

9/007/033 Incoming

**Wild West Equipment & Hauling, LLC**  
**Wildcat Load Out**  
**PO Bix 1, Price, Utah 84501**  
**Phone: (435) 472-3988 – Fax: (435) 472-3456**

#5560

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DIV. OF OIL, GAS & MINING

January 3, 2018

Suzanne Steab  
Utah Coal Program  
Utah Division of Oil, Gas and Mining  
1594 West North Temple – Suite 1210  
Box 145801  
Salt Lake City, UT 84114-5801

Hi Suzanne:

As per your December 28, 2017 email, enclosed, please find the Clean Copies for Task ID #5547, Wildcat Loadout Mid-term Review.

Please use the original signed form C1 that was submitted by Melia Asucan. The C2 included has been revised.

Again, I apologize for the inconvenience and appreciate all of your help.

If you have any questions, please feel free to call at 435-650-7399.

Sincerely,



Kit Pappas  
Engineering/Environmental



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## CHAPTER 1, LEGAL

### R645-301-100. GENERAL

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

### R645-301-110. LEGAL, FINANCIAL, AND COMPLIANCE INFORMATION

#### Legal, Financial Compliance and Information

The objective of this chapter is to set forth all relevant information concerning ownership and control of Intermountain Power Agency, the ownership and control of the property to be affected by mining activities and all other information and documentation required.

#### Compliance Information

a) Suspension and Revocation  
Intermountain Power Agency, affiliates or persons controlled by or under common control with Intermountain Power Agency have not forfeited a mining bond or similar security in lieu of bond.

b) Forfeiture of Bond

Intermountain Power Agency, affiliates or persons controlled by or under common control with Intermountain Power Agency have not forfeited a mining or similar security in lieu of bond.

c) History of Violations

Intermountain Power Agency and affiliated companies have not received any violation received Within the last three years prior to the date of this application. See attached amended and restated Appendix B Part B

### R645+301-111. INTRODUCTION

#### Introduction and Overview of Project Permit Application

##### A. Introduction

This permit application is being submitted by Intermountain Power Agency, in order that coal can Be stored and loaded out of this coal loadout facility located at

Wildcat Junction, near Helper, Utah. This facility is known as the Wildcat Loadout. Intermountain Power Agency is a political subdivision of the State of Utah. Intermountain Power Agency has a permit to operate its coal loading and storage facility known as Wildcat Loadout, in accordance with yhe appropriate regulations. This coal loadout facility is located on land owned by the United States of America in Carbon County, Utah.

Intermountain Power Agency was granted the right-of-way in August, 2011, by the Bureau of Land Management of the United States Department of the Interior.

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R645-301-200.

SOILS

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

I. Soil Survey and Vegetation Inventory (please see Appendix D, *Appendix D Supplement*, and Appendix I).

1. Introduction

Appendix D is a survey conducted by the SCS in the Wildcat area and depicts the major soil types here. Appendix D also includes a survey including sampling as performed by Earl Jensen consulting as a soil scientist. Included in this survey is a soil profile description for each soil type identified on the permit area. Plate 11 depicts the soils as outlined by the Order 3 Survey performed by the SCS.

R645-301-211.

**PREMINING SOIL RESOURCES**

The entire disturbed area, with the exception of approximately 20 acres, was disturbed pre-law by previous owners, and no topsoil was saved.

Topsoil was removed prior to construction in 1984, and stored and protected for use in final reclamation. Please see Plate 13C for a summary of stored topsoil. Appendix D also includes a topsoil mass balance and

includes soil quality data from the Utah State University Testing Laboratory. The mass balance indicates that there may not be sufficient volume of topsoil for final reclamation. IPA has committed to identifying and testing for suitable substitute material either off the permit area or possibly within

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## CHAPTER 3, BIOLOGY

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

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R645-301-300.            BIOLOGY

R645-301-310.            INTRODUCTION

Vegetation Information

### Introduction

An intensive detailed vegetation survey was not required or performed for the BLM Right-of-Way prior to the construction of this facility. It was a sagebrush/grass lowland with a Pinyon-Juniper community to the west. The following letter, shows the two reference areas identified by the SCS which show the general vegetative types in the area. Although the SCS identified these two areas, a third area was chosen by the Division of Oil, Gas, and Mining and Andalex Resources and is shown on Plate 1. A detailed vegetation inventory has been performed for Andalex by a qualified range scientist on this third reference area and is included in this document as Appendix I. This inventory will be the basis for a seed mixture to be used during reclamation. Please note that although the SCS identified two reference areas, the reference area being used for this MRP was designated by DOGM and Andalex for use during reclamation.

Description

(Also R645-301-311, 320 and 321)

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## CHAPTER 4, LAND USE & AIR QUALITY

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

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R645-301-400.

### LAND USE AND AIR QUALITY

R645-301-410.

### LAND USE

R645-301-411.

### ENVIRONMENTAL DESCRIPTION

Because of the vegetation and poor rainfall, the land is presently used only for grazing, wildlife habitat, and limited outdoor recreation. Historically, the land has also been used for coal loading.

R645-301-411.100.

### PREMINING LAND USE INFORMATION

Past mining in the vicinity of Wildcat includes ARCO'S Beaver Creek Mines (ten miles to the west). The Swisher Coal Company previously used the Wildcat Siding.

R645-301-411.110.

### USES OF THE LAND AT THE TIME OF FILING APPLICATION

The Wildcat Loadout area would fall into two land use categories: 1) Fish and Wildlife habitat and recreation lands, and 2) Range Lands. County zoning regulations (1974) indicate all lands involved in the lease application area are within Zone M and G1 which is for mining and grazing. Current land use consists of grazing, wildlife habitat, and deer hunting. No other game species are found in the area. For recreational purposes, the land is suitable for deer hunting as well as ATV riding and occasionally snowmobiling. There are no oil and gas wells or water wells.

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*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment included in Appendix P.*

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

**R645-301-500.      ENGINEERING**

**R645-301-510.      INTRODUCTION**

Volume II of this PAP contains plates which support the narrative of Volume I. These maps include, but are not limited to, contiguous surface and subsurface owners, the permit boundary including the area to be affected over the life of the project, a plate depicting all buildings and structures within 1,000 feet of the permit area and any surface or subsurface man-made features (powerline). Much of this information is combined on individual maps, e.g., the man-made features are on Plate 1 which also depicts buildings within 1,000 feet.

The location and boundaries of the revegetation reference area are shown on Plate 1.

Figure VII-2 depicts surface waters and receiving waters in the vicinity of the permit area. The Gordon Creek Road (County Road 139) is also depicted as it relates to the permit area on the surface facilities map.

**Cross Sections, Maps, and Plans**

**(Also R645-301-511, 521. 140, 521.150, 521.160, 521.170, 521.180 and R645-301-722)**

Many of the plans of this section are not applicable to the Wildcat Loadout Facility as it is strictly a surface facility and plans showing core samples, nature of coal seams, outcrops, active underground and abandoned workings or any others pertaining to mining (surface or underground) are not included.

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## CHAPTER 6, GEOLOGY

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

R645-301-600.

### GEOLOGY

R645-301-610.

### INTRODUCTION

R645-301-611.

### GENERAL REQUIREMENTS

R645-301-611.100.

### GEOLOGY WITHIN AND ADJACENT TO THE PERMIT AREA

#### Introduction

The Wildcat Loadout is in the Gordon Creek area of the Wasatch Plateau which is one of the major physiographic features in the region. The plateau rises from a base at approximately 6,000 feet in elevation to over 9,000 feet.

Spring Canyon and Ford Ridge (Forge Mountain) are the major topographic features of the area. The Price River Canyon and Spring Canyon are the major area drainages.

#### Geologic Setting (Stratigraphy and Structure)

The permit area sits on the Masuk Member of the Mancos Shale. The Mancos Shale in this area is in excess of 5,000 feet thickness. The Mancos Shale in the area is mainly dark bluish, gray shale which becomes sandy towards the top. The oldest unit of the Mesa Verde Group is the Star Point Sandstone. It lacks coal and consists of three sandstone tongues. The beds of sandstone range in thickness from one to ten feet in most parts. The Mesa Verde Group immediately

## CHAPTER 7, HYDOLOGY

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

### **R645-301-700.      HYDROLOGY**

### **R645-301-710.      INTRODUCTION**

It should be noted that the entire sedimentation and control plan, including impoundments, diversions and *reclamation hydrology* are discussed in *Appendix R, Sedimentation and Drainage Control Plan.*

### **R645-301-711.      GENERAL REQUIREMENTS**

See Sections R645-301-711.100 through R645-301-711.500

### **R645-301-711.100.      EXISTING HYDROLOGIC RESOURCES**

Existing Groundwater Resources  
Regional Groundwater Hydrology  
The groundwater resources of the Wasatch Plateau have not been studied to any great extent. The region has been characterized generally as one of regional groundwater recharge.<sup>1</sup> The lithologic nature of the upper cretaceous strata generally makes them unsuitable as significant aquifers. Much of the precipitation that falls in the Wasatch Plateau is removed by overland flow and evapotranspiration. The water that does enter the ground moves only short distances before discharging as springs and seeps, generally in the higher elevation areas. The regional water table is probably several hundred feet below the surface,<sup>1</sup> and probably coincides with the bottoms of the major streams, i.e., Price River.

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<sup>1</sup>Price and Arnow, 1974

## CHAPTER 8, BONDING

*HISTORICAL NOTE: In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.*

A proposed crude oil unloading station, storage system, and railcar loading stations will be located on the west side of the Utah Railroad tracks. These facilities will be bonded before any implementation or construction is started.

### **R645-301-800.                    BONDING AND INSURANCE**

IPA currently holds a bond, calculated and approved by the Division, in the amount of \$1,481,000 proposed new amount of \$1,192,000 due to the removal of the crude oil unloading, storage and rail loading system. This bond, and all supporting calculations, is included in this MRP in Appendix B, Part D.

It should be noted that only major headings and information specific to the IPA Wildcat Bond and Insurance are included in this chapter. If a major heading is noted "N/A" or "By Division" all subsequent headings in that series are also assumed "N/A" or "By Division".

### **R645-301-810.                    BONDING DEFINITIONS AND DIVISION RESPONSIBILITIES**

BY DIVISION

### **R645-301-820.                    REQUIREMENT TO FILE A BOND**

IPA currently holds a bond, approved by UDOGM in the amount of \$1,481,000/\$1,192,000 and it is included in this MRP in Appendix B, Part D.

### **R645-301-830.                    DETERMINATION OF BOND AMOUNT**

The bond amount has been determined through joint effort by IPA and the Division. The present amount of bond is \$1,481,000.00/\$1,192,000.00. Complete calculations are included in Appendix B, Part D. Bonded areas (disturbed areas) are shown on Plates 1 and 1B and further described in R645-301-542

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CHAPTER 9

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**R645-301-100 GENERAL**

This chapter is being submitted by Intermountain Power Agency, in order that a proposed crude oil unloading, storage, and railcar loading systems can be installed on the west side of the Wildcat coal loading facility.

**R645-301-200 SOILS**

The proposed crude oil facility is located in a previously disturbed area. The proposed crude oil unloading facility and fire water tank will infringe on the Revegetation Test Plot "D" area. To insure that this soil is protected, the soil will be removed by using a truck and hydraulic backhoe and hauled to a different location of the test plot area, see Plate 1 of this submittal.

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The soil will be spread using a small bulldozer to configure the pile. The amount of material to be removed and stored is approximately 2,170 cubic yards. The perimeter of the newly created pile will have a base of 60 feet wide and 172 feet long and a height of 5 feet. The slopes of the pile will be graded to a 2:1 configuration.

The pile will be surrounded by silt fence to control the loss of sediment and will be reseeded to help stabilize the soil. The interim seed mix stated in Chapter 2, "Soils " of the Wildcat M&RP will be used to reseed the pile. The seed mix label will be available for the inspector to examine to ensure that the proper seed mix was used. The silt fence will remain in place until vegetation is reestablished as per the Division of Oil, Gas and Mining regulations.

Topsoil piles "B" and "E" in ASCA #5 will remain in place for the present.

The waste rock disposal area will remain in place for the present and will be maintained by the company operating the coal loading facility.

#### **R-645-301-300 BIOLOGY**

The vegetation types in the surrounding areas of the crude oil facilities are Pinyon-Juniper and Sagebrush-Grass. Refer to Chapter 3 of the M&RP for more details on plants communities.

There are no know threatened or endangered species within the crude oil facility based upon previous studies of the area.

The proposed crude oil facility is partially located within crucial winter habitat for Rocky Mountain elk and for mule deer.

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#### **R645-301-400 LAND USE**

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The crude oil facility area will fall into two land use categories: 1) Fish and Wildlife habitat and recreation lands, and 2) Range Lands. County zoning regulations indicate all lands involved in the crude oil facility area are within Zone M and GI which is for mining and grazing. Current land use consists of grazing, wildlife habitat, and deer hunting. For recreational purposes, the land is suitable for deer hunting as well as ATV riding and occasionally snowmobiling.

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A reconnaissance survey has been conducted of the existing area to assure that no archaeological or historical sites exist within the area. The results of the survey can be found in the *Confidential Binder* of the M&RP.

A reconnaissance survey has been conducted of the area where the proposed oil storage facility will be constructed and the area for the dam and diversion ditch to direct undisturbed runoff around the oil storage facility. The results of the survey can be found in a report sent to the Bureau of Land Management, Price Field Office.

## **R645-301-500 ENGINEERING**

### Overview of Project

#### General Description

The Wildcat Loadout facility is centrally location for transporting oil from Central Utah and the Uintah Basin. The proposed unloading, storage, and loading of crude oil are designed to reduce chance of leaks and spills from degrading the area.

#### Summary Description

##### Proposed Storage Tanks

Four storage tanks with a combined capacity of approximately 250,000 barrels are used for crude oil storage. Two of the tanks will have a storage capacity of 100,000 barrels. These tanks will have a diameter of 146 feet and will be approximately 40 feet in height. Two of the tanks will have a storage capacity of 20,000 barrels. These tanks will have a diameter of 70 feet and will be approximately 32 feet in height. Each tank will have a sealed floating roof to prevent the escape of vapors. Each tank will contain coils for heating the oil during storage. The tanks will set on concrete foundations and pads.

The pads under the tanks will have open notches radiating from the center of the pad, each leading to the outside diameter of the tank to help detect bottom leaks of the tanks.

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### Proposed Fire Suppression

A 5,000 gallon barrel tank containing water with foam injection capabilities will be connected by pipe and pumped to the tank roof to provide fire suppressant. Pipes will have a connecting valve outside the containment berm to allow suppressant from tank trucks.

### Proposed Truck Unloading

Four truck unloading lanes will be using the existing roadways within the facility. Truck unloading racks will be adjacent to the unloading lanes. Four and six inch piping and fixed pumps will be used to transfer the tanker truck oil to the storage tanks through a closed system. This will prevent vapors from escaping. The fixed pumps will have 50 and 100 horsepower motors that are approximately 20 inches wide and 48 inches tall.

### Proposed Railcar Loading

Mobile pump stations will be used to transfer oil from storage tanks to railcars through a closed system to prevent vapors from escaping. This closed system will consist of four and six inch pipes. All piping will be of steel construction and will be above ground, where feasible.

### Proposed Vapor Combustor

A smokeless, natural draft, air assisted and enclosed vapor combustor will be installed to combust any vapors generated during the loading process as required by the Utah Department of Environmental Quality. Two inch vapor vent manifold piping will be installed from each railcar station to the combustor where the vapors will be destroyed to 98 percent destruction efficiency. The combustor will be approximately three (3) feet in diameter and 20 feet tall utilizing propane for the pilot and assist gas.

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### Proposed Substation

A 46 KV to 12.45 KV 3 MVA transformer substation will be located adjacent to the southeast corner of the existing warehouse fence.

### Proposed Yard Power

Two 12.45 KV feeds will leave the substation. One feed will be to a 12.45 KV to 480 V 500 KV transformer and will be used to supply power to two buildings. The second feed will be to a 12.75 KV to 480 v 2.5 KV transformer and will be used to supply power to control building.

### Proposed Yard Lighting

Approximately twelve light posts will be use at the truck unloading lanes, tank area and railcar loading tracks. The lighting fixtures will be cut-off design to cast light downward and minimize light pollution.

### Office

The trailer has been removed from the site.

### Proposed Diesel Fuel Tank

A 10,000 gallon fully enclosed diesel fuel tank will be used to fuel both truck and equipment.

### Construction

Construction will be located and carried out so as to prevent and control erosion, siltation, water pollution, and damage to property in accordance with the regulations.

All facilities have been designed and constructed and will be maintained and used in a manner which prevents damage to wildlife and related environmental values (particularly as this relates to power line structures, regarding Fish and Wildlife).

All activities shall be conducted in a manner which minimizes damage to railroads, electric and telephone lines, and water and sewage lines, which pass over or through the permit area. Constant upkeep of all surface facilities and structures has resulted in their maintaining their excellent condition.

### Construction Methods

#### Major Equipment

Excavations for foundations will be accomplished with backhoes and trackhoes. Leveling was required at the tank site; however, cut and fill was not implemented to a large degree because the area is relatively flat.

All surface pads will be stabilized and all other disturbed areas (pond embankments, other slopes, etc.) will be reseeded. Where possible, a rangeland seed drill will be used.

#### Maps

The proposed Crude oil unloading, storage, and railcar loading areas are all depicted on the surface facilities map, Plate 1.

#### Reclamation

Reclamation will be uncomplicated since this area is flat lying and topographically simple. All disturbed areas no longer required for the conduct of operations will be immediately revegetated. In the future, any areas no longer required for operations, will also be immediately revegetated.

Before buildings and final site preparation is completed, the topsoil was removed and revegetated to prevent erosion.

When the project is expired, perhaps in 20 years, extraneous material will be removed. Roads will be regraded and using the most advanced technology at the time, IPA will re-establish the terrain to as near the original contour as practical.

## Reclamation Timetable

Reclamation will be accomplished in two phases. Phase I will commence immediately after the project has expired. Phase I involves the majority of the reclamation steps. It will bring the site to near the original contour as practical with the exception of sedimentation ponds which will be left in place until revegetation has been determined complete. Prior to revegetation being complete, there is a possibility for runoff accumulating a sediment load, within the disturbed area.

The ponds left in place will prevent this runoff from leaving the disturbed area. Once the vegetation has been established which will probably take a minimum of two years, Phase II of the reclamation will commence. This phase involves the removal of the sediment ponds which were left, regrading, and revegetating these areas, and finally, IPA's commitment to monitoring.

### Phase I

The first step will be to remove structures. Since none of the structures will remain on site, this will be the largest part of the Phase I effort and will also be the most expensive. The following is a list of structures which will be brought down and removed either complete or as scrap/salvage.

1. Proposed 2 Oil Storage Tanks (100,000 barrels each)
2. Proposed 2 Oil Storage Tanks (20,000 barrels each)
3. Proposed 5,000 Gallon Barrel Water Tank
4. Proposed 4 Truck Unloading Stations
5. Proposed Vapor Combustor
6. Proposed 12 Light Posts
7. Proposed 46KV to 12.47KV Substation
8. Proposed Piping
9. Proposed Railcars Loading Stations
10. Proposed Diesel Fuel Tank

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Once the structures have been removed, then the recontouring and regrading portion will commence. It is anticipated that the structure removal will take approximately six months to complete so at this point. The recontouring would primarily involve the primary and secondary roads, the oil storage area, and unloading and loading areas. The undisturbed diversion west of the facility would become permanent at this point and would be capable of passing a 100 year precipitation event. The original natural drainage could not be restored because of the Utah Railroad. This natural drainage has been either blocked or diverted for the last 30 years by predecessors to IPA.

#### **R645-301-600 GEOLOGY**

There are no changes in geology. Refer to Chapter 6, Geology of the M&RP for discussion on this subject.

#### **R645-301-700 HYDROLOGY**

The runoff from this area has always drained from the west of the railroad tracks to the east side using culverts under the tracks. Ditches intercepted the water at the culverts and divert the water to sediment pond and out of the ponds into natural drainage washes. With the construction of the crude oil storage facility and the possibility of leakage occurring the culverts under the tracks were either plugged or covered.

The hydrology for the proposed crude oil storage facility was re-evaluated to determine the amount of runoff from undisturbed and disturbed areas above and within the site. To provide the maximum protection from potential events, a 100 year-24 hour storm event was used for these calculations. The precipitation event from this storm is 2.37 inches. This information was taken from NOAA Atlas 14, Volume 1, Version 5 for the Price Warehouse. SEDCAD Version 4 was used for these calculations.

The runoff from the different areas will either be handled by the construction of new structures or the use of existing structures. Four new structures will be construction. The first two structures will be a dam and a diversion ditch. These two structures will be to the west of the facility and designed to divert the majority of the undisturbed runoff around the facility to Garley Wash.

SEDCAD 4 was used to develop the flow rates and design of the drainage ditches, pond size and culvert verification. The storm event used was 100 yr. - 24 hr. and a rainfall depth of 2.73 inches. This was determined from the NOAA, Atlas Volume 14.

The new ditch will be trapezoidal in shape with a bottom width of three (3) feet and top width of 9.73 feet. The flow depth is estimated to be 2.60 feet. The ditch will have 1:1 side slopes and a one (1) foot freeboard. The flow rate is estimated to be 36.57 cfs.

A field inspection of the existing ditch has determined that the ditch is unsuitable. The existing ditch will be replaced using the new ditch design.

The existing ditch empties into a 24 inch half-round pipe and then into Garley Wash. The 24 inch half-round will not handle the new flow rate and will be replaced with a 30 inch half-round pipe.

The hydrology calculations can be found in Appendix A,

Water monitoring station WCW-3 is located in the existing diversion ditch UD-1. The monitoring location is at the convergence of the existing ditch and the proposed new ditch. The monitoring station will be moved a short distance and relocated in the new diversion ditch. Refer to Plate 2A, Wildcat Loadout Proposed Drainage Map Response to DO-04.

The Upper and Lower cells are existing sediment ponds and will be used to contain the runoff from the rest of the undisturbed area from entering the facility.

Two new retention ponds will be constructed to capture the runoff from the site. These two ponds will be lined with either clay or a high density polyethylene liner to prevent the contaminated water from infiltrating into the ground. The hydrology calculations can be found in Appendix A, "AES Drainage Area #1" and "AES Drainage Area #3".

**SEDIMENT POND #1**  
**SOIL EROSION TO POND #1**

Use the modified Universal Soil Loss Equation:

$$A = R * K * LS * VM$$

Ref: Israelsen, C. E., Fletcher, J. E., Haws, F. W., E. K. Israelsen, 1984 Erosion and Sedimentation in Utah: A Guide for Control, Utah Water Research Laboratories, Logan, Utah

- A = Amount of Soil loss per unit area
- R = Rainfall Factor
- K = Soil Erodibility Factor
- LS = Topographic Factor
- VM = Erosion Control Factor  
= 1.2 for bare, compacted soil

For POND # 1

- R = 11 Foot-Ton/Acre/Hour
- K = 0.1 Tons/Acre/EI

$$LS = \frac{(65.41s^2+4.56s+0.065)}{s^2*10,000+s^2*10,000} * \left( \frac{l}{72.6} \right)^m$$

- l = slope length – 1,125 ft
- s = slope gradient – 0.18%
- m = 0.2 for 0<s<1
- 0.3 for 1<s<3
- 0.4 for 3.5<s<4.5
- 0.5 for s>5

$$LS = \frac{(65.41(.18)^2+4.56(.18)+0.065)}{(.18)^2*10,000+9.18)^2*10,000} * \left( \frac{1,125}{72.6} \right)^{0.2}$$

DRAINAGE AREA	SLOPE LENGTH	SLOPE %	R	K	LS	VM	A	ACRES	A (ft <sup>3</sup> /yr)
AES #1	1,125	0.18	11	0.1	0.58	1.2	0.78	10.35	158

Assume 100 lf/ft<sup>3</sup>

Safety Factor for Sediment Storage – 5 years

$$158 \text{ ft}^3/\text{yr} * 5 \text{ years} = 790 \text{ ft}^3 \text{ or } 0.02 \text{ ac.-ft.}$$

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Pond #1 is 50 feet wide and 120 feet long and will be 8 feet deep. The capacity of the pond is 0.82 acre-feet. The sediment amount reporting to the pond is based on modified Universal Soil Loss Equation shown on pages 9-10 and 9-11 in the amount of 0.02 ac-ft of sediment for a five year period. The runoff volume is 0.70 ac-ft. The total pond capacity required is 0.72 ac-ft. The pond will be cleaned out when the sediment level reaches the five year amount at an elevation of 6,173.29 feet. The water will be pumped out of the pond when the water level reaches an elevation of 6,178.66 feet or 80 percent of the water volume. A staff gauge will be installed in the bottom of the pond and will have a paint mark at the sediment clear out level and the top of the gauge will be set at the elevation to pump out the pond. Before water is pumped, it will be tested to make sure that the water meets the water quality requirements.

**SEDIMENT POND #2**  
**SOIL EROSION TO POND #2**

Use the modified Universal Soil Loss Equation:

$$A = R * K * LS * VM$$

Ref: Israelsen, C. E., Fletcher, J.E., Haws, F. W., E. K. Israelsen, 1984 Erosion and Sedimentation in Utah: A Guide for Control, Utah Water Research Laboratories, Logan, Utah

- A = Amount of Soil loss per unit area
- R = Rainfall Factor
- K = Soil Erodibility Factor
- LS = Topographic Factor
- VM = Erosion Control Factor  
= 1.2 for bare, compacted soil

For POND # 2

- R = 11 Foot-Ton/Acre/Hour
- K = 0.1 Tons/Acre/EI

$$LS = \frac{(65.41s^2 + 4.56s + 0.065)}{s^2 * 10,000 + s^2 * 10,000} * \left( \frac{l}{72.6} \right)^m$$

- l = slope length – 645 ft,
- s = slope gradient – 3.88%

- m = 0.2 for 0 < s < 1
- 0.3 for 1 < s < 3
- 0.4 for 3.5 < s < 4.5
- 0.5 for s > 5

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$$LS = \frac{(65.41(3.88)^2 + 4.56(3.88) + 0.065)}{(3.88)^2 * 10,000 + (3.88)^2 * 10,000} * \left( \frac{645}{72.6} \right)^{0.4}$$

DRAINAGE AREA	SLOPE LENGTH	SLOPE %	R	K	LS	VM	A	ACRES	A (ft <sup>3</sup> /yr)
AES #1	645	3.88	11	0.1	0.08	1.2	0.10	3.88	7.44

Assume 100 lf/ft<sup>3</sup>

Safety Factor for Sediment Storage – 5 years

$$7.77 \text{ ft}^3/\text{yr} * 5 \text{ years} = 38.85 \text{ ft}^3 \text{ or } 0.000892 \text{ ac.-ft.}$$

Pond #2 is 60 feet wide and 60 feet long and will be 10 feet deep. The capacity of the pond is 0.54 acre-feet. The sediment amount reporting to the pond is based on modified Universal Soil Loss Equation shown on pages 9-11 and 9-12 in the amount of 0.000892 ac-ft of sediment for a five year period. The runoff volume is 0.43 ac-ft. The total pond capacity required is 0.43 ac-ft. The water will be pumped out of the pond when the water level reaches an elevation of 6,174.37 feet or 80 percent of the water volume, since the amount of sediment in the pond is so small. A staff gauge will be installed in the bottom of the pond and will have a paint mark at the sediment clear out level and the top of the gauge will be set at the elevation to pump out the pond. Before water is pumped, it will be tested to make sure that the water meets the water quality requirements.

The ponds are designed to be total containment with no discharge. The reason for showing single spillway in each is because the SEDCAD program requires a spillway for the pond capacity to be calculated.

Water from each pond will be pumped to diversion ditch and discharged into Garley Wash. If it becomes necessary to discharge water from these two new ponds, the discharge water under the general coal permit will be sampled for: total iron, total suspended solids, total dissolved solids (must be under one ton per day), pH, oil and grease, flow and settleable solids if sampling during a storm event or snowmelt runoff. DOGM and DWQ will notified of the test results before pumping would occur.

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An approved UPDES permit for discharging water, found in-Appendix B UPDES PERMIT.

Three drainage areas in the oil storage and transfer facilities replace the existing drainage areas as shown on Plate 2A. The new drainage areas include the old areas as follows:

Drainage Area #1 includes the following:  
DA-11, DA-19, DA-29, DA-31, and DA-32

Drainage Area #2 includes the following:  
DA-34 and DA-35

Drainage Area #3 includes the following:  
DA-1, DA-2, and DA-12

#### **R645-301-800 BONDING**

The proposed crude oil facility is not related to coal handling operations and the facility will not be in DOGM's regulations. There will no change to the Bond Insurance already provide by IPA. The bonding action will be covered by a different agency.

A bond will be submitted before any implementation or construction of the facilities is started.

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Direct Costs		
Subtotal Demolition and Grading	\$255,043	
Subtotal Backfilling and Grading	\$302,382	
Subtotal Revegetation	\$356,631	
Subtotal Direct Costs	<u>\$914,057</u>	
Indirect Costs		
Mob/Demob	\$91,406	10.0%
Contingency	\$45,703	5.0%
Engineering Redesign	\$22,851	2.5%
Main Office Expense	\$62,156	6.8%
Project Management Fee	\$22,851	2.5%
Subtotal Indirect Costs	<u>\$244,967</u>	26.8%
Total Cost	\$1,159,024	
Escalation Factor		0.007
Number of Years		4
Escalation	<u>\$32,795</u>	
Reclamation Cost.	\$1,191,819	
Bond Amount (round to nearest \$1,000) in 2021dollars	\$1,192,000	

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Cost Factors

Means Number	Material	Unit Cost	Units
02 41 16.13 0100	Mixture of types, average	0.40	CF
01 54 33 20 0346	328LCR,Prod. Rate 8 CY/HR	39.05	/Day
31 23 16.42 1300	Front End Loader 3 CY	2.21	CY
31 23 23.20 1014	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	3.74	CY
02 41 16.17 4200	On Site Disposal	11.4	CY
City Sanitation Price	City Sanitation	8.5	CY
02 41 16.13 0012	Steel Bld. Large	0.38	CY
02 41 13.80 0100	Utility Pole wood 20'-30' high	310	EA
02 41 13.30 0800	Guard Rail	17.35	LF
02 41 13.60 1700	Chain link, posts & fabric remove only	4.44	LF
23 05 05.10 3600	Mechanical equipment heavy	1225	Ton
31 23 16.42 0260	Backhoe, hydraulic Bulk Bank Measure	1.81	CY
31 23 16.13 3080	Backfill trench Minimal Haul 2 1/4 CY	2.5	CY
02 65 10.30 0120	6000 gal. to 8000 gal.tank	1200	EA
02 65 10.30 1026	6000 gal. to 8000 gal.tank	960	EA
02 65 10.30 0130	9000 gal. to 12000 gal. tank	1800	EA
02 65 10.30 1029	9000 gal. to 12000 gal. tank	1150	EA
32 01 90.13 0180	Hydro spreader(equip. & labor)	4.99	MSF
Maple Leaf		1412.43	AC
Reveg007	Hay bale	333	Ton
01 54 33 20 4360	D9R Semi-U EROPS (2017)	2368.00	/Day
01 54 33 20 4360	Hourly Cost		
01 54 33 20 4870	988 G EROPS (2017)	3224.00	/Day
01 54 33 20 4870	Hourly Cost		
01 54 33 20 3525	627 G Scraper (2017)	2429.00	/Day
01 54 33 20 3525	Hourly Cost		
01 54 33 40 6950	6,000 Gal H2O Truck Diesel (2017)	1127.00	/Day
01 54 33 40 6950	Hourly Cost		
01 54 33 40 7200	Pick-up Truck 4x4 1 Ton (2017)	140.00	/Day
01 54 33 40 7200	Hourly Cost		
Back Page RSMeans	Forman Average Outside	82.25	/HR
Back Page RSMeans (CLAB)	Labor	60.00	/HR
Back Page RSMeans Eqhv	Heavy Equip. Operator (Heavy)	84.25	/HR
Back Page RSMeans Eqmd	Heavy Equip. Operator (Med)	81.00	/HR
Back Page RSMeans Trhv	Truch Drivers, Heavy	68.70	/HR
01 54 33 40 7300	Farm Tractor with DISC	336.60	/Day
01 54 33 40 7300	Hourly Cost		
01 54 33 40 7410	Farm Tractor	485.60	/Day
01 54 33 40 7410	Hourly Cost		
01 54 33 40 7620	Vacuu Truck, hzardous material, 2500 gallon	273.6	/Day

Note:

01 54 33 20 0346                      328LCR,Prod. Rate 8 CY/HR  
 Work a 8 Hr./Day                      \$312.40/day ÷ 8 Hr/Day = \$39.05/HR

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Loading Bin 01	1629
Scales 02	8239
Substation 03	9199
Truck Dump West 04	4564
Crushing Plant West 05	1442
Radial Stacker West 06	4857
Reclaim Tunnel West 07	10800
Loadout Conveyor West 08	1946
Control Building West 09	1779
Truck Dump Reclaim 10	5250
Conveyor 11	2043
Crusher Screen Plant 12	11114
Lump Coal Belt 13	616
Stoker radial Stacker 14	4293
Conveyor 15	4171
Main Radial Stacker 16	25082
Loadout Reclaim 17	19792
Loadout Tower 18	34576
Office 19	6956
Powerline 20	7750
Shop 21	15738
Guardrail 22	17350
Culverts 23	2657
Miscellaneous 24	7650
Truck Dump New 25	5250
Conveyor New 26	1741
Radial Stacker 27	24010
Conveyor 28	14549
Office Trailer 29	0
	<hr/>
	255043

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swelt Factor	Quantity	Unit	Cost	
		Loading Unit 01																				
		Structure Demolition Cost	Steel Bolt Large	02 41 18 13 0012	0.4	CY	15	15	12											2700	CF	1103
		Structure Vol. Demolished																				
		Structure Weight (structure steel)																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Non Street Truck																				
		Transportation Cost Non Street Drive																				
		Disposal Cost Non Street																				
		Steel Weight																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Disposal Cost steel																				
		Subtotal																				1500
		Equipment's Original Cost																				
		Demolition Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	3/8" CR Prod. Rate & CY/HR	01 54 33 20 03 40	39.05	Day	30	18	1													
		Concrete Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	11 22 16 42 13 00	2.71	CY																
		Transportation Cost	12 Cy (18 Wheel) Dump Truck 120 mi. est. Trip	33 23 23 20 10 14	3.74	CY																
		Disposal Costs	On Site Disposal		11.41	CY																
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost																				
		Concrete Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				1524

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Item	Task	Description	Materials	Materials Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swat Factor	Quantity	Unit	Cost
		Steel 02																			
		Structure Demolition Cost	Mixture of types, average	02 41 16 13 0110	0.4	CF	14	80	8												
		Structure Vol. Demolished																			
		Structure Weight (excluding steel)																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost From Steel Truck																			
		Transportation Cost From Steel Drive																			
		Disposal Cost from Steel	City Sanitation	City Sanitation Price	8.5	CV															740
		Steel Weight																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Drive																			
		Disposal Cost steel																			
		Subtotal																			529
		Structure Demolition Cost	Steel Wt Large	02 41 16 13 0112	0.58	CF	14	80	8												
		Structure Vol. Demolished																			
		Structure Weight (excluding steel)																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost From Steel Truck																			
		Transportation Cost From Steel Drive																			
		Disposal Cost from Steel																			
		Steel Weight																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Drive																			
		Disposal Cost steel																			
		Subtotal																			204
		Concrete Demolition																			
		Demolition Cost	328 CR Prod. Rate 8 CV/HR	01 54 33 20 0345	39.05	HR	14	70	0.5												
		Concrete Vol. Demolished																			
		Leakage Cost	Front End Loader 3 CV	31 23 16 42 1300	2.21	CV															
		Transportation Cost	12 Cy (16 Ton) dump Truck 12 mi. est. 1hr	31 23 23 20 1014	3.74	CV															
		Disposal Costs	On Site Disposal		11.4	CV															
		Subtotal																			488
		Concrete Demolition																			
		Demolition Cost	328 CR Prod. Rate 8 CV/HR	01 54 33 20 0346	39.05	HR	10	12	0.25												
		Concrete Vol. Demolished																			
		Leakage Cost	Front End Loader 3 CV	31 23 16 42 1300	2.21	CV															
		Transportation Cost	12 Cy (16 Ton) dump Truck 12 mi. est. 1hr	31 23 23 20 1014	3.74	CV															
		Disposal Costs	On Site Disposal		11.4	CV															
		Subtotal																			200
		Concrete Demolition																			
		Demolition Cost	328 CR Prod. Rate 8 CV/HR	01 54 33 20 0345	39.05	HR	340	20	0.25												
		Concrete Vol. Demolished																			
		Leakage Cost	Front End Loader 3 CV	31 23 16 42 1300	2.21	CV															
		Transportation Cost	12 Cy (16 Ton) dump Truck 12 mi. est. 1hr	31 23 23 20 1014	3.74	CV															
		Disposal Costs	On Site Disposal		11.4	CV															
		Subtotal																			1728
		Total																			4230

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Shrink Factor	Quantity	Unit	Cost	
		Substation 03																				
		Structure's Demolition Cost	Mechanical equipment heavy	23-05 00 10 3500	1223	Ton									3		Ton		3	Ton	3674	
		Structure's Vol. Demolished																				
		Structure's Weight (exclude steel)																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost Non Street Tru																				
		Transportation Cost Non Street Drive																				
		Disposal Cost Non Street																				
		Steel's Weight																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost Street Tru																				
		Transportation Cost Street Drive																				
		Disposal Cost steel																				
		Subtotal																				2679
		Equipment's Disposal Cost																				
		Demolishing Cost	Chain link posts & fabric remove only	02 41 13 60 1700	4.44	LF	250										LF		250	LF	1146	
		Equipment's Vol. Demolished																				
		Loadin Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				1150
		Equipment's Disposal Cost																				
		Demolishing Cost	Lobby Pole wood 20-30' high		3180	EA											EA		13	EA	4000	
		Equipment's Vol. Demolished																				
		Loadin Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				4000
		Concrete Demolition																				
		Demolition Cost	320L CR Prod Rate 8 CV/HR	01 54 33 20 0348	39 05	HR	25	15	0.5								HR		0.87	HR	34	
		Concrete Vol. Demolished																	1.3		2	CV
		Loadin Cost	Front End Loader 3 CV	31 23 35 42 1300	2 21	CV																20
		Transportation Cost	17 Cy 118 Tard dump Truck 1/2 mi. spd. Trip	31 23 23 20 1014	3 74	CV																34
		Disposal Costs	On Site Disposal		11.4	CV																104
		Subtotal																				152
		Concrete Demolition																				
		Demolition Cost	320L CR Prod Rate 8 CV/HR	01 54 33 20 0348	39 05	HR	25	15	0.5													34
		Concrete Vol. Demolished																				
		Loadin Cost	Front End Loader 3 CV	31 23 35 42 1300	2 21	CV																20
		Transportation Cost	17 Cy 118 Tard dump Truck 1/2 mi. spd. Trip	31 23 23 20 1014	3 74	CV																34
		Disposal Costs	On Site Disposal		11.4	CV																
		Subtotal																				152
		Total																				7100

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swift Factor	Quantity	Unit	Cost	
		Truck Dump/Wrest 04																				
		Structural Demolition Cost	Steel 60L Large	02 41 16 13 0012	0.38	CF	40	14	13								21		4000	CF	3192	
		Structural Vol. Demolished																				
		Rubber's Weight (excelsior steel)																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Min Steel Truck																				
		Transportation Cost Min Steel Drive																				
		Excavator Cost Min Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Excavator Cost steel																				3492
		Subtotal																				
		Equipment's Disposal Cost																				
		Disassembly Cost																				
		Equipment's Vol. Demolished																				
		Liquid Costs																				
		Transfer Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition	120,000 Prod. Rate II CY/HR	01 54 33 20 0348	39.05	HR						50										244
		Demolition Cost																				
		Concrete Vol. Demolished																				
		Liquid Cost	Front End Loader 3 CY	31 23 55 42 1500	2.23	CY																141
		Transportation Cost	12 Cy 110 Tonn dump Truck 10/mi. rot. Trac	31 23 23 20 1814	3.34	CY																283
		Disposal Costs	On Site Dumping		11.4	CY																743
		Subtotal																				1102
		Concrete Demolition																				
		Demolition Cost																				
		Concrete Vol. Demolished																				
		Liquid Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				4064

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Rel.	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Unit Factor	Quantity	Unit	Cost
		Crushing Plant Work OS																			
		Structure's Demolition Cost	Steel Blot, Large	02 41 16 13 0012	0.28	CF	20	15	10								FT		3000	CF	1140
		Structure's Vol. Demolished																			
		Structure's Weight (excludes steel)																			
		Truck's Capacity																			
		Material																			
		Transportation Cost Iron Steel Truck																			
		Transportation Cost Non Iron Steel Truck																			
		Trussal Cost Iron Steel																			
		Steel's Weight																			
		Truck's Capacity																			
		Material																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Deuce																			
		Disposal Cost steel																			
		Subtotal																			1188
		Equipment's Disposal Cost																			
		Demolition Cost																			
		Equipment's Vol. Demolished																			
		Equipment's Weight																			
		Transportation Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	32BLCR Prod. Rate 8 CY/HR	01 54 03 20 0346	39.09	HR	20	15	1								FT		1.20	HR	54
		Concrete's Vol. Demolished																	1.3	CU	111
		Loading Cost	Pipes End Loader 3 CY	11 20 16 42 1300	2.21	CV															32
		Transportation Cost	12 Cy 116 Ton Dump Truck 1/2 mi. Std. Trk	33 23 23 20 1014	3.74	CV															53
		Disposal Costs	On Site Disposal																		
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. (Welded)																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			1542

Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Over Factor	Quantity	Unit	Cost
		Radial Shaker West 06																			
		Structura Demolition Cost	Steel Bolt Large	02 41 16 13 0012	0.38	CF	150	6	8												3488
		Structura Vol. Demolition																			
		Structure Weight (exclude steel)																			
		Truck Capacity																			
		Hoisting																			
		Transportation Cost Non-Steel Truck																			
		Transportation Cost Non-Steel Drive																			
		Crushed Cost Non-Steel																			
		Steel Weight																			
		Truck Capacity																			
		Hoisting																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Drive																			
		Crushed Cost steel																			
		Subtotal																			2245
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Overhaul Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328 CR Prod. Rate @ 0.146	01 54 33 20 0146	39.05	HR	150	6	1												
		Concrete Vol. Demolished																			
		Loading Cost	Front End Loader 3 CY	31 23 16 47 1000	2.41	CF															
		Transportation Cost	12 CY (16 Tons) dump Truck 1/2 mi. esp. 110	31 23 22 20 1014	3.74	CF															
		Overhaul Costs	On Site Disposal		11.4	CF															
		Subtotal																			700
		Concrete Demolition																			
		Demolition Cost																			
		Concrete Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Overhaul Costs																			
		Subtotal																			
		Total																			4807

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Derby	Time	Number	Unit	Power Factor	Quantity	Unit	Cost
		Remove Tunnel Vent Oil																			
		Structural Demolition Cost	Steel 80# Large	02 41 10 13 0012	0.38 CF		190	14	8										1180 CF		6000
		Structure's Vol. Demolished																			
		Builder's Weight (exclude steel)																			
		Truck Capacity																			
		Hauling																			
		Transportation Cost Non Street Truck																			
		Transportation Cost Non Street Drive																			
		Disposal Cost Non Street																			
		Steel's Weight																			
		Truck Capacity																			
		Hauling																			
		Transportation Cost Street Truck																			
		Transportation Cost Street Drive																			
		Disposal Cost steel																			
		Subtotal																			6000
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loadout Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	336LUL Prod. Rate 8 CY/HR	01 64 33 20 0346	38.00/CY		190	14	1										12.31 HR		481
		Concrete's Vol. Demolished																	1.2		300 CY
		Loadout Cost	Front End Loader 3 CY	31 23 18 42 1800	2.20/CY																284
		Transportation Cost	12 Cy (10.5 ton) dump Truck 1/2 mi. haul 1hr	31 23 23 20 1014	3.25/CY																485
		Disposal Costs	On Site Disposal		11.4/CY																1663
		Subtotal																			3714
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loadout Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			10800

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Ref.	Task	Description	Misonets	Misonets Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swamp Factor	Quantity	Unit	Cost	
		Loadout Concrete Wall - 08																				
		Structure's Demolition Cost	Steel Riv Large	02741 18.13.0012	0.38	CF	300	4	4								FT		5120		1940	
		Structure's Vol. Demolished																				
		Structure's Weight (excludes steel)																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Non-Steel Truck																				
		Transportation Cost Non-Steel Crane																				
		Operator Cost Non-Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Crane																				
		Operator Cost steel																				
		Subtotal																				1940
		Equipment's Operator Cost																				
		Demolition Cost																				
		Structure's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Operator Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Operator Costs																				
		Subtotal																				
		Total																				1940

Ref.	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Dwell Factor	Quantity	Unit	Cost	
		Central Arizona Water (CA)																				
		Structure's Demolition Cost	Steel Ebf. Large	02 41 16 13 0012	0.38732		30	18	8											3000	CF	1164
		Structure's Vol. Demolished																				
		Truck's Weight (excludes driver)																				
		Truck's Capacity																				
		Truck's Height																				
		Transportation Cost Non-Steel Truck																				
		Transportation Cost Non-Steel Drive																				
		Dispatch Cost Non-Steel																				
		Truck's Weight																				
		Truck's Capacity																				
		Truck's Height																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Dispatch Cost Steel																				
		Subtotal																				1764
		Equipment's Disposal Cost																				
		Chartering Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transportation Costs																				
		Dispatch Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	SOILCIR Prod. Rate 8' C/Min	01 44 33 20 0346	30.05142		40	20	0.5													72
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	01 28 18 42 1500	2.211CY																	43
		Transportation Cost	12 CY 118' Tonn. dump Truck 1/2 mi. out. Trip	01 23 12 20 1014	3.741CY																	73
		Dispatch Costs	On Site Disposal		11.41CY																	222
		Subtotal																				411
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Dispatch Costs																				
		Subtotal																				
		Total																				1776

Ref	Task	Description	Materials	Mvms Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Tare	Number	Unit	Sheet Factor	Quantity	Unit	Cost	
		Truck Dump Maximum 10																				
		Structure's Demolition Cost	Steel Rod Large	07 41 16 13 0012	0.38	CF	40	14	15											8400	CF	3122
		Structure's Vnl. Demolished																				
		Rubble's Weight (excludes steel)																				
		Truck's Capacity																				
		Waste																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Disposal Cost Non Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Waste																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Disposal Cost steel																				1122
		Subtotal																				
		Equipment's Disposal Cost																				
		Demolition Cost																				
		Concrete's Vnl. Demolished																				
		Loading Costs																				
		Transportation Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition	328LCR Hook Rate II CYWR	01 54 33 20 0340	39.05	HL						75										350
		Demolition Cost																				
		Concrete's Vnl. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 73 18 43 1300	2.21	CV																219
		Transportation Cost	12 Cy (10 Tons) Dump Truck 102 mi. ref. Tr	31 23 23 20 1014	3.74	CV																295
		Disposal Costs	On Site Disposal		11.4	CV																1112
		Subtotal																				205
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vnl. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				3200

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swirl Factor	Quantity	Unit	Cost
		Concrete 11																			
		Structural Demolition Cost	Steel Pnt. Large	02 41 16 13 0012	0.38	CF	250	4	4								FT		4000	CF	1500
		Structure's Vol. Demolished																			
		Structure's Weight (Concrete steel)																			
		Trucks Capacity																			
		Hoisting																			
		Transportation Cost 4000 Steel Trunk																			
		Transportation Cost 7000 Steel Trunk																			
		Disposal Cost Non Steel																			
		Steel's Weight																			
		Trucks Capacity																			
		Hoisting																			
		Transportation Cost Steel Trunk																			
		Transportation Cost Steel Cows																			
		Disposal Cost steel																			
		Subtotal																			1320
		Equipment's Capital Cost																			
		Demanting Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	2561 CF Prod. Rate 8 (CY/HR)	01 54 33 20 0346	38.05	HR	15	33	1								FT		2.43	HR	35
		Concrete's Vol. Demolished																	1.3	CY	19
		Loading Cost	Front End Loader 3 CY	33 22 18 42 1305	2.21	CY															35
		Transportation Cost	12 CY 415 Tonn dump Truck 127 mi. ead. Trip	13 23 23 20 1014	3.74	CY															32
		Disposal Costs	On Site Disposal		11.4	CY															262
		Subtotal																			331
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			2540

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
		Conc'dm Screen Plant 12																				
		Structure's Demolition Cost	Steel Hbl Large	02 41 18 13 0012	0.38 CF		44	20	10								FT		13200	CF	5018	
		Structure's Vol Demolished																				
		Structure's Weight (excludes steel)																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Onroad Cost Non Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Onroad Cost steel																				
		Subtotal																				1014
		Structure's Demolition Cost	Steel Hbl Large	02 41 18 13 0012	0.38 CF		35	30	8								FT		8400	CF	3190	
		Structure's Vol Demolished																				
		Structure's Weight (excludes steel)																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Onroad Cost Non Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Onroad Cost steel																				
		Subtotal																				3160
		Concrete Demolition																				
		Demolition Cost	326 CR Prod. Mate 8 CV/HT	01 54 30 20 0046	39.56 T/ft		37	30	1								FT		13.19	T/ft	510	
		Concrete's Vol Demolished																				
		Concrete's Weight																				
		Loadina Cost	Front End Loader 3 CV	31 23 10 42 1000	2.21 CV																	
		Transportation Cost	12 CV 116 Tonn Stamp Truck 100 mi. est. Trg	31 23 23 20 1014	3.78 CV																	
		Onroad Costs	On Site Crusher		11.4 CV																	
		Subtotal																				286
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol Demolished																				
		Concrete's Weight																				
		Loadina Cost																				
		Transportation Cost																				
		Onroad Costs																				
		Subtotal																				
		Total																				11114

Ref	Task	Description	Materials	Wrens Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swat Factor	Quantity	Unit	Cost	
		Lining Coal Bld 13																				
		Structural Demolition Cost	Steel Blt Large	02 41 16 13 0012	0.38	CF	100	3	3										950	CF	342	
		Structural Vol Demolished																				
		Residual Volume (available steel)																				
		Truck Capacity																				
		Hoisting																				
		Transportation Cost 20m Steel Truck																				
		Transportation Cost 10m Steel Drive																				
		Special Cost 10m Steel																				
		Steel Weight																				
		Truck Capacity																				
		Hoisting																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Special Cost steel																				
		Subtotal																				342
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol Demolished																				
		Loading Costs																				
		Handled Costs																				
		Special Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	326,CR Prod Rate @ CVO-01	01 54 33 20 0346	39.85	480						10										49
		Concrete Vol Demolished																				
		Loading Cost	Floor End Loader 3 CY	31 23 18 43 1309	2.21	CV																10
		Transportation Cost	12 Cy (18 Ton) dump Truck 1/2 mi. haul. End	31 23 23 20 1014	3.74	CV																20
		Special Costs	On Site Disposal		11.4	CV																148
		Subtotal																				274
		Concrete Demolition																				
		Demolition Cost																				
		Concrete Vol Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Special Costs																				
		Subtotal																				
		Total																				616

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Ref	Task	Description	Materials	Meas Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swat Factor	Quantity	Unit	Cost	
		Skinner's Demolition Cost																				
		Structure's Demolition Cost	Steel Blat Large	02 41 18 13 0012	0.38	CF	100	50	10											10000	CF	3800
		Structure's Vol. Demolished																				
		Structure's Weight (exclude steel)																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost from Steel Truck																				
		Transportation Cost from Steel Drive																				
		Onroad Cost from Steel																				
		Steel's Weight																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Onroad Cost steel																				
		Subtotal																				2900
		Equipment's Disposal Cost																				
		Demolition Cost																				
		Equipment's Vol. Demolished																				
		Loading Cost																				
		Transport Cost																				
		Onroad Cost																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR Prod. Rate 8 CY/HR	01 94 33 20 0348	39.05	HR	60	8	1													
		Concrete Vol. Demolished																				
		Loading Cost	Wagon King Loader 3 CY	01 23 18 42 1300	2.21	CY																
		Transportation Cost	12 Cy 118' Turn dump Truck 172 mi. est. 1hr	01 23 28 20 1014	3.74	CY																
		Onroad Cost	On Site Disposal	02 41 16 17 4300	11.41	CV																
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost																				
		Concrete Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Onroad Cost																				
		Subtotal																				
		Total																				4200

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Dwell Factor	Quantity	Unit	Cost	
		Charger 15																				
		Structure's Demolition Cost	Steel Wld Large	02 41 18 13 001	0.38/CY		400	4	4								FT		3600	CF	3648	
		Structure's Wld Demolished																				
		Structure's Weight (excl Wld Steel)																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost from Steel Truck																				
		Transportation Cost from Steel Drive																				
		Disposal Cost from Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost from Steel Truck																				
		Transportation Cost from Steel Drive																				
		Disposal Cost from																				
		Subtotal																				3648
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Wld Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	32HCR Pwd Rate 8 CY/HR	01 54 33 20 034	38.00/HR		35	15	1								FT		2.43	HR	95	
		Concrete's Wld Demolished																				
		Loading Cost	Front End Loader 3 CY	01 25 18 42 1304	2.20/CY																	
		Transportation Cost	12 CY 110 Tons Dump Truck 1/2 mi per Hr	01 23 23 20 1014	3.24/CY																	
		Disposal Costs	On Site Disposal	00 41 18 17 4200	11.4/CY																	
		Subtotal																				291
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Wld Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				4711

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Ref	Task	Description	Materials	Measure Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
		Main Rigged Rtractor TR																				
		Structure Demolition Cost	Steel Bld. Large	02 41 16 13 0012	0.38	CF	260	14	16								FT		66800	CF	22230	
		Structure's Vol. Demolished																				
		Ractor's Weight (exclude steel)																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Disposal Cost Non Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Disposal Cost steel																				22230
		Subtotal																				
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Weight Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition	2281 Ckt Prod. Base II CYR11	01 54 33 22 0346	39.05	DIR	280	10	1								FT		12 96	HR	506	
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 23 16 47 1300	2.21	CV																200
		Transportation Cost	12 Cy. 10' Trail Dump Truck 1/2 mi. est. Trk	33 23 22 20 1014	3.24	CV																306
		Disposal Costs	On Site Disposal	02 41 16 17 5000	11.4	CV																1541
		Subtotal																				2822
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				25261

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Ref	Task	Description	Material	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swath Factor	Quantity	Unit	Cost	
		Loadout Hectare 17																				
		Structure Demolition Cost	Steel BM, Large	02 41 16 13 0012	0.38	CF	750	4	8								FT		24000	CF	9120	
		Rubber's Vnl Demolished																				
		Rubber's Weight (explosive steel)																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost (Van Small Truck)																				
		Transportation Cost (Van Small Truck)																				
		Transportation Cost (Van Small Truck)																				
		Disposal Cost (Van Small Truck)																				
		Shore's Weight																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost (Steel Truck)																				
		Transportation Cost (Steel Truck)																				
		Disposal Cost (Steel Truck)																				
		Subtotal																				9120
		Equipment's Disposal Cost																				
		Decontaminating Cost																				
		Equipment's Vnl Demolished																				
		Hauling Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition	320 LCM Prod Rate 8 CY/HR	01 54 33 20 0148	30.00	HR	750	14	1								FT		48.61	HR	1838	
		Demolition Cost																				
		Concrete's Vnl Demolished																				
		Loading Cost	Front End Loader 3 CV	33 23 18 42 1500	2.31	CV																
		Transportation Cost	12 CV 110 3000hp Truck 37 m. end. Tr	11 33 23 20 1814	3.24	CV																
		Disposal Costs	On Site Disposal	02 41 16 17 4300	11.41	CV																
		Subtotal																				1262
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vnl Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				10160

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Ref	Task	Description	Materials	Items Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
		Loadout Tower 18																				
		Structure Demolition Cost	Steel 1/4" Large	02 41 16 13 0012	0.36 CF		35	40	60								F1		6.400	CF	31920	
		Structure Vol. Demolished																				
		Structure Weight (excludes steel)																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost from Steel Trucks																				
		Transportation Cost from Steel Drive																				
		On-Site Cost from Steel																				
		Steel's Weight																				
		Trucks Capacity																				
		Haulage																				
		Transportation Cost Steel Trucks																				
		Transportation Cost Steel Drive																				
		On-Site Cost steel																				
		Subtotal																				31920
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loadout Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328/CR Prod. Rate 8 CY/hr	01 54 33 20 0346	39.05/HR		17	8	1								F1		0.44 HR		17	
		Concrete's Vol. Demolished																				
		Loadout Cost	Front End Loader 3 CY	31 23 18 42 1300	2.21 CY																	
		Transportation Cost	12 CY 118 Ton Dump Truck 102 mi. road. 100	31 23 20 20 1014	3.74 CY																	
		Disposal Costs	On Site Disposal	02 41 16 17 4200	11.4 CY																	
		Subtotal																				109
		Concrete Demolition																				
		Demolition Cost	328/CR Prod. Rate 8 CY/hr	01 54 33 20 0346	39.05/HR		17	8	1								F1		0.44 HR		17	
		Concrete's Vol. Demolished																				
		Loadout Cost	Front End Loader 3 CY	31 23 18 42 1300	2.21 CY																	
		Transportation Cost	12 CY 118 Ton Dump Truck 102 mi. road. 100	31 23 20 20 1014	3.74 CY																	
		Disposal Costs	On Site Disposal	02 41 16 17 4200	11.4 CY																	
		Subtotal																				98
		Concrete Demolition																				
		Demolition Cost	328/CR Prod. Rate 8 CY/hr	01 54 33 20 0346	39.05/HR		40	80	1								F1		11.11 HR		434	
		Concrete's Vol. Demolished																				
		Loadout Cost	Front End Loader 3 CY	31 23 18 42 1300	2.21 CY																	
		Transportation Cost	12 CY 118 Ton Dump Truck 102 mi. road. 100	31 23 20 20 1014	3.74 CY																	
		Disposal Costs	On Site Disposal	02 41 16 17 4200	11.4 CY																	
		Subtotal																				510
		Total																				34074

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Ref	Task	Description	Material	Material Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Steel Factor	Quantity	Unit	Cost	
		Office fit																				
		Structure Demolition Cost	Steel Bolt, Large	00 41 18 13 0012	0.33	CV	40	10	8									PF	0000	CV	3348	
		Structure Vol. Demolition																	0.35	121	CV	
		Builder's Weight (include items)																				
		Track's Weight																				
		Weight																				
		Transportation Cost (see Shear Truck)																				
		Transportation Cost (see Road Truck)																				
		Original Cost (see Item)	See Excavator	See Excavator Price	5.5	CV														123	CV	1070
		Item's Weight																				
		Track's Weight																				
		Weight																				
		Transportation Cost (see Truck)																				
		Transportation Cost (see Truck)																				
		Original Cost (see Item)																				
		Weight																				
		Equipment's Original Cost																				
		Original Cost																				
		Equipment's Vol. Demolition																				
		Weight																				
		Transportation Cost																				
		Original Cost																				
		Weight																				
		Concrete Demolition																				
		Demolition Cost	200, CR Prod. Rate 8.0/Min	05 54 33 20 0148	18.02	Min	40	30	0.3									PF	478	Min	173	
		Concrete Vol. Demolition																				
		Concrete Cost	Front End Loader 3 CV	11 23 18 42 1300	2.21	CV													1.1	48	CV	105
		Loaders Cost																				
		Transportation Cost	12 CV 11M Tandem Truck 10 m m. cap. Trip	11 23 23 20 1014	3.74	CV																
		Trucks Cost	On Site Dispatch	02 41 18 17 0207	11.4	CV																
		Weight																				
		Concrete Demolition																				
		Demolition Cost	11M CR Prod. Rate 8.0/Min	11 54 33 20 0148	37.05	Min	70	30	0.3										PF	537	Min	221
		Concrete Vol. Demolition																				
		Concrete Cost	Front End Loader 3 CV	11 23 18 42 1300	2.21	CV														1.1	48	CV
		Transportation Cost	12 CV 11M Tandem Truck 10 m m. cap. Trip	11 23 23 20 1014	3.74	CV																
		Trucks Cost	On Site Dispatch	02 41 18 17 0207	11.4	CV																
		Weight																				
		Total																				940

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Over Factor	Quantity	Unit	Cost
		Removal 30																			
		Structure's Demolition Cost	Utility Pole wood 20-30' high		350 EA												EA		25 EA	EA	7750
		Structure's Vol. Demolished																			
		Structure's Weight (excludes steel)																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost Iron Steel Truck																			
		Transportation Cost Non Steel Drive																			
		Disposal Cost Iron Steel																			
		Steel's Weight																			
		Trucks Capacity																			
		Haulage																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Drive																			
		Disposal Cost steel																			
		Subtotal																			7750
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Lifting Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Lifting Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Lifting Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			7750

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swath Factor	Quantity	Unit	Cost	
		Shop II																				
		Structural Demolition Cost	Steel Bld. Ledge	02-41 16 13 0012	8.38	CF	40	45	20								PF		36000	CF	1386	
		Structural Vnl. Demolished																				
		Structural Weight (Estimate Steel)																				
		Truck Capacity																				
		Hoisting																				
		Transportation Cost Non Street Truck																				
		Transportation Cost Non Street Crane																				
		Disposal Cost Non Street																				
		Steel's Weight																				
		Truck Capacity																				
		Hoisting																				
		Transportation Cost Street Truck																				
		Transportation Cost Street Crane																				
		Disposal Cost Street																				
		Subtotal																				12600
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vnl. Demolished																				
		Unit's Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	SPBLOR Prod. Rate 8 CY/HR	01 84 33 20 0348	39.60	HR	45	45	1								PF		9.50	HR	360	
		Concrete Vnl. Demolished																	1.3		73	
		Load/In Cost	Frost End Loader 3 CY	31 22 38 42 1200	2.31	CY															273	
		Transportation Cost	12 CY 116 Tons dump Truck 1/2 mi. road	31 22 23 20 1014	1.64	CY															360	
		Disposal Costs	On Site Disposal	02 41 16 12 4200	11.4	CY															1112	
		Subtotal																				2054
		Concrete Demolition																				
		Demolition Cost																				
		Concrete Vnl. Demolished																				
		Load/In Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				18728

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Ref	Task	Description	Milestone	Moore Reference Number	Unit Cost	Est	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Steel Factor	Quantity	Unit	Cost	
		Overhead 22																				
		Structure's Demolition Cost	Guided RA-22	41	13	20	0800															
		Structure's Vol. Demolished			17.35	CU		1000														
		Rubber's Weight Earthlike steel																				
		Truck's Capacity																				
		Material																				
		Transportation Cost 1400 Steel Truck																				
		Transportation Cost 1400 Steel Drive																				
		Disposal Cost 1400 Steel																				
		Steel's Weight																				
		Truck's Capacity																				
		Material																				
		Transportation Cost 1400 Truck																				
		Transportation Cost 1400 Drive																				
		Disposal Cost steel																				
		Subtotal																				17350
		Equipment's Disposal Cost																				
		Demolition Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Costs																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Costs																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				17350

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Deckw	Time	Hour	Unit	Over Factor	Quantity	Unit	Cost	
		Truck Burner New 20																				
		Structure's Demolition Cost	Steel Wld Large	02 41 16 13 0012	0.30	CF	40	14	10											6400	CF	3152
		Structure's Wld Demolished																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Disposal Cost Non Steel																				
		Shrink Weight																				
		Truck Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Disposal Cost Steel																				
		Structure																				3162
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Wld Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	338LCR Prod Rate 8 U/Walk	01 04 33 20 0348	39.05	HR																
		Concrete's Wld Demolished											78									
		Loading Cost	Front End Loader 3 CY	03 22 38 42 1009	2.31	CV																9.38
		Transportation Cost	12 CY 215 Tonn dump-Truck 102 mi. max. top	11 23 22 20 1014	3.24	CV																75
		Disposal Costs	On Site Disposal		11.4	CV																88
		Subtotal																				208
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Wld Demolished																				
		Loading Costs																				
		Transportation Costs																				
		Disposal Costs																				
		Subtotal																				
		Total																				1595

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Ref	Task	Description	Material	Moore Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Shrink Factor	Quantity	Unit	Cost
		On/Offsite Lay 20																			
		Structure's Demolition Cost	Steel 3/4" Large	02 41 18 13 0512	0.30	CF	200	4	4								FT		4000	CF	1220
		Structure's Vol. Demolished																			
		Structure's Weight (Excludes steel)																			
		Truck Capacity																			
		Haulage																			
		Transportation Cost Non Steel Truck																			
		Transportation Cost from Steel Drive																			
		Deposit Cost Non Steel																			
		Steel's Weight																			
		Truck Capacity																			
		Haulage																			
		Transportation Cost Steel Truck																			
		Transportation Cost from Drive																			
		Deposit Cost steel																			
		Subtotal																			1220
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loaders Costs																			
		Transport Costs																			
		Deposit Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	30MCR Prod. Rate 8 CYHR	01 34 33 20 0348	39.05	YHR	15	15	1								FT		1.04	HR	-41
		Concrete Vol. Demolished																1.3		8	CV
		Loading Cost	Front End Loader 3 CV	31 23 16 48 3300	2.21	CV														10	CV
		Transportation Cost	12 CV 100 Tonn dump truck 12 mi. and Tr	31 23 20 20 1014	3.74	CV														10	CV
		Deposit Costs	On Site Disposal		11.4	CV															10
		Subtotal																			221
		Concrete Demolition																			
		Demolition Cost																			
		Concrete Vol. Demolished																			
		Loaders Costs																			
		Transportation Cost																			
		Deposit Costs																			
		Subtotal																			
		Total																			1541

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost		
		Waste Stack 27																					
		Structure's Demolition Cost	Steel Unit Large	03 41 16 13 0013	0.33	CF	200	15	15								FT		56250	CF	21375		
		Structure's Vol. Demolished																					
		Structure's Weight (excludes steel)																					
		Truck's Capacity																					
		Haulage																					
		Transportation Cost Non Steel Truck																					
		Transportation Cost Non Steel Drive																					
		Disposal Cost Non Steel																					
		Site's Weight																					
		Truck's Capacity																					
		Haulage																					
		Transportation Cost Steel Truck																					
		Transportation Cost Steel Drive																					
		Disposal Cost steel																					
		Subtotal																			2115		
		Equipment's Disposal Cost																					
		Equipment's Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	228LCB Prod Rate B Crimel	01 54 23 20 0346	29.65	CV	200	10	1								FT		12.04	CV	470		
		Concrete's Vol. Demolished																					
		Loading Cost	Front End Loader 3 CV	31 23 16 42 1300	2.21	CV												1.3		36	CV	278	
		Transportation Cost	12 CV 1/8 Ton Dump Truck 22.5m. and Top	31 23 22 20 1014	3.24	CV														120	CV	463	
		Disposal Costs	On Site Disposal		11.4	CV															125	CV	1423
		Subtotal																				2655	
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				24039	

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Ref	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Total	Number	Unit	Shift Factor	Quantity	Unit	Cost
		Concrete 20																			
		Structure's Demolition Cost	Steel 800 Large	02-41-16-13-003	0.4 CF		1250	7	4										30000 CF		14000
		Structure's Vol. Demolished																			
		Truck's Weight (excl. Cab)																			
		Truck's Capacity																			
		Hourage																			
		Transportation Cost (non-Steel Truck)																			
		Transportation Cost (non-Steel Drive)																			
		Disposal Cost (non-Steel)																			
		Steel's Weight																			
		Truck's Capacity																			
		Hourage																			
		Transportation Cost (Steel Truck)																			
		Transportation Cost (Steel Drive)																			
		Disposal Cost (Steel)																			14000
		Subtotal																			
		Equipment's Disposal Cost																			
		Demolishing Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transportation Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328 CR Hour Rate @ CVH@6	01-64-33-20-0546	39.05/Hr							20								20 CV	780
		Concrete's Vol. Demolished																			
		Loading Cost	Front End Loader @ CV	31-23-16-42-1200	2.21/CV																20 CV
		Transportation Cost	12-Cy 116' Towed Dump Truck 1/2 mi. apt. Trip	31-23-23-20-1014	3.74/CV																20 CV
		Disposal Costs	On Site Disposal		11.5/CF																20 CV
		Subtotal																			540
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			14000

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Ref	Task	Description	Material	Material Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Waste Factor	Quantity	Unit	Cost
		Steel Trailer 20'																			
		Structure's Demolition Cost																			
		Structure's Vol. Demolished																			
		Structure's Weight (include steel)																			
		Truck's Capacity																			
		Material																			
		Transportation Cost Iron Steel Truck																			
		Transportation Cost Iron Steel Drive																			
		Disposal Cost Iron Steel																			
		Truck's Weight																			
		Truck's Capacity																			
		Material																			
		Transportation Cost Steel Truck																			
		Transportation Cost Steel Drive																			
		Disposal Cost Steel																			
		Subtotal																			
		Equipment's Disposal Cost																			
		Demolition Cost																			
		Equipment's Vol. Demolished																			
		Leasing Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Leasing Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Leasing Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			

Note  
The was removed from the site in 2016 as part the crane of storage system

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Ref.	Description	Materials	State Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swat Factor	Quantity	Unit	Cost	
	Oil Storage Tanks (4) 20																				
	Structure's Demolition Cost																				
	Structure's Demolition Cost																				
	Structure's Vol. Demolished																				
	Structure's Weight (excludes steel)																				
	Trucks Capacity																				
	Hourage																				
	Transportation Cost Iron Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Iron Steel																				
	Steel Weight																				
	Trucks Capacity																				
	Hourage																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Drive																				
	Disposal Cost Steel																				
	Rebar																				
	Equipment & Disposal Cost																				
	Rebar/Setting Cost																				
	Equipment & Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				

Note  
This is a proposed crude oil unloading station, storage system, and loading stations. These facilities will be bonded before any construction is started.

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Ref	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	4 inch Plywood 31																				
	Structure's Demolition Cost																				
	Structure's Vol. Demolished																				
	Structure's Weight Include steel																				
	Truck's Capacity																				
	Hausage																				
	Transportation Cost 40m Steel Truck																				
	Transportation Cost 40m Steel Drum																				
	Disposal Cost Non Steel																				
	Steel's Weight																				
	Truck's Capacity																				
	Hausage																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Over																				
	Disposal Cost Steel																				
	Subtotal																				
	Equipment & Disposal Cost																				
	Demolition Cost																				
	Equipment & Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				

Note:

This is a proposed crude oil unloading station, storage system, and loading station. These facilities will be bonded before any construction is started.

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Ref	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Capacity	Time	Number	Unit	Steel Factor	Capacity	Unit	Cost
	6 Inch Piping 72																			
	Welding & Demolition Cost																			
	Welding's Fee																			
	Structure's Vol. Demolition																			
	Field's 1/2" x 1/4" (6 inch steel)																			
	Field's 1/2" x 1/4"																			
	Head up																			
	Transportation Cost Truck Truck																			
	Transportation Cost Non Steel Drive																			
	Weight of Unit Non Steel																			
	Steel's Weight																			
	Track's Capacity																			
	Head up																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Weight of Unit Steel																			
	Steel's Weight																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolition																			
	Loading Cost																			
	Transportation Cost																			
	Weight of Unit																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolition																			
	Loading Cost																			
	Transportation Cost																			
	Weight of Unit																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolition																			
	Loading Cost																			
	Transportation Cost																			
	Weight of Unit																			
	Subtotal																			
	Total																			

Note  
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Ref	Description	Material	Material Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Back Factor	Quantity	Unit	Cost	
	Lighting Set																				
	Structure's Demolition Cost																				
	Structure's Vol. Demolished																				
	Structure's Weight (Exclude steel)																				
	Trucks Capacity																				
	Waste																				
	Transportation Cost Iron Steel Truck																				
	Transportation Cost Iron Steel Drive																				
	Disposal Cost Iron Steel																				
	Steel's Weight																				
	Trucks Capacity																				
	Waste																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Drive																				
	Disposal Cost Steel																				
	Subtotal																				
	Equipment's Overall Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition																			
	Concrete's Vol. Demolished																				
	Loading Cost	Front end loader 3 CY																			
	Transportation Cost	12 CY (18 Ton) Dump Truck 1/2 mi. end trip																			
	Disposal Costs	Disposed on site																			
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition																			
	Concrete's Vol. Demolished																				
	Loading Cost	Front end loader 3 CY																			
	Transportation Cost	12 CY (18 Ton) Dump Truck 1/2 mi. end trip																			
	Disposal Costs	Disposed on site																			
	Subtotal																				
	Total																				

Note:  
This is a proposed crude oil unloading station, storage system, and loading station. These facilities will be bonded before any construction is started.

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Wildcat Loadout  
ACT 007/0033

Bond Amount

7 September 2017

Cleanup 01	20514
Regrading 02	248001
Topsoil 03	<u>33868</u>
	302382

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Task	Equipment Cost	Hourly Operating Rate	Equipment Overhead	Operator's Hourly Rate	Hourly Cost	Number of Men or Eq	Total Eq & Lab Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis	Units	Cost
<b>Cleanup 01</b>															
Wildcat Loadout Cleanup Coal Pile															
D9R Series-U EROPS (2017)	01 54 33 20 4360	2368.00	197.33	0.1	84.25	301.32	1	301.32 \$/HR	1500	CY	187	CY/HR	8	HR	2417
Q88 G EROPS (2017)	01 54 33 20 4670	3224.00	268.67	0.1	84.25	379.78	1	379.78 \$/HR	1500	CY	187	CY/HR	8	HR	3048
Labor	Back Page RSMMeans (CLAB)				60.00	60.00	1	60.00 \$/HR					16	HR	960
Forman Average Outside	Back Page RSMMeans				82.25	82.25	1	82.25 \$/HR					16	HR	1316
6,000 Gal H2O Truck Diesel (2017)	01 54 33 40 6950	1127.00	93.92	0.1	81.00	184.31	1	184.31 \$/HR					16	HR	2949
Pick-up Truck 4x4 1 Ton (2017)	01 54 33 40 7200	140.00	11.67	0.1		12.83	1	12.83 \$/HR					16	HR	205
Subtotal															10694
<b>Coal Fine Clean-up 23 Acres</b>															
Vacuati Truck, hazardous material, 2500 gallon	01 54 33 40 7620	273.60	22.80	0.1	68.70	93.78	1	93.78 \$/HR	445	CY	10	CY/HR	45	HR	4220
Labor					60.00	60.00	2	120.00 \$/HR					45	HR	5400
Subtotal															9620
															20914

Note:

The hourly cost is figured as follows: The Equipment Cost is + 12 hours per day

Example:  $2368 + 12 \text{ Working Hours per Day} = 197.33 \text{ $/HR}$

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Wildcat Loadout  
ACT 007/0033

Bond Amount

7 September 2017

	Task	Equipment Cost	Hourly Operating Rate	Equipment Overhead	Operator's Hourly Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Da.	Units	Cost	
Regrading 02																	
Wildcat Loadout Recontour/Regrade																	
	D9R Semi-U EROPS (2017)	01 54 33 20 4360	2368.00	197.33	0.1	84.25	301.32	1	301.32	\$/HR	38872	CY	187	CY/HR	207.9	HR	62635
	627 G Scraper (2017)	01 54 33 20 3525	2429.00	202.42	0.1	84.25	306.91	1	306.91	\$/HR	38872	CY	332.6	CY/HR	116.9	HR	35869
	S18 G EROPS (2017)	01 54 33 20 4870	3224.00	268.67	0.1	84.25	379.78	1	379.78	\$/HR					207.9	HR	78946
	CLAB	Back Page R5Means (CLAB)				60.00	60.00	1	60.00	\$/HR					207.9	HR	12472
	Foreman Average, Outside	Back Page R5Means				82.25	82.25	1	82.25	\$/HR					207.9	HR	17097
	6,000 Gal H2O Truck Diesel (2017)	01 54 33 40 6950	1127.00	93.92	0.1	81.00	184.31	1	184.31	\$/HR					207.9	HR	38312
	Pick-up Truck 4x4 1 Ton (2017)	01 54 33 40 7200	140.00	11.67	0.1	12.83	12.83	1	12.83	\$/HR					207.9	HR	2668
																	246001

Note:

The hourly cost is figured as follows: The Equipment Cost is + 12 hours per day

Example:  $2368 \div 12 \text{ Working Hours per Day} = 197.33 \text{ \$/HR}$

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Task	Equipment Cost	Hourly Operating Rate	Equipment Overhead	Operator's Hourly Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost	
Topsoil 03																
Wildcat Loadout Topsoil																
627 G Scraper (2017)	01 54 33 20 3525	2429.00	202.42	0.1	84.25	306.91	1	306.91	\$/HR	15549	CY	566	CY/HR	27	HR	8431
D9R Semi-U EROPS (2017)	01 54 33 20 4360	2368.00	197.33	0.1	84.25	301.32	1	301.32	\$/HR	10000	CY	187	CY/HR	53	HR	16113
Labor	Back Page RSMMeans (CLAB)				60.00	60.00	1	60.00	\$/HR					27	HR	1648
Forman Average Outside	Back Page RSMMeans				82.25	82.25	1	82.25	\$/HR					27	HR	2260
6,000 Gal H2O Truck Diesel (2017)	01 54 33 40 6950	1127.00	93.92	0.1	81.00	184.31	1	184.31	\$/HR					27	HR	5063
Pick-up Truck 4x4 1 Ton (2017)	01 54 33 40 7200	140.00	11.67	0.1	12.83	12.83	1	12.83	\$/HR					27	HR	353
																33888

Note:

The hourly cost is figured as follows: The Equipment Cost is ÷ 12 hours per day

Example:  $2368 \div 12 \text{ Working Hours per Day} = 197.33 \text{ \$/HR}$

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Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Vegetation Costs																				
	Ground Preparation	Backfill trench Minimal Haul 2 1/4 CY	31 23 16 13 3080	2.5	CY						81.79					AC		23460	CY	58950	
	Seeding	Hydro Spreader (equip. & labor)	32 01 90 13 0180	4.99	MSF						81.79					AC		3562.8	MSF	17778	
	Seeding	Seed (Material cost)	Maple Leaf	1412.43	AC						81.79					AC		81.8	AC	115923	
	Mulch 2 tons per acre	Hay Bale	Reveg007	333	Ton						81.79					AC		163.6	Ton	54472	
	Mulch	Hydro Spreader (equip. & labor)	32 01 90 13 0180	4.99	MSF						81.79					AC		3562.8		17778	
	Subtotal																			294201	
	6.92 AC Disturbance																				
	Scrape Area of Coal Fines	D/D/Production Rate of 187	1 ACRE inch	309.74	per HR			1 inch		6.83	014.58								5	HR	1549
	Hydro Seed	Hydro spreader (equip. & labor)	32 01 90 13 0180	4.99	MSF					6.83							298	MSF	298	MSF	1487
	Wildcat Leasid Seed Mix	Approved Final Reclamation Seed Mix	Maple Leaf	1412.43	AC					6.83							1412.43	AC	6.83	AC	8647
	Mulch	Strip/Bale/1 Ton per Acre	Reveg007	333	Ton					6.83							1	Ton/AC	6.83	Tons	2274
	Mulch/Straw Spreader	Hydro spreader (equip. & labor)	32 01 90 13 0180	4.99	MSF					6.83							298	MSF	298	MSF	1487
	Crimp/DISC Straw into Ground	Farm Tractor with DISC	01 54 33 40 7300	109.05	HR					6.83							18	HR	16	HR	1745
	Labour/Farm Tractor	Farm Tractor	01 54 33 40 7410	121.42	HR					6.83							24	HR	24	HR	2154
	Resteeding																				
	Assume 25% reseeded rate																				21326
	Subtotal																				71376
	Total																				366531

Note:

The hourly cost is figured as follows: The Equipment Cost is ÷ 12 hours per day + Operator's Hourly Rate

Example: 2388 ÷ 12 Working Hours per Day = 199 HR + 84.25 = 309.74 \$/HR

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**R645-301-113.320. DESCRIPTION OF VIOLATIONS**

None

**R645-301-113.330. LOCATION OF VIOLATIONS PROCEEDINGS**

None

**R645-301-113.340. STATUS OF VIOLATIONS PROCEEDINGS**

None

**R645-301-113.350. ACTIONS TAKEN TO ABATE VIOLATIONS**

None

**R645-301-114. RIGHT-OF-ENTRY INFORMATION**

The legal right to enter and conduct coal loading activities in the permit area (collectively, the "Entry Rights") based on the language contained therein include those items listed below (a copy of which is included in Appendix B).

1. Bureau of Land Management ("BLM") Right of Way No. U-48027 dated January 1982 between Tower Resources, Inc. and BLM, as amended by that certain Amendment dated February 5, 2007. This right of way contains 270 acres described as the NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$  of Section 33, Township 13 South, Range 9 East, SLBM.
2. BLM Right of Way No. U-52810 dated May 1984. The right of way contains 10.37 acres within Sections 28 and 33, Township 13 South, Range 9 East, SLBM.
3. Lease dated December 1, 1981 between Utah Railway Company and Tower Resources, Inc., as amended by that certain Lease Amendment dated February 8, 1983. The Lease covers thirteen acres within Section 33, Township 13 South, Range 9 East, SLBM.
4. Beaver Creek Coal Company Letter Agreement. An unrecorded Agreement from Beaver Creek Coal Company to Andalex Resources, Inc., dated July 28, 1988, granting Andalex the right to use a small portion of land for the Wildcat Loadout operations. The area granted is located to the east of Beaver Creek Coal Company's fence to the railroad right-of-way and south of the "new gate."

The permit area is located on 123.19 acres on the following described lands:

Township 13 South, Range 9 East, SLBM

Section 33: NW $\frac{1}{4}$ SE $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , E $\frac{1}{2}$ E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ , E $\frac{1}{2}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , E $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  and Portions of N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , W $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ E $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  containing 123.19 acres.

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The Entry Rights are held by the Intermountain Power Agency pursuant to the terms and conditions of the following instruments:

1. May 10, 2011 Rights of Way, Leases, Real Property Agreements—Assignments Assignment and Assumption Agreement (“IPA Assignment”) between Intermountain Power Agency and Andalex Resources, Inc., recorded with the Carbon County Recorder on May 13, 2011 at Entry No. 810646, Book 747, Page 93. A copy of the IPA Assignment is attached hereto as Appendix B-Part A-22; and
2. May 4, 2011 Quitclaim Deed (“IPA Quitclaim”) between Andalex Resources, Inc., as Grantor, and Intermountain Power Agency, Grantee, recorded with the Carbon County Recorder on May 13, 2011 at Entry No. 810647, Book 747, Page 98. A copy of the IPA Quitclaim is attached hereto as Appendix B-Part A-23.

**R645-301-114.100. DOCUMENTATION**

Appendix B

**R645-301-114.200. SEVERED SURFACE AND MINERAL ESTATES**

Appendix B

**R645-301-114.210. WRITTEN SURFACE OWNER CONSENT FOR COAL EXTRACTION**

N/A

**R645-301-114.220. CONVEYANCE EXPRESSLY GRANTING RIGHT TO MINE COAL**

N/A

**R645-301-114.230. DOCUMENTATION OF LEGAL AUTHORITY TO MINE COAL**

N/A

**R645-301-114.300. ADJUDICATION OF PROPERTY RIGHTS DISPUTES**

The Division does not have the authority to adjudicate property rights disputes.

**R645-301-115. STATUS OF UNSUITABILITY CLAIMS**

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Wildcat Loadout Final Seed Mixture			
Scientific Name	Common Name	PLS/Ac	Seeds Per/ft <sup>2</sup>
<i>Amelanchier utahensis</i>	Utah serviceberry	7.00	4.15
<i>Artemisia tridentata</i>	Big sagebrush	0.06	3.44
<i>Ceratoides lanata</i>	Winterfat	5.00	6.31
<i>Chrysothamnus nauseosus</i>	Rubber rabbitbrush	0.30	2.75
<i>Purshia tridentata</i>	Bitterbrush	12.00	4.13
<i>Archillea millefolium</i>	Yarrow	0.05	3.18
<i>Hedysatum boreale</i>	Northern sweetvetch	8.00	6.17
<i>Linum lewisii</i>	Lewis flax	1.00	6.38
<i>Penstemon palmeri</i>	Palmer penstemon	0.50	7.00
<i>Viguiera multiflora</i>	Showy goldeneye	0.20	4.84
<i>Bouteloua gracilis</i>	Blue grama	0.60	9.79
<i>Elymus spicatus</i>	Bluebunch wheatgrass	2.50	8.03
<i>Elymus trachycaulus</i>	Slender wheatgrass	2.50	9.18
<i>Hilaria jamesii</i>	Galleta	2.50	9.13
<i>Stipa comata</i>	Needle-and-thread grass	3.00	7.92
<i>Stipa hymenoides</i>	Indian ricegrass	2.00	8.63
TOTALS		47.21	101.06

65.00  
9.50  
18.00  
18.00  
19.00  
  
39.00  
75.00  
8.75  
10.00  
32.60  
  
16.00  
8.95  
2.95  
24.00  
39.50  
6.95

Great Basin  
Cost taken off this note.  
by G. Taylor

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INCORPORATED  
SEPTEMBER 14, 2012  
DIVISION OIL, GAS & MINING

# EIS ENVIRONMENTAL & ENGINEERING CONSULTING

435-472-3814 / 800-641-2927 / FAX 435-472-8780 / [tompaluso@precciscom.net](mailto:tompaluso@precciscom.net) / 31 NORTH MAIN STREET HELPER, UTAH 84526

## MEMO

**MEMO TO:** Ryan *Granite Blvd*  
**MEMO FROM:** Gary Taylor  
**DATE:** 15 February 2017  
**SUBJECT:** Seed Mix

Utah Serviceberry- \$75.00 per pound  
Big Sagebrush- \$45.00  
Winterfat- \$22.00  
Rubber Rabbitbrush- \$45.00  
Bitterbrush- \$22.00  
Yarrow\$40.00  
Northern Sweetvetch- \$70.00  
Lewis Flax- \$10.00  
Palmer Penstemon- \$25.00  
Showy Goldeneye- \$70.00  
Blue Grama- \$16.00  
Bluebunch Wheatgrass- \$8.00  
Slender Wheatgrass- \$3.50  
Needle-and-Thread- \$35.00  
Indian Ricegrass- \$8.00

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**THE MAPLE LEAF CO.**  
SEED DIVISION

450 South 50 East  
Ephraim, Utah, 84627  
P) 435.283.4400  
F) 435.283.6872  
[maplelf@cut.net](mailto:maplelf@cut.net)

Gary Taylor

EIS

Seed Prices 2-28-17

Page 2

	PLS / lb
Utah Serviceberry	\$62.00
Big Sagebrush	\$45.00
Winterfat	\$22.00
Rubber Rabbitbrush	\$39.00
Bitterbrush	\$22.50
Yarrow	\$27.00
Northern Sweetvetch	\$72.00
Lewis Flax	\$6.75
Palmer Penstemon	\$24.00
Showy Goldeneye	\$90.00
Blue Grama	\$9.50
Bluebunch Wheatgrass	\$6.75
Slender Wheatgrass	\$2.25
Needle-and-Thread	\$32.00
Indian Ricegrass	\$6.50

Lloyd Stevens  
Maple leaf Seed Co.  
Ephraim, Utah

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
RIGHT-OF-WAY GRANT

SERIAL NUMBER UTU-48027

1. A right-of-way is hereby granted pursuant to Title V of the Federal Land Policy and Management Act of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761).

2. Nature of Interest:

RECEIVED

a. By this instrument, the holder:

OCT 02 2014

Intermountain Power Agency  
10653 S River Front Parkway, Suite 120  
South Jordan, UT 84095

BLM  
PRICE, UT

receives a right to construct, operate, maintain, and terminate the Wildcat loadout on public lands described as follows:

T. 13 S., R. 9 E., Salt Lake Meridian, Carbon County, Utah  
Section 33: NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ .

b. The right-of-way or permit area granted herein contains 270 acres, more or less, as shown on the attached map. The right-of-way authorizes a coal storage and loadout facility on the east side and crude oil storage and loadout facility on the west side.

c. This instrument shall expire on December 31, 2034. This grant is authorized for 20 years unless, prior thereto, it is relinquished, abandoned, terminated, or modified pursuant to the terms and conditions of this instrument or of any applicable Federal law or regulation.

d. This instrument may be renewed. If renewed, the right-of-way or permit shall be subject to the regulations existing at the time of renewal and any other terms and conditions that the Field Manager or other authorized officer deems necessary to protect the public interest.

e. Notwithstanding the expiration of this instrument or any renewal thereof, early relinquishment, abandonment, or termination, the provisions of this instrument, to the extent applicable, shall continue in effect and shall be binding on the holder, its successors, or assigns, until they have fully satisfied the obligations and/or liabilities accruing herein before or on account of the expiration, or prior termination, of the grant.

3. Rental:

For and in consideration of the rights granted, the holder agrees to pay the Bureau of Land Management fair market value rental as determined by the authorized officer unless specifically exempted from such payment by regulation. Provided, however, that the rental may be adjusted by the authorized officer, whenever necessary, to reflect changes in the fair market rental value as determined by the application of sound business management principles, and so far as practicable and feasible, in accordance with comparable commercial practices.

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## Terms and Conditions:

## 4. Standard

- a. This grant is issued subject to the holder's compliance with all applicable regulations contained in Title 43 Code of Federal Regulations part 2800.
- b. Each grant issued for a term of 10 years or more shall, at a minimum, be reviewed by the authorized officer at the end of the 10th year and at regular intervals thereafter not to exceed 10 years. Provided, however, that a right-of-way or permit granted herein may be reviewed at any time deemed necessary by the authorized officer.
- c. The stipulations, plans, maps, or designs set forth in Exhibits A (Plan of Development) and B (Maps), attached hereto, are incorporated into and made a part of this grant instrument as fully and effectively as if they were set forth herein in their entirety.
- d. In the event that the public land underlying the right-of-way (ROW) encompassed in this grant, or a portion thereof, is conveyed out of Federal ownership and administration of the ROW or the land underlying the ROW is not being reserved to the United States in the patent/deed and/or the ROW is not within a ROW corridor being reserved to the United States in the patent/deed, the United States waives any right it has to administer the right-of-way, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part [2800][2880], including any rights to have the holder apply to BLM for amendments, modifications, or assignments and for BLM to approve or recognize such amendments, modifications, or assignments. At the time of conveyance, the patentee/grantee, and their successors and assigns, shall succeed to the interests of the United States in all matters relating to the right-of-way, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the ROW shall be considered a civil matter between the patentee/grantee and the ROW Holder.

## 5. Applicable Laws

- a. The holder shall comply with all Federal, State, and local regulations whether or not specifically mentioned within this grant.
- b. Failure of the holder to comply with applicable law or any provision of this right-of-way grant shall constitute grounds for suspension or termination thereof.
- c. Use of pesticides shall comply with the applicable Federal and state laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the Field Manager or other authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer. Emergency use of pesticides shall be approved in writing by the authorized officer prior to such use.
- d. The holder of this right-of-way grant or the holder's successor in interest shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and the regulations of the Secretary of the Interior issued pursuant thereto.
- e. The holder shall meet Federal, State, and local emission standards for air quality.
- f. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

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- g. The holder shall comply with the construction practices and mitigating measures established by 33 CFR 323.4, which sets forth the parameters of the "nationwide permit" required by Section 404 of the Clean Water Act. If the proposed action exceeds the parameters of the nationwide permit, the holder shall obtain an individual permit from the appropriate office of the Army Corps of Engineers and provide the authorized officer with a copy of same. Failure to comply with this requirement shall be cause for suspension or termination of this right-of-way grant.
- h. The holder of Right-of-Way No. UTU-48027 agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 et seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- i. The holder is prohibited from discharging oil or other pollutants into or upon the navigable waters of the United States, adjoining shorelines, or the waters of the contiguous zone in violation of Section 311 of the Clean Water Act as amended, 33 U.S.C. 1321, and the regulations issued there under, or applicable laws of the State and regulations issued there under. Holder shall give immediate notice of any such discharge to the authorized officer and such other Federal and State officials as are required by law to be given such notice.
6. Miscellaneous
- a. The holder is authorized to load up to 20,000 BBL/Day at this facility, any amount in excess of that is not authorized. The holder shall submit an annual report to the BLM, Price Field Office, showing the maximum daily loading rate for this site. This report shall be submitted in January of each year.
- b. The current Spill Prevention Control and Countermeasure Plan and the Storm Water Pollution Prevention Plan will be followed. The plans will be made available for review at the load out site.
- c. All new light structures west of the existing rail line will be designed to cast light downwards. The existing light structures to the east will have angled or hooded shields installed to direct the light toward the area requiring light.
- d. The pond located south of the truck unloading lanes and the pond located near the existing refuse storage pile will be lined with either a clay base or high-density polyethylene membrane.
- e. Yearly monitoring for vegetation success and periodic inspections for noxious weeds on reclaimed areas will be completed by the ROW holder. If noxious weeds are found, a licensed herbicide applicator will use herbicide or mechanical treatments to remove the noxious weeds. Mechanical methods, i.e., hand pulling and cutting plants at ground level may be necessary if the weed population is near desirable plant species or water bodies.
- f. All vehicles and equipment will be power washed before transporting to the project area to prevent the spread of seed. Cleared vegetation and soil from an area known to have weeds will be stock piled in the immediate area and then replaced in the same area where the soils and vegetation were prior to disturbance. The ROW holder is responsible for weed control within the ROW throughout the life of the project.
- g. An annual report showing the maximum daily loading rate for this facility will be submitted to the BLM in January of each year.
- h. The holder shall perform all operations in a good and workmanlike manner so as to ensure protection of the environment and the health and safety of the public. All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.
- i. The holder shall designate a representative who shall have the authority to act upon and to implement instructions from the authorized officer. The holder's representative shall be available for communication with the authorized officer within a reasonable time when construction or other surface disturbing activities are underway.

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- j. The holder shall permit free and unrestricted public access to and upon the right-of-way for all lawful purposes except for those specific areas designated as restricted by the Field Manager or other authorized officer to protect the public, wildlife, livestock or facilities constructed within the right-of-way.
- k. The holder shall inform the Field Manager at (435) 636-3600 within 48 hours of any accidents on federal lands.
- l. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.
- m. The holder shall protect all survey monuments found within the right-of-way. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the authorized officer and the respective installing authority if known. Where General Land Office or Bureau of Land Management right-of-way monuments or references are obliterated during operations, the holder shall secure the services of a registered land surveyor or a Bureau cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the Manual of Surveying Instructions for the Survey of the Public Lands in the United States, latest edition. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the Bureau cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost.

#### 7. Construction / Maintenance

- a. The holder shall conduct all activities associated with the construction, operation, and termination of the right-of-way within the authorized limits of the right-of-way.
- b. The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the plan of development which was approved and made part of this grant. Any relocation, additional construction, or use that is not in accord with the approved plan of development, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete right-of-way grant, including all stipulations and approved plan of development, shall be made available on the right-of-way area during construction, operation, and termination to the authorized officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.
- c. The map, site plan, building design, floor plan, tower design, and electrical drawings submitted with the original proposal shall be made a part of this right-of-way grant. All construction must conform to these drawings and maps.
- d. The holder shall provide for the safety of the public entering the right-of-way. This includes, but is not limited to barricades for open trenches, flagmen/women with communication systems for single-lane roads without intervisible turnouts, and attended gates for blasting operations.
- e. If any clearing is needed, the right-of-way will be brush-hogged to prevent unnecessary disturbance. Only those areas where safety, absolute need for construction or other regulations may warrant the use of topsoil removal by blading or scalping. This right-of-way clearing shall be limited to the limits of the right-of-way. Suitable topsoil material removed in conjunction with clearing and stripping shall be conserved in stockpiles within the right-of-way.
- f. Prior to fill construction, the existing surface shall be sloped to avoid sharp banks and allow equipment operations. No fills shall be made with frozen or water saturated soils. Construction equipment shall be routed evenly over the entire width of the fill to obtain a thorough compaction.

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- g. Construction holes left open overnight shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.
  - h. Holder shall limit excavation to the areas of construction. No borrow areas for fill material will be permitted on the site. All off-site borrow areas must be approved in writing by the authorized officer in advance of excavation. All waste material resulting from construction or use of the site by holder shall be removed from the site. All waste disposal sites on public land must be approved in writing by the authorized officer in advance of use.
  - i. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
  - j. If during any phase of the construction, operation, or termination any oil or other pollutant should be discharged from containers or vehicles and impact Federal lands, the control and total removal, disposal, and cleanup of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of holder to control, cleanup, or dispose of such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the authorized officer may take such measures as he deems necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the authorized officer shall not relieve the holder of any liability or responsibility.
  - k. Any impacted fences, gates, brace panels and/or any other range improvements shall be reconstructed to appropriate Bureau standards and/or specifications as determined by the authorized officer.
  - l. The holder shall furnish and apply water for dust control, or other means satisfactory to the authorized officer.
  - m. No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of four inches deep, the soil shall be deemed too wet to adequately support construction equipment.
  - n. The holder shall construct waterbars on all disturbed areas as needed. Waterbars are to be constructed to: (1) simulate the imaginary contour lines of the slope (ideally with a grade of one or two percent); (2) drain away from the disturbed area; and (3) begin and end in vegetation or rock whenever possible.
  - o. A litter policing program shall be implemented by the holder, if requested and approved of in writing by the authorized officer, which covers all roads and sites associated with the right-of-way.
  - p. The holder shall be responsible for weed control on disturbed areas within the limits of the right-of-way. The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods (within limits imposed in the grant stipulations).
  - q. Holder shall maintain the right-of-way in a safe, usable condition, as directed by the authorized officer.
8. Reclamation / Rehabilitation / Termination
- a. Ninety (90) days prior to termination of the right-of-way, the holder shall contact the authorized officer to arrange a pre-termination conference. This conference will be held to review the termination provisions of the grant.
  - b. Upon grant termination by the Field Manager or other authorized officer, all improvements shall be removed from the public lands within 90 days, or otherwise disposed of as provided in paragraph (4)(d) or as directed by the authorized officer.
  - c. The holder shall restore drainages, to the greatest extent possible, to the original bank configuration, stream bottom width, and channel gradient. Loose soil, fill, and culverts shall be removed from drainage channels as directed by the authorized officer.
  - d. The holder shall re-contour the disturbed area and obliterate all earthwork by removing embankments, backfilling excavations, and grading to re-establish the approximate original contours of the land in the right-of-way.

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- e. The holder shall prepare a seedbed by scarifying the disturbed area, distributing topsoil uniformly, or disking the topsoil.
- f. The holder shall seed all disturbed areas that have been or are being reclaimed with a seed mixture(s) submitted to and approved by the authorized officer.

**IN WITNESS WHEREOF, The undersigned agrees to the terms and conditions of this right-of-way grant or permit.**

*Amir O. Jambart*  
(Signature of Holder)  
*General Manager*  
(Title)  
*09-29-14*  
(Date)

*Abbas Q. Alkhar*  
(Signature of BLM Authorized Officer)  
Acting Field Manager, Price Field Office  
(Title)  
*10/16/2014*  
(Effective Date of Grant)

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# EXHIBIT A

## INTERMOUNTAIN POWER AGENCY WILDCAT LOADOUT OIL LOADING AND STORAGE PROJECT PLAN OF DEVELOPMENT

Intermountain Power Agency (IPA) currently maintains a ROW (UTU-48027) for the Wildcat Loadout on approximately 250 acres of land utilized as coal preparation and loadout facility for some of the mines located within Central Utah. The loadout facility is located on Federal land in Carbon County, Utah (Figure 1). The loadout facility is located in Section 33, Township 13 South, Range 9 East, SLBM. Approximately 12.5 of the 250 acres are under BLM ROW for the Utah Railway (UTSL-015794). The loadout site is permitted under DOGM permit number ACT C/07/0033. The facility has three truck dumps, a unit train loading track, and numerous conveyor belts, as well as numerous structures to facilitate reclaiming, crushing, storing, and loading coal. The facility is connected with electric power and phone lines. All coal operations on the west side of the railway tracks ceased several years ago and the equipment is inactive.

Associated Energy Services, LP/Marlin Logistics, LLC (Marlin) purchases and markets locally produced crude oil. Crude oil is purchased at a crude oil lease wellhead or pad, transported by trucking companies, and delivered to Marlin terminals where the oil is loaded into Marlin railcars and transported to crude oil markets. Marlin is currently utilizing a portion of the Utah Railway ROW for the transfer of crude oil from tank trucks to railroad tank cars. The transfer of crude oil is entirely within the railroad ROW. Approximately 80 percent of the crude oil transferred at the Wildcat Loadout is waxy crude that is semi-solid at temperatures below 160 degrees Fahrenheit. Approximately 20 percent of the crude oil transferred at the site is non-waxy light sweet crude. Eight mobile pumping stations are located along the ROW to facilitate the transfer of oil from the trucks to the railcars. Trained and certified individuals unload trucks and load railcars to reduce the chance of spills or leaks. The railcars loaded with crude oil are then shipped to terminal refineries along the Gulf Coast, West Coast, and other locations within the rail road system. Once the railcars are emptied, they are returned for reloading.

### Proposed Action

IPA proposes to amend the use of a portion of the BLM ROW UTU-48027 to allow petroleum loading on the west portion of the loadout facility west of the centerline of the existing mainline railroad line. IPA has a long-term "landlord/tenant" lease with Marlin to operate crude oil transloading operations at the Wildcat Loadout Facility. The current IPA ROW expires in 2014 and would be renewed until 2027. The proposed use of the ROW would require the construction of permanent crude oil storage tanks, additional railroad tracks, and loading racks in order to increase the output and efficiency of crude oil transport. The transloading facilities and operation would last as long as economically feasible, which is expected to continue for 20 or more years. Marlin has an encroachment permit for the use of Consumers Road for trucking oil into the loadout site. All construction would take place on IPA leased property on the west side of the Utah Railway tracks.

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## Surface Water

The natural drainage to the west of the facility would be dammed upstream from the existing impound cells to capture precipitation runoff from undisturbed areas further up the drainage. A diversion ditch would be constructed from the dam then south along the west side of the facility and to the tributary of Garley Wash south of the facility (see Figure 2). The ditch would require approximately 0.5 acres of undisturbed ground. The drainage ditch would prevent water runoff from flowing into the facility area. The existing impoundment cell ponds, the proposed diversion ditch, and proposed dam would be designed to hold runoff from a 100-year-24-hour precipitation event. Two ponds would be constructed within the facility area to capture runoff from within the facility and prevent water and potential oil spills from flowing out of the facility. One pond would be located south of the proposed truck unloading lanes and would capture runoff from the northern area. The other pond would be located near the existing refuse and topsoil storage piles and would capture runoff from the southern area. Both ponds would be lined with either a clay base or high-density polyethylene membrane. In the event that a major storm fills the ponds, water would be tested for quality according to the UPDES permit and pumped into the proposed diversion ditch only if water meets the quality standards. The three existing culverts under the rail lines would be removed or plugged to prevent water from the west side of the facility from entering the east side. The existing ponds on the east side of the facility would remain and would be maintained according to standards outlined in the DOGM Mining and Reclamation Plan (MRP). The current Spill Prevention Control and Countermeasure Plan (SPCC plan) would be followed to protect the undisturbed areas from accidental spills. The plan would be available for review at the loadout site. Construction workers and employees of the operation would be instructed on the information in the SPCC plan. In the event of a spill or release of petroleum, procedures outlined in the SPCC Plan would be followed. The BLM, as well as the Utah Department of Environmental Quality, would be notified if the spill meets the definition of a hazardous waste as defined in 40 CFR 261. A Storm Water Pollution Prevention Plan has also been developed and all procedures for spill prevention and response within the plan would be followed.

## Construction

Phase 1 of the Proposed Action would be to create four permanent steel storage tanks, loading rail lines, truck unloading lanes, unloading racks and loading racks (see Figure 2). Inactive coal loading equipment at the facility would be removed to provide an area for crude oil loading equipment. All construction for loading equipment and tanks would be completed on previously disturbed ground, and no new disturbance areas would be required. Topsoil would not need to be salvaged as part of the construction activity. Topsoil was salvaged and stockpiled in association with the original construction under the DOGM MRP. Additional growth media was seeded and proved to be a suitable replacement for topsoil. The tank area would be graded with a rubber-tired class RG 50 grader, and a 225 class trackhoe, 560 class backhoe loader, or similar equipment to excavate the tank footings. Each individual tank location would be excavated to approximately five feet deep. An engineered concrete foundation would be constructed for each

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tank. The reinforced one-foot high by three-foot wide footing below the frost line would support a nine-inch thick concrete wall that would contain compacted fill. A reinforced concrete pad would be poured on top of the wall with a rubber lining under the concrete pad and would have an early leak detection feature. The pad surface would have several open notches radiating from the center of the tank pad, each leading to the outside diameter of the tank. In the event the bottom of the tank leaks petroleum, the spill would be immediately noticeable at the outside diameter of the tanks on top of the concrete pad within the designed notches. The tank bottoms would be approximately 12 inches above ground level.

The tank construction would be completed on site using a 30 or 60-ton crane, portable welding equipment, and scaffolding. Construction of all four tanks by six workers is expected to last four to eight months. The tanks would be painted with a BLM approved color. An earthen berm would be constructed around the tanks to ensure adequate capacity to capture the content of 1.5 times the amount of the largest tank for a total containment volume of 150,000 barrels. Steps would be installed over the berm to provide access to the tanks and piping.

Two of the tanks would have a storage capacity of 100,000 barrels (4,200,000 gallons) and two tanks would have a storage capacity of 20,000 barrels (840,000 gallons). The total storage capacity of this system would be approximately 240,000 barrels (10,080,000 gallons). The 100,000 barrel tanks would have a diameter of 146 feet and would be approximately 40 feet in height. The 20,000 barrel tanks would have a diameter of 70 feet and would be approximately 32 feet in height. Each tank would have a sealed floating roof to prevent the escape of vapors. The tanks would contain coils for heating the oil during storage. The fluid within the coils would be heated by engineered electric heating elements.

A 5,000 gallon tank containing water with foam injection capabilities would be connected by pipe and pump to the tank roof to provide fire suppressant. The pipes will have a connecting valve outside of the berm to allow additional suppressant from truck tanks.

Four truck unloading lanes would be located within the site disturbance area on a 1.2-acre area that is currently in the reclamation process. Topsoil from the area of the unloading lanes would be salvaged, stored adjacent to the unloading lanes, and seeded with the seed mix listed in Table 1 or an adjusted seed mix approved by the BLM. An existing road crossing over the rail line would be designated as a topsoil access road to ensure topsoil availability to the eastern coal loading portion of the facility.

Truck unloading racks would be constructed adjacent to the unloading lanes. Four and six inch piping and fixed pumps would be installed to transfer oil from the tanker trucks to the storage tanks through a closed system to prevent vapors from escaping. The fixed pumps would be 50 to 100 horsepower motors that are approximately 20 inches wide and 48 inches tall and would be positioned near the tanks within the natural depression to increase pumping capability.

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Up to four additional loading tracks would be constructed on the west side of the main rail line within the Utah Railway ROW and IPA ROW. One additional dual-sided railcar loading rack would be constructed adjacent to the loading tracks and would be connected to the tanks by four and six inch piping to create a closed system. All piping is steel construction and would be above ground, where feasible.

A smokeless, natural draft, air assisted and enclosed vapor combustor would be installed to combust any vapors generated during the loading process as required by the Utah Department of Environmental Quality. Two inch vapor vent manifold piping would be installed from each railcar station to the combustor where the vapors will be destroyed to a 98 percent destruction efficiency. The combustor would be approximately three feet in diameter and 20 feet tall utilizing propane for the pilot.

Approximately twelve new light posts would be installed at the truck unloading lanes, tank area, and railcar loading tracks. The lighting fixtures would be a cut-off design to cast light downward and minimize light pollution. All new light structures would be west of the existing rail line and would be pointed downward. On the existing facility east of the railroad tracks, angled or hooded shields would be installed on stacker walkways and all conveyor belt lights to direct the light toward the area requiring light and to prevent light emission in other directions.

Lights that cannot be shielded due to safety reasons, e.g. the truck dump and radial stacker flood lights, would not have additional shields added. The flood lights on the two radial stackers would be angled down as much as practical to light the required area and reduce side casted light. A manual switch would be installed so the flood lights on the radial stackers and truck dump could be turned off when not needed. Remaining lights that would not be shielded are relatively low and not visible from long distances.

A transformer substation would be installed adjacent to the southeast corner of the existing warehouse fence on the west side of the loadout facility. The substation would be located within the existing facility ROW. Two feeds would leave the substation. The first feed would be a pad mount transformer on the west side of the facility near the shop building. The two other buildings would be fed from the transformer by individual feeds. The second feed would be from a pad mount transformer near the tank area and future train loadout area. This transformer would feed to a proposed power controls building.

A 10,000 gallon self-contained diesel fuel tank would be installed adjacent to the truck unloading lanes. The tanks are designed and built with the fuel tank inside of a containment tank. The fuel would be used to fuel tanker trucks as well as coal-hauling trucks.

During construction and operations, the ground would be watered as necessary and vehicle speeds would be restricted to reduce fugitive dust. Marlin and IPA would abide by all applicable requirements for emission standards listed in Utah Administrative Code R307-205.

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Phase 2 of the proposed action would be the construction of additional tanks to bring the storage volume to 350,000 barrels. Additional tanks would be of the same design and size of the tanks constructed during Phase 1. Timing of phase 2 is not known at this time and would be determined by the amount of available trucks, railcars, and crude oil product.

### Operation

The waxy and non-waxy crude oil comes from two producing regions in Utah (Figure 3). The first region is within the Uintah Basin near Roosevelt, Duchesne, Altamont, Vernal, etc. The waxy crude oil from the Uintah Basin would be hauled over a number of county, state, and Federal highways. The oil would be first picked up at the well head or lease and transported over county roads until reaching Highways 40, 191, and 6. Trucks then travel on Consumers Road until reaching the Wildcat Loadout and turn onto a gravel road.

The second region comprises several fields in Central Utah with the majority of fields being located in Sevier County. This light sweet crude oil contains only a small amount of waxy paraffins and would be first picked up at the well head or lease and transported over county and state roads until reaching I-70 and Highways 10 and 6 until reaching Consumers Road. Trucks would then travel on Consumers road until reaching the loadout facility.

Crude oil trucks would enter the Wildcat Loadout Facility from Consumers Road west of the facility and along the existing road in a southerly direction to a multiple lane truck unloading rack previously used as the coal truck unloading grizzly. Trucks at the unloading rack would be emptied into the storage tanks through a closed system of steel piping and fixed pumps. The empty trucks would then exit the facility back to Consumers Road. Oil from the storage tanks would be pumped to railcars spotted on tracks dedicated for loading and protected from main line train operations. Utah Railway would provide rail service to the facility.

Initial transloading output would be approximately 6,000 barrels per day and could potentially increase to 20,000 barrels per day after Phase 2 construction is completed. The number of trucks travelling along Consumers Road would increase from the current 22 trucks per day to 72 trucks per day. Approximately 12 locally hired workers would be required for operations at the facility and many local truck drivers would be employed for transportation of crude oil to the facility. The facility would be operational at all times (24 hours per day, seven days per week) with workers that have been trained to provide security.

Marlin would be responsible to take all reasonable precautions to avoid spills. The SPCC plan would incorporate procedures and precautions with additional equipment and tanks to prevent and clean spills. Tanks would be maintained in a manner that would preclude leakage and provide applicable safety measures. Leaks and drips would be caught and spills contained and cleaned promptly. If oil is present in a transfer hose, the oil will be captured in a metal bucket and emptied into the railcar. In the event of a breakdown and a spill occurs, the incident would be reported within 24 hours and any necessary repairs would be made as quickly as possible.

Emergency spill containment supply kits would be stored on site and on all oil transport trucks. Spill kits would include a containment drum, absorbent pads and booms, and a drip pan. Truckers would be trained on proper loading and unloading safety procedures of crude oil. Railroad tank cars would be inspected before loading operations begin and drip pans would be used during the filling operation to prevent crude oil from reaching the ground. All applicable federal and state regulations regarding oil pollution control would be strictly enforced.

#### Abandonment and Reclamation

The coal loading area of the Wildcat Loadout Facility would be reclaimed by the ROW holder according to the DOGM Mining and Reclamation Plan as stated in permit number ACT C/07/0033 once that area of the facility is no longer needed. The oil loading portion of the ROW would be reclaimed in accordance with the MRP until DOGM no longer retains jurisdiction over the oil loading facility, at which time reclamation would be reclaimed by the ROW holder according to the Green River District Reclamation Guidelines.

Reclamation of the oil loading portion of the facility would begin immediately after oil loading operations have ceased and the area is no longer needed. All areas except for the sediment ponds would be recontoured and revegetated. The sediment ponds and diversion ditch would remain until the reclaimed areas have been revegetated. The sediment pond would be left in place to capture precipitation runoff from the reclamation area and to prevent runoff from leaving the site. Once the area has been revegetated, the sediment ponds would be reclaimed using the same methodology.

The loading tracks, tanks, pumps, berms, piping and other oil loading equipment would be removed. The concrete pads that supported the tanks would be removed. The refuse pile would be flattened and buried with at least four feet of native fill. The area would then be contoured to approximate the pre-disturbance topography. The site was generally flat with a shallow slope to the east. The original drainage would not be restored because the railroad tracks would impede the drainage. The last few lifts during the grading and recontouring would not be compacted. This would be completed for the last four feet and would eliminate the need to rip the subsoil before spreading topsoil. The topsoil pile and alternative growth media would be divided between the west and east areas as described in the MRP to provide surface soil for each area. The allotted topsoil or alternative growth media would be spread over the area during the first fall season following the completion of recontouring. The topsoil would then be gouged with rippers or pockmarked. The area would then be seeded with the certified weed-free seed mix shown in Table 1, or by an adjusted mix approved by the BLM authorized officer by hand-broadcast methods or hydroseeded and hydromulched.

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**Table 1 – Final Reclamation Seed Mix**

Scientific Name	Common Name	PLS/Acre
<i>Amelanchier utahensis</i>	Utah Serviceberry	2 to 3
<i>Artemisia tridentata</i>	Big Sagebrush	0.06
<i>Krascheninnikovia lanata</i>	Winterfat	2.00
<i>Ericameria nauseosa</i>	Rubber Rabbitbrush	0.30
<i>Purshia tridentata</i>	Bitterbrush	up to 6.00
<i>Achillea millefolium</i>	Yarrow	0.05
<i>Hedysarum boreale</i>	Utah Sweetvetch	1.00
<i>Linum lewisii</i>	Lewis Flax	1.00
<i>Penstemon palmeri</i>	Palmer Penstemon	0.50
<i>Heliomeris multiflora</i>	Showy Goldeneye	0.20
<i>Bouteloua gracilis</i>	Blue Grama	0.60
<i>Pseudoroegneria spicata</i>	Bluebunch Wheatgrass	2.50
<i>Elymus trachycaulus trachycaulus</i>	Slender Wheatgrass	2.50
<i>Pleuraphis jamesii</i>	Galleta	2.50
<i>Hesperostipa comata</i>	Needle and Thread Grass	3.00
<i>Achnatherum hymenoides</i>	Indian Ricegrass	2.00
<b>Total</b>		<b>21.21 to 27.21</b>

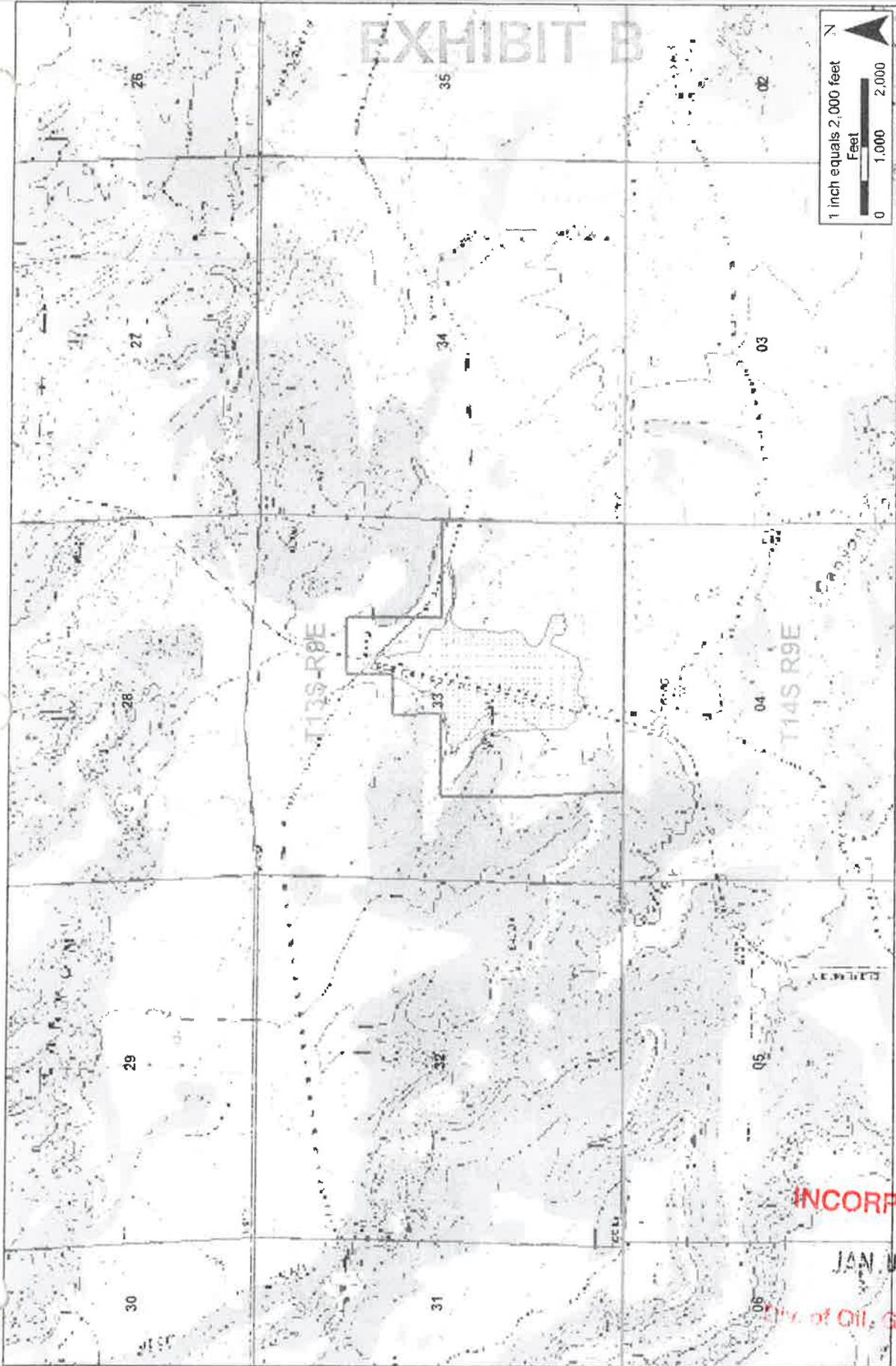
Until reclamation bonding is transferred to the BLM ROW, monitoring would be conducted according to the existing MRP. Once the bond is transferred, monitoring would be conducted according to the Green River District Reclamation Guidelines. Monitoring would consist of qualitative methods during the second and fourth growing season following seeding. Qualitative methods would include ocular estimates of vegetation success and slope stability as well as monitoring for noxious weeds. Quantitative methods would be used during the third, fifth, and final year that reclamation is deemed successful. Quantitative methods would include measurement of vegetative cover by line-point intercept method. A reference area has been established near the southeastern corner of the ROW and would be used for comparison of vegetation cover. Recommendations for further seeding or soil supplements can be suggested during the any of the monitoring years. If any part of reclamation is detrimental to success, corrective measures would be taken. Once the vegetation has established a desired, self-perpetuating, diverse plant community and reaches 75 percent basal cover compared to the cover on the reference area, reclamation would be deemed successful according to the Green River District Reclamation Guidelines.

In addition to yearly monitoring for vegetation success, periodic inspection for noxious weeds during periods of no snow cover on reclaimed areas would be completed. If noxious weeds are found, a licensed herbicide applicator would use herbicide or mechanical treatments to remove the noxious weeds. Weed control objectives would be to limit the spread of existing weeds and prevent the introduction of invasive species. With the BLM's approval, IPA or EAS would conduct pre-construction weed control by spraying noxious species with BLM approved herbicide. Mechanical methods, i.e., hand pulling and cutting plants at ground level, may be necessary if the weed population is near desirable plant species or water bodies.

All vehicles and equipment would be power washed before transporting to the project area to prevent the spread of seed. Cleared vegetation and soil from an area known to have weeds

would be stock piled in the immediate area and then replaced in the same area where the soils and vegetation were prior to disturbance. IPA or ROW holders would be responsible for weed control within the ROW throughout the life of the project. Herbicide would be applied during appropriate growth stages of the specific species for better control and prevention of their spread.

Once the area has been successfully revegetated, the sediment pond would be reclaimed and monitored using the same methodology.



**Figure 1**

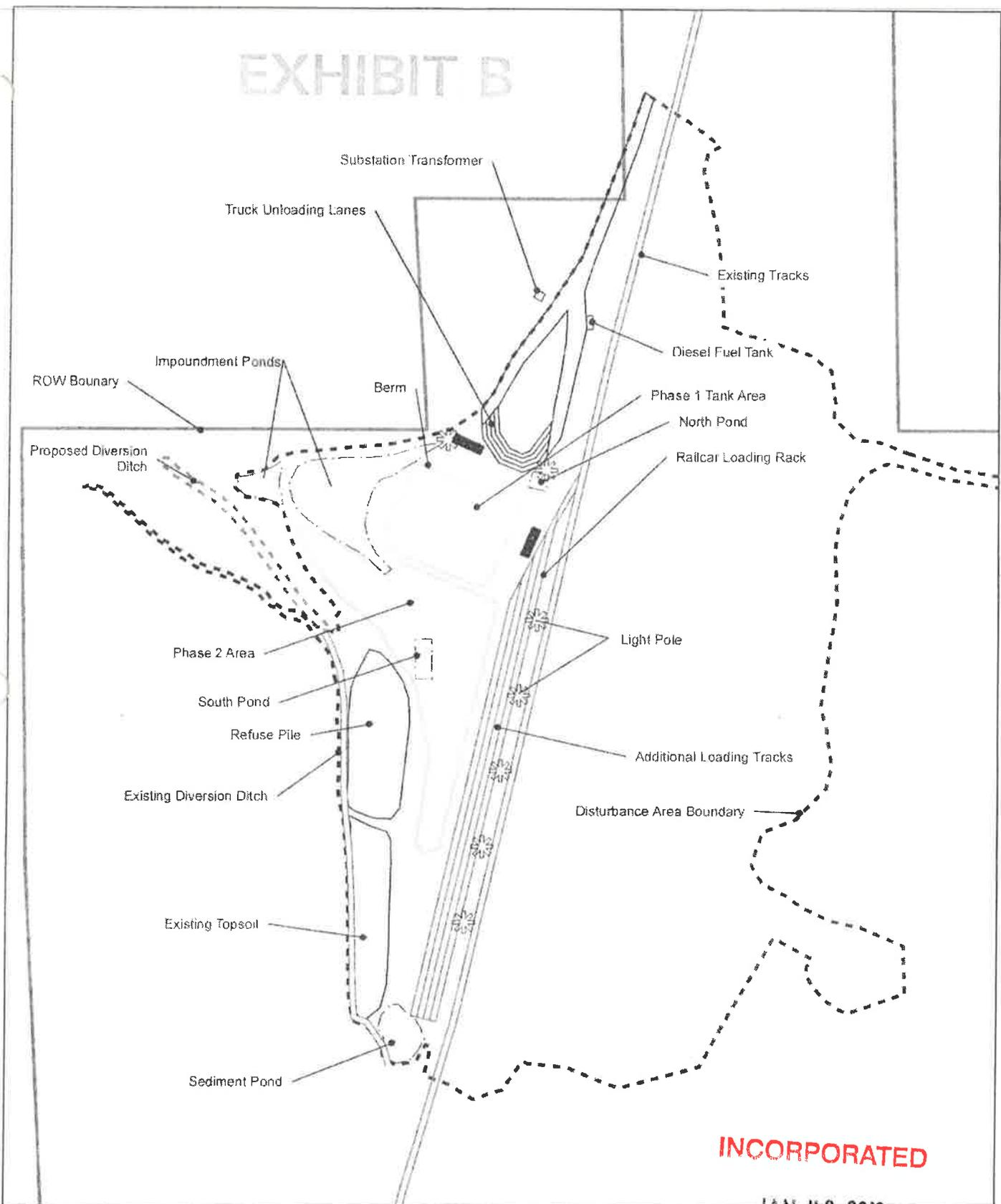
Wildcat Loadout Modification EA  
 BLM Lease U-48027  
 General Location

Section 33  
 Township 13 South  
 Range 9 East  
 SLBM

- Legend**
-  Existing Facility
  -  ROW Area

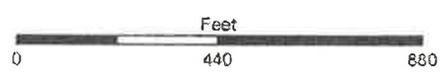
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# EXHIBIT B



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Wildcat Loadout Modification EA  
BLM Lease U-48027 Oil, Gas & Mining  
**Figure 2**

ASSOCIATED ENERGY SERVICES (AES)  
DRAINAGE AREAS 1, 2, & 3  
PRICE RAILCAR TRANS-LOADING FACILITY  
WILDCAT LOADOUT  
CONSUMERS ROAD (CARBON COUNTY)

PROPOSED DIVERSION DAM

DRAINAGE AREA # 2  
7.11 ACRES

PROPOSED DIVERSION DITCH

EXISTING DIVERSION DITCH

UPPER CELL  
IMPOUNDMENT POND

LOWER CELL  
IMPOUNDMENT POND

PROPOSED SEDIMENT  
POND #1  
50' x 120'

PROPOSED SEDIMENT  
POND #2  
50' x 50'

DRAINAGE AREA # 1  
10.35 ACRES

DRAINAGE AREA # 3  
3.88 ACRES

EXHIBIT B

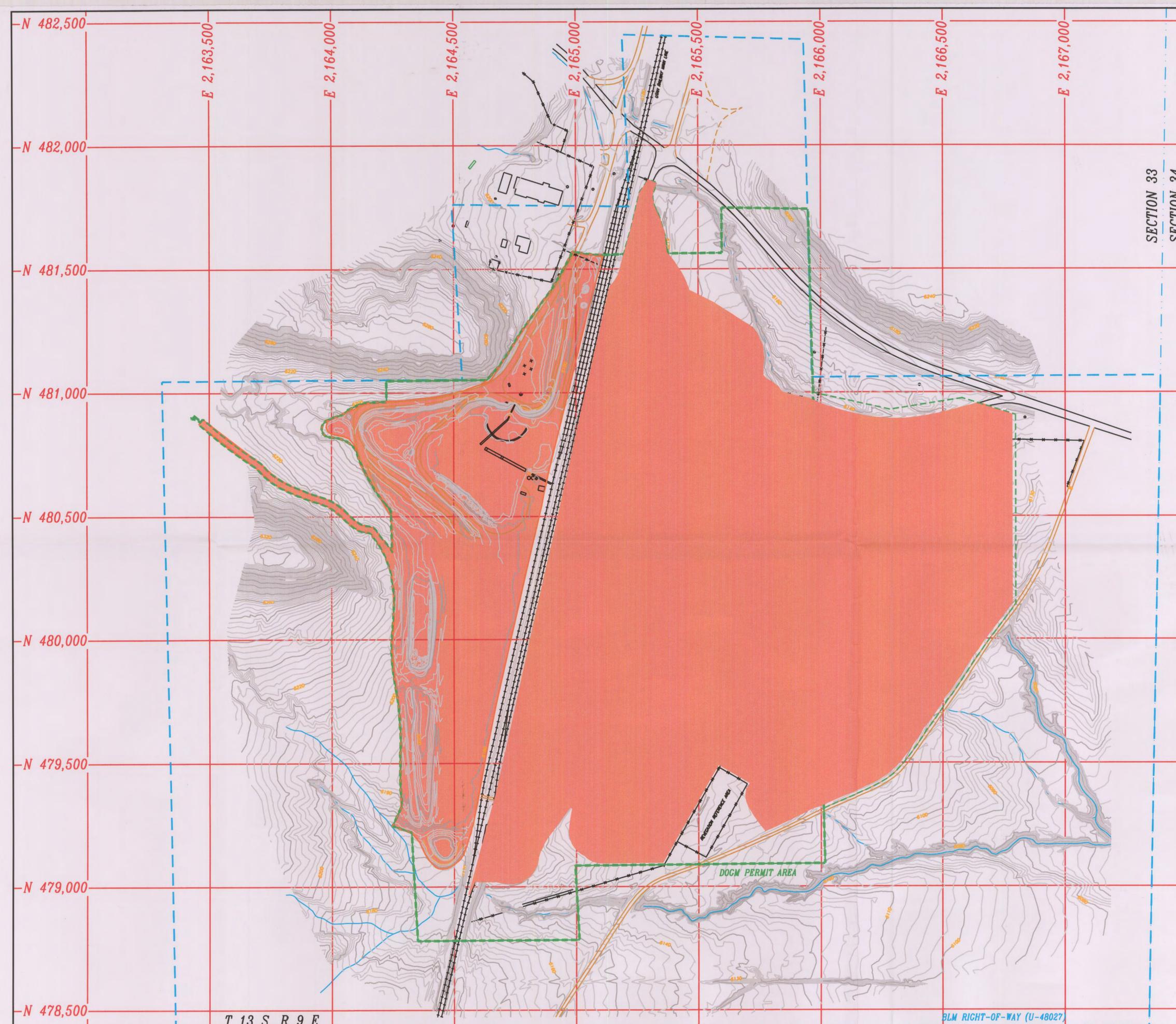
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Wildcat Loadout ROW Amendment  
Figure 3



1 inch equals 150 feet





**DISTURBED AREAS:**

EXISTING WEST:	26.11 AC.
EXISTING EAST:	85.51 AC.
<b>TOTAL:</b>	<b>111.62 AC.</b>

- EXISTING DISTURBED AREA:
- EXISTING PERMIT AREA:
- BLM RIGHT OF WAY:

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## INTERMOUNTAIN POWER AGENCY

*WILDCAT LOADOUT - C/007/0030  
DISTURBED AREAS*

REVISION NUMBER: 4	SCALE: 1" = 150'
DATE: JANUARY 2017	<b>PLATE 1-B</b>

T 13 S, R 9 E

BLM RIGHT-OF-WAY (U-48027)