

A S P H A L T



S P E C I A L T I E S C O .

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May 1, 2018

Wyoming Department of Environmental Quality
Air Quality Division
200 West 17th Street, 3rd Floor
Cheyenne, Wyoming 82002

RE: Chapter 6 Section 2 Permit Application – Lone Tree Creek Quarry (F028222)
Laramie County, Wyoming
Asphalt Specialties Company, Inc.

Mr. Andrew Keyfauber:

Enclosed please find Asphalt Specialties Company, Inc. (ASCI) permit application for Lone Tree Creek Quarry located approximately two (2) miles south of Granite, Wyoming in Laramie County, Wyoming.

As discussed in a pre-application meeting on April 11, 2018, the proposed Lone Tree Creek Quarry is a Limited Mining Operation (LMO) 15-acre hard rock quarry. The property is identified as vacant, vacant residential agricultural land, and ASCI is currently working with Laramie County to provide documentation the proposed quarry is in accordance with zoned land use. ASCI will provide this documentation when received from Laramie County.

Proposed activities at the quarry include blasting, crushing and screening activity, stock piling, and haul truck activity. No concrete batch plants or hot mix asphalt plants will be located at the quarry. The portable crushing/screening equipment is submitted under separate application. A portable generator will be used to supply power to the site, and each equipment will have its own generator. To reduce fugitive particulate emissions, ASCI will apply water as necessary to stockpiles, haul roads, and crushing and screening activities. In addition, topsoil and overburden stockpiles will be seeded and watered.

ASCI is committed to reducing fugitive particulate matter and will utilize Best Available Control Technologies to control particulate emissions from the quarry. The primary emission source at the quarry is the haul road. To control haul road particulate emissions, ASCI will pave the haul road resulting in a 70% decrease in PM10 emissions associated with haul road activities. ASCI will pave

Exhibit DEQ 02

the haul road prior to off-site production or within 90 working days from first construction (not including shut downs due to inclement weather).

The Lone Tree Creek Quarry is not located in a sage-grouse core area as defined by Wyoming Game and Fish Department (WGFD). The nearest core area is the North Laramie Core Area approximately twelve (12) miles north of Laramie, Wyoming. The nearest occupied sage-grouse lek, as determined by WGFD, is the Renegade lek, approximately 32 miles away.

In order to expedite this permitting process, ASCI is respectfully requesting a public hearing to be scheduled immediately after the public notice comment period, and to advertise the public hearing during the public notice.

If you should have questions regarding this permit application, please contact me at (303) 289-8555.

Sincerely,

Daniel W. Hunt
President
Asphalt Specialties Co., Inc.

Asphalt Specialties Co., Inc.

Lone Tree Creek Quarry

Process Description

Introduction

Asphalt Specialties Co., Inc. (ASCI) Lone Tree Creek 555-acre property is located 1.5 miles south of Interstate highway I-80 on the west side of Harriman Road, in the southwest portion of Laramie County. Within the 555-acre property, ASCI is proposing a Limited Mining Operation (LMO) 15-acre hard rock quarry. The property is currently unzoned, but is identified as vacant, vacant residential agricultural land. ASCI considered the neighboring viewpoint from the North, East, South and West. The location of the 15-acre site was selected to be in an area surrounded by natural topographical high barriers (i.e., cliffs). By using the natural barriers in conjunction with constructing the quarry below the current ground surface elevation, this will eliminate or substantially minimize any visual observance and noise exposure to surrounding occupants. The closest neighboring house is approximately 2,300 feet southeast. The mine site will sit 40 feet below the north-south ridge point within the property. As indicated on the enclosed maps, the location of the mine is confined within the 15-acres to provide an opportunity to test the quality of rock, quantity extractable, and overall economics of this operation. We are in the process of obtaining permits with the Wyoming Department of Environment Quality (WDEQ) for aggregate mining.

ASCI is committed to maintaining a monitoring program to comply with the WDEQ 15-acre LMO. This includes the commitment to protect the air quality, surface water, groundwater, wildlife, and cultural resources of the State of Wyoming. This effort has included both completed and ongoing: cultural surveys of the proposed mining operations, wildlife and raptor surveys, baseline surface and groundwater monitoring, traffic surveys and air quality permitting.

ASCI held a community meeting on March 29, 2018 at the Little America Hotel and Resort facility. We had sent out 65 invitations to the surrounding property owners and neighbors to discuss future development plans for the Lone Tree Creek Quarry property. Approximately 45 people attended and were presented with an overview of our 15-acre LMO application and provided an opportunity to ask questions, express concerns, and submit comment sheets to be addressed by ASCI. ASCI developed computer generated graphical representations of how the mine site will appear from various vantage points at different locations as presented in the overall view attachment. These three-dimensional artist renderings present presumably accurate representations of the cuts and benches which may eventually be viewed on the site. These renditions identified our proposed operations from different aspects from neighboring home locations. As a result of the meeting, ASCI will adopt measures and implement standards to specifically address concerns expressed by the community including paving the truck haul road to mitigate dust generated.

Preliminary Construction Activities

Prior to construction of the access road, all topsoil will be stripped and placed in stockpiles adjacent to the access road. Stockpiles will be seeded with a mixture between annual and perennial grasses. Seed mixture will consist of 8.6 Pure Live Seed per acre (PLS/ac) bluebunch wheatgrass, 8.3 PLS/ac western

wheatgrass, 8.0 PLS/ac slender wheatgrass, and 7.0 PLS/ac green needlegrass with minor concentrations of western yarrow and rocky mountain bee plant. Annual grasses will include either annual rye or barley. Road base will be generated from constructing the access road and roadside drainage. The access road will be asphalt paved surface to ensure that dust remains under control and prevents tracking off site. Culverts will be constructed wherever the road crosses a well-defined drainageway.

Topsoil will be stripped from the 15-acre LMO area (Figure 2), following access road construction. Water will be used for dust control during topsoil salvage operations. All growth medium material, which is anticipated to range from 12 to 18 inches will be salvaged and stockpiled on the northwest side of the site. A 25-foot stripped buffer zone along the northwest and southwest side of the site will be provided. The purpose of the 25-foot stripped buffer zone is to allow diversion of undisturbed runoff away from the site and ensure no commingling of disturbed and undisturbed waters. Where overburden is encountered it will be stockpiled adjacent to, but separately from the topsoil. Topsoil and overburden stockpiles will be individually bermed to ensure no loss of materials off site. All topsoil piles will be identified with a sign and seeded upon completion. All overburden materials and crusher fines will be salvaged and placed into the reclamation materials stockpile and will be used for site reclamation at the end of mining.

A facilities area will be constructed at the eastern end of the site at an approximate elevation of 7,470 feet. After initial mine opening, this area will be approximately 15 to 30 feet below the existing ground surface. Within this facilities area will be a haul road ramp, material processing area, stormwater pond, scale house, groundwater supply well, and means to convey water from the mining operation to the pond and the well. The stormwater pond will be supplied with any surface and/or groundwater encountered through the mining operation and supplemented as needed with groundwater from the well to provide dust control water for the portable plant. The well and pond will be permitted with the Wyoming State Engineer's Office and Water Quality Division, as applicable, for miscellaneous use and dust control. Electric power is being scheduled and will be supplied by High West Electric; a portable generator will be used for power until the electric utility can be constructed and established.

Blasting Plan

We have indicated buffer zones around the quarry, so noise is kept to a minimum. Great care is also taken to protect the environment and the animals that live on our quarry land. Drilling and blasting is a very important part of how we get rocks out of the earth. We design this process around how much rock we want to break apart, the type of rock we are working with and the size pieces we want to break off. We hire experts to help with drilling and blasting because they know exactly how to work with explosives to make sure this part of the process is handled safely, efficiently, and as quietly as possible. Rock material will be removed and generated through controlled blasting by a licensed blasting company. A detailed blasting plan will be developed by the contracted blasting company. In general, it is anticipated that benches will range from 15 to 30 feet and the drill pattern will range from 8'X10' to 10'X10' depending on the rock quality and characteristics. Stemming of holes and delays will be employed to ensure proper rock fragmentation, compliance with noise and eliminate fly rock. First, holes are drilled in the earth and explosives are placed inside. The explosives are detonated to provide the smallest release of energy for the most efficient blast. The entire blasting process occurs in just a few seconds. While larger quarries may blast once a day, smaller quarries such as this 15-acre LMO may blast once or twice a week. Blasting

is monitored with a special machine to record sound and vibrations so that the community around our quarry remains protected and safe.

This process will be in full compliance with federal and state regulations and adequate notice will be provided to all property owners in advance of a blast. Given the size of the operation, blasting will be a limited effort both spatially and temporally. The initial pattern will take place at the Facilities Area and a later effort will take place on the northwest and southwest end of the site. Mining will take place sequentially from the top down and will likely take place in 15 to 30-foot benches, depending on rock quality and stockpile space. First, holes are drilled in the earth and explosives are placed inside. The explosives are detonated to provide the smallest release of energy for the most efficient blast. The entire blasting process occurs in just a few seconds. Larger quarries may blast once a day and smaller quarries may blast once or twice a week. Blasting is monitored with a special machine to record sound and vibrations so that the community around our quarry remains protected and safe. The blasts that occur when the explosives are set off free the stone from the quarry wall. The big pieces are removed by pit loaders and dumped into large haul trucks which will transfer the aggregate materials to the crushing operation.

Mining Operation

The initial material removed from the Facilities Area will be crushed and transported off site and to the market. It is anticipated that rock will be mined to a depth of 60 feet below ground surface (bgs) within the quarry footprint. A portable crusher will be brought to the site and will crush and stockpile material. There will be no wash plant or material washing on site. There will be no asphalt plant nor ready-mix plant at the Lone Tree Creek Quarry. The portable crusher will use water for dust control and it is anticipated that the water demand (6-10 gpm during operations) can be met by a combination of the Facilities Area well, natural stormwater and adequate storage for a 10-hour per day operation. The landowner has three existing water rights within Section 24. It is anticipated that the new well will be permitted for a yield of 10 gallons per minute (gpm) or less. Rock material from the mining operation will be brought to the crusher with loaders. An excavator will feed the crusher and a loader will maintain the surge pile and each product pile. Highway-rated trucks will be loaded with a loader. Very little rock waste material is anticipated and any rock waste material will be stockpiled for use as final reclamation materials. All stockpiles will be contained within the 15-acre LMO. The SWPPP will utilize a combination of Best Management Practices (BMPs) and a stormwater collection pond to mitigate surface water runoff to prevent sediment leaving the mining operations.

Emission Calculation Details:

Asphalt Specialties Company, Inc. plans to locate and operate crushing/screening equipment and conduct blasting operations at the Lone Tree Creek Quarry. Two permit applications are submitted: one for Lone Tree Creek Quarry and one for the portable crushing/screening equipment to be located at the quarry. No concrete batch plants or hot mix asphalt plants will be located at the Lone Tree Creek Quarry. The estimated emissions of the following sources are listed below.

Pit Emissions:

The pollutant of main concern at the Lone Tree Creek Quarry will be fugitive particulate matter (TSP, PM₁₀ and PM_{2.5}) emitted primarily from exposed acreage, stockpiling, blasting and haul truck activity. Estimated emissions were based on EPA document, AP-42, Compilation of Emission Factors, a maximum production rate of 500,000 tons per year (tpy) of mined material, 50,000 tpy of stockpiled material, 27,200 tpy of topsoil and 54,400 tpy of overburden. Per Air Quality Division (Division) guidance, application of water during stockpiling operations is credited for fifty percent (50%) control efficiency. Topsoil and overburden stockpiles will be seeded and watered as needed to reduce fugitive particulate matter. Exposed acreage is based on 18 acres, and the total haul road length of 2.0 miles (miles to and from the quarry). Uncontrolled haul road emissions were estimated using AP-42 13.2.2 Equation 1a for an unpaved road. Asphalt Specialties will pave the haul road to reduce fugitive particulate matter, and the controlled haul road emissions were estimated using AP-42 13.2.1.3 Equation 1 for a paved road. Blasting emissions were based on AP-42 Table 11.9-1, a horizontal blast area of 100 ft² and 42 blasts per year.

Crushing and Screening:

The pollutant of main concern during crushing/screening operations will be fugitive particulate matter. Crushing and screening emissions were estimated using emission factors from AP-42 Table 11.19.2-2. AP-42 Table 11.19.2-2 does not have crushing/screening emission factors for uncontrolled PM_{2.5}; therefore, uncontrolled crushing/screening emissions for PM_{2.5} were based on a ratio of PM_{2.5} to PM₁₀ emission factors for controlled tertiary crushing/screening in AP-42 Table 11.19.2-2. Per Air Quality Division guidance, application of water during portable crushing/screening operations is credited for fifty percent (50%) control efficiency. Water will be applied during crushing/screening activities as needed.

Generator Emissions:

The power source for the quarry (scale, scale house, pumps) will be provided by a diesel fired portable generator. The major pollutants emitted from the generator include NO_x with some CO from incomplete combustion. Emissions from the portable generator are based on the engines Tier 1 certification, horsepower and annual operating hours of 3,120.

In addition to the portable generator, the crushing and screening equipment will include generators on each unit. These generators will be diesel fired and emissions are based on *EPA Nonroad Compression-Ignition Engines: Exhaust Emission Standards*, the generators Tier III and IV certifications, horsepower and annual operating hours of 3,120.

Ambient Air Quality:

The Division generally does not require modeling or monitoring for rock pits or multiple pits in an area. In previous permitting actions, the Division has modeled large surface coal

mines with production rates in the millions of tons per year and the results have demonstrated compliance with particulate matter (PM₁₀ and PM_{2.5}) and nitrogen dioxide (NO₂) annual ambient standards, which are health based standards. Primary ambient air quality standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly.

Emission estimates for the Lone Tree Creek Quarry are 8.8 tpy PM₁₀. In comparison, a coal mine that produces 40 million tpy (MM tpy) of coal annually has estimated particulate emissions in the range of 1,500 tpy. The large surface coal mines in the Powder River Basin (PRB) are adjacent and the emissions from all mines in the modeling domain are considered in the modeling analysis, which can total 7,000 tpy particulate matter and 5,000 tpy NO_x. As discussed, large surface coal mines in the PRB have demonstrated compliance with Wyoming Air Quality Standards and Regulations health-based standards through modeling and/or monitoring.

To further reduce particulate emissions at the Lone Tree Creek Quarry, Asphalt Specialties will pave the haul road, reducing PM₁₀ emissions by 70%.

Based on the emissions reduction for paving the haul road and past experience with coal mines, the cumulative impact from properly controlled pits, as required through the application of BACT, will not result in an exceedance of air quality standards.

Asphalt Specialties Company, Inc.
Lone Tree Creek Quarry
Pit Emissions

Inputs

Production Rate	500,000 tons/yr	
Exposed Acreage	18 acres	
Stockpiled Material	50,000 tons/yr	
Topsoil	27,200 tons/yr	
Overburden	54,400 tons/yr	
Material Moisture Content	0.7 %	(mean value for stone quarrying and processing, AP-42 Table 13.2.4-1)
Average Wind Speed	12.4 mph	(avg. wind speed for Cheyenne, WY)
Haul Road Length	2 mile	
Control Efficiency	50 %	

Note: Application of water during portable crushing/screening, stockpiling, and haul road operations is credited for 50% control efficiency

Crushing Emission Factors

Pollutant	Emission Rate (lb/Ton)
TSP	0.0054
PM ₁₀	0.0024
PM _{2.5}	0.00044

Note: Emission factors based on AP-42 Table 11.19.2-2. PM_{2.5} emission factors for uncontrolled crushing are based on a ratio of PM_{2.5} to PM₁₀ emissions as determined from emission factors for controlled tertiary crushing in AP-42 Table 11.19.2-2

Crushing Emissions

TSP tpy = (500,000 tpy) x (0.0054 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 0.68
PM ₁₀ tpy = (500,000 tpy) x (0.0024 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 0.30
PM _{2.5} tpy = (500,000 tpy) x (0.0004 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 0.06

Screening Emission Factors

Pollutant	Emission Rate (lb/Ton)
TSP	0.025
PM ₁₀	0.0087
PM _{2.5}	0.00059

Note: Emission factors based on AP-42 Table 11.19.2-2. PM_{2.5} emission factors for uncontrolled screening are based on a ratio of PM_{2.5} to PM₁₀ emissions as determined from emission factors for controlled screening in AP-42 Table 11.19.2-2

Screening Emissions

TSP tpy = (500,000 tpy) x (0.0250 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 3.13
PM ₁₀ tpy = (500,000 tpy) x (0.0087 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 1.09
PM _{2.5} tpy = (500,000 tpy) x (0.0006 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 0.07

Exposed Acreage Emission Factors

Pollutant	Emission Rate (tons/acre/year)
TSP	0.38
PM ₁₀	0.114
PM _{2.5}	0.0171

Note: Emission factors based on AP-42 Table 11.19-4, assume PM₁₀ = 30% total TSP, assume PM_{2.5} = 15% total PM₁₀

Exposed Acreage Emissions

TSP tpy = (18 acres) x (0.38 tons/acre/yr) x (100%-50 %)	= 3.42
PM ₁₀ tpy = (18 acres) x (0.11 tons/acre/yr) x (100%-50 %)	= 1.03
PM _{2.5} tpy = (18 acres) x (0.02 tons/acre/yr) x (100%-50 %)	= 0.15

Truck Loading and Stockpiling Emission Factors

Based on production rates, total amount of stockpiled material and AP-42 13.2.4 Equation 1:

$$E = A(0.0032) \left(\frac{U}{5} \right)^3 \left(\frac{M}{2} \right)^4$$

Where:
 k=particle size multiplier
 U=average wind speed, mph
 M=material moisture content, %

k= 0.74 for TSP
 k= 0.35 for PM₁₀
 k= 0.053 for PM_{2.5}
 U= 12.4 mph (avg. wind speed for Cheyenne, WY)
 M= 0.7 % (mean value for stone quarrying and processing, AP-42 Table 13.2.4-1)

Pollutant	Emission Rate (lb/Ton)
TSP	0.0335
PM ₁₀	0.0159
PM _{2.5}	0.0024

Note: Emission factors based on AP-42 13.2.4 Equation 1

Truck Loading and Stockpiling Emissions

TSP tpy = (631,600 tpy) x (0.0335 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 5.29
x2 drop/trip = 10.59	
PM ₁₀ tpy = (631,600 tpy) x (0.0159 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 2.50
x2 drop/trip = 5.01	
PM _{2.5} tpy = (631,600 tpy) x (0.0024 lb/Ton) x (100%-50 %) / (2,000 lb/ton)	= 0.38
x2 drop/trip = 0.76	

Hall Road Activity Emission Factors (Unpaved Road)

Fugitive TSP and PM10 emissions per Vehicle Mile Traveled associated with haul roads are estimated using AP-42 13.2.2 Equation 1a

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

	TSP	PM10	PM2.5
k=	4.9	1.5	0.15
s=	8.3 %	8.3 %	8.3 %
a=	0.7	0.9	0.9
W=	28 tons	28 tons	28 tons
b=	0.45	0.45	0.45

Where:
 k=empirical constant
 s=surface material silt content, %
 a=empirical constant
 W=mean vehicular weight
 b=empirical constant

Pollutant	Emission Rate (lb/VMT)
TSP	10.34
PM10	2.94
PM2.5	0.29

Amount of trips per year = (500,000 tpy) x (1 trip/35 ton)
 = 14,286

Haul Road Activity Emissions (Unpaved)

TSP tpy = (14,286 trips/yr) x (2 miles/trip) x (10.34 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 73.88
PM10 tpy = (14,286 trips/yr) x (2 miles/trip) x (2.94 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 21.01
PM2.5 tpy = (14,286 trips/yr) x (2 miles/trip) x (0.29 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 2.10

Hall Road Activity Emission Factors (Paved Road)

Fugitive TSP and PM10 emissions per Vehicle Mile Traveled associated with haul roads are estimated using AP-42 13.2.1.3 Equation 1

$$E = k (sL)^{0.91} \times (W)^{1.02} \quad (1)$$

where: E = particulate emission factor (having units matching the units of k).
 k = particle size multiplier for particle size range and units of interest (see below).
 sL = road surface silt loading (grams per square meter) (g/m²), and
 W = average weight (tons) of the vehicles traveling the road.

	TSP	PM10	PM2.5
k=	0.011	0.0022	0.0005
sL=	2.4 (g/m ²)	2.4 (g/m ²)	2.4 (g/m ²)
W=	28 tons	28 tons	28 tons

sL = Ubiquitous Baseline for Average Daily Travel (ADT) < 500, with Winter Baseline Multiplier during months with frozen precipitation

Pollutant	Emission Rate (lb/VMT)
TSP	0.73
PM10	0.15
PM2.5	0.04

Amount of trips per year = (500,000 tpy) x (1 trip/35 ton)
 = 14,286

Haul Road Activity Emissions (Paved)

TSP tpy = (14,286 trips/yr) x (2 miles/trip) x (0.73 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 5.22
PM10 tpy = (14,286 trips/yr) x (2 miles/trip) x (0.15 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 1.04
PM2.5 tpy = (14,286 trips/yr) x (2 miles/trip) x (0.04 lb/VMT) x (100%-50 %) / (2,000 lb/ton) = 0.26

Reduction in emissions due to paving 95%

Blasting Emission Factors

Fugitive TSP emissions from blasting operations are estimated using AP-42 Table 11.9-1, PM10 = TSP x 0.52, PM2.5 = TSP x 0.03

$$E = 0.000014 (A)^{1.5}$$

Where: A = horizontal blast area
 Blast per year = 42

Pollutant	Emission Rate (lb/blast)
TSP	0.014
PM10	0.0073
PM2.5	0.0004

Blasting Emissions

TSP lb/yr = (0.014 lb/blast) x (42 blast/yr) = 0.59
PM10 tpy = (0.59 lb/yr) x (0.52) = 0.31
PM2.5 tpy = (0.59 lb/yr) x (0.03) = 0.02

Total Pit Emissions (tpy)			
Source	TSP	PM10	PM2.5
Crushing	0.68	0.30	0.06
Screening	3.13	1.09	0.07
Exposed Acreage	3.42	1.03	0.15
Truck Loading & Stockpiling	10.59	5.01	0.76
Haul Road (Paved)	5.22	1.04	0.26
Blasting	0.59	0.31	0.02
Total Emissions	23.61	8.77	1.31

Potential Operating Schedule:

Hours/day: 10 *** Use for each piece of equipment ***

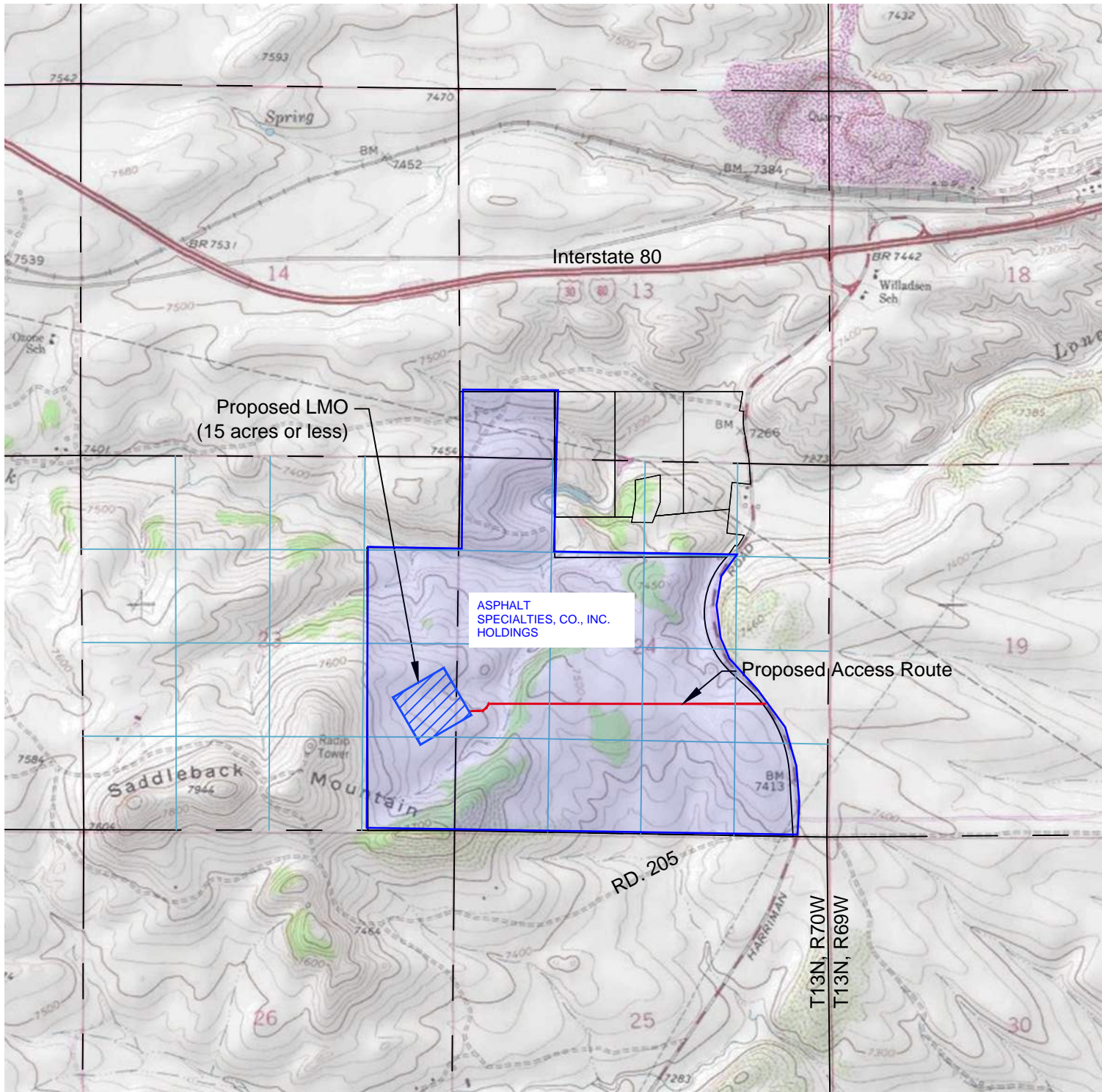
Crushing Equipment:

Company Equipment ID:	Maximum Annual Throughput	Units	Manufacturer	Model Name and Number	Serial Number	Effective Date	Type of material crushed	Type of crusher	Manufacture Date	Power Source	Max Crusher Capacity (tons/hr):
CR-44	300,000	tons	KPI-JCI	FT2650	416231	11/15/2017	Granite	Jaw	2016	Generator	250
CR-45	300,000	tons	KPI-JCI	FT4250	417139	12/31/2017	Granite	Impact	2017	Generator	180

Company Equipment ID:	Maximum Annual Throughput	Units	Manufacturer	Model Name and Number	Serial Number	Effective Date	Type of Material Screened	Manufacture Date	Type of Screen	Power Source	Max Screen Capacity (tons/hr):	Operating in Conjunction with a Crusher?:
CR-24	175,000	tons	ASTECC	2512KT	62504	6/30/2013	Granite	2012	Dry Screen	Generator	180	Yes
CR-35	300,000	tons	KPI-JCI	GT205S	154168	12/31/2016	Granite	2016	Dry Screen	Generator	350	Yes

Loading/Unloading/Dumping:

Company Equipment ID:	Type of Material	Material Description	Maximum Annual Throughput	Units	Maximum Hourly Throughput	Units	Detailed Description of Loading/Unloading/Dump Source:
ED-01 (Dozer)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT D8T Dozer - For transporting rock/stockpile materials at facility
EE-26 (Excavator)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 349FL Excavator - For loading rock into transport trucks and moving stockpile materials
EL-55 (Loader)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 980M Wheel Loader - For loading rock into transport trucks and moving stockpile materials
EL-59 (Loader)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 972M Wheel Loader - For loading rock into transport trucks and moving stockpile materials
ETU-07 (Loader)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 289D Track Loader - Compact track loader for transporting materials at facility
ET-07 (Dump Truck)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 740 Articulated Dump Truck - For transporting rock/stockpile materials at facility
ET-08 (Dump Truck)	Solid	Rock/Topsoil/Overburden	N/A	tons/yr	N/A	tons/hr	CAT 740 Articulated Dump Truck - For transporting rock/stockpile materials at facility
CR-31 (Stacker)	Solid	Rock	250,000	tons/yr	N/A	tons/hr	McCloskey ST 100T Stacker - For creating stockpiles of rock at facility
CR-32 (Stacker)	Solid	Rock	250,000	tons/yr	N/A	tons/hr	McCloskey ST 100T Stacker - For creating stockpiles of rock at facility



Map to Accompany
 Notification for Proposed
 Limited Mining Operation:

Lone Tree Creek Quarry

Pit Location:
 14.8 acres located in the NW $\frac{1}{4}$
 SW $\frac{1}{4}$ of Section 24,
 T13N, R70W
 and the E $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 23,
 T13N, R70W

OPERATOR:
 Asphalt Specialties, Co., Inc.
 10100 Dallas Street
 Henderson, CO 80640
 Daniel Hunt
 (303)289-8555

USGS Topo/Quad Base Map:
Granite Canyon, Wyoming

SCALE:
 1" = 2,000'

