ute Indian Tribe	49-047-2002	Ozone	70 ppb	Yes
		NO ₂	20 ppb	Yes
Ouray, Ute Indian Tribe	49-047-2003	Ozone	80 ppb	Yes
Whiterocks, Ute Indian Tribe	49-047-7022	Ozone	71 ppb	Yes

Notes: ppb = parts per billion; NO₂ = nitrogen dioxide; O₃ = ozone. Green shading indicates valid data orange shading indicates invalid data.

^a Design value for ozone is calculated as the three-year average of the 4th highest daily maximum measured concentration for each calendar year. Design value for NO₂ is the 3-year average of the 98th percentile daily maximum.

The ambient air concentrations measured at these stations show that concentrations for ozone in the project area have violated both the 2008 and 2015 ozone NAAQS (75 ppb and 70 ppb, respectively). The highest valid ozone design value from the Uinta Basin is from the Ouray monitor at 80 ppb. The only valid NO₂ design value in the Uinta Basin for 2014-2016 is from the Redwash monitor at 20 ppb. There is no valid PM_{2.5} design value for the Uinta Basin.

Table Rock Gilsonite Mine Area Characteristics and Estimated Emissions

The Table Rock Gilsonite Mine will encompass two leased areas. One traverses the middle part of Section 29, Township 10S and Range 21E. The other occupies the northwest portion of Section 33. The mining operation would begin at one leased area and would move to the other leased area once the gilsonite ore is depleted. The elevation rises from the Cottonwood Wash at approximately 5,200 feet

² < 75% complete in any given quarter.

above sea level, heading west to about 5,300 feet within Section 29. Sand Wash crosses the northeast corner of Section 33 at approximately 6,200 feet of elevation and rises to a high point of 6,329 feet just west and south of the leased area. The area surrounding the proposed mine is bracketed to the south by the East Tavaputs Plateau, the north by the East Bench, Buck Camp canyon to the east and the Agency Draw to the west. Willow Creek also lies to the west of the leased areas. Land use in the area is primarily oil and natural gas production, livestock grazing and other agricultural uses. A relatively minor amount of particulate matter (dust) will primarily be generated during construction, transfer of gilsonite from the silos to the haul trucks and operator pickup and haul truck traffic on the on-lease access road. Hydrocarbons, primarily NO_x, from operation of the diesel-fired compression ignition electric generator engine that powers the underground mining and surface equipment may be locally evident during daylight hours.

The minimum distances to ambient air are anticipated to be approximately 550 feet at the Section 29 site and 430 feet at the Section 33 site. The compression ignition electric generator engine will have an 8-inch diameter stack that has an exhaust point 12 feet from the ground. The exhaust temperature will be no more than 892 ° F with a maximum flow rate of 4,654.5 average cubic feet per minute (acfm) (222.2 feet per second velocity).

The applicant has proposed to employ a closed-system of pneumatic gilsonite conveyance and enclosed loading of gilsonite from the storage silos to haul trucks. The proposed permit requires fugitive dust suppression measures to control PM emissions from truck traffic on the unpaved on-lease access road. According to the applicant, the diesel-fired compression ignition electric generator engine will meet the EPA tier standards for non-road engines. The total net emissions increases for this project, presented in Table 2, at 11.9 tpy NO_x, 0.07 tpy VOC and 1.46 tpy PM_{2.5}, are estimated significantly below major source PSD permitting thresholds, as well as below the PSD significance thresholds for all criteria pollutants. While the ambient air measurements show existing air quality in the project area is violating both the 2008 and 2015 ozone NAAQS, and NO_x and VOC are precursors to ozone formation. The estimated increase in VOC from the proposed project is considered negligible at less than 0.1 tpy. The estimated increase in NO_x at less than 12 tpy is well below the PSD major source significant emissions rate of 40 tpy and the NO₂ design value at the nearest monitor of 20 ppb is less than 30% of the ozone NAAQS, which are generally used as pre-modeling considerations in evaluating impacts to local ambient concentrations. Therefore, the impacts to local air quality from the proposed project are not expected to be significant and should not cause or contribute to further violations of the NAAQS or to PSD increment violations. We have determined that an AQIA modeling analysis is not required for this permit action.

V. Tribal Consultations and Communications

All minor source applications (synthetic minor, minor modification to an existing facility, new true minor and general permit) are submitted to both the tribe and the EPA per the application instructions (see <https://www.epa.gov/caa-permitting/tribal-nsr-permits-region-8>). We ask the Tribe to respond within 10 business days from the receipt of the application to communicate to the EPA any preliminary questions and comments on the application. In the event an AQIA is triggered, we email a copy of that document to the tribe within 5 business days from the date that we receive it.

Additionally, we notify the tribe of the public comment period for the proposed permit and provide copies of the notice of public comment opportunity to post in various locations of their choosing on the Reservation. We also notify the tribe of the issuance of the final permit.

VI. Environmental Justice

On February 11, 1994, the President issued Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The Executive Order calls on each federal agency to make environmental justice a part of its mission by "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations."

The EPA defines "Environmental Justice" as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The EPA's goal with respect to Environmental Justice in permitting is to enable overburdened communities to have full and meaningful access to the permitting process and to develop permits that address environmental justice issues to the greatest extent practicable under existing environmental laws. *Overburdened* is used to describe the minority, low-income, tribal and indigenous populations or communities in the United States that potentially experience disproportionate environmental harms and risks as a result of greater vulnerability to environmental hazards.

This discussion describes our efforts to identify overburdened communities and assess potential effects in connection with issuing this permit in Uintah County within the exterior boundaries of the Uintah and Ouray Indian Reservation.

A. Environmental Impacts to Potentially Overburdened Communities

This permit action authorizes the construction of new air emission sources with the potential to emit air pollutants at minor source levels under the MNSR Permit Program. The facility will be located in an unpopulated area of primarily oil and natural gas production, livestock grazing and other agricultural uses. The total net emissions increases for this project are well below the major source PSD thresholds for all criteria pollutants. The ambient air concentrations measured at these stations, show that concentrations for ozone in the project area have violated both the 2008 and 2015 ozone NAAQS. The new emission sources would be controlled using fabric filter pulse jet dust collectors on the conveyors, a rotary lock and enclosed load chutes on the silos, and fugitive dust suppression techniques for the unpaved on-lease access road. As explained in the Air Quality Review Section of this document, while the ambient air measurements show existing air quality in the project area is violating both the 2008 and 2015 ozone NAAQS, and NO_x and VOC are precursors to ozone formation, published studies have shown that the Uinta Basin is more sensitive to changes in VOC emissions than NO_x emissions. The estimated increase in VOC from the proposed project is considered negligible at less than 0.1 tpy and the estimated increase in NO_x at less than 12 tpy is well below the PSD major source significance level of 40 tpy and is less than 30% of the ozone NAAQS, which are generally used as pre-modeling considerations in impacts to local ambient concentrations. Therefore, the impacts to local air quality from the proposed project are not expected to be significant and should not cause or contribute to further violations of the NAAQS or to PSD increment violations. We have determined that an AQIA modeling analysis is not required for this permit action.

For purposes of Executive Order 12898 on environmental justice, the EPA has recognized that compliance with the NAAQS is "emblematic of achieving a level of public health protection that, based on the level of protection afforded by a primary NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to the exposure to relevant criteria pollutants." *In re Shell Gulf of Mexico*,

Inc. & Shell Offshore, Inc., 15 E.A.D., slip op. at 74 (EAB 2010). This is because the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics.

Based on the findings described above, the EPA has concluded that issuance of the permit is not expected to have disproportionately high or adverse human health effects on overburdened communities in the vicinity of the facility on the Uintah and Ouray Indian Reservation.

B. Enhanced Public Participation

Given the presence of potentially overburdened communities in the vicinity of the facility, we are providing an enhanced public participation process for this permit.

1. Interested parties can subscribe to the EPA email list that notifies them of public comment opportunities on the Uintah and Ouray Indian Reservation for proposed air pollution control permits via email at <https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>.
2. All minor source applications (synthetic minor, modification to an existing facility, new true minor or general permit) are submitted to both the tribe and the EPA per the application instructions (see <https://www.epa.gov/caa-permitting/tribal-nsr-permits-region-8>).
3. We ask that the tribe communicate to the EPA any preliminary questions and comments on the application within 10 business days of receiving it.
4. In the event an AQIA is triggered, we email a copy of that document to the tribe within 5 business days from the date we receive it.
5. We notify the tribe of the public comment period for the proposed permit and provide copies of the notice of public comment opportunity to post in various locations of their choosing on the Reservation. We also notify the tribe of the issuance of the final permit.

VII. Authority

Requirements under 40 CFR 49.151 to obtain a MNSR permit apply to new and modified minor stationary sources, and minor modifications at existing major stationary sources (“major” as defined in 40 CFR 52.21). The EPA is charged with direct implementation of these provisions where there is no approved Tribal implementation plan for implementation of the MNSR regulations. Pursuant to Section 301(d)(4) of the CAA (42 USC 7601(d)), the EPA is authorized to implement the MNSR regulations at 40 CFR 49.151 in Indian country. The Table Rock Gilsonite Mine is proposed to be located on Indian country lands within the exterior boundaries of the Uintah and Ouray Indian Reservation in the central-eastern part of the State of Utah. The exact location is latitude 39.916875N and longitude -109.56732W, in Uintah County, Utah.

VIII. Public Notice & Comment, Hearing and Appeals

A. Public Notice

In accordance with 40 CFR 49.157, we must provide public notice and a 30-day public comment period to ensure that the affected community and the general public have reasonable access to the application and proposed permit information. The application, the proposed permit, this technical support document, and all supporting materials for the proposed permit are available at:

Ute Indian Tribe
Energy and Minerals Department
P.O. Box 70
988 South 7500 East, Annex Building
Fort Duchesne, Utah 84026
Contact: Minnie Grant, Air Coordinator, 435-725-4900 or minnieg@utetribes.com

and

US EPA Region 8
Air Program Office
1595 Wynkoop Street (8P-AR)
Denver, Colorado 80202-1129
Contact: Claudia Smith, Air Permit Engineer, 303-312-6520 or smith.claudia@epa.gov

All documents are available for review at our office Monday through Friday from 8:00 a.m. to 4:00 p.m. (excluding Federal holidays). Additionally, the proposed permit and technical support document can be reviewed on our website at: <https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>.

Any person may submit written comments on the proposed permit and may request a public hearing during the public comment period. These comments must raise any reasonably ascertainable issues with supporting arguments by the close of the public comment period (including any public hearing). Comments may be sent to the EPA address above, or sent via an email to r8airpermitting@epa.gov, with the topic "Comments on MNSR Permit for the Table Rock Minerals Gilsonite Mine".

B. Public Hearing

A request for a public hearing must be in writing and must state the nature of the issues proposed to be raised at the hearing. We will hold a hearing whenever there is, on the basis of requests, a significant degree of public interest in a proposed permit. We may also hold a public hearing at our discretion, e.g., a hearing might clarify one or more issues involved in the permit decision.

C. Final MNSR Permit Action

In accordance with 40 CFR 49.159, a final permit becomes effective 30 days after permit issuance, unless: (1) a later effective date is specified in the permit; (2) appeal of the final permit is made as detailed in the next section; or (3) we may make the permit effective immediately upon issuance if no comments resulted in a change or denial of the proposed permit. We will send notice of the final permit action to any individual who commented on the proposed permit during the public comment

period. In addition, the source will be added to a list of final permit actions which is posted on our website at: <https://www.epa.gov/caa-permitting/caa-permits-issued-epa-region-8>. Anyone may request a copy of the final permit at any time by contacting the Tribal Air Permit Program at (800) 227-8917 or sending an email to r8airpermitting@epa.gov.

D. Appeals to the Environmental Appeals Board (EAB)

In accordance with 40 CFR 49.159, within 30 days after a final permit decision has been issued, any person who filed comments on the proposed permit or participated in the public hearing may petition the Board to review any condition of the permit decision. The 30-day period within which a person may request review under this section begins when the Region has fulfilled the notice requirements for the final permit decision. Motions to reconsider a final order by the EAB must be filed within 10 days after service of the final order. A petition to the EAB is, under section 307(b) of the CAA, a prerequisite to seeking judicial review of the final agency action. For purposes of judicial review, final agency action occurs when we deny or issue a final permit and agency review procedures are exhausted.

MEMO TO FILE

DATE: July 25, 2017

SUBJECT: Uintah and Ouray Indian Reservation, Gilsonite Mine; Table Rock Minerals, LLC.,
National Historic Preservation Act

FROM: Colin Schwartz, EPA Region 8 Air Program

TO: Source Files:
AIRTRIBAL, UO, Table Rock Mineral, LLC.
TMNSR-UO-007057-2017.001, 05/01/2017 Minor NSR Permit
FRED # 105485

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertakings. Under the ACHP's implementing regulations at 36 C.F.R. Part 800, Section 106 consultation is generally with state and tribal historic preservation officials in the first instance, with opportunities for the ACHP to become directly involved in certain cases. An "undertaking" is "a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval." 36 C.F.R. § 800.16(y).

Under the NHPA Section 106 implementing regulations, if an undertaking is a type of activity that has the potential to cause effects on historic properties, assuming any are present, then federal agencies consult with relevant historic preservation partners to determine the area of potential effect (APE) of the undertaking, to identify historic properties that may exist in that area, and to assess and address any adverse effects that may be caused on historic properties by the undertaking. If an undertaking is a type of activity that does not have the potential to cause effects on historic properties, the federal agency has no further obligations. 36 C.F.R. § 800.3(a)(1).

This memorandum describes EPA's efforts to assess potential effects on historic properties in connection with issuing this Clean Air Act (CAA) true minor New Source Review permit in Uintah County, Utah, on Indian country lands within the Uintah and Ouray Indian Reservation. As explained further below, EPA is finding that the proposed action does not have the potential to cause effects on historic properties, even assuming such historic properties are present.

Permit Request

The EPA received an application from Table Rock Minerals, LLC (Table Rock) for a true minor permit for a gilsonite mine in accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR Part 49. Through this permit action, the EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands within the federally

recognized exterior boundaries of the Uintah and Ouray Indian Reservation in Uintah County, Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program. This proposed permit contains production limits, operating hours limits, and emission control efficiency requirements, and associated monitoring, recordkeeping, and reporting requirements, for the mine and/or certain pollutant emission-generating units or activities approved for construction and installation. The EPA determined that this approval will not contribute to violations of the National Ambient Air Quality Standards (NAAQS), or have potentially adverse effects on ambient air.

The facility is located at:

Sec 29 and 33 NE1/4 T10S R21E
Latitude 39.916875N, Longitude -109.56732W

State and Tribal Consultation

The EPA consulted with the State Historic Preservation Office of Utah; it was concluded “there are low concerns in the area,” and that no archeological sites within 500 meters of the facility location are eligible for the National Register for NHPA.

Finding of No Historic Properties Affected

The EPA has reviewed the proposed actions for potential impacts on historic properties and concluded that effects on historic properties resulting from construction and operation of the proposed source are unlikely. The EPA consulted with the State Historic Preservation Office of Utah, which reviewed the project and concurred that this project site is in an area of low concern for impacts to historic properties. The EPA finds that this permit action will have no effect on historic properties, even assuming any are present.

Schwartz, Colin

From: Christopher Merritt <cmerritt@utah.gov>
Sent: Friday, June 23, 2017 1:27 PM
To: Schwartz, Colin
Subject: Re: NHPA Informal Consultation

Hello Colin,

I have reviewed our records and the entirety of this area appears to have been previously inventoried for archaeological materials in the last 15 years.

There are three known archaeological sites within 500 meters of the point you sent me in your packet, but none were considered eligible for the National Register.

It appears there are low concerns in the area,
Chris

On Thu, Jun 22, 2017 at 10:30 AM, Schwartz, Colin <Schwartz.Colin@epa.gov> wrote:

Thank you, I appreciate your assistance.

Colin C. Schwartz

Environmental Scientist

Air Permits Division

US EPA Region 8- Denver, CO

303-312-6043

From: Christopher Merritt [mailto:cmerritt@utah.gov]
Sent: Thursday, June 22, 2017 10:29 AM
To: Schwartz, Colin <Schwartz.Colin@epa.gov>

Subject: Re: NHPA Informal Consultation

Okay great. I'll take a formal look at this tomorrow or Monday and get you some comments. This looks pretty straightforward. Thanks Colin.

Chris

On Thu, Jun 22, 2017 at 10:27 AM, Schwartz, Colin <Schwartz.Colin@epa.gov> wrote:

This is being sent electronically only at this point. If further formality is needed then we can draft letters to send. Email consultation is acceptable for this project from the SHPO.

Satellite review shows a graded pad with the silos and engine room that should not be more than 50 years old. This will be a new facility and therefore new equipment on site.

Colin C. Schwartz

Environmental Scientist

Air Permits Division

US EPA Region 8- Denver, CO

303-312-6043

From: Christopher Merritt [mailto:cmerritt@utah.gov]

Sent: Thursday, June 22, 2017 9:59 AM

To: Schwartz, Colin <Schwartz.Colin@epa.gov>

Cc: bradwestwood@utah.gov; Christopher Hansen <clhansen@utah.gov>

Subject: Re: NHPA Informal Consultation

Hi Colin,

Thanks for the note. Will this be coming as a hard copy as well?

My first question would be if any of the buildings at the surface facility are over 50 years of age?

On Wed, Jun 21, 2017 at 5:28 PM, Schwartz, Colin <Schwartz.Colin@epa.gov> wrote:

The Environmental Protection Agency Region 8 (EPA) has received an application for and is preparing a federal Clean Air Act, draft true minor New Source Review (NSR) air pollution control permit for a proposed gilsonite mine project within the exterior boundaries of the Uintah and Ouray Indian Reservation in Uintah County. To comply with our obligations under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 C.F.R. Part 800, we are consulting with you concerning our finding as to the potential effects and we are seeking any information you may have as to whether there are any historic properties within the area of potential effects (APE) for this project.

The Lat/ Long of the project:

39.916875
-109.567328

Project Description: The gilsonite mine will be in Uintah County, Utah within the exterior boundary of the Uintah and Ouray reservation. The mine life will be approximately five years and would then be moved to a new location along the vein within the lease. The mining process occurs entirely underground. The equipment on the surface that supports the underground activity consists of the following:

- 1) A stationary diesel/electric generator sized for approximately 550 kilowatts (kW) will provide the only electricity available at the mine. All other motors would be electric. The generator would operate 10 hours per day, 4 days per week 52 weeks/year. a) The output emissions from the engine will be standard combustion by-products such as criteria pollutants and hazardous air pollutants (HAPs).
- 2) The gilsonite is pneumatically conveyed from underground and deposited in enclosed silos. The pneumatic conveying system operates at approximately 6,600 cubic feet per minute (cfm) and the conveyed airstream passes through a filter/receiver with an emission efficiency of 0.02 grains per standard cubic foot (g/scf). There will be two (2) pneumatic conveyors and silos at the mine operating 10 hours/day, 4 days per week. a) The output emissions will be particulate matter. For conservatism, PM2.5 and PM10 are expected to be equivalent.
- 3) The unpaved on-lease access road will be approximately 1,200 feet long by 12 feet wide. There would be one round trip in a passenger vehicle, and one round trip in a haul truck per day, 4 days per week. a) The output emissions will be particulate matter. For conservatism, PM2.5 and PM10 are expected to be equivalent.

As discussed above, the operating schedule will consist of 10 hours/day; 4 days/week and 52 weeks/year (2,080 hours/year).

The engine will operate on ultra-low sulfur diesel fuel only.

Uintah County Historic Sites provided by Operator:

Bank of Vernal

Carter Road

Cockleburr Wash Petroglyphs

Curry, Lewis, House

Douglass, Early, Workshop-Laboratory

Fenn-Bullock House

Gibson-Sowards House

Little Brush Creek Petroglyphs

Martin, Manfred and Ethel, House

McConkie Ranch Petroglyphs

Morris, Josie Bassett, Ranch Complex

Quarry Visitor Center

Siddoway, William and Emily, House

Smith, Francis ' Frank' and Eunice, House

Dy. Paul's Episcopal Church and Lodge

Vernal Tithing Office

Washington School- Vernal LDS Relief Society Hall

Whiterocks Village Site

The EPA received an application for a True Minor New Source Review on May 1, 2017. All air quality emissions are below 50 tons per year for the potential emissions for criteria pollutants and no Hazardous Air Pollutants are emitted. Please let us know if you need more information to make your decision on for NHPA, and also if a more formal letter is required.

Thank you,

Colin C. Schwartz

Environmental Scientist

Air Permits Division

US EPA Region 8- Denver, CO

303-312-6043

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Christopher W. Merritt, Ph.D., RPA

Deputy SHPO, Antiquities Section Coordinator

Utah Division of State History

Phone: (801) 245-7263

Email: cmerritt@utah.gov

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MEMO TO FILE

DATE: July 25, 2017

SUBJECT: Uintah and Ouray Indian Reservation, Gilsonite Mine; Table Rock Minerals, LLC., Environmental Justice

FROM: Colin Schwartz, EPA Region 8 Air Program

TO: Source Files:
AIRTRIBAL, UO, Table Rock Mineral, LLC.
TMNSR-UO-007057-2017.001, 05/01/2017 Minor NSR Permit
FRED # 105485

On February 11, 1994, the President issued Executive Order 12898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The Executive Order calls on each federal agency to make environmental justice a part of its mission by "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations."

The EPA defines "Environmental Justice" as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The EPA's goal with respect to Environmental Justice in permitting is to enable overburdened communities to have full and meaningful access to the permitting process and to develop permits that address environmental justice issues to the greatest extent practicable under existing environmental laws. *Overburdened* is used to describe the minority, low-income, tribal and indigenous populations or communities in the United States that potentially experience disproportionate environmental harms and risks as a result of greater vulnerability to environmental hazards.

This discussion describes our assessment of the potential environmental impacts to overburdened communities in connection with issuing this permit in Uintah County, Utah, within the exterior boundaries of the Uintah and Ouray Indian Reservation, and describes our efforts at meaningful public involvement in the permit issuance process.

As described in the following sections of this memorandum, we conclude that issuance of the aforementioned permit is not expected to have disproportionately high or adverse human health effects on overburdened or any communities in the vicinity of the facility.

Permit Request

The EPA received an application from Table Rock Minerals, LLC (Table Rock) for a true minor permit for a gilsonite mine in accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR Part 49. Through this permit action, the EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands

within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation in Uintah County, Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program. This proposed permit contains production limits, operating hours limits, and emission control efficiency requirements, and associated monitoring, recordkeeping, and reporting requirements, for the mine and/or certain pollutant emission-generating units or activities approved for construction and installation. The EPA determined that this approval will not contribute to violations of the National Ambient Air Quality Standards (NAAQS), or have potentially adverse effects on ambient air.

The facility is located at:

Sec 29 and 33 NE1/4 T10S R21E
Latitude 39.916875N, Longitude -109.56732W

Air Quality Review

The MNSR regulations at 40 CFR 49.154(d) require that an Air Quality Impact Assessment (AQIA) modeling analysis be performed if there is reason to be concerned that new construction would cause or contribute to a National Ambient Air Quality Standard (NAAQS) or PSD increment violation. If an AQIA reveals that the proposed construction could cause or contribute to a NAAQS or PSD increment violation, such impacts must be addressed before a pre-construction permit can be issued. After review of the Air Quality Impact Assessment provided by Table Rock, it was determined that this approval will not contribute to violations of the NAAQS, or have potentially adverse effects on ambient air.

For purposes of Executive Order 12898 on environmental justice, the EPA has recognized that compliance with the NAAQS is “emblematic of achieving a level of public health protection that, based on the level of protection afforded by a primary NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to the exposure to relevant criteria pollutants.” *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, 15 E.A.D., slip op. at 74 (EAB 2010). This is because the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics.

The EPA has determined that issuance of this MNSR permit will not contribute to National Ambient Air Quality Standards (NAAQS) violations, or have potentially adverse effects on ambient air quality.

Environmental Impacts to Potentially Overburdened Communities

The EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation in Uintah County, Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program. This proposed permit contains production limits, operating hours limits, and emission control efficiency requirements, and associated monitoring, recordkeeping, and reporting requirements, for the mine and/or certain

pollutant emission-generating units or activities approved for construction and installation. The EPA Environmental Justice Screening procedures was reviewed encompassing an 8-mile radius from the proposed facility location which shows that there is no population that could be affected.

Furthermore, the permit contains a provision stating, “*this MNSR permit will not contribute to National Ambient Air Quality Standards violations, or have potentially adverse effects on ambient air quality.*” Noncompliance with this permit provision would be a violation of the permit and would be grounds for enforcement action and for permit termination or revocation. As a result, we conclude that issuance of the aforementioned permit will not have disproportionately high or adverse human health effects on any communities in the vicinity of the Uintah and Ouray Indian Reservation.

Tribal Consultation and Enhanced Public Participation

Given the presence of potentially overburdened communities in the vicinity of the facility, we are providing an enhanced public participation process for this permit.

1. Interested parties can subscribe to an EPA email list that notifies them of public comment opportunities on the Uintah and Ouray Indian Reservation for proposed air pollution control permits via email at <https://www.epa.gov/caa-permitting/caa-permit-public-comment-opportunities-region-8>.
2. All minor source applications (synthetic minor, modification to an existing facility, new true minor or general permit) are submitted to both the Tribe and the EPA per the application instructions (see <https://www.epa.gov/caa-permitting/tribal-nsr-permits-region-8>).
3. The Tribe is asked to respond within 10 business days to us with questions and comments on the application.
4. In the event an AQIA is triggered, we email a copy of that document to the Tribe within 5 business days from the date we receive it.
5. We notify the Tribe of the public comment period for the proposed permit and provide copies of the notice of public comment opportunity to post in various locations of their choosing on the Reservation. We also notify the Tribe of the issuance of the final permit.



EJSCREEN ACS Summary Report



Location: User-specified point center at 39.916875, -109.567328

Ring (buffer): 8-mile radius

Description:

Summary of ACS Estimates		2010 - 2014
Population		0
Population Density (per sq. mile)		0
Minority Population		0
% Minority		0%
Households		2
Housing Units		2
Housing Units Built Before 1950		0
Per Capita Income		40,385
Land Area (sq. miles) (Source: SF1)		207.48
% Land Area		100%
Water Area (sq. miles) (Source: SF1)		0.00
% Water Area		0%

	2010 - 2014 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	0	0%	219
Population Reporting One Race	0	0%	403
White	0	0%	140
Black	0	0%	11
American Indian	0	0%	154
Asian	0	0%	6
Pacific Islander	0	0%	11
Some Other Race	0	0%	81
Population Reporting Two or More Races	0	0%	11
Total Hispanic Population	0	0%	94
Total Non-Hispanic Population	0		
White Alone	0	0%	149
Black Alone	0	0%	11
American Indian Alone	0	0%	154
Non-Hispanic Asian Alone	0	0%	6
Pacific Islander Alone	0	0%	11
Other Race Alone	0	0%	11
Two or More Races Alone	0	0%	11
Population by Sex			
Male	0	0%	112
Female	0	0%	136
Population by Age			
Age 0-4	0	0%	39
Age 0-17	0	0%	93
Age 18+	0	0%	110
Age 65+	0	0%	48

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

Source: U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.



EJSCREEN ACS Summary Report



Location: User-specified point center at 39.916875, -109.567328
 Ring (buffer): 8-mile radius
 Description:

	2010 - 2014 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	0	0%	106
Less than 9th Grade	0	0%	25
9th - 12th Grade, No Diploma	0	0%	63
High School Graduate	0	0%	62
Some College, No Degree	0	0%	39
Associate Degree	0	0%	11
Bachelor's Degree or more	0	0%	26
Population Age 5+ Years by Ability to Speak English			
Total	0	0%	208
Speak only English	0	0%	160
Non-English at Home ¹⁺²⁺³⁺⁴	0	0%	93
¹ Speak English "very well"	0	0%	87
² Speak English "well"	0	0%	19
³ Speak English "not well"	0	0%	18
⁴ Speak English "not at all"	0	0%	11
³⁺⁴ Speak English "less than well"	0	0%	18
²⁺³⁺⁴ Speak English "less than very well"	0	0%	24
Linguistically Isolated Households*			
Total	0	0%	11
Speak Spanish	0	0%	11
Speak Other Indo-European Languages	0	0%	11
Speak Asian-Pacific Island Languages	0	0%	11
Speak Other Languages	0	0%	11
Households by Household Income			
Household Income Base	2	100%	64
< \$15,000	0	14%	33
\$15,000 - \$25,000	0	14%	26
\$25,000 - \$50,000	1	30%	45
\$50,000 - \$75,000	0	13%	26
\$75,000 +	0	29%	40
Occupied Housing Units by Tenure			
Total	2	100%	64
Owner Occupied	2	98%	63
Renter Occupied	0	2%	7
Employed Population Age 16+ Years			
Total	0	0%	134
In Labor Force	0	0%	78
Civilian Unemployed in Labor Force	0	0%	11
Not In Labor Force	0	0%	87

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.

*Households in which no one 14 and over speaks English "very well" or speaks English only.



EJSCREEN ACS Summary Report



Location: User-specified point center at 39.916875, -109.567328

Ring (buffer): 8-mile radius

Description:

	2010 - 2014 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	0	0%	208
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2010 - 2014.

*Population by Language Spoken at Home is available at the census tract summary level and up.

MEMO TO FILE

DATE: July 31, 2017

SUBJECT: Uintah and Ouray Indian Reservation, Gilsonite Mine; Table Rock Minerals, LLC.,
Endangered Species Act

FROM: Colin Schwartz, EPA Region 8 Air Program

TO: Source Files:
AIRTRIBAL, UO, Table Rock Mineral, LLC.
TMNSR-UO-007057-2017.001, 05/01/2017 Minor NSR Permit
FRED # 105485

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. §1536, and its implementing regulations at 50 CFR, part 402, the EPA is required to ensure that any action authorized, funded, or carried out by the Agency is not likely to jeopardize the continued existence of any Federally-listed threatened or endangered species (TES) or result in the destruction or adverse modification of such species' designated critical habitat. Under ESA, those agencies that authorize, fund, or carry out the federal action are commonly known as "action agencies." If an action agency determines that its federal action "may affect" listed species or critical habitat, it must consult with the U.S. Fish and Wildlife Service (FWS). If an action agency determines that the federal action will have no effect on listed species or critical habitat, the agency will make a "no effect" determination. In that case, the action agency does not initiate consultation with the FWS and its obligations under Section 7 are complete.

In complying with its duty under ESA, the EPA, as the action agency, examined the potential effects on listed species and designated critical habitat relating to issuing this Clean Air Act (CAA) true minor New Source Review permit in Uintah County, Utah, on Indian country lands within the Uintah and Ouray Indian Reservation. This memorandum describes EPA's efforts to assess potential effects on TES or designated critical habitat in connection with issuing this permit. As explained further below, EPA has concluded that the proposed permit action will have "*No effect*" on listed TES or designated critical habitat.

Permit Request

The EPA received an application from Table Rock Minerals, LLC (Table Rock) for a true minor permit for a gilsonite mine in accordance with the requirements of the Tribal Minor New Source Review (MNSR) Permit Program at 40 CFR Part 49. Through this permit action, the EPA is proposing to approve construction of a new gilsonite mining operation on Indian country lands within the federally recognized exterior boundaries of the Uintah and Ouray Indian Reservation in Uintah County, Utah. The proposed facility is estimated to be a true minor source of criteria pollutants with respect to the MNSR Permit Program. This proposed permit contains production limits, operating hours limits, and emission control efficiency requirements, and associated monitoring, recordkeeping, and reporting requirements, for the mine and/or certain pollutant emission-generating units or activities approved for construction and installation. The EPA determined that this approval will not contribute to violations of the National Ambient Air Quality Standards (NAAQS), or have potentially adverse effects on ambient air.

The facility is located at:

Sec 29 and 33 NE1/4 T10S R21E
Latitude 39.916875N, Longitude -109.56732W

Threatened and Endangered Species

Table Rock has referenced following the Recovery Plans, which are species-specific, listed on the Environmental Conservation Online System from the FWS website. The Recovery Plans provide guidance and information for the protection of listed species. Table Rock has indicated that they will abide by these Recovery Plans for each species that is listed by the FWS in Uintah County. The subsequent discussion pertains to threatened and endangered mammals for Uintah County. The Yellow-billed cuckoo is a threatened species that has critical habitat greater than 5 miles away from the project area. The cuckoo has recently been shown to primarily roost along rivers in Arizona, California, and New Mexico. Cuckoo's migrate to South America in winter. The Mexican spotted owl, another threatened species, has critical habitat that is located over 10 miles away SW of site. This species of owl is found in mixed conifer forests and canyon settings and the Uintah Basin project area lacks these characteristics. The threatened Canada lynx has no critical habitat within 100 miles and are distributed in boreal forests or boreal/hardwood features. Again, the physical characteristics of the project area are not conducive for this species. The black footed ferret has a habitat that could allow the survival of this species in the Uintah Basin but there is no designated critical habitat within the state of Utah. This specific pocket in the Uintah Basin is listed by the FWS as an experimental population, non-essential, however it is located greater than 20 miles from the project area. The ferret has a listing status of endangered and experimental population, non-essential. As this project area is not close in proximity to any threatened and endangered mammal species or the associated critical habitats, there will be no expected impacts to any of the referenced mammal species from construction and operation of the proposed source.

The listed threatened and endangered vegetation and fish species evaluated for the project area includes the humpback chub, Colorado pikeminnow, bonytail chub, razorback sucker, shrubby reed-mustard, Ute ladies-tresses, clay reed-mustard, Pariette cactus, and Uinta Basin hookless cactus. The facility's location has previously been disturbed due to earlier mining activity and the roadway infrastructure is established due to extensive grazing and energy development in the area. Because no more surface land will be disturbed, construction of the proposed source will have no direct effects on listed plants. Table Rock indicated on their Utah Division of Oil, Gas, and Mining Notice of Intention to Commence Small Mining Operations permit that no "water, liquid chemicals, reagents, or other solutions will be used, produced or discharged as part of the mining or milling process;" therefore, there will be no liquid runoff into bodies of water or riparian areas that would affect aquatic species. Using satellite review of the region, it was determined that the closest body of water is over 4 miles away from the gilsonite mine location; therefore, construction of the proposed source will have no direct or indirect effects on listed aquatic species or critical habitat.

Conclusion

The EPA has concluded that the proposed MNSR permit action will have "No effect" on listed TES or designated critical habitat. Because the EPA has determined that the federal action will have no effect on

TES or designated critical habitat, the agency has made a “*No effect*” determination. Therefore, the EPA did not initiate consultation with the FWS and our obligations under Section 7 are complete.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291 Fax: (801) 359-3940

RECEIVED
JUN 15 2017
DIV. OF OIL, GAS & MINING

NOTICE OF INTENTION TO COMMENCE SMALL MINING OPERATIONS

The information requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1987, and the General Rules as promulgated under the Utah Minerals Regulatory Program (R647). The rules and Act are available online at <http://www.rules.utah.gov/publicat/code/r647/r647.htm> and http://fe.utah.gov/~code/TITLE40/40_08.htm.

Cultural Resources Survey: To fulfill its obligations under Utah Code Annotated 9-8-404, the Division needs cultural resource (archaeology) information. The amount and type of information required will depend on the mine location, the history of previous disturbance, and other factors. Please contact the Division for further information.

A permit fee of \$150 must accompany this application (Utah Code Ann. §40-8-7(1)(i)) and is due annually.

"Small Mining Operations" are operations which have a disturbed area of ten or fewer surface acres at any time in unincorporated areas, or five acres or fewer in incorporated areas.

I. GENERAL INFORMATION (Rule R647-3-104)

- 1. Name of Mine: TRM #1
- 2.A. Name of Entity Applying for a Permit: TABLE ROCK MINERALS LLC
 Contact (Authorized Officer): JOHN SMITH
 Mailing Address: PO BOX 1530
 City, State, Zip: VERNAL, UTAH 84078
 Phone: 435 545-2141 Fax: _____
 E-mail Address: TABLEROCKSMITH@GMAIL.COM

Entity is a: Corporation, LLC, Sole Proprietorship (dba), Individual, Partnership (General, or limited), Other (specify type) _____

Business Entity (not individuals) must be registered (and maintain registration) with the State of Utah, Division of Corporations (DOC) If not currently registered, contact www.commerce.utah.gov to renew or apply.

- 2.B. Are you currently registered to do business in the State of Utah? Yes No
 Business Entity #: 9877796 - 0160
 Local Business License #: _____ (if required)
 Issued by: County: _____ or City: _____

Registered Utah Agent (as identified with the Utah DOC) (if individual leave blank):
Name: CT CORPORATION SYSTEM Title: LETA SINGLETON
Address: 1108 E. SOUTH UNION AVE
City, State, Zip: MIDVALE, UTAH 84047
Phone: _____ Fax: _____
E-mail Address: _____

2.C. Entity's Representative(s) (if different from #2A) authorized and designated to receive notices of violation, cessation orders, and all other notices to be given to the permittee or operator by the Division.

Name: _____ Title: _____
Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
Emergency, Weekend, or Holiday Phone: _____
E-mail Address: _____

Name: _____ Title: _____
Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
Emergency, Weekend, or Holiday Phone: _____
E-mail Address: _____

3. If Business is a Sole Proprietor (dba) or Individual:

Name of Owner: _____ Title: _____
Business Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Corporation:

Name of Officers: _____ Title: _____
Name: _____ Title: _____
Name: _____ Title: _____
Name: _____ Title: _____
Headquarters Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Limited Liability Company: Member Managed () Manager Managed ()

Name of 1st Member/Manager: DICK GILBERT Title: MANAGER
Business Address: 23558 LIDA DR.
City, State, Zip: PELICAN RAPIDS, MN. 56572
Phone: 218 234-9153 Fax: _____
E-mail Address: REC@LRRJ.NET

Name of 2nd Member/Manager: _____ Title: _____
Business Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Partnership:

Names of Partners: _____
Business Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

If Business is a Partnership:

Names of Partners: _____
Business Address: _____
City, State, Zip: _____
Phone: _____ Fax: _____
E-mail Address: _____

5. Ownership of Land Surface:

Private (Fee) () BLM () US Forest Service ()
State Trust Land/School Sections (X) State Sovereign Lands ()

Other (please describe): _____
Name SITLA Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____

6. Ownership of Minerals:

Private (Fee) () BLM () US Forest Service ()
State Trust Land/School Sections (X) State Sovereign Lands ()

Other (please describe): _____
Name SITLA Address _____
Name _____ Address _____
Name _____ Address _____
Name _____ Address _____

BLM Claim Number(s): _____

Utah State Lease Number(s): ML 52139 OBA

BLM/USFS Lease or Project File Number(s): _____

Name of Lessee(s): TABLE ROCK MINERALS

7. Have the above surface and mineral owners been notified in writing? Yes X No _____
If no, why not? _____

8. Does the Entity have legal right to enter and conduct mining operations on the land covered by this notice? Yes X No _____

What is the pre-mining land use, i.e. cropland, grazing, wildlife habitat? MINING / OIL & GAS, GRAZING

What is the postmining land use? OIL & GAS, GRAZING

Please be advised that if State Trust Lands are involved, notification to the Division of Oil, Gas and Mining alone does not satisfy the notification requirements of Mineral Leases upon State Trust Lands. Exploration or mining activity on State Trust Lands requires a minimum of 60 days notice to the Trust Lands Administration prior to commencing any activities. Please contact the School Institutional Trust Lands Administration (SITLA) at (801) 538-5508 for notification requirements.

II. PROJECT LOCATION & MAP (Rule R647-3-105)

1. Project Location & Map (legal description):

County(ies): UINTAH (SEE FIG. 1)

S 1/2, of NW 1/4, of _____ 1/4, Section: 29 Township: 10S Range: 21E

NE 1/4, of SW 1/4, of _____ 1/4, Section: _____ Township: _____ Range: _____

N 1/2 of SE 1/4, of _____ 1/4, Section: _____ Township: _____ Range: _____

UTM East: _____ (if known) UTM North: _____ (if known)

Name of Quad Map for Location: BIG PACK MTN. NE

2. **Is the project within an incorporated area?** () Yes (X) No
If yes, what is the town or city? _____
3. **Location and Operations maps** must be plotted at a scale to accurately identify locational landmarks and operations details. All maps must include a north arrow, scale, appropriate labels, and title box including the mine name, township, range and section.
 - a. The **general location map** must be the scale of a USGS 7.5 minute series map or equivalent (1"=2000') and identify new or existing access roads.
 - b. The **operations map** (1"=200' or other scale as determined necessary by the Division) must be labeled and identify:
 - i. The area to be disturbed;
 - ii. The location of any existing or proposed operations including access roads, drill holes, trenches, pits, shafts, cuts, or other planned activities; and
 - iii. Any adjacent previous disturbance for which the operator is not responsible.(Contact the Division for a list of consultants and land surveyors for mapping assistance.)
4. The proposed (5 acre or less) disturbed area (including access/haul roads) should be marked ON THE GROUND with metal T-Posts (or with some other marker of equal effectiveness). Markers should be appropriately spaced so that the next marker in either direction is clearly visible with the naked eye.

III. **OPERATION PLAN** (Rule R647-3-106)

1. **Type of mining:** Surface () Underground (X)
2. **Mineral(s) to be mined:** GILSONITE
3. **Amount of material to be extracted, moved, or proposed to be moved:** 10,000 TONS PER YEAR
4. Will any water, liquid chemicals, reagents, or other solutions be used, produced or discharged as part of the mining or milling process? Yes () No (X) If yes, please describe (add extra pages if needed): THERE IS THE POTENTIAL FOR GROUND WATER DISCHARGE LATER IN THE MINE LIFE.
5. Provide a brief description of the proposed mining operation, and onsite processing facilities (add extra pages if necessary). SEE ATTACHMENT #1 AND FIG. 2+3
6. (X) **New Road(s):** Length 900 (ft), Width 14 (ft)
7. () **Improved Road(s):** Describe improvements that need to be made to existing roads to access the site, including the Length _____ (ft) and Width _____ (ft) of new disturbances.
8. Total project surface acreage to be disturbed: 2.36 (acres) PLEASE SPECIFY EXACT ACREAGE (this will be used to determine surety bond amount - see #VI).
9. Proposed startup date (month, year): JUNE 2017
10. Proposed completion, if known (month, year): UNKNOWN

IV. OPERATION AND RECLAMATION PRACTICES (Rule R647-3-107, 108 & 109)

The reclamation and operation obligation is to keep the area clean and safe, minimize hazards to public safety, return the land to a useful condition, and reestablish at least 70 percent of the premining vegetative ground cover or within practical limits. To accomplish this, the Permittee / Operator will need to perform reclamation concurrently, or at the completion (within one (1) year) of mining. Please refer to The Practical Guide to Reclamation in Utah, available at:

https://fs.ogm.utah.gov/pub/MINES/Coal_Related/RecMan/Reclamation_Manual.pdf.

1. *Keep the mining operation in a safe, clean, and environmentally stable condition.*
2. *Permanently seal all shafts and tunnels to prevent unauthorized or accidental entry.*
3. *Plug drill holes with a five foot cement surface plug. Holes that encounter fluids are to be plugged in the subsurface to prevent aquifer contamination.*
4. *Construct berms, fences, or barriers, when needed, above highwalls and excavations.*
5. *Remove, isolate, or neutralize all toxic materials in a manner compatible with federal and state regulations.*
6. *Remove all waste or debris from stream channels.*
7. *Dispose of any trash, scrap metal, wood, machinery, and buildings.*
8. *Conduct mining activities so as to minimize erosion and control sediment.*
9. *Reclaim all roads that are not part of a permanent transportation system.*
10. *Stockpile topsoil and suitable overburden prior to mining.*
11. *Stabilize highwalls by backfilling or rounding to 45 degrees or less, where feasible; reshape the land to near its original contour, and redistribute the topsoil and suitable overburden.*
12. *Properly prepare seedbed to a depth of six inches by pocking, ripping, discing, or harrowing. Leave the surface rough.*
13. *Reseed disturbed areas with adaptable species. (The Division recommends a mixture of species of grass, forb, and browse seed, and will provide a specific species list if requested.)*
14. *Plant the seed with a rangeland or farm drill, or broadcast the seed. Fall is the preferred time to seed.*

V. VARIANCE REQUEST (Rule R647-3-110)

Any variance must be approved writing *in advance* by the Division

Any planned deviations from Rules R647-3-107, Operation Practices, R647-3-108, Hole Plugging Requirements, or R647-3-109, Reclamation Practices, as summarized above (see IV. Operation and Reclamation Practices Item # 1-14), should be identified below listing applicable rule number. Give justification for the variance(s) and alternate methods or measures to be utilized to meet the intent of the rule. Written approval from the Division will be given, if the proposed alternative methods to be used are consistent with the Act

Are variances being requested? Yes () No ()

Variance Requested

Item # Applicable Rule

Justification: _____

Alternate methods or measure to be utilized: _____

Attach additional page(s) if more variances are requested.

VI. SURETY (Utah Code Ann. §40-8-7(1)(c))

A reclamation contract and surety must be provided to and approved by the Division prior to commencement of operations. No surface disturbance is authorized until the surety is posted and approved in writing. The surety may be provided in the form of a certificate of deposit, a letter of credit, a surety bond, or cash. Please contact the Division for further information about submitting the surety. All mining operations are required to furnish and maintain reclamation surety to guarantee that the land affected is reclaimed (Utah Code Ann. §40-8-7(1)(c)).

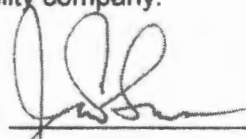
The reclamation surety amount is based on the nature, extent and duration of operations. The amounts are based on data from current large mine surety and are used as a general guide, along with actual site conditions. Reclamation surety for small mines is reviewed every three (3) or five (5) years and adjusted as necessary for inflation/deflation based upon acceptable Costs Index. **Contact the Division for the dollar amount required for a three (3) or five (5) year period for this project.**

VII. SIGNATURE REQUIREMENT

CERTIFICATION

I state under penalty of perjury under the laws of the state of Utah and the United States of America that:

- a. I have read this form and declare the information, statements and/or documentation are true, correct and complete to the best of my knowledge and belief; AND
- b. I commit to the reclamation of the aforementioned small mining project as required by the Utah Mined Land Reclamation Act (40-8) and the rules as specified by the Board of Oil, Gas and Mining.
- c. **This certification must be signed by:** (1.) an executive officer if the applicant is a corporation; (2.) a partner if applicant is a partnership (general or limited); (3.) the owner if applicant is a sole proprietorship; or (4.) the member or manager if applicant is a limited liability company.

Signature:  Date: 6/9/17
Name (typed or printed): JOHN SMITH
Title/Position (if applicable): GENERAL MANAGER

ATTACHMENT #1
TABLE ROCK MINERALS
(TRM #1)

SMALL MINE PLAN FOR SITLA GILSONITE LEASE ML 52139 OBA
DATED: JUNE 9, 2017

- 1) LOCATION: UINTAH COUNTY, UTAH (FIG.1)
TOWNSHIP 10 SOUTH, RANGE 21 EAST, SECTION 29 SLBM
(S2NW4, NE4SW4, N2SE4)

- 2) GENERAL LEASE DESCRIPTION:

THE GILSONITE VEIN LOCATED ON THIS LEASE IS COMMONLY KNOWN AS THE "COTTONWOOD VEIN". THIS LEASE AREA HAS BEEN THE SUBJECT OF EXTENSIVE PRIOR GILSONITE MINING ACTIVITY, AND CURRENT ENERGY DEVELOPMENT. INDUSTRIAL ACTIVITY ON AND AROUND THE LEASE INCLUDES ROADS, PIPELINES, OIL AND GAS WELLS, GAS PROCESSING PLANTS AND GILSONITE MINES.

THE SURFACE AND MINERAL ESTATE ARE OWNED BY SITLA AND LEASED TO TABLE ROCK MINERALS. ACCESS TO THE LEASE WILL BE BY UINTAH COUNTY CLASS D ROAD. THE MINERAL TO BE MINED IS GILSONITE, AND WILL BE PRODUCED AT A RATE OF UP TO 10,000 TONS PER YEAR.

- 3) OPERATIONS DESCRIPTION:

FULL LEASE DEVELOPMENT COULD CONSIST OF MULTIPLE MINE SITES SPACED AT APPROXIMATELY 1000 FOOT INTERVALS ALONG THE VEIN. AS A MINE BECOMES DEPLETED A NEW MINE IS CONSTRUCTED AND THE OLD MINE IS RECLAIMED. THIS APPLICATION IS FOR TWO (2) MINE SITES WITH THEIR ASSOCIATED ESCAPEWAYS.

EACH MINE SITE WILL HAVE A SURFACE PAD APPROXIMATELY 220'X180' IN SIZE, WHICH WILL CONTAIN THE SURFACE SUPPORT FACILITIES FOR THE UNDERGROUND OPERATIONS. THE SURFACE SUPPORT FACILITIES CONSIST OF A HOIST BUILDING, A GENERATOR/MOTOR CONTROL BUILDING, THE SHAFT COLLAR/HEADFRAME, AND THE ORE STORAGE SILOS WITH ASSOCIATED SUCTION FANS.

THE HOIST BUILDING IS APPROXIMATELY 25'X25' AND WILL CONTAIN THE HOISTING EQUIPMENT FOR HOISTING MEN AND MATERIALS INTO THE MINE.

THE GENERATOR/MOTOR CONTROL BUILDING IS APPROXIMATELY 20'X20' AND WILL CONTAIN THE GENERATOR, AIR COMPRESSOR AND ELECTRICAL CONTROLS.

THE SHAFT COLLAR IS OF REINFORCED CONCRETE CONSTRUCTION (5'X20') AND WILL SUPPORT THE SHAFT OPENING AND THE HEADFRAME.

THE ORE STORAGE SILOS (2 EACH) WILL BE OF 40 TON CAPACITY. EACH SILO IS EQUIPPED WITH FILTER RECEIVERS AND SUCTION FANS FOR THE PNEUMATIC CONVEYING SYSTEM WHICH LIFTS THE ORE FROM UNDERGROUND AND DEPOSITS IT IN THE SILO. ALL ORE IS TRANSPORTED OFFSITE.

TWO ESCAPEWAYS ARE REQUIRED FOR EACH MINE. THE ESCAPEWAY DISTURBANCE WILL BE APPROXIMATELY 25'X110', AND WILL CONSIST OF A SMALL SHAFT COLLAR AND ESCAPE HOIST.

THE MINE ACCESS ROADS WILL TOTAL APPROXIMATELY 900 FEET LONG BY 14 FEET WIDE.

AS THE MINE PADS AND ACCESS ROADS ARE DEVELOPED, TOPSOIL WILL BE REMOVED, STOCKPILED AND SEEDED TO PRESERVE IT FOR RECLAMATION.

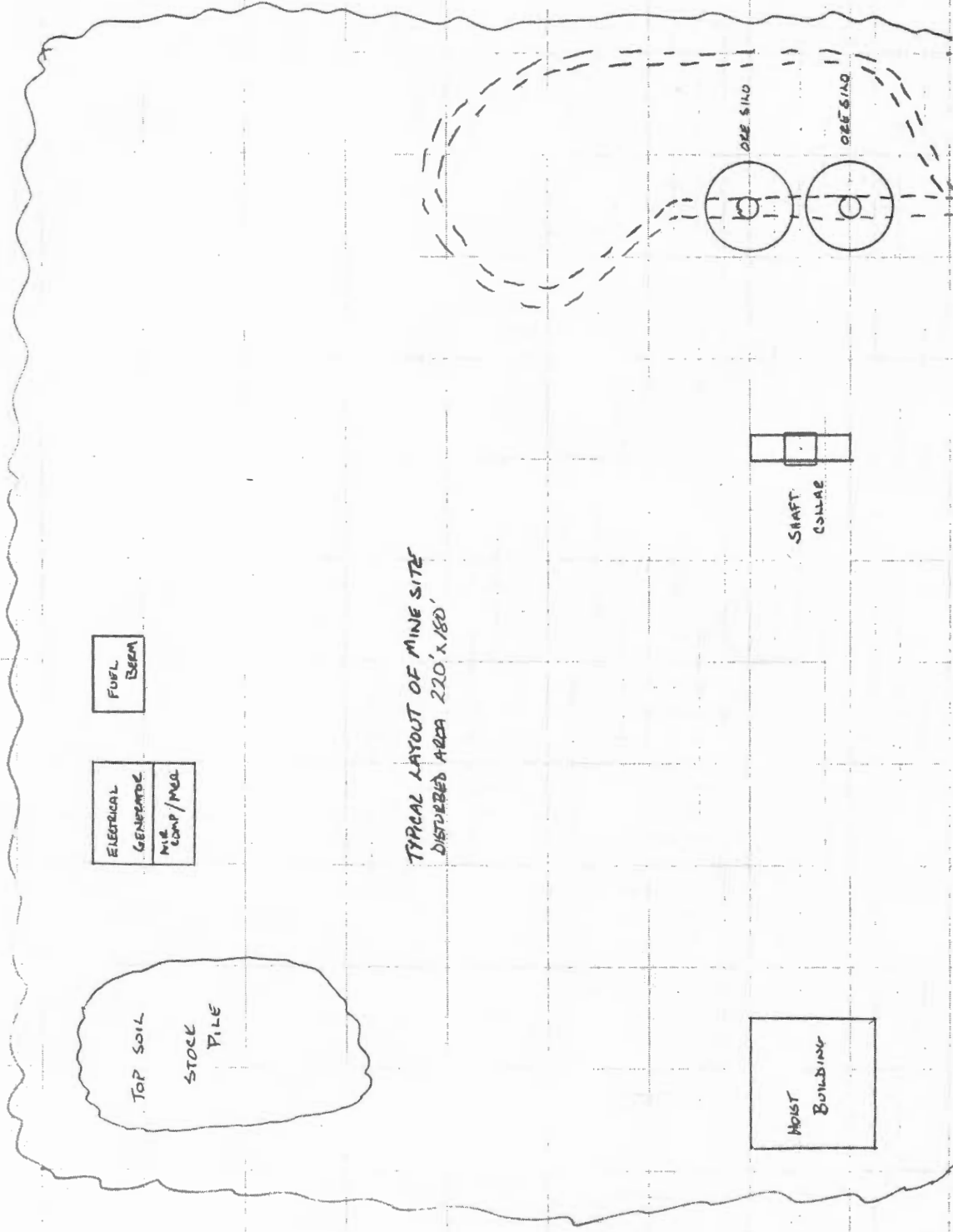
TOTAL PROJECT DISTURBANCE FOR TWO MINE SITES, FOUR ESCAPEWAYS, AND NINE HUNDRED FEET OF ACCESS ROAD IS 2.36 ACRES.

ATTACHMENT #2
CULTURAL RESOURCES

THE CULTURAL RESOURCES DEPARTMENT AT SITLA HAVE ADVISED THAT NO SIGNIFICANT CULTURAL SITES OCCUR WITHIN THE PROPOSED DISTURBANCE BOUNDARY.

THIS IS THE SAME AREA PREVIOUSLY CLEARED FOR OUR EXPLORATION PROJECT EXP-217.

PLEASE CONTACT MR. JERRY MANSFIELD, SITLA RESOURCE SPECIALIST AT (801) 538-5153 FOR CONFIRMATION OF CULTURAL RELEASE.



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FIG. 3

TYPICAL LAYOUT OF MINE

SCALE 1"=20'

TABLE ROCK MINERALS

ML 52139 OBA

TYPICAL LAYOUT OF MINE SITE
DISTURBED AREA 220' x 180'

FUEL
BERM

ELECTRICAL
GENERATOR
MISC
COMP/MGR

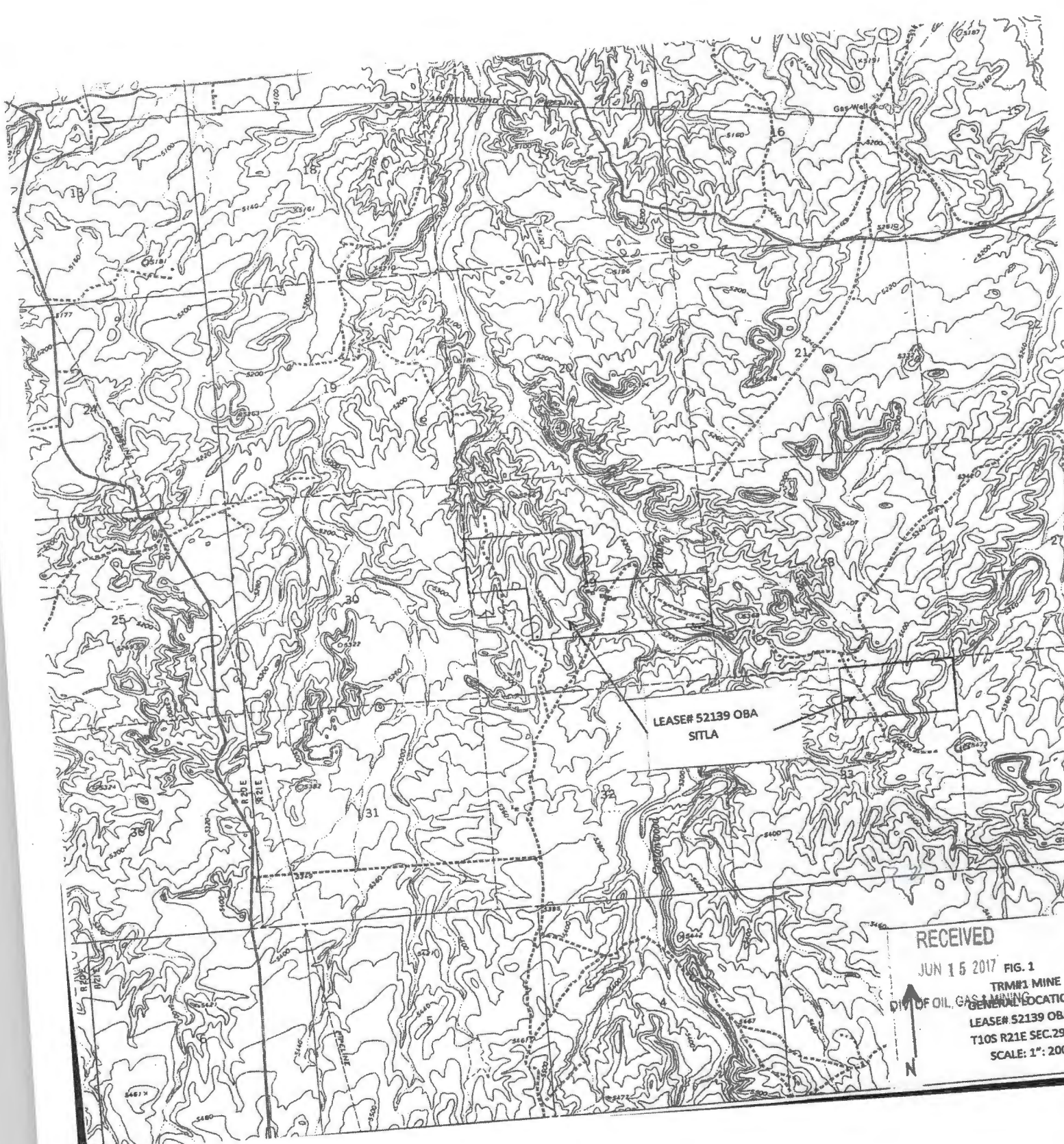
TOP SOIL
STOCK
PILE

HOIST
BUILDING

SHAFT
COLLAR

ORE SILO

ORE SILO



LEASE# 52139 OBA
SITLA

RECEIVED

JUN 15 2017 FIG. 1

DIV OF OIL, GAS & MINING

TRM#1 MINE

GENERAL LOCATION M

LEASE# 52139 OBA SIT

T10S R21E SEC.29 SLB

SCALE: 1" = 2000'



Schwartz, Colin

From: Clark, Eric <eric.clark@stantec.com>
Sent: Wednesday, July 12, 2017 4:49 PM
To: Schwartz, Colin
Subject: ESA/Environmental Justice Needs

Colin –

I received the following email that you sent regarding Table Rock, LLC. Is it appropriate for us to reference various Recovery Plans found on the Fish and Wildlife site and indicate that we will abide, by the various plans currently in operation? Also, regarding the NHPA sites, is it sufficient to state that the areas affected by the project will not interfere with any historic sites. We will look into previous determinations as well. Thank you.

John Smith,

I am assisting with your application for new Minor New Source Gilsonite Mine construction in Uintah County, Utah on the Uintah and Ouray Reservation. We are in the process of making the determinations for Environmental Justice, National Historic Preservation Act, and the Endangered Species Act (ESA). At this time, it would be helpful if you could provide any extra information other than what you (and Stantec) supplied for the ESA portion of the application. This may include any endangered species effects mitigation procedures you plan to use, or any biological assessments of the facility location.

Satellite views of the project site show an area that already has been graded for a pad. If previous determinations of the area have been made for a past project, and paperwork regarding ESA concerns or negligible effects are also helpful.

Thank you,

Colin C. Schwartz
Environmental Scientist
Air Permits Division
US EPA Region 8- Denver, CO
303-312-6043

Eric Clark P.E.
Project Engineer
727 East Riverpark Lane, Suite 150
Boise, Idaho 83706
Ph: (208) 853-0883 x 102
Cell: (208) 861-7182
Eric.clark@stantec.com

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Smith, Claudia

From: Clark, Eric <eric.clark@stantec.com>
Sent: Friday, June 30, 2017 11:33 AM
To: Smith, Claudia
Subject: Re: Table Rock Minerals, LLC - New Minor NSR Permit Application

Claudia -

Regarding your questions, here is the response. Hopefully, this answers everything. If not please let me know.

The lease (ML52139) consists of a total of 280 acres. The 280 acres consists of a 200 acre block and an 80 acre block that is not contiguous. Mining will commence on the 200 acre block and when it is depleted, operations would relocate to the 80 acre block.

An individual gilsonite mine shaft can only access approximately 1000 feet of ore along the vein. Depending on how wide the vein is and how deep it goes, it will take five or so years to deplete that 1000 feet of ore. Once the ore is depleted, the mine equipment is disassembled and relocated 1000 feet over along the vein and mining continues for an additional five years. This process would be repeated until all available ore on the 200 acre block was depleted, and then move over to the 80 acre block.

Eric

From: Smith, Claudia <Smith.Claudia@epa.gov>
Sent: Friday, June 30, 2017 10:38:12 AM
To: Clark, Eric
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Eric,

I am close to finishing drafting the permit, and am hoping you can clarify something for me. The application states that the mine will encompass two leased areas. It also states that the mine life would be approximately 5 years and would then be moved to a new location along the vein within the lease.

It is unclear how the two leased areas will operate. Will the mine and surface equipment begin at one of the leased areas and when that area is completely mined, the mine and surface equipment be moved to the second lease area? Would this all occur within the stated 5 years, and the "new location along the vein within the lease" refers to a completely different location from the two lease areas discussed in the application that all of the equipment would eventually moved to and be covered by a new permit?

Thank you for the clarification,

Claudia

From: Clark, Eric [mailto:eric.clark@stantec.com]
Sent: Thursday, May 11, 2017 11:02 AM
To: Smith, Claudia <Smith.Claudia@epa.gov>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Claudia –

Yes and Yes.

Eric Clark, P.E.
Eric.clark@stantec.com

From: Smith, Claudia [<mailto:Smith.Claudia@epa.gov>]
Sent: Thursday, May 11, 2017 10:53 AM
To: Clark, Eric <eric.clark@stantec.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Eric,

That is very helpful, thank you. I had a couple more questions. For the generator engine, is 824 hp the maximum at any given time the engine is operating at 100% load? Will it be a newer engine that commenced construction on or after June 12, 2006?

Thanks,

Claudia

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Wednesday, May 10, 2017 5:30 PM
To: Smith, Claudia <Smith.Claudia@epa.gov>
Subject: FW: Table Rock Minerals, LLC - New Minor NSR Permit Application

Claudia –

See below for further description.

These are not conveyors in the context of "conveyor belts". This is a closed system consisting of a suction fan pulling on the dust collector through a pipe system that then pulls on additional piping. It is known as a 'pneumatic conveyor' and it moves material through the piping by the velocity of the air moving through the pipe. It only works because it is a closed system, as any leaks in the system reduce the velocity. Note that any leaks pull fresh air into the system rather than leaking out, since it is under negative pressure.

Eric Clark, P.E.
Eric.clark@stantec.com

From: Jim Lekas [<mailto:lekasj@stratanet.com>]
Sent: Wednesday, May 10, 2017 5:27 PM
To: Clark, Eric <eric.clark@stantec.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Hi Eric

These are not conveyors in the context of "conveyor belts". This is a closed system consisting of a suction fan pulling on the dust collector through a pipe system that then pulls on additional piping. It is known as a 'pneumatic conveyor' and it moves material through the piping by the velocity of the air moving through the pipe. It only works because it is a closed system, as any leaks in the system reduce the velocity. Note that any leaks pull fresh air into the system rather than leaking out, since it is under negative pressure.

Thanks
Jim

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Wednesday, May 10, 2017 10:34 AM
To: Jim Lekas
Subject: FW: Table Rock Minerals, LLC - New Minor NSR Permit Application

Do you have any further documentation or description that we can provide Claudia?

Eric Clark, P.E.
Eric.clark@stantec.com

From: Smith, Claudia [<mailto:Smith.Claudia@epa.gov>]
Sent: Wednesday, May 10, 2017 10:19 AM
To: Clark, Eric <eric.clark@stantec.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Thank you Eric. Also, can you confirm that the conveyors are also enclosed and that is how the air stream is captured and routed to the filter/receiver? If there is a more detailed description of these systems available, that would be great.

Thanks,

Claudia

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Tuesday, May 09, 2017 6:45 PM
To: Smith, Claudia <Smith.Claudia@epa.gov>
Subject: Fwd: Table Rock Minerals, LLC - New Minor NSR Permit Application

Claudia -

Please see Jim's response to your questions earlier today. Thank you

Eric Clark

Sent via iPhone. I apologize for any typographical errors.

From: Jim Lekas <lekasj@stratanet.com>
Sent: Tuesday, May 9, 2017 6:43:20 PM
To: Clark, Eric
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Hi Eric
Yes the silos discharge through enclosed load chutes into enclosed haul trucks.
Thanks
Jim

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Tuesday, May 09, 2017 2:54 PM
To: Jim Lekas
Subject: FW: Table Rock Minerals, LLC - New Minor NSR Permit Application

Jim -

I think the answer to Claudia's questions are yes, but I want to clarify with you. Thanks

Eric Clark, P.E.
Eric.clark@stantec.com

From: Smith, Claudia [<mailto:Smith.Claudia@epa.gov>]
Sent: Tuesday, May 09, 2017 2:52 PM
To: Clark, Eric <eric.clark@stantec.com>
Cc: Jim Lekas <lekasj@stratanet.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Eric,

Is the gilsonite stored in the silos loaded to the haul trucks via a closed system? Is the loaded gilsonite in the haul trucks covered during hauling on the on-site haul road?

Thanks,

Claudia

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Friday, May 05, 2017 3:00 PM
To: Smith, Claudia <Smith.Claudia@epa.gov>
Cc: Jim Lekas <lekasj@stratanet.com>; bpargeets@utetribe.com; minnieg@utetribe.com; R8AirPermitting <R8AirPermitting@epa.gov>; Heiser, Dan <dan.heiser@stantec.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Claudia –

Per our conversation earlier this week, I believe we have answered your questions in the email below. Please see the attached memorandum and associated supporting documentation. Please let me know if you have any further questions. Thanks

Eric Clark, P.E.
Eric.clark@stantec.com

From: Smith, Claudia [<mailto:Smith.Claudia@epa.gov>]
Sent: Monday, May 01, 2017 11:54 AM
To: Clark, Eric <eric.clark@stantec.com>
Cc: Jim Lekas <lekasj@stratanet.com>; bpargeets@utetribe.com; minnieg@utetribe.com; R8AirPermitting <R8AirPermitting@epa.gov>; Heiser, Dan <dan.heiser@stantec.com>
Subject: RE: Table Rock Minerals, LLC - New Minor NSR Permit Application

Mr. Clark and Mr. Lekas,

I did a cursory review of the application and noted some deficiencies that prevent me from deeming the application complete. Please provide the following information:

1. **Air Quality Review:** The application instructions specify that the applicant should provide a narrative description of the current air quality conditions and the expected impact the permitted source would have on the air quality. The qualitative narrative provided does not discuss current air quality or the expected impact the permitted source would have on the air quality. The narrative only discusses the meteorology, terrain, elevation, distance to ambient air, and engine stack height, operating temperature and flow rate.

2. **Proposed Monitoring:** It is not clear how the applicant proposes to monitor the hours of operation, throughput limits, filter efficiency, etc. that would be required to meet the proposed allowable emissions in the application.

Thank you,

Claudia

Claudia Young Smith
Environmental Scientist
Air Program, Mail Code 8P-AR
US Environmental Protection Agency Region 8
1595 Wynkoop Street
Denver, Colorado 80202

Phone: (303) 312-6520

Fax: (303) 312-6064

<http://www.epa.gov/caa-permitting/caa-permitting-epas-mountains-and-plains-region>

From: Clark, Eric [<mailto:eric.clark@stantec.com>]
Sent: Monday, May 01, 2017 9:46 AM
To: Smith, Claudia <Smith.Claudia@epa.gov>
Cc: Jim Lekas <lekasj@stratanet.com>; bpargeets@utetribe.com; minnieg@utetribe.com; R8AirPermitting <R8AirPermitting@epa.gov>; Heiser, Dan <dan.heiser@stantec.com>
Subject: Table Rock Minerals, LLC - New Minor NSR Permit Application

Ms. Smith –

Stantec Consulting is submitting a new Minor NSR Permit Application on behalf of Table Rock Minerals, LLC. Please see the attached files in support of the application. If you have any questions please do not hesitate to contact me or Mr. Lekas. He can be reached at 435-545-2141 or at lekasj@stratanet.com. Thank you.

Eric Clark, P.E.

Project Engineer
727 East Riverpark Lane, Suite 150
Boise, Idaho 83706
Ph: (208) 853-0883 x 102
Cell: (208) 861-7182
Eric.clark@stantec.com

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To:	Claudia Smith 1595 Wynkoop Street Denver, CO 80202	From:	Eric Clark 727 East Riverpark Lane, Suite 150 Boise, Idaho 83706
File:	203720156	Date:	May 3, 2017

Reference: Air Quality Review and Monitoring Update to NSR Minor Source Permit

Ms. Smith:

Table Rock Minerals, LLC and Stantec received an email correspondence on May 1st, 2017 with some additional information needed to complete review of the application submitted that same day. The questions and subsequent responses are provided below.

Air Quality Review: The application instructions specify that the applicant should provide a narrative description of the current air quality conditions and the expected impact the permitted source would have on the air quality. The qualitative narrative provided does not discuss current air quality or the expected impact the permitted source would have on the air quality. The narrative only discusses the meteorology, terrain, elevation, distance to ambient air, and engine stack height, operating temperature, and flow rate.

As stated in the application, the location of the proposed site is in the northeastern portion of Utah near the towns of Vernal and Roosevelt. The proposed site is approximately 35 southeast of Roosevelt and 35 south of Vernal. The state of Utah operates ozone, PM_{2.5} and NO₂ monitors near both towns. The following table provides the applicable National Ambient Air Quality Standards (NAAQS).

Reference: Air Quality Review and Monitoring Update to NSR Minor Source Permit

Table 1 – National Ambient Air Quality Standards

Pollutant	Averaging Period	Standard	Units
Nitrogen dioxide (NO ₂)	1 hour ^a	100	ppb
	Annual ^b	53	ppb
Carbon monoxide (CO)	1 hour ^c	35	ppm
	8 hours ^c	9	ppm
Sulfur dioxide (SO ₂)	1 hour ^d	75	ppb
	3 hours ^c	0.5	ppm
Particulate matter up to 10 micrometers in size (PM ₁₀)	24 hours ^e	150	µg/m ³
Particulate matter up to 2.5 micrometers in size (PM _{2.5})	24 hours ^f	35	µg/m ³
	Annual ^b	12	µg/m ³
Ozone (O ₃)	8 hours ^g	0.070	ppm
Lead (Pb)	3 months ^h	0.15	µg/m ³

Source: Title 40 of Code of Federal Regulations, Part 50

Notes: NAAQS = National Ambient Air Quality Standards, ppb = parts per billion, ppm = parts per million,

µg/m³ = micrograms per cubic meter

^a The 1-hour NO₂ standard is met when the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentration is less than or equal to 100 ppb.

^b Annual arithmetic mean

^c Maximum concentration not to be exceeded more than once per year

^d The 1-hour SO₂ standard is met when the 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentration is less than or equal to 75 ppb.

^e The 24-hour average PM₁₀ standard is attained when the expected number of exceedances per year is less than or equal to one.

^f The 24-hour average PM_{2.5} standard is attained when the average of the annual 98th percentile concentrations over a 3-year period is less than or equal to 35 µg/m³.

^g The O₃ standard is attained when 3-year average of the calendar year fourth-highest daily maximum 8-hour average O₃ concentration measured at each monitor within an area does not exceed 0.070 ppm (2015 O₃ NAAQS). Note that current attainment/nonattainment status in the study area is designated with respect to the prior (2008) O₃ NAAQS. Designations with respect to the 2015 O₃ NAAQS have not yet been established.

^h Maximum arithmetic mean averaged over a 3-month period.

Reference: Air Quality Review and Monitoring Update to NSR Minor Source Permit

Data from 2014-2016 was gathered via the Utah Department of Air Quality (UDAQ) monitoring website¹, where appropriate. Ozone and nitrous oxides data was obtained for all three years at each site. PM_{2.5} data was also available at the Roosevelt site, but the Vernal site was not installed until 2015. Table 2 provides information pertaining to the two sites.

Table 2 – Site & Monitoring Information

Site	Address	County	UTM Easting (m)	UTM Northing (m)	Elevation (m)
Roosevelt	290 S. 1000 West Roosevelt, UT	Duchesne	584230	4460894	1587
Vernal	628 N. 1700 West Vernal, UT	Uintah	622012	4480333	1668

As described in Table 1 footnotes all three pollutants have specific design values. PM_{2.5} 24-hr compares the 98th percentile to the NAAQS as does the 1-hr NO₂ standard. The design value for the 8-hr standard is the 4th high over a three-year average (2014-2016 in the case of this evaluation). The following table illustrates that all three standards are met for both sites. It should also be noted that the Vernal and Roosevelt sites have an ozone 4th high allowable of 84 ppb and 88 ppb, respectively.

Table 3 – NAAQS Comparison

Site	Pollutant	Avg. Per	Design Value		2016	2015	2014	Standard	units
			8th-high	98th perc					
Vernal	PM _{2.5}	24-hr	8th-high	98th perc	24.9	18.9		35	µg/m ³
	NO _x	1-hr	8th-high	98th perc	25	28	54	100	ppb
	Ozone	8-hr	4th-high	3yr avg (14-16)	66			70	ppb

Site	Pollutant	Avg. Per	Design Value		2016	2015	2014	Standard	units
			8th-high	98th perc					
Roosevelt	PM _{2.5}	24-hr	8th-high	98th perc	23.4	21.2		35	µg/m ³
	NO _x	1-hr	8th-high	98th perc	28.5	31.6	34.3	100	ppb
	Ozone	8-hr	4th-high	3yr avg (14-16)	67			70	ppb

There are no active PM₁₀ monitors in the near vicinity of the proposed site. Therefore, all state locations were evaluated for 2014-2016. The maximum 1st high values for each year was 106 µg/m³ during 2016, 256 µg/m³ during 2015 (1 day over the standard in Salt Lake City) and 115 µg/m³ during 2014. It should also be noted that 2013 at site AQS 49-047-5632, the 24-hr maximum was 38 µg/m³. That site is no longer active, but is in Uintah county near Dragon Road and 145-South. This location is approximately 25 miles east of the proposed site. Based on all the nearby monitors, the current air quality is well within attainment.

It is expected that the because the proposed project has minimal emissions, that all standards would still be met outside of the leased property.

¹<http://www.airmonitoring.utah.gov/>

Reference: Air Quality Review and Monitoring Update to NSR Minor Source Permit

Proposed Monitoring: It is not clear how the applicant proposes to monitor the hours of operation, throughput limits, filter efficiency, etc. that would be required to meet the proposed allowable emissions in the application.

The proposed generator is equipped with a non-resettable hour meter. Therefore, Table Rock Minerals proposes to record meter readings on a weekly basis and on a 12-month rolling basis to ensure compliance with the proposed operating hours annually. It should be noted that the pneumatic conveying hours correlate directly with the generator operating hours. The conveyance system cannot operate without electricity which is provided by the generator.

In addition, appropriate records will be kept identifying all maintenance performed on the generator, conveyance system and dust collectors. The flow rate of the pneumatic conveyance will be maintained at a maximum of 6,600 cfm. Also, the manufacturer has guaranteed a grain loading value of 0.02 gr/scf. Table Rock will maintain the system in a manner to ensure that loading rate is achieved.

Stantec and Table Rock Minerals believes the content of this memorandum answers your questions thoroughly. However, should you have any further inquiries, please let me know. Thank you.

STANTEC CONSULTING SERVICES INC.



Eric Clark, P.E.
Project Engineer
Phone: 208-853-0883
Eric.Clark@stantec.com

Attachment: numerous monitoring site data files

c. dan.heiser@stantec.com; lekasj@stratanet.com

Smith, Claudia

From: Clark, Eric <eric.clark@stantec.com>
Sent: Monday, May 01, 2017 9:46 AM
To: Smith, Claudia
Cc: Jim Lekas; bpargeets@utetribe.com; minnieg@utetribe.com; R8AirPermitting; Heiser, Dan
Subject: Table Rock Minerals, LLC - New Minor NSR Permit Application
Attachments: Final_Table Rock Attachements.pdf; Final_Table Rock EI.xlsx; Filtration Efficiency.pdf; Final_Table RockNEW_form.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Smith –

Stantec Consulting is submitting a new Minor NSR Permit Application on behalf of Table Rock Minerals, LLC. Please see the attached files in support of the application. If you have any questions please do not hesitate to contact me or Mr. Lekas. He can be reached at 435-545-2141 or at lekasj@stratanet.com. Thank you.

Eric Clark, P.E.

Project Engineer
727 East Riverpark Lane, Suite 150
Boise, Idaho 83706
Ph: (208) 853-0883 x 102
Cell: (208) 861-7182
Eric.clark@stantec.com

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FEDERAL MINOR NEW SOURCE REVIEW PROGRAM IN INDIAN
COUNTRY**

40 CFR 49.151

Application for New Construction

(Form NEW)

Please check all that apply to show how you are using this form:

- Proposed Construction of a New Source**
- Proposed Construction of New Equipment at an Existing Source**
- Proposed Modification of an Existing Source**
- Other – Please Explain**

Use of this information request form is voluntary and not yet approved by the Office of Management and Budget.

The following is a check list of the type of information that Region 8 will use to process information on your proposed project. While submittal of this form is not required, it does offer details on the information we will use to complete your requested approval and providing the information requested may help expedite the process. Use of application forms for this program is currently under Office of Management and Budget review and these information request forms will be replaced/updated after that review is completed.

Please submit information to following two entities:

Federal Minor NSR Permit Coordinator
U.S. EPA, Region 8
1595 Wynkoop Street, 8P-AR
Denver, CO 80202-1129
R8airpermitting@epa.gov

For more information, visit:
<http://www.epa.gov/caa-permitting/tribal-nsr-permitting-region-8>

The Tribal Environmental Contact for the specific reservation:

If you need assistance in identifying the appropriate Tribal Environmental Contact and address, please contact:
R8airpermitting@epa.gov

A. GENERAL SOURCE INFORMATION

1. (a) Company Name (Who owns this facility?) Table Rock Minerals, LLC		2. Facility Name Table Rock Minerals, LLC	
(b) Operator Name (Is the company that operates this facility different than the company that owns this facility? What is the name of the company?)			
3. Type of Operation – Gilsonite Mine		4. Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		5. Temporary Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
6. NAICS Code - 212399		7. SIC Code 1499	
8. Physical Address (Or, home base for portable sources) Latitude: 39.916875N; Longitude: 109.567328W			
9. Reservation*	10. County*	11a. Latitude (decimal format)*	11b. Longitude (decimal format)*
Uintah and Ouray	Uintah	39.916875	-109.567328
12a. Quarter Quarter Section*	12b. Section*	12c. Township*	12d. Range*
33 N2NE4; 29 S2NW4, NE4SW4, N2SE4	29 and 33	10S	21E

*Provide all proposed locations of operation for portable sources

B. PREVIOUS PERMIT ACTIONS (Provide information in this format for each permit that has been issued to this source. Provide as an attachment if additional space is necessary)

Facility Name on the Permit – Not Applicable
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

Facility Name on the Permit
Permit Number (xx-xxx-xxxxx-xxxx.xx)
Date of the Permit Action

C. CONTACT INFORMATION

Company Contact (Who is the <u>primary</u> contact for the company that owns this facility?)		Title
John Smith		General Manager
Mailing Address PO Box 1530 Vernal, Utah 84078		
Email Address tablerocksmith@gmail.com		
Telephone Number (435) 790-3344	Facsimile Number N/A	
Operator Contact (Is the company that operates this facility different than the company that owns this facility? Who is the <u>primary</u> contact for the company that operates this facility?) Same as above		Title
Mailing Address		
Email Address		
Telephone Number	Facsimile Number	
Permitting Contact (Who is the person <u>primarily</u> responsible for Clean Air Act permitting for the company? We are seeking one main contact for the company. Please do not list consultants.) Same as above		Title
Mailing Address		
Email Address		
Telephone Number	Facsimile Number	
Compliance Contact (Is the person responsible for Clean Air Act compliance for this company different than the person responsible for Clean Air Act permitting? Who is the person <u>primarily</u> responsible for Clean Air Act compliance for the company? We are seeking one main contact for the company. Please do not list consultants.) Same as above		Title
Mailing Address		
Email Address		
Telephone Number	Facsimile Number	

D. ATTACHMENTS

Include all of the following information (see the attached instructions)

*Please do not send Part 71 Operating Permit Application Forms in lieu of the check list below.

FORM SYNMIN - New Source Review Synthetic Minor Limit Request Form, if synthetic minor limits are being requested.

Narrative description of the proposed production processes. This description should follow the flow of the process flow diagram to be submitted with this application.

Process flow chart identifying all proposed processing, combustion, handling, storage, and emission control equipment.

A list and descriptions of all proposed emission units and air pollution-generating activities.

Type and quantity of fuels, including sulfur content of fuels, proposed to be used on a daily, annual and maximum hourly basis.

Type and quantity of raw materials used or final product produced proposed to be used on a daily, annual and maximum hourly basis.

Proposed operating schedule, including number of hours per day, number of days per week and number of weeks per year.

A list and description of all proposed emission controls, control efficiencies, emission limits, and monitoring for each emission unit and air pollution generating activity.

Criteria Pollutant Emissions - Estimates of Current Actual Emissions, Current Allowable Emissions, Post-Change Uncontrolled Emissions, and Post-Change Allowable Emissions for the following air pollutants: particulate matter, PM₁₀, PM_{2.5}, sulfur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compound (VOC), lead (Pb) and lead compounds, fluorides (gaseous and particulate), sulfuric acid mist (H₂SO₄), hydrogen sulfide (H₂S), total reduced sulfur (TRS) and reduced sulfur compounds, including all calculations for the estimates.

These estimates are to be made for each emission unit, emission generating activity, and the project/source in total. Note, there are no insignificant emission units or activities in this permitting program, only exempted units and activities. Please see the regulation for a list of exempted units and activities.

Air Quality Review

ESA (Endangered Species Act)

NHPA (National Historic Preservation Act)

E. TABLE OF ESTIMATED EMISSIONS

The following tables provide the total emissions in tons/year for all pollutants from the calculations required in Section D of this form, as appropriate for the use specified at the top of the form.

E(i) – Proposed New Source

Pollutant	Potential Emissions (lb/hr)	Potential Emissions (tpy) ¹	Proposed Allowable Emissions (tpy) ¹	
PM ²	2.60	6.08	1.46	PM - Particulate Matter PM ₁₀ - Particulate Matter less than 10 microns in size PM _{2.5} - Particulate Matter less than 2.5 microns in size SO ₂ - Sulfur Oxides NO _x - Nitrogen Oxides CO - Carbon Monoxide VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates H ₂ SO ₄ - Sulfuric Acid Mist H ₂ S - Hydrogen Sulfide TRS - Total Reduced Sulfur RSC - Reduced Sulfur Compounds CO ₂ - Carbon Dioxide CH ₄ - Methane N ₂ O - Nitrous Oxide MT - Metric Tons ¹ CO ₂ , CH ₄ , N ₂ O listed in metric tons of CO ₂ equivalent ² PM, PM ₁₀ , and PM _{2.5} assumed equivalent
PM ₁₀ ²	2.60	6.08	1.46	
PM _{2.5} ²	2.60	6.08	1.46	
SO ₂	1.51	6.62	1.57	
NO _x	11.4	49.9	11.9	
CO	0.26	1.14	0.27	
VOC	0.07	0.31	0.07	
Pb	0	0	0	
Fluorides	0	0	0	
H ₂ SO ₄	0	0	0	
H ₂ S	0	0	0	
TRS	0	0	0	
RSC	0	0	0	
CO ₂	911.1	3620	860	
CH ₄	0.03	3.27	0.78	
N ₂ O	0.007	7.80	1.85	

Emissions calculations must include fugitive emissions if the source is one the following listed sources, pursuant to CAA Section 302(j):

- (a) Coal cleaning plants (with thermal dryers);
- (b) Kraft pulp mills;
- (c) Portland cement plants;
- (d) Primary zinc smelters;
- (e) Iron and steel mills;
- (f) Primary aluminum ore reduction plants;
- (g) Primary copper smelters;
- (h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
- (i) Hydrofluoric, sulfuric, or nitric acid plants;
- (j) Petroleum refineries;
- (k) Lime plants;
- (l) Phosphate rock processing plants;
- (m) Coke oven batteries;
- (n) Sulfur recovery plants;
- (o) Carbon black plants (furnace process);
- (p) Primary lead smelters;
- (q) Fuel conversion plants;
- (r) Sintering plants;
- (s) Secondary metal production plants;
- (t) Chemical process plants
- (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
- (v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- (w) Taconite ore processing plants;
- (x) Glass fiber processing plants;
- (y) Charcoal production plants;
- (z) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, and
- (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

E(ii) – Proposed New Construction at an Existing Source or Modification of an Existing Source

Pollutant	Current Actual Emissions (tpy)	Current Allowable Emissions (tpy)	Post-Change Potential Emissions (tpy)	Post-Change Allowable Emissions (tpy)
PM				
PM₁₀				
PM_{2.5}				
SO₂				
NO_x				
CO				
VOC				
Pb				
Fluorides				
H₂SO₄				
H₂S				
TRS				
RSC				

- PM - Particulate Matter
- PM₁₀ - Particulate Matter less than 10 microns in size
- PM_{2.5} - Particulate Matter less than 2.5 microns in size
- SO₂ - Sulfur Oxides
- NO_x - Nitrogen Oxides
- CO - Carbon Monoxide
- VOC - Volatile Organic Compound
- Pb - Lead and lead compounds
- Fluorides - Gaseous and particulates
- H₂SO₄ - Sulfuric Acid Mist
- H₂S - Hydrogen Sulfide
- TRS - Total Reduced Sulfur
- RSC - Reduced Sulfur Compounds

The public reporting and recordkeeping burden for this collection of information is estimated to average 20 hours per response, unless a modeling analysis is required. If a modeling analysis is required, the public reporting and recordkeeping burden for this collection of information is estimated to average 60 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions

(Please do not include a copy of these instructions in the application you submit to us.)

Use of This Form

- Proposed new construction or modifications should first be evaluated to determine if the change is major under the major NSR program using the procedures at 40 CFR 52.21 (i.e., baseline actual to projected actual applicability test). If the proposed construction does not qualify as a major under that test, then it may be subject to the requirements of the minor NSR rule at 40 CFR 49.151.

Helpful Definitions from the Federal Minor NSR Rule (40 CFR 49) – This is not a comprehensive list.

- 40 CFR 49.152(d) - Modification* means any physical or operational change at a source that would cause an increase in the allowable emissions of the affected emissions units for any regulated NSR pollutant or that would cause the emission of any regulated NSR pollutant not previously emitted.

The following exemptions apply:

- A physical or operational change does not include routine maintenance, repair, or replacement.
 - An increase in the hours of operation or in the production rate is not considered an operational change unless such increase is prohibited under any federally-enforceable permit condition or other permit condition that is enforceable as a practical matter.
 - A change in ownership at a source is not considered a modification.
- 40 CFR 49.152(d) - Allowable emissions* means “allowable emissions” as defined in §52.21(b)(16), except that the allowable emissions for any emissions unit are calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit’s potential to emit.
 - 52.21(b)(16) - Allowable emissions* means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
 - The applicable standards as set forth in 40 CFR parts 60 and 61;
 - The applicable State Implementation Plan emissions limitation, including those with a future compliance date; or
 - The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.

A. General Facility Information

1. Company Name & Operator Name (if the operator of the facility is different than the owner, please provide this information): Provide the complete company and operator names. For corporations, include divisions or subsidiary names, if any.
2. Facility Name: Provide the facility name. Please note that a facility is a site, place, location, etc... that may contain one or more air pollution emitting units.
3. Type of Operation: Indicate the generally accepted name for the operation (i.e., asphalt plant, gas station, dry cleaner, sand & gravel mining, oil and gas wellsite, tank battery, etc.).
4. Portable Source: Will this facility operate in more than one location? Some examples of portable sources include asphalt batch plants and concrete batch plants.
5. Temporary Source: A temporary source, in general, would have emissions that are expected last less than 12 months.
6. NAICS Code: North American Industry Classification System. The NAICS Code for your facility can be found at the following link → [North American Industry Classification System](http://www.census.gov/epcd/naics/nsic2ndx.htm#S1) (<http://www.census.gov/epcd/naics/nsic2ndx.htm#S1>).
7. SIC Code: Standard Industrial Classification Code. Although the new North American Industry Classification System (NAICS) has replaced the SIC codes, much of the Clean Air Act permitting processes continue to use these codes. The SIC Code for your facility can be found at the following link → [Standard Industrial Classification Code](http://www.osha.gov/pls/imis/sic_manual.html) (http://www.osha.gov/pls/imis/sic_manual.html).
8. Physical Address: Provide the actual address of where you are proposing to construct the new facility, not the mailing address. Include the State and the ZIP Code.
9. Reservation: Provide the name of the Indian reservation within which the facility will be constructed.
10. County: Provide the County within which the source will be constructed.
- 11a & 11b. Latitude & Longitude: These are GPS (global positioning system) coordinates.
- 12a – 12d. Section-Township-Range: Please provide these coordinates in 1/4 Section/Section/Township/Range. (e.g., SW ¼, NE ¼ S36/T10N/R21E).

B. Current Permit Information

Provide a list of all air quality permits that have been issued for this facility. This should include any Federal Minor New Source Review (MNSR), Prevention of Significant Deterioration (PSD) or Non-Attainment New Source Review (NA NSR) permits, in addition to the most recent Part 71 permit. The permit number must be included with each permit identified.

C. Contact Information

Please provide the information, requested, in full.

1. Company Contact: Provide the full name of the primary contact for the company that owns the facility.
2. Operator Contact: Provide the name of the primary contact for the company that operates the facility if the company operating the facility is different from the company that owns the facility.

3. Permitting Contact: Provide the name of primary contact, for permitting decisions, at the company that owns the facility or the company that operates the facility.
4. Compliance Contact: Provide the name of primary contact, responsible for compliance of the facility, at the company that owns the facility or the company that operates the facility. If this is the same as the Permitting Contact please note this on the form.

D. Attachments

This section lists the information needed to complete the requested approval. This information should be accompanied by the supporting information listed on the form and described below. The information should be presented in enough detail to document how the facility is currently operating and/or how it is proposed to be operated.

FORM SYNMIN

If synthetic minor limits are being requested, a synthetic Minor Limit Application should be included with this application.

Narrative description of the proposed production processes.

1. The narrative description should follow the flow of the process flow diagram to be submitted with this application. This needs to be as comprehensive as possible to help in understanding the proposed facility and how it will be operated. For example:

What are the raw materials?

What are the properties of the raw materials?

Does the production process include heating, drying, the application of chemicals, etc?

How will the raw materials be affected by this process?

What are the out puts from each step of the process (i.e., crushed ore, dry gas, water, etc...)?

Etc....

2. The proposed operating schedule presented in terms of hours per day, days per week, and weeks per year.
3. A list of the type and quantity of fuels and/or raw materials used. Each fuel and raw material should be described in enough detail to indicate its basic chemical components.

A process flow chart identifying all proposed processing, combustion, handling, storage, and emission control equipment. This flow chart should illustrate the detailed narrative description requested above.

List and describe all proposed units, emission units and air pollution-generating activities. At a minimum, provide the following:

1. The hourly, daily and annual maximum operating rates for each operating unit, production process, and activity.
2. The hourly, daily and annual maximum firing rates for each fuel and combustion equipment.
3. The capacity for storage units and the hourly, daily and annual maximum throughput of material in the storage units.
4. Material and product handling equipment and the hourly, daily and annual maximum throughput of material and product.
5. Tank designs, tank storage capacities, hourly, daily and annual maximum throughput of material and product.

- Type and quantity of fuels, including sulfur content of fuels, proposed to be used on a daily, annual and maximum hourly basis.
- Type and quantity of raw materials used or final product produced proposed to be used on a daily, annual and maximum hourly basis.
- Proposed operating schedule, including number of hours per day, number of days per week and number of weeks per year.
- A list and description of all proposed emission controls, control efficiencies, emission limits, and monitoring for each emission unit and air pollution generating activity.
 1. Include manufacturer specifications and guarantees for each control device.

Criteria Pollutant Emissions Estimates

- Estimates of Current Actual Emissions, Current Allowable Emissions, Post-Change Uncontrolled Emissions, and Post-Change Allowable Emissions for the following air pollutants: particulate matter, PM₁₀, PM_{2.5}, sulfur oxides (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compound (VOC), lead (Pb) and lead compounds, ammonia (NH₃), fluorides (gaseous and particulate), sulfuric acid mist (H₂SO₄), hydrogen sulfide (H₂S), total reduced sulfur (TRS) and reduced sulfur compounds, including all calculations for the estimates.
 1. These estimates are to be made for each emission unit, emission generating activity, in addition to total emissions.
 2. The information should include all of the supporting calculations, assumptions and references. Emission estimates must address all emission units and pollutants proposed and/or affected by the limitation and be presented in short term (e.g. pounds per hour) as well as annual (tons per year) units.
 3. Any emission estimates submitted to the Regional Administrator must be verifiable using currently accepted engineering criteria. The following procedures are generally acceptable for estimating emissions from air pollution sources:
 - Unit-specific emission tests;
 - Mass balance calculations;
 - Published, verifiable emission factors that are applicable to the unit. (i.e. manufacturer specifications)
 - Other engineering calculations; or
 - Other procedures to estimate emissions specifically approved by the Regional Administrator.
 4. Guidance for estimating emissions can be found at <http://www.epa.gov/ttn/chief/efpac/index.html>.

Current Actual Emissions: Current actual emissions for a pollutant is expressed in tpy and generally is calculated by multiplying the actual hourly emissions rate in pounds per hour (lbs/hr) times actual hours operated (which is the number of hours in a year) and dividing by 2,000 (which is the number of pounds in a ton).

1. For an **existing air pollution source (permitted and unpermitted)** that operated prior to the application submittal, the current actual emissions are the actual rate of emissions for

the preceding calendar year and must be calculated using the actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. The emission estimates must be based upon actual test data or, in the absence of such data, upon procedures acceptable to the Regional Administrator.

Current Allowable Emissions: Current allowable emissions for a pollutant is expressed in tpy and generally is calculated by multiplying the allowed hourly emissions rate in pounds per hour (lbs/hr) times allowed hours (which is the number of hours in a year) and dividing by 2,000 (which is the number of pounds in a ton).

1. “Allowed” means the source is restricted by permit conditions that limit its emissions and are enforceable as a practical matter (i.e., allowable emissions). The allowable emissions for any emissions unit are calculated considering any emissions limitations that are enforceable as a practical matter on the unit’s PTE.
2. For an **existing permitted air pollution source** that operated prior to the application submittal, the current allowable emissions are the allowable rate of emissions for the preceding calendar year and must be calculated using the permitted operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.
3. For an **existing air pollution source** that does not have an established allowable emissions level prior to the modification must report the pre-change uncontrolled emissions.

Post-Change Potential Emissions (Potential uncontrolled emissions from proposed project): This is the maximum capacity of a source to emit a pollutant under its physical and operational design. This is expressed in tpy and generally is calculated by multiplying the maximum hourly emissions rate in pounds per hour (lbs/hr) times 8,760 hours (which is the number of hours in a year) and dividing by 2,000 (which is the number of pounds in a ton).

Post-Change Allowable Emissions: A source’s allowable emissions for a pollutant is expressed in tpy and generally is calculated by multiplying the allowed hourly emissions rate in pounds per hour (lbs/hr) times allowed hours (which is the number of hours in a year) and dividing by 2,000 (which is the number of pounds in a ton).

1. Unless the source is restricted by permit conditions or other requirements that are enforceable as a practical matter, the post-change allowable emissions would be equivalent to post-change uncontrolled emissions. For the post-change allowable emissions a lower level of allowable emissions may be proposed.
2. For physical or operational changes at minor sources and for minor physical or operational changes at major sources, the total increase in allowable emissions resulting from your proposed change would be the sum of following:
 - For each new emissions unit that is to be added, the emissions increase would be the potential to emit of each unit.
 - For each emissions unit with an allowable emissions limit that is to be changed or replaced, the emissions increase would be the allowable emissions of the emissions unit after the change or replacement minus the allowable emissions prior to the change or replacement. However, this may not be a negative value. If the allowable emissions of an emissions unit would be reduced as a result of the change or replacement, use zero in the calculation.

- For each unpermitted emissions unit (i.e., a unit without any emissions limitations before the change) that is to be changed or replaced, the emissions increase would be the allowable emissions of the unit after the change or replacement minus the potential to emit prior to the change or replacement. However, this may not be a negative value. If the allowable emissions of an emissions unit would be reduced as a result of the change or replacement, use zero in the calculation.

Air Quality Review

Provide a narrative description of the current air quality conditions and the expected impact the permitted source would have on that air quality. Factors to include in the qualitative discussion are meteorology, terrain, elevation, distance to ambient air, expected emissions, stack heights, etc...

Your reviewing authority may require you to provide additional information used to determine impacts that may result from your new source or modification. You may be required to conduct and submit an Air Quality Impact Analysis (AQIA) using dispersion modeling in accordance with 40 CFR part 51, Appendix W. If required, and the AQIA demonstrates that construction of your source or modification would cause or contribute to a NAAQS or PSD increment violation, you will also be required to further reduce its impact before you could obtain a permit.

ESA

The Endangered Species Act requires us, in consultation with the U.S. Fish and Wildlife Service and/or the NOAA Fisheries Service, to ensure that actions we authorize are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species.

To expedite the approval of your proposed construction, we encourage you to identify any listed species that you may be readily aware of that could be affected by your proposal. The following website has been provided to assist you: <http://www.fws.gov/endangered/>

Simply enter the State and County in which you propose to construct to obtain a general listing.

NHPA

The National Historic Preservation Act requires us, in consultation with State and/or Tribal Historic Preservation Officers to ensure that actions we authorize are not likely to affect cultural resources.

To expedite the approval of your proposed construction, we encourage you to identify any cultural resources that you may be readily aware of that could be affected by your proposal. The following website has been provided to assist you:

<http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome>

Simply enter the State and County in which you propose to construct to obtain a general listing.

D. ATTACHMENTS

NARRATIVE DESCRIPTION

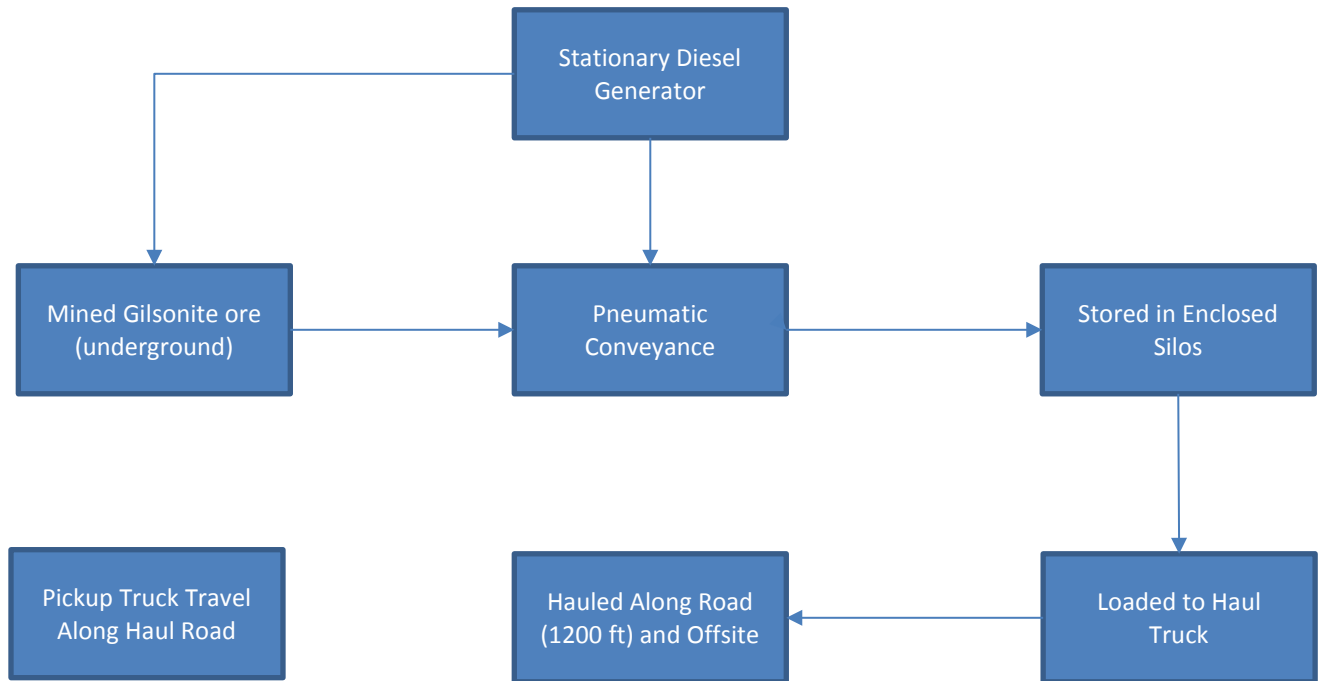
The gilsonite mine will be in Uintah County, Utah within the exterior boundary of the Uncompagre reservation. The mine life will be approximately five years and would then be moved to a new location along the vein within the lease. The mining process occurs entirely underground. The equipment on the surface that supports the underground activity consists of the following:

- 1) A stationary diesel/electric generator sized for approximately 550 kilowatts (kW) will provide the only electricity available at the mine. All other motors would be electric. The generator would operate 10 hours per day, 4 days per week 52 weeks/year.
 - a) The output emissions from the engine will be standard combustion by-products such as criteria pollutants and hazardous air pollutants (HAPs).
- 2) The gilsonite is pneumatically conveyed from underground and deposited in enclosed silos. The pneumatic conveying system operates at approximately 6,600 cubic feet per minute (cfm) and the conveyed airstream passes through a filter/receiver with an emission efficiency of 0.02 grains per standard cubic feet (g/scf). There will be two (2) pneumatic conveyors and silos at the mine operating 10 hours/day, 4 days per week.
 - a) The output emissions will be particulate matter. For conservatism, PM2.5 and PM10 are expected to be equivalent.
- 3) The unpaved on-lease access road will be approximately 1,200 feet long by 12 feet wide. There would be one round trip in a passenger vehicle, and one round trip in a haul truck per day, 4 days per week.
 - a) The output emissions will be particulate matter. For conservatism, PM2.5 and PM10 are expected to be equivalent.

As discussed above, the operating schedule will consist of 10 hours/day; 4 days/week and 52 weeks/year (2,080 hours/year).

The engine will operate on ultra-low sulfur diesel fuel only.

PROCESS FLOW CHART



PROPOSED EMISSION UNITS

- 1) Pneumatic Conveyor (particulate matter) – material handling throughput
 - a) Maximum hourly throughput: 2.25 ton/hour
 - b) Maximum daily emission rate: 22.5 ton/day
 - c) Maximum annual emission rate: 4,680 ton/year
- 2) Stationary Engine – Firing Rates – 100% load
 - a) Maximum hourly emission rate: 824 hp/hour
 - b) Maximum daily emission rate: 8,240 hp/day
 - c) Maximum annual emission rate: 1,713,920 hp/year
- 3) Stationary Engine – Fuel Consumption – ultra-low sulfur diesel (ULSD) fuel
 - a) Maximum hourly fuel rate – 40 gal/hour
 - b) Maximum daily fuel rate – 400 gal/day
 - c) Maximum annual fuel rate – 83,200 gal/year

AIR QUALITY REVIEW

Uintah County is an arid region of northeast Utah that averages only approximately six inches of rain per year and 19 inches of snowfall. The average United States rainfall is 39 inches, and average snowfall is 26 inches. Typical number of days with measurable precipitation is about 18. The average high temperature observed in July is 92 °F, and the average low observed in January is 5 °F. Uintah County experiences 240 sunny days on average with an ultraviolet (UV) index of 4.6. The average United States UV index is 4.3.

Two leased areas will surround Table Rock mine. One transverses the middle part of Section 29 within Township 10S and Range 21E. The other occupies the northwest portion of Section 33. The elevation rises from the Cottonwood Wash at approximately 5,200 feet above sea level heading west to about 5,300 feet within Section 29. Sand Wash crosses the northeast corner of Section 33 at approximately 6,200 feet of elevation and rises to a high point of 6,329 feet just west and south of leased area. The surrounding area is bracketed to the south by the East Tavaputs Plateau, the north by the East Bench, Buck Camp canyon to the east and the Agency Draw to the west. Willow Creek also lies to the west of the leased sites.

The minimum distances to ambient air are anticipated to be approximately 550 feet at the Section 29 site and 430 feet at the Section 33 site. The engine will have an 8 inch diameter stack that has an exhaust point of 12 feet from ground. Additionally, the exhaust temperature will be 892 °F with a flow rate of 4,654.5 acfm (222.2 ft/sec velocity).

NATIONAL HISTORIC PRESERVATION ACT

Table 1 – Uintah County Historic Sites

Property	Property
Bank of Vernal	McConkie Ranch Petroglyphs
Carter Road	Morris, Josie Bassett, Ranch Complex
Cockleburr Wash Petroglyphs	Quarry Visitor Center
Curry, Lewis, House	Siddoway, William and Emily, House
Douglass, Earl, Workshop--Laboratory	Smith, Francis 'Frank' and Eunice, House
Fenn--Bullock House	St. Paul's Episcopal Church and Lodge
Gibson--Sowards House	Vernal Tithing Office
Little Brush Creek Petroglyphs	Washington School--Vernal LDS Relief Society Hall
Martin, Manfred and Ethel, House	Whiterocks Village Site

Reference: <http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome>

ENDANGERED SPECIES ACT

Table 2 – Uintah County Listed Species

Group	Common Name	Scientific Name	Status	Population	Lead Office
Birds	Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Threatened	Western U.S. DPS	Sacramento Fish and Wildlife Office
Birds	Mexican spotted owl	<i>Strix occidentalis lucida</i>	Threatened	Wherever found	Arizona Ecological Services Field Office
Fishes	Humpback chub	<i>Gila cypha</i>	Endangered	Wherever found	Upper Colorado River Endangered Fish Recovery Program
Fishes	Colorado pikeminnow (=squawfish)	<i>Ptychocheilus lucius</i>	Endangered	Wherever found, except where listed as an experimental population	Upper Colorado River Endangered Fish Recovery Program
Fishes	Bonytail chub	<i>Gila elegans</i>	Endangered	Wherever found	Upper Colorado River Endangered Fish Recovery Program
Fishes	Razorback sucker	<i>Xyrauchen texanus</i>	Endangered	Wherever found	Upper Colorado River Endangered Fish Recovery Program
Flowering Plants	Shrubby reed-mustard	<i>Schoenocrambe suffrutescens</i>	Endangered	Wherever found	Utah Ecological Services Field Office
Flowering Plants	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened	Wherever found	Utah Ecological Services Field Office
Flowering Plants	Clay reed-mustard	<i>Schoenocrambe argillacea</i>	Threatened	Wherever found	Utah Ecological Services Field Office
Flowering Plants	Pariette cactus	<i>Sclerocactus brevispinus</i>	Threatened	Wherever found	Utah Ecological Services Field Office
Flowering Plants	Uinta Basin hookless cactus	<i>Sclerocactus wetlandicus</i>	Threatened	Wherever found	Utah Ecological Services Field Office
Mammals	Black-footed ferret	<i>Mustela nigripes</i>	Experimental Population, Non-Essential	U.S.A. (WY and specified portions of AZ, CO, MT, SD, and UT, see 17.84(g)(9))	Office of the Regional Director
Mammals	Canada Lynx	<i>Lynx canadensis</i>	Threatened	Contiguous U.S. DPS	Montana Ecological Services Field Office

Reference: <http://www.fws.gov/endangered/>



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Filtration Efficiency for IAC Systems Fabric Filter Pulse Jet Dust Collectors

IAC Systems, Inc., expects that our equipment performance, if operated in accordance with IAC's stated operating and maintenance procedures, and within prestated system operating conditions; at a pressure differential of not less than 2.5" W.C. and not greater than 4.5" W.C., shall typically provide an emission efficiency rate not to exceed .02 grs per SCF. Measurement of outlet emission grains shall be an average taken at selected intervals over a 24 hour time continuum based on a gas stream particulate micron size range of 90% greater than 5 microns and 1% not less than 0.5 micron.

		lb/hr Nominal Data				
		PM	CO	VOC	NOx	SOx
100%	Engine	0.44	0.26	0.07	11.4	1.51
550		Tons per year				
		PM	CO	VOC	NOx	SOx
	PTE (8760 hr)	1.93	1.14	0.31	49.93	6.62
	Actual (2080 hr)	0.46	0.27	0.07	11.86	1.57

Pneumatic Conveyance (PM)					
	0.02 gr/scf		lb/hr	tpy	
	5377 scfm	PTE	0.92	4.04	
	7000 gr/lb	Actual	0.92	0.96	
PM combined					
		lb/hr		Tons per year	
		Nominal	Site Vary	Nominal	Site Vary
	PTE (8760 hr)	1.36	1.79	5.96	7.85
	Actual (2080 hr)	1.36	1.79	1.42	1.86

6600 acfm
 $scfm = acfm * (P/14.7)(519/T)$
P 12.23 psi
T 530 R

5000 ft elevation
70 F

BSFC (lb/bhp-hr)	Diesel Heat Value (Btu/lb)
0.35	19300

		lb/hr HAPs (AP 42, Section 3.3)								
Emission Factor		Benzene	Toluene	Xylenes	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Naphthalene	
	lb/MMBtu	9.33E-04	4.09E-04	2.85E-04	3.91E-05	1.18E-03	7.67E-04	9.25E-05	8.48E-05	
100%	Engine	4.64E-03	2.04E-03	1.42E-03	1.95E-04	5.87E-03	3.82E-03	4.61E-04	4.22E-04	
		Tons per year								Total
	PTE (8760 hr)	2.03E-02	8.92E-03	6.21E-03	8.53E-04	2.57E-02	1.67E-02	2.02E-03	1.85E-03	8.27E-02
	Actual (2080 hr)	4.83E-03	2.12E-03	1.48E-03	2.02E-04	6.11E-03	3.97E-03	4.79E-04	4.39E-04	1.96E-02

	Emission Factor	GWP	lb/hr	Tpy (PTE)	TPY (Actual)	CO ₂ e (PTE)	CO ₂ e (Actual)	CO ₂ e MT (PTE)	CO ₂ e MT (Actual)
CO2	911.1 lb/hr	1	911.1	3991	948	3991	948	3620	860
CH4	3 g/MMBtu	25	3.29E-02	1.44E-01	3.42E-02	3.61	0.86	3.27	0.78
N2O	0.6 g/MMBtu	298	6.59E-03	2.88E-02	6.85E-03	8.60	2.04	7.80	1.85
			CO ₂ e	4003	950	4003	950	3631	862
			CO ₂ e (MT)	3631	862				

Unpaved Roads

Company: Table Rock Minerals
 Site: Uinita County
 Date: Apr-17

	PM ₁₀ tons/yr	SO ₂ tons/yr	NO _x tons/yr	CO tons/yr	Lead tons/yr	PM ₁₀ - F tons/yr	PM ₁₀ - NF tons/yr	PM _{2.5} tons/yr	VOC tons/yr	HAP's tons/yr	CO ₂ eq. tons/yr	PM ₁₀ lb/hr	SO ₂ lb/hr	NO _x lb/hr	CO lb/hr	Lead lb/hr	PM ₁₀ - F lb/hr	PM ₁₀ - NF lb/hr	PM _{2.5} lb/hr	VOC lb/hr	HAP's lb/hr
Uncontrolled	0.12					0.12		0.01				1.18					1.18		0.12		
PTE/Controlled	0.04					0.04		0.00				0.35					0.35		0.04		

	Uncontrolled		Controlled	
	lbs/hr	tons/year	lbs/hr	tons/year
Fugitive PM ₁₀	1.18	0.12	0.35	0.04
PM _{2.5}	0.12	0.01	0.04	0.00

Operating Schedule
 4,680 Tons/year * assumes 1 round trip of 22.5 tons per day; 4 days/week
 22.5 Tons/hour

Unpaved Roads

$$E = k \left(\frac{s}{12} \right)^a \times \left(\frac{W}{3} \right)^b$$

	Vehicle Weight	Load Weight	Total Weight	Trips/Year	Trips/Hour
Pickup	4.25		4.25	208	1
Truck	17.5	22.5	40	208	1

* assume weight of pickup is 8,500 lb
 *Empty is 35,000 lb; loaded total weight is 80,000 lb

AP-42 13.2.2.4 equation # 1a

$$E = \frac{k \left(\frac{s}{12} \right)^a \times \left(\frac{S}{30} \right)^d}{\left(\frac{M}{0.5} \right)^c} - C$$

- E = size-specific emission factor (lb/VMT)
- k, a, b = empirical constants
- 4.8 s = surface material silt content (%)
- W = mean vehicle weight (tons)
- S = mean vehicle speed (mph)
- M = Surface material moisture content (%)
- C = emission factor for 1980's vehicle fleet exhaust, brake wear, and tire wear.
- 0 P = number of "wet" days with at least 0.01 in of precipitation

AP-42 13.2.2.4 equation # 1b
 (publicly accessible roads)

70% Unpaved-Efficiency (%)

$$E_{ext} = E \left[\frac{(365 - P)}{365} \right]$$

- Control-Efficiency (%)
- 70% Basic Watering
 - 75% Basic Watering and Road Base
 - 85% Chemical Suppressant and Watering
 - 90% Paving Road Surface with Sweeping and Watering
 - 95% Paving Road Surface plus Vacuum Sweeping and Watering

correction factor for "wet" days

Size Range	k lb/VMT	Table 13.2.2-2				Table 13.2.2-4	
		a	b	c	d	C lb/VMT	
PM _{2.5}	0.15	0.9	0.45	0.2	0.5	0.00036	
PM ₁₀	1.5	0.9	0.45	0.2	0.5	0.00047	

Section of Road	Length of Road (feet)	Length of Road (miles)	1-way or 2-way Road	Average Weight (tons)	Uncontrolled EF lb/VMT		Yearly Distance (miles)	Annual Emissions (tons/year)				Hourly Distance (miles)	Hourly Emissions (lb/hr)			
					E ₁₀	E _{2.5}		Uncontrolled		Controlled			Uncontrolled		Controlled	
					PM ₁₀	PM _{2.5}		PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}		PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Pickup	1200	0.227273	2	4.25	0.769158	0.076916	94.54545	0.03636	0.003636	0.010908	0.001091	0.454545	0.349617	0.034962	0.104885	0.010489
Haul trk	1200	0.227273	2	28.75	1.818142	0.181814	94.54545	0.085949	0.008595	0.025785	0.002578	0.454545	0.826428	0.082643	0.247928	0.024793
								0.122309	0.012231	0.036693	0.003669					
								1.176045	0.117605	0.352814	0.035281					