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DAVID H. WRIGHT
General Manager

November 27, 2017

Mr. Daron Haddock
Coal Program Manager
Utah Division of Oil, Gas & Mining Coal Program
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Dear Mr. Haddock:

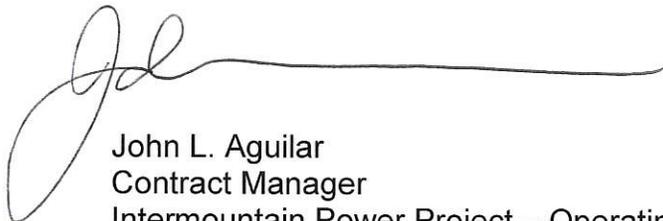
Subject: Midterm Completion Response, Intermountain Power Agency, Wildcat Loadout, C/007/0033, Task #5547

As requested by your November 3, 2017 response, Intermountain Power Agency respectfully submits an updated application to address the deficiencies contained in your response, pertaining to the above referenced submittal.

An electronic copy of the submittal has been sent to the DOGM via e-mail to ogmcoal@utah.gov on November 27, 2017. A hard copy will not be sent unless requested.

If you have any questions, please contact me at (213) 367-0424.

Sincerely,



John L. Aguilar
Contract Manager
Intermountain Power Project – Operating Agent Group

JLA:md

Delivery via E-mail

Enclosure

c/enc: Mr. R. Dan Eldridge, IPA
Mr. Paul R. Schultz
Ms. Melia U. Asucan

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: Intermountain Power Agency (IPA)

Mine: _____

Permit Number: ACT 007/0033

Title: Mid-Term Review Task ID No. 5547

Description, Include reason for application and timing required to implement:

Crude Oil Storage System consisting of truck unloading, storage tanks and railcar loading

Instructions: If you answer yes to any of the first eight questions, this application may require Public Notice publication.

- | | | |
|---|--|---|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO# _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 4. Does the application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice publication? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies? |

Explain: _____

- | | | |
|---|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2) |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 15. Does the application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps or calculation? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | 21. Have reclamation costs for bonding been provided? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 24. Does the application include confidential information and is it clearly marked and separated in the plan? |

Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you. (These numbers include a copy for the Price Field Office)

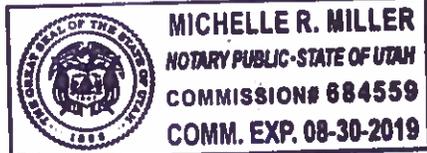
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations herein.

R. Dan Eldredge General Manager 11/20/17 [Signature]
 Print Name Position Date Signature (Right-click above choose certify then have notary sign below)

Subscribed and sworn to before me this 13 day of November 2017

Notary Public: Michelle R Miller, state of Utah.

My commission Expires: 8/30/2019
 Commission Number: 684559
 Address: 10695 S. Riverfront Parkway Suite 200
 City: Salt Lake City State: UT Zip: 84045



For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
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R645-301-100
GENERAL

CHAPTER 1, LEGAL

R645-301-100. GENERAL

~~Marlin Logistics, LLC (Marlin) in 20145, is building a crude oil unloading station, storage system, and railcar loading stations on the west side of the Utah Railroad tracks. 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.

R645-301-200
SOILS

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.

~~Marlin Logistics, LLC (Marlin) in 2014, is building a crude oil unloading station, storage system, and railcar loading stations on the west side of the Utah Railroad tracks. 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.~~

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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

R645-301-300
BIOLOGY

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)

R645-301-400
LAND, UES, & AIR QUALITY

R645-301-500
ENGINEERING

CHAPTER 5, ENGINEERING

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.

~~Marlin Logistics, LLC(Marlin) in 2014, is building a crude oil unloading station, storage system, and railcar loading stations on the west side of the Utah Railroad tracks. 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.

R645-301-600
GEOLOGY

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.

~~Marlin Logistics, LLC(Marlin) in 2014, is building a crude oil unloading station, storage system, and railcar loading stations on the west side of the Utah Railroad tracks.~~ 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.	<u>GEOLOGY</u>
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

R645-301-700
HYDROLOGY

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.

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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
he 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.¹ 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,¹ and probably coincides with the bottoms of the major streams, i.e., Price River.

¹Price and Arnow, 1974

R645-301-800
BONDING

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.

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R645-301-800. BONDING AND INSURANCE

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

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 \$1,192,000 and it is included in this MRP in Appendix C.

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 \$1,192,000. Complete calculations are included in Appendix C. Bonded areas (disturbed areas) are shown on Plates 1 and 1B and further described in R645-301-542

**OIL STORAGE
CHAPTER 9**

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT

MINING AND RECLAMATION PLAN

CHAPTER 9, **PROPOSED**

OIL STORAGE

CHAPTER 9

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APPENDICES

APPENDIX A ~~MARLIN LOGISTICS, LLC OIL STORAGE HYDROLOGY PLAN~~

APPENDIX B ~~MARLIN LOGISTICS, LLC UPDES PERMIT~~

APPENDIS C ~~MARLIN LOGISTICS, LLC BOND CALCULATIONS~~

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.

~~The crude oil facility will be operated by Marlin Logistics, LLC (Marlin). The resident agent is:~~

~~—— Brian Hess
—— General Manager
—— 121 West 200 South
—— Farmington, Utah 84025
—— (801) 386-1861~~

Managers of the crude oil handling facilities are as follows:

<u>Name</u>	<u>Address</u>	<u>Title</u>	<u>Date Position Assumed</u>
General Manger Brian Hess	121 West 200 South Farmington, UT 84025	General Manager	July, 2012
Site Manager Scott Dimick		Site Manager 435-650-3221	Feb. 2014

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.

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.

R645-301-400 LAND USE

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.

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.

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.

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

~~10' x 40' trailer will be used as an office.~~ The trailer has been removed from the site

Proposed Diesel Fuel Tank

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

Construction

~~Construction began in the spring of 2014 and will be completed in the fall of 2014.~~ 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).

~~Marlin will maintain all facilities in a manner which prevents additional contributions of suspended solids outside the permit area.~~ 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. ~~Marlin realizes that maintenance of the facilities is a key to optimum operation.~~ 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. Office Trailer~~
11. **Proposed** Diesel Fuel Tank

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 and/or Marlin Logistics, LLC.

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, ~~MARLIN LOGISTICS, LLC OIL STORAGE HYDROLOGY PLAN, "AES Diversion Ditch"~~.

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, ~~MARLIN LOGISTICS, LLC OIL STORAGE HYDROLOGY PLAN~~, "AES Drainage Area #1" and "AES Drainage Area #3".

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

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

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

Assume 100 lf/ft³

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.

~~AES has~~ ~~An~~ approved UPDES permit for discharging water, found in Appendix B, ~~MARLIN LOGISTICS, LLC-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.

~~Bond calculation is found Appendix C, MARLIN LOGISTICS, LLC BOND CALCULATIONS.~~ **A bond will be submitted before any implementation or construction of the facilities is started.**

APPENDIX A
~~MARLIN LOGISTICS, LLC~~
~~OIL STORAGE HYDROLOGY PLAN~~

APPENDIX B
~~MARLIN LOGISTICS, LLC~~
UPDES PERMIT

APPENDIX C
~~MARLIN LOGISTICS, LLC~~
BOND CALCULATIONS

Direct Costs				
Subtotal Demolition and Grading	\$572,002		\$255,043	
Subtotal Backfilling and Grading	\$292,762		\$302,382	
Subtotal Revegetation	\$356,631		\$356,631	
Subtotal Direct Costs	<u>\$1,221,396</u>		<u>\$914,057</u>	
Indirect Costs				
Mob/Demob	\$122,140	10.0%	\$91,406	10.0%
Contingency	\$61,070	5.0%	\$45,703	5.0%
Engineering Redesign	\$30,535	2.5%	\$22,851	2.5%
Main Office Expense	\$83,055	6.8%	\$62,156	6.8%
Project Management Fee	\$30,535	2.5%	\$22,851	2.5%
Subtotal Indirect Costs	<u>\$327,334</u>	26.8%	<u>\$244,967</u>	
Total Cost	\$1,548,730		\$1,159,024	
Escalation Factor		0.015		0.007
Number of Years		5		4
Escalation	<u>\$119,692</u>		<u>\$32,795</u>	
Reclamation Cost.	\$1,668,422		\$1,191,819	
Bond Amount (round to nearest \$1,000) in 2021dollars	\$1,668,000		\$1,192,000	

Note:

The mid-term review was to be completed in 2016 but was extended into 2017.
The costs used in the bond calculations are 2017 and comply the Tech 007 requirements.
The bond was only esclated for four (4) because of using 2017 cost figures.

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		
Great Basin	100,000 Barrel-Steel-Tank	50000	
Great Basin	20,000 Barrel-Steel-Tank	20000	
02-41-13.33-3200	Steel-Pipe	8.28	LF
Calculated-	Steel-Pipe	10.37	LF
23-05-05.10-0350	Boiler	2225	EA
23-05-05.10-0.40	Vapor-Combustor	810	EA
02-41-16.13-0012	5,000-Barrel-.Tank	0.27	CF
02-41-13.80-0100	Lights	192	EA
	Pumps	227	EA
	Fire-Protection	268	EA
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

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
Oil Storage Tanks (4) 30	233956
4 Inch Piping 31	8433
6 Inch Piping 32	47511
Misc. Equip. Removal 33	24755
Lighting 34	2304
	<hr/>
	572002
	255043

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	
		Loading Bin 01																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.4	CY	15	15	12								FT		2700	CF	1080	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																			1080	
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	/Day	30	18	1								FT		2.5	HR	98	
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY												1.3		20		
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														26	CY	
		Disposal Costs	On Site Disposal		11.4	CY															26	CY
		Subtotal																			549	
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																			1629	

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			
		Scales 02																						
		Structure's Demolition Cost	Mixture of types, average	02 41 16.13 0100	0.4	CF	14	60	8								FT		6720	CF	2688			
		Structure's Vol. Demolished																0.35	87	CY				
		Rubble's Weight (exclude steel)																						
		Truck's Capacity																						
		Haulage																						
		Transportation Cost Non Steel Truck																						
		Transportation Cost Non Steel Drive																		87	CY	740		
		Disposal Cost Non Steel	City Sanitation	City Sanitation Price	8.5	CY																		
		Steel's Weight																						
		Truck's Capacity																						
		Haulage																						
		Transportation Cost Steel Truck																						
		Transportation Cost Steel Drive																						
		Disposal Cost steel																						
		Subtotal																			3428			
		Structure's Demolition Cost																						
		Structure's Vol. Demolished	Steel Bld. Large	02 41 16.13 0012	0.38	CF	14	60	8								FT		6720	CF	2554			
		Rubble'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																						
		Subtotal																			2554			
		Concrete Demolition																						
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	14	70	0.5								FT		2	HR	89			
		Concrete's Vol. Demolished																	1.3	18	CY			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														24	CY	52		
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														24	CY	88		
		Disposal Costs	On Site Disposal		11.4	CY															24	CY	269	
		Subtotal																				498		
		Concrete Demolition																						
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	10	12	0.25								FT		0.14	HR	5			
		Concrete's Vol. Demolished																	1.3	1	CY			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY															1	CY	3	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY															1	CY	5	
		Disposal Costs	On Site Disposal		11.4	CY																1	CY	16
		Subtotal																				30		
		Concrete Demolition																						
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	340	20	0.25								FT			8	HR	307		
		Concrete's Vol. Demolished																	1.3	63	CY			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY															82	CY	181	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY															82	CY	308	
		Disposal Costs	On Site Disposal		11.4	CY																82	CY	934
		Subtotal																				1728		
		Total																				8239		

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	
		Substation 03																				
		Structure's Demolition Cost	Mechanical equipment heavy	23 05 05.10 3600	1225	Ton									3		Ton		3	Ton	3675	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																			3675	
		Equipment's Disposal Cost																				
		Dismantling Cost	Chain link, posts & fabric remove only	02 41 13.60 1700	4.44	LF	250										LF		250	LF	1110	
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																			1110	
		Equipment's Disposal Cost																				
		Dismantling Cost	Utility Pole wood 20'-30' high		310	EA											13	EA		13	EA	4030
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																			4030	
		Concrete Demolition																				
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	25	15	0.5								FT		0.87	HR	34	
		Concrete's Vol. Demolished																	1.3	7	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														9	CY	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														9	CY	
		Disposal Costs	On Site Disposal		11.4	CY															9	
		Subtotal																			192	
		Concrete Demolition																				
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	25	15	0.5								FT		0.87	HR	34	
		Concrete's Vol. Demolished																	1.3	7	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														9	CY	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														9	CY	
		Disposal Costs	On Site Disposal		11.4	CY															9	
		Subtotal																			192	
		Total																			9199	

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	
		Truck Dump West 04																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	40	14	15								FT		8400	CF	3192	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				3192
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR						50					CY		6.25	HR	244	
		Concrete's Vol. Demolished																	1.3	50		
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														65	144	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														65	243	
		Disposal Costs	On Site Disposal		11.4	CY														65	741	
		Subtotal																				1372
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				4564

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	
		Crushing Plant West 05																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	20	15	10								FT		3000	CF	1140	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				1140
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	20	15	1								FT		1.39	HR	54	
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY													1.3		11	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. Trip	31 23 23.20 1014	3.74	CY															14	32
		Disposal Costs	On Site Disposal		11.4	CY															14	53
		Subtotal																				183
		Subtotal																				302
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				1442

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		
		Radial Stacker West 06																					
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	150	8	8								FT		9600	CF	3648		
		Structure's Vol. Demolished																					
		Rubble'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																					
		Subtotal																				3648	
		Equipment's Disposal Cost																					
		Dismantling Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	150	8	1								FT		5.56	HR	217		
		Concrete's Vol. Demolished																	1.3		44	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY															57	CY	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY															57	CY	
		Disposal Costs	On Site Disposal		11.4	CY																57	CY
		Subtotal																				1208	
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				4857	

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		
		Reclaim Tunnel West 07																					
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	190	14	8								FT		21280	CF	8086		
		Structure's Vol. Demolished																					
		Rubble'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																					
		Subtotal																				8086	
		Equipment's Disposal Cost																					
		Dismantling Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	328LCR.Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	CY	190	14	1								FT		12.31	HR	481		
		Concrete's Vol. Demolished																	1.3	99	CY	284	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														129	CY	481	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														129	CY	1467	
		Disposal Costs	On Site Disposal		11.4	CY															129	CY	2714
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				10800	

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	
		Loadout Conveyor West 08																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	320	4	4								FT		5120		1946	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				1946
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's 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																				1946

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		
		Control Building West 09																					
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	30	15	8								FT		3600	CF	1368		
		Structure's Vol. Demolished																					
		Rubble'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																					
		Subtotal																			1368		
		Equipment's Disposal Cost																					
		Dismantling Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	40	20	0.5								FT		1.85	HR	72		
		Concrete's Vol. Demolished																					
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY													1.3	15	CY	43	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														20	CY	73	
		Disposal Costs	On Site Disposal																		20	CY	222
		Subtotal																				411	
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				1779	

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	
		Truck Dump Reclaim 10																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	40	14	15								FT		8400	CF	3192	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				3192
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR						75					CY		9.38	HR	366	
		Concrete's Vol. Demolished																	1.3	75	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														98	CY	215
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														98	CY	365
		Disposal Costs	On Site Disposal		11.4	CY														98	CY	1112
		Subtotal																				2058
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				5250

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
		Conveyor 11																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	250	4	4								FT		4000	CF	1520
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			1520
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	15	35	1								FT		2.43	HR	95
		Concrete's Vol. Demolished																			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY												1.3		19	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														25	CY
		Disposal Costs	On Site Disposal		11.4	CY															25
		Subtotal																			523
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			2043

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
		Crusher Screen Plant 12																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	44	20	15								FT		13200	CF	5016
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			5016
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	35	30	8								FT		8400	CF	3192
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			3192
		Concrete Demolition																			
		Demolition Cost	328LCR_Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	57	50	1								FT		13.19	HR	515
		Concrete's Vol. Demolished																	1.3	106	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														138	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trg	31 23 23.20 1014	3.74	CY														138	CY
		Disposal Costs	On Site Disposal		11.4	CY															138
		Subtotal																			2906
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			11114

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
		Lump Coal Belt 13																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	100	3	3								FT		900	CF	342
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			342
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR						10					CY		1.25	HR	49
		Concrete's Vol. Demolished																			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY													1.3	10	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														13	CY
		Disposal Costs	On Site Disposal		11.4	CY															13
		Subtotal																			274
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			616

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	
		Stoker radial Stacker 14																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	100	10	10								FT		10000	CF	3800	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																			3800	
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	60	8	1								FT		2.22	HR	87	
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY												1.3	18	CY	52	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY													23	CY	88	
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														23	CY	267
		Subtotal																			493	
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																			4293	

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
		Conveyor 15																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	600	4	4								FT		9600	CF	3648
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			3648
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	35	15	1								FT		2.43	HR	95
		Concrete's Vol. Demolished																	1.3		19
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														25	55
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														25	82
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														25	282
		Subtotal																			523
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			4171

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
		Main Radial Stackler 16																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	260	15	15								FT		58500	CF	22230
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			22230
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	280	10	1								FT		12.96	HR	506
		Concrete's Vol. Demolished																			
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY													1.3	104	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														135	CY
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY															1541
		Subtotal																			2852
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			25082

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	
		Loadout Reclaim 17																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	750	4	8								FT		24000	CF	9120	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																			9120	
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	750	14	1								FT		48.61	HR	1898	
		Concrete's Vol. Demolished																				
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY												1.3	389	CY	1118	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY													506	CY	1891	
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														506	CY	5765
		Subtotal																			10672	
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																			19792	

Ref.	Task	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Nimber	Unit	Swell Factor	Quantity	Unit	Cost
		Loadout Tower 18																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	35	40	60								FT		84000	CF	31920
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			31920
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	12	8	1								FT		0.44	HR	17
		Concrete's Vol. Demolished																	1.3	4	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														5	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Tri	31 23 23.20 1014	3.74	CY														5	CY
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														5	CY
		Subtotal																			108
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	12	8	1								FT		0.44	HR	17
		Concrete's Vol. Demolished																	1.3	4	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														5	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Tri	31 23 23.20 1014	3.74	CY														5	CY
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														5	CY
		Subtotal																			108
		Concrete Demolition																			
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	40	60	1								FT		11.11	HR	434
		Concrete's Vol. Demolished																	1.3	89	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														116	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Tri	31 23 23.20 1014	3.74	CY														116	CY
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														116	CY
		Subtotal																			2441
		Total																			34576

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	
		Office 19																				
		Structure's Demolition Cost	Steel Bld. Laroe	02 41 16.13 0012	0.38	CF	40	30	8								FT		9600	CF	3648	
		Structure's Vol. Demolished																	0.35	124	CY	
		Rubble's Weight (exclude steel)																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Non Steel Truck																				
		Transportation Cost Non Steel Drive																				
		Disposal Cost Non Steel	City Sanitation	City Sanitation Price	8.5	CY														124	CY	1058
		Steel's Weight																				
		Truck's Capacity																				
		Haulage																				
		Transportation Cost Steel Truck																				
		Transportation Cost Steel Drive																				
		Disposal Cost steel																				
		Subtotal																				4706
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	66	30	0.5								FT		4.58	HR	179	
		Concrete's Vol. Demolished																	1.3	37	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														48	CY	106
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														48	CY	180
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														48	CY	548
		Subtotal																				1014
		Concrete Demolition																				
		Demolition Cost	328LCR Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	70	35	0.5								FT		5.67	HR	221	
		Concrete's Vol. Demolished																	1.3	45	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														59	CY	129
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														59	CY	219
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY														59	CY	667
		Subtotal																				1236
		Total																				6956

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	
		Powerline 20																				
		Structure's Demolition Cost	Utility Pole wood 20'-30' high		310	EA										25	EA		25	EA		7750
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				7750
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's 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																				7750

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	
		Shop 21																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	40	45	20								FT		36000	CF	13680	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				13680
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR, Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	45	45	1								FT		9.38	HR	366	
		Concrete's Vol. Demolished																	1.3		75	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY															98	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY															98	CY
		Disposal Costs	On Site Disposal	02 41 16.17 4200	11.4	CY															98	CY
		Subtotal																				2058
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				15738

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	
		Guardrail 22																				
		Structure's Demolition Cost	Guard Rail	02 41 13.30 0800	17.35	LF	1000										FT		1000	FT	17350	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				17350
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's 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																				17350

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
		Miscellaneous 24																			
		Structure's Demolition Cost																			
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			
		Water Tank																			
		Equipment's Disposal Cost	6000 gal. to 8000 gal.tank	02 65 10.30 0120	1200	EA						8000					GAL		1	EA	1200
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs	9000 gal. to 12000 gal. tank	02 65 10.30 1029	1150	EA						8000					GAL		1	EA	1150
		Subtotal																			2350
		Water Tank																			
		Equipment's Disposal Cost	6000 gal. to 8000 gal.tank	02 65 10.30 0120	1200	EA						6000					GAL		1	EA	1200
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs	9000 gal. to 12000 gal. tank	02 65 10.30 1029	1150	EA						6000					GAL		1	EA	1150
		Subtotal																			2350
		Water Tank																			
		Equipment's Disposal Cost	9000 gal. to 12000 gal. tank	02 65 10.30 0130	1800	EA						10000					GAL		1	EA	1800
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs	9000 gal. to 12000 gal. tank	02 65 10.30 1029	1150	EA						10000					GAL		1	EA	1150
		Subtotal																			2950
		Total																			7650

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		
		Truck Dump New 25																					
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	40	14	15								FT		8400	CF	3192		
		Structure's Vol. Demolished																					
		Rubble'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																					
		Subtotal																				3192	
		Equipment's Disposal Cost																					
		Dismantling Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR						75					CY		9.38	HR	366		
		Concrete's Vol. Demolished																	1.3	75	CY		
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														98	CY	215	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														98	CY	365	
		Disposal Costs	On Site Disposal		11.4	CY															98	CY	1112
		Subtotal																				2058	
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				5250	

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		
		Conveyor New 26																					
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	250	4	4								FT		4000	CF	1520		
		Structure's Vol. Demolished																					
		Rubble'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																					
		Subtotal																				1520	
		Equipment's Disposal Cost																					
		Dismantling Cost																					
		Equipment's Vol. Demolished																					
		Loading Costs																					
		Transport Costs																					
		Disposal Costs																					
		Subtotal																					
		Concrete Demolition																					
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	HR	15	15	1								FT		1.04	HR	41		
		Concrete's Vol. Demolished																					
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY													1.3	8	CY	23	
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														10	CY	39	
		Disposal Costs	On Site Disposal		11.4	CY															10	CY	119
		Subtotal																				221	
		Concrete Demolition																					
		Demolition Cost																					
		Concrete's Vol. Demolished																					
		Loading Cost																					
		Transportation Cost																					
		Disposal Costs																					
		Subtotal																					
		Total																				1741	

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	
		Radial Stacker 27																				
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.38	CF	250	15	15								FT		56250	CF	21375	
		Structure's Vol. Demolished																				
		Rubble'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																				
		Subtotal																				21375
		Equipment's Disposal Cost																				
		Dismantling Cost																				
		Equipment's Vol. Demolished																				
		Loading Costs																				
		Transport Costs																				
		Disposal Costs																				
		Subtotal																				
		Concrete Demolition																				
		Demolition Cost	328LCR,Prod. Rate 8 CY/HR	01 54 33 20 0346	39.05	CY	260	10	1								FT		12.04	CY	470	
		Concrete's Vol. Demolished																	1.3	96	CY	
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														125	CY	276
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														125	CY	467
		Disposal Costs	On Site Disposal		11.4	CY														125	CY	1423
		Subtotal																				2635
		Concrete Demolition																				
		Demolition Cost																				
		Concrete's Vol. Demolished																				
		Loading Cost																				
		Transportation Cost																				
		Disposal Costs																				
		Subtotal																				
		Total																				24010

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
		Conveyor 28																			
		Structure's Demolition Cost	Steel Bld. Large	02 41 16.13 0012	0.4	CF	1250	7	4								FT		35000	CF	14000
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			14000
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's Vol. Demolished																			
		Loading Costs																			
		Transport Costs																			
		Disposal Costs																			
		Subtotal																			
		Concrete Demolition																			
		Demolition Cost	328LCR.Prod. Rate 8 CY/HR	01 54 33 20 0348	39.05	HR						20					CY		2.50	HR	98
		Concrete's Vol. Demolished																	1.3	20	CY
		Loading Cost	Front End Loader 3 CY	31 23 16.42 1300	2.21	CY														26	CY
		Transportation Cost	12 Cy (16 Ton) dump Truck 1/2 mi. rod. Trip	31 23 23.20 1014	3.74	CY														26	CY
		Disposal Costs	On Site Disposal		11.4	CY															26
		Subtotal																			549
		Concrete Demolition																			
		Demolition Cost																			
		Concrete's Vol. Demolished																			
		Loading Cost																			
		Transportation Cost																			
		Disposal Costs																			
		Subtotal																			
		Total																			14549

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
		Office Trailer 29																			
		Structure's Demolition Cost																			0
		Structure's Vol. Demolished																			
		Rubble'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																			
		Subtotal																			
		Equipment's Disposal Cost																			
		Dismantling Cost																			
		Equipment's 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																			0

Note:

The was removed from the site in 2016 as part the crude oil storage system.

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		
	Oil Storage Tanks (4) 30																					
	Structure's Demolition Cost	100,000 Barrel Steel Tank	Great Basin	50000	EA			40	146									2	EA	100000		
	Structure's Demolition Cost	20,000 Barrel Steel Tank	Great Basin	20000	EA			32	70									2	EA	40000		
	Structure's Vol. Demolished																					
	Rubble'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 Truck Drive																					
	Disposal Cost Steel																					
	Subtotal																			140000		
	Equipment's Disposal Cost																					
	Dismantling Cost																					
	Equipment's Vol. Demolished																					
	Loading Costs																					
	Transport Costs																					
	Disposal Costs																					
	Subtotal																					
	100,000 Barrel Tanks																					
	Concrete Demolition																					
	Demolition Cost	Concrete demolition	02-41-16-13-1140	39.05	/CY				1	728	728							2		422	CY	4764
	Concrete's Vol. Demolished																					
	Loading Cost	Front-end loader 3 CY	31-23-16-42-1300	2.21	/CY				5	483	945											
	Transportation Cost	12 CY (16-Ton) Dump Truck 1/2	31-23-23-20-1020	3.74	/CY																	
	Disposal Costs	Disposal on-site	02-41-16-17-4200	11.4	/CF																	
	Subtotal																					
	20,000 Barrel Tanks																					
	Concrete Demolition																					
	Demolition Cost	Concrete demolition	02-41-16-13-1140	39.05	/CY				1	370	370											
	Concrete's Vol. Demolished																					
	Loading Cost	Front-end loader 3 CY	31-23-16-42-1300	2.21	/CY				5	92	460											
	Transportation Cost	12 CY (16-Ton) Dump Truck 1/2	31-23-23-20-1020	3.74	/CY																	
	Disposal Costs	Disposal on-site	02-41-16-17-4200	11.4	/CF																	
	Subtotal																					
	Frank Floors																					
	Concrete Demolition																					
	Demolition Cost	Concrete demolition	02-41-16-13-1140	39.05	/CY				0.75	456	531											
	Concrete's Vol. Demolished								0.75	80	440											
	Loading Cost	Front-end loader 3 CY	31-23-16-42-1300	2.21	/CY																	
	Transportation Cost	12 CY (16-Ton) Dump Truck 1/2	31-23-23-20-1020	3.74	/CY																	
	Disposal Costs	Disposal on-site	02-41-16-17-4200	11.4	/CF																	
	Subtotal																					
	Total																					233956

Note:

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

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 Piping 31																			
	Structure's Demolition Cost	Steel Pipe	02-41-13-33-3200	8.28	/LF	1011										FF		1011	LF	8371
	Structure's Vol. Demolished																			
	Rubble'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 Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			8371
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	02-41-16-13-1140	39.05	/CY	1	3	1								34		1	CY	39
	Concrete's Vol. Demolished																			
	Loading Cost	Front-end loader 3 CY	31-23-16-42-1300	2.21	/CY													1.3	CY	3
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31-23-23-20-1020	3.74	/CY															5
	Disposal Costs	Disposal on site	02-41-16-17-4200	11.4	/CF															15
	Subtotal																			69
	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																			8443

Note:

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

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	
	6-Inch Piping 42																				
	Structure's Demolition Cost	Steel Pipe	Calculated	10.37	LF	4326										FF		4326	LF	44861	
	Structure's Vol.																				
	Structure's Vol. Demolished																				
	Rubble'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 Truck Drive																				
	Disposal Cost Steel																				
	Subtotal																				44861
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	39.05	LCY	4	2	4								444	FF		43	CY	1679
	Concrete's Vol. Demolished																	1.2	56	CY	
	Loading Cost	Front-end loader 3 CY	31-23-16-42-1300	2.21	LCY														56	CY	124
	Transportation Cost	12 CY (16-Ton) Dump Truck 1/2 mi. rnd. trip	31-23-23-20-1020	3.74	LCY														56	CY	209
	Disposal Costs	Disposal on site	02-41-16-17-4200	11.4	LCF														56	CY	638
	Subtotal																				2658
	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																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				47614

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

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	
	Misc-Equip-Removal-23																				
	Structure's Demolition Cost	Pumps		227	EA										12			12	EA	2724	
	Subtotal																			2724	
	Structure's Demolition Cost	Boiler	23-05-05-10-0350	2225	EA										1			1	EA	2225	
	Subtotal																			2225	
	Structure's Demolition Cost	Fire Protection		268	EA										4			4	EA	1072	
	Structure's Demolition Cost	5,000 Barrel Tank	02-41-16-13-0012	027	CF						30789				1			30789	CF	8313	
	Subtotal																			9385	
	Structure's Demolition Cost	Diesel Tank																		To be sold	
	Subtotal																				
	Tank-Foundation																				
	Concrete Demolition	Concrete demolition	01-54-33-20-0346	29.05	/Day			2		1590	148							148		4608	
	Concrete's Vol. Demolished																	1.3	163	163	
	Loading Cost	Front end loader 2 CY	31-23-16-42-1300	2.21	CY															328	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31-23-23-20-1014	3.74	CY															572	
	Disposal Costs	Disposal on site	02-41-16-17-4200	11.4	CY															1744	
	Subtotal																			2362	
	Structure's Demolition Cost	Substation																			
		Mechanical equipment heavy	23-05-05-10-3600	1225	Ton							2						2	Ton	2450	
	Fence	Chain link, posts & fabric remove only	02-41-13-60-1700	4.44	LF	105													105	466	
	Subtotal																			2916	
	Substation-Foundation																				
	Concrete Demolition	Concrete demolition	01-54-33-20-0346	29.05	CY	10	10	1											4	156	
	Concrete's Vol. Demolished																	1.3	5	5	
	Loading Cost	Front end loader 3 CY	31-23-16-42-1300	2.21	CY															11	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip	31-23-23-20-1014	3.74	CY															19	
	Disposal Costs	Disposal on site	02-41-16-17-4200	11.4	CY															57	
	Subtotal																			243	
	Total																			24258	

Note:

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

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
	Lighting-34																			
	Structure's Demolition Cost	Lights	02-41-13-80-0100	492	EA										12			12	EA	2304
	Structure's Vol. Demolished																			
	Rubble'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 Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2304
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition																		
	Concrete's Vol. Demolished																			
	Loading Cost	Front end loader 3 CY																		
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip																		
	Disposal Costs	Disposal on site																		
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition																		
	Concrete's Vol. Demolished																			
	Loading Cost	Front end loader 3 CY																		
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip																		
	Disposal Costs	Disposal on site																		
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition																		
	Concrete's Vol. Demolished																			
	Loading Cost	Front end loader 3 CY																		
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rnd. trip																		
	Disposal Costs	Disposal on site																		
	Subtotal																			
	Total																			2304

Note:

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

Wildcat Loadout
ACT 007/0033

Bond Amount

7 September 2017

Cleanup 01	10894	20514
Regrading 02	248001	248001
Topsoil 03	33868	33868
	<hr/>	
	292762	302382

	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
Cleanup 01																
Wildcat loadout Cleanup Coal Pile																
D9R Semi-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
988 G EROPS (2017)	01 54 33 20 4870	3224.00	268.67	0.1	84.25	379.78	1	379.78	\$/HR	1500	CY	187	CY/HR	8	HR	3046
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																10894
Coal Fine Clean-up 23 Arces																
Vacuu Truck, hzardous 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
																20514

Note:

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

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

	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
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
988 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 RSMeans (CLAB)				60.00	60.00	1	60.00	\$/HR					207.9	HR	12472
Foreman Average, Outside	Back Page RSMeans				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	1	12.83	\$/HR					207.9	HR	2668
																248001

Note:

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

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

	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	1	60.00	\$/HR					27	HR	1648
Forman Average Outside	Back Page RSMMeans					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	1	12.83	\$/HR					27	HR	353
																33868

Note:

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

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

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	
	Revegetation Costs																				
	Ground Preparation	Backfill trench Minimal Haul 2 1/4 CY	31 23 16.13 3080	2.5	CY					81.79						AC		23460	CY	58650	
	Seeding	Hydro Spreader (equip. & labor)	32 01 90.13 0180	4.99	MSF					81.79						AC		3562.8	MSF	17778	
	Seeding	Seed (Material costs)	Maple Leaf	1412.43	AC					81.79						AC		81.8	AC	115523	
	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																			264201	
	6.82 AC Disturbance																				
	Scrape Area of Coal Fines	D9/Production Rate of 187	1 ACRE inch	309.74	per HR			1 inch		6.83	914.58					CY		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 Loadout Seed Mix	Approved Final Reclamation Seed Mix	Maple Leaf	1412.43	AC					6.83					1412.43	\$/AC		6.83	AC	9647	
	Mulch	Straw Bales/1 Ton per Acre	Reveg007	333.00	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					16	HR		16	HR	1745	
	Labor/Farm Tractor	Farm Tractor	01 54 33 40 7410	121.47	HR					6.83					24	HR		24	HR	2915	
																				21104	
	Reseeding																				
	Assume 25% reseeding rate																				71326
	Subtotal																				71326
	Total																				356631

Note:

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

Example: 2368 ÷ 12 Working Hours per Day = 197.33 \$/HR + 84.25 = 309.74 \$/HR

Wildcat Loadout Seed Mix

Seed	Amount PLS/AC	Great Basin Seed	Cost	Granite Seed	Cost	Maple Leaf	Cost
Utah Serviceberry	7.00	\$60.00	\$420.00	\$75.00	\$525.00	\$58.00	\$406.00
Big Sagebrush	0.06	\$48.00	\$2.88	\$40.00	\$2.40	\$65.00	\$3.90
Winterfat	5.00	\$24.00	\$120.00	\$28.00	\$140.00	\$24.50	\$122.50
Rubber rabbitbrush	0.30	\$16.00	\$4.80	\$45.00	\$13.50	\$39.00	\$11.70
Bitterbrush	12.00	\$13.00	\$156.00	\$24.00	\$288.00	\$25.00	\$300.00
Yarrow	0.50	\$32.00	\$16.00	\$40.00	\$20.00	\$37.00	\$18.50
Northern sweetvetch	8.00	\$68.00	\$544.00	\$70.00	\$560.00	\$38.00	\$304.00
Lewis flax	1.00	\$7.75	\$7.75	\$12.00	\$12.00	\$8.00	\$8.00
Palmer penstemon	0.50	\$28.00	\$14.00	\$25.00	\$12.50	\$26.00	\$13.00
Showy goldeneye	0.20	\$42.00	\$8.40	\$70.00	\$14.00	\$65.00	\$13.00
Blue grama	0.60	\$18.00	\$10.80	\$16.00	\$9.60	\$9.50	\$5.70
Bluebunch wheatgrass	2.50	\$7.50	\$18.75	\$9.00	\$22.50	\$7.00	\$17.50
Slender wheatgrass	2.50	\$3.25	\$8.13	\$3.00	\$7.50	\$2.75	\$6.88
Galleta	2.50	\$18.00	\$45.00	\$28.00	\$70.00	\$26.50	\$66.25
Needle-and-thread	3.00	\$24.00	\$72.00	\$35.00	\$105.00	\$34.00	\$102.00
Indian ricegrass	2.00	\$6.75	\$13.50	\$9.00	\$18.00	\$6.75	\$13.50
			<u>\$1,462.01</u>		<u>\$1,820.00</u>		<u>\$1,412.43</u>

From: Jason Stevens <jason@haystackmtn.com>
Sent: Thursday, September 7, 2017 12:15 PM
To: gtaylor@emerytelcom.net
Subject: Re: Seed Cost

EIS ENVIRONMENTAL & ENGINEERING CONSULTING
435.472.5414 FAX 435.472.5414 2017 FAX 435.472.8780 emerytel.com 31 NORTH MAIN STREET HELIX, UTAH 84526

MEMO

MEMO TO: Janson *1 Great Basin*
MEMO FROM: Gary E. Taylor
DATE: 14 August 2017
SUBJECT: Cost per pound of Seed Mix

Please, develop a cost per pound for the following seed mix and return information on your company letter head:

<u>Amelanchier utahensis</u>	Utah Serviceberry	\$60.00
<u>Artemisia tridentata</u>	Big sagebrush	\$48.00
<u>Ceratoides lanata</u>	Winterfat	\$24.00
<u>Chrysothamnus nauseosus</u>	Rubber rabbitbrush	\$36.00
<u>Pereskia tridentata</u>	Bitterbrush	\$13.00
<u>Achillea millefolium</u>	Yarrow	\$32.00
<u>Hedysarum boreale</u>	Northern sweetvetch	\$68.00
<u>Linum lewisii</u>	Lewis flax	\$7.75
<u>Penstemon palmeri</u>	Palmer penstemon	\$28.00
<u>Viguiera multiflora</u>	Showy goldeneye	\$42.00
<u>Bouteloua gracilis</u>	Blue grass	\$18.00
<u>Elymus spicatus</u>	Bluebunch wheatgrass	\$7.50
<u>Elymus trichocaulis</u>	Slender wheatgrass	\$3.25
<u>Hilaria jamesii</u>	Galleta	\$18.00
<u>Stipa comata</u>	Needle-and-thread grass	\$24.00
<u>Stipa bumentoides</u>	Indian ricegrass	\$6.75

Is this the one? Please note the following changes since I quoted this:

- 1) Palmers Penstemon has risen to \$32.00
- 2) Showy Goldeneye has risen to \$55.00
- 3) Bitterbrush has risen to \$14.75

EIS ENVIRONMENTAL & ENGINEERING CONSULTING
435-472-3814 / 800-641-2927 / FAX 435-472-8780 / tompaluso@preciscom.net / 31 NORTH MAIN STREET HELPER, UTAH 84526

MEMO

MEMO TO: Ryan (Granite Seed)
MEMO FROM: Gary E. Taylor
DATE: 14 August 2017
SUBJECT: Cost per pound of Seed Mix

Please, develop a cost per pound for the following seed mix and return information on your company letter head:

Amelanchier utahensis	Utah Serviceberry \$75.00
Artemisia tridentate	Big sagebrush- \$40.00
Ceratoides lanata	Winterfat- \$28.00
Chrysothamnus nauseosus	Rubber rabbitbrush- \$45.00
Purshia tridentate	Bitterbrush- \$24.00
Archillea millefolium	Yarrow- \$40.00
Hedysatum boreale	Northern sweetvetch- \$70.00
Linum lewisii	Lewis flax- \$12.00
Penstemon palmeri	Palmer penstemon- \$25.00
Viguiera multiflora	Showy goldeneye- \$70.00
Bouteloua gracilis	Blue grass- \$16.00
Elymus spicatus	Bluebunch wheatgrass- \$9.00
Elymus trachycaulus	Slender wheatgrass- \$3.00
Hilaria jamesii	Galleta- \$28.00
Stipa comata	Needle-and-thread grass- \$35.00
Stipa bymenoides	Indian ricegrass- \$9.00



THE MAPLE LEAF CO.
SEED DIVISION

450 South 50 East
Ephraim, Utah, 84627
P) 435.283.4400
F) 435.283.6872
maplelf@cut.net

Aug 22, 2017
EIS, Environmental and Engineering
31 North Main St
Helper, Utah 84526

Reference/Cost Estimate/8-22-17

Utah Service Berry	\$58.00 PLS
Basin Big Sage	\$65.00 PLS
Winterfat	\$24.50 PLS
Rubber Rabbitbrush	\$39.00 PLS
Bitter brush	\$25.00 PLS
Yarrow	\$37.00 PLS
Utah Sweetvetch	\$38.00 PLS
Lewis Blue Flax	\$8.00 / PLS
Palmer Penstemon	\$26.00/PLS
Showey Boldeneye	\$65.00/PLS
Blue Grama	\$9.50 /PLS
Bluebunch Wheatgrass	\$7.00/ PLS
Slender Wheatgrass	\$2.75 /PLS
Galleta	\$26.50 PLS
Needle and Thread	\$34.00 PLS
Indian Ricegrass	\$ 6.75

Some of the items above are in short supply. New Crop is not yet harvested.
Prices are based on todays market
Lloyd Stevens. Maple Leaf Seed

February 27, 2017

EIS - Wild Cat Load Out
Re: Request for Bid
Attn: Gary Taylor
Email: gtaylor@emerytelcom.net

Gary,

As per our phone conversation, our bid for service on a 30-yard roll-off at the Wild Cat Load Out for construction/yard waste only is as follows:

Delivery Fee:	\$50.00
*Construction/yard waste only per load:	\$145.00
Rental fee (if not dumped within 30-days):	\$60.00

*If the loads become mixed loads (other items besides construction/yard waste) they will be hauled to ECDC Landfill for \$218.00 per load and \$25.00 per ton.

Thank you! We appreciate the opportunity to bid and look forward to hearing back from you on this project.

Sincerely,

Molly Gurule
City Sanitation

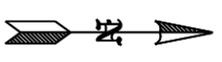
$$50.00 + 145.00 + 60.00 \div 30 = 8.50/cy$$

DISTURBED AREAS:

EXISTING WEST: 26.11 AC.
 EXISTING EAST: 85.51 AC.
 TOTAL: 111.62 AC.

SECTION 33
 SECTION 34

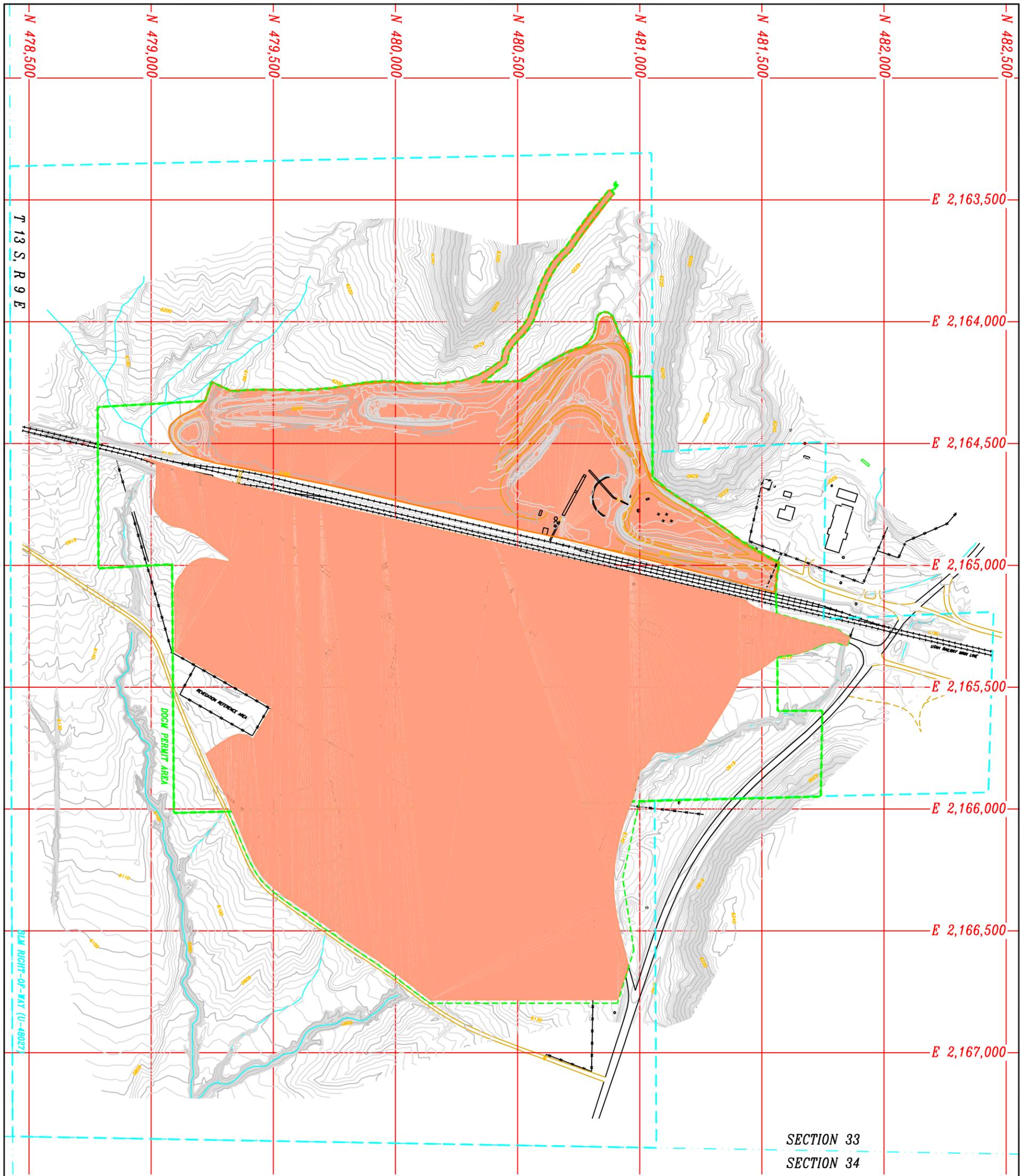
EXISTING DISTURBED AREA:
 EXISTING PERMIT AREA:
 BLM RIGHT OF WAY:



**INTERMOUNTAIN
 POWER AGENCY**

WILDCAT LOADOUT - C/007/0030
 DISTURBED AREAS

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



T 13 S, R 9 E

FORM 2800-14
(August 1985)

Issuing Office
Price Field Office

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.

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.

- 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.

- 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.

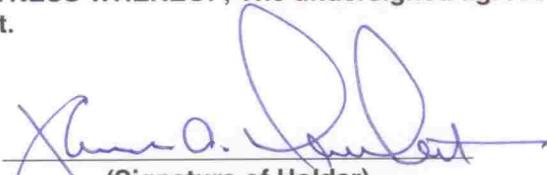
7. Construction / Maintenance

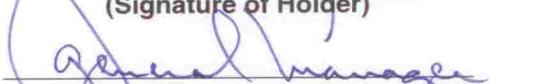
- a. The holder shall conduct all activities associated with the construction, operation, and termination of the right-of-way within the authorized limits of the right-of-way.
- b. The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way 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.

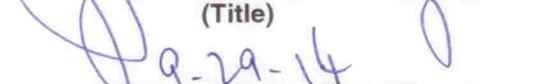
- g. Construction holes left open overnight shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.
 - h. Holder shall limit excavation to the areas of construction. No borrow areas for fill material will be 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.

- 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.

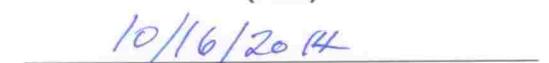


(Signature of Holder)


(Title)


(Date)



(Signature of BLM Authorized Officer)
Acting Field Manager, Price Field Office
(Title)


(Effective Date of Grant)

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.

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

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.

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.

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.

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
Total		21.21 to 27.21

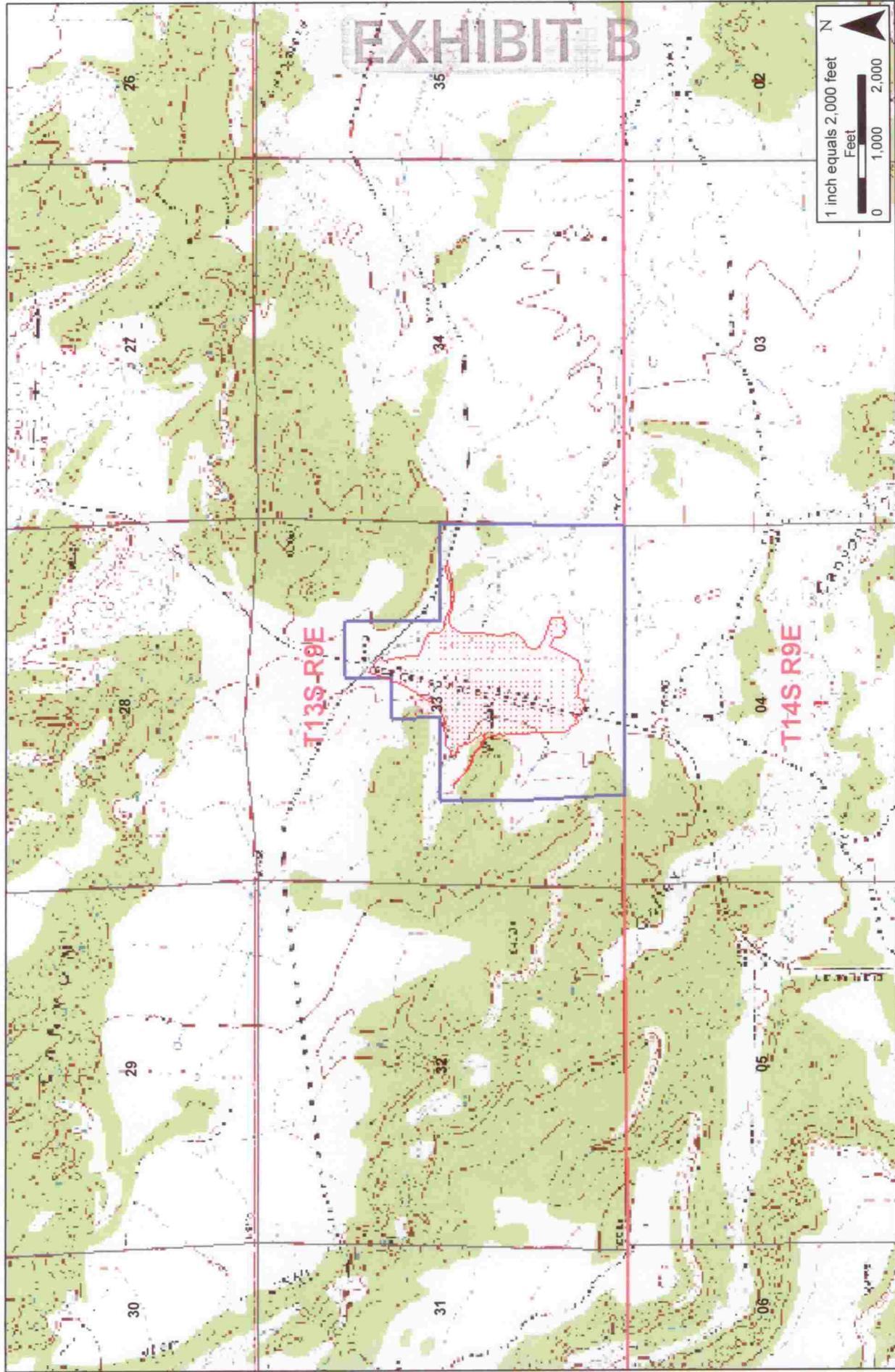
Until reclamation bonding is transferred to the BLM ROW, monitoring would be conducted according to the existing MRP. Once the bond is transferred, monitoring would be conducted according to the Green River District Reclamation Guidelines. Monitoring would consist of qualitative methods during the second 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.

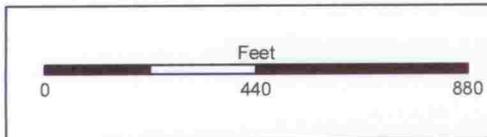
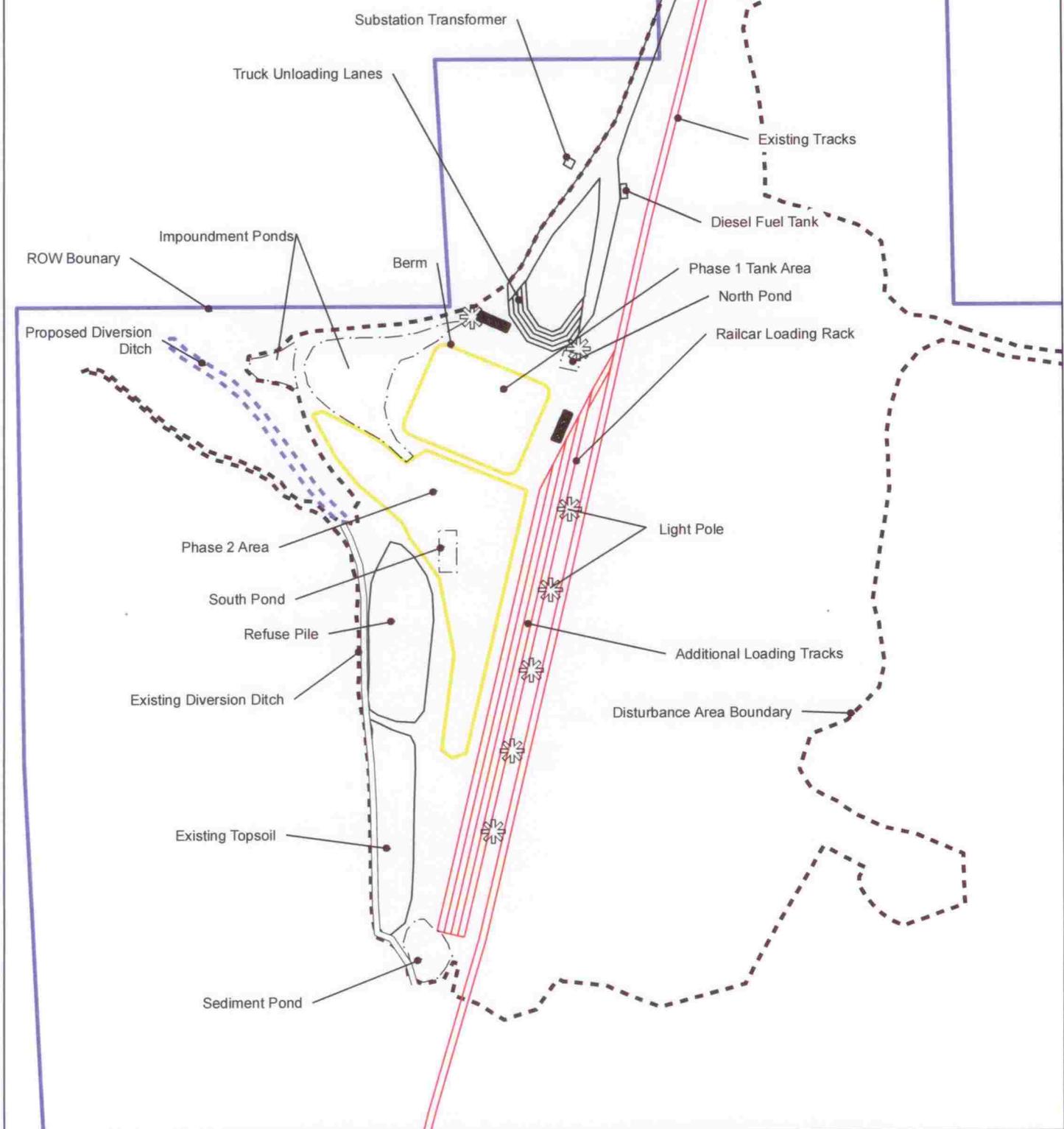
Once the area has been successfully revegetated, the sediment pond would be reclaimed and monitored using the same methodology.



Wildcat Loadout Modification EA
BLM Lease U-48027
General Location

Figure 1

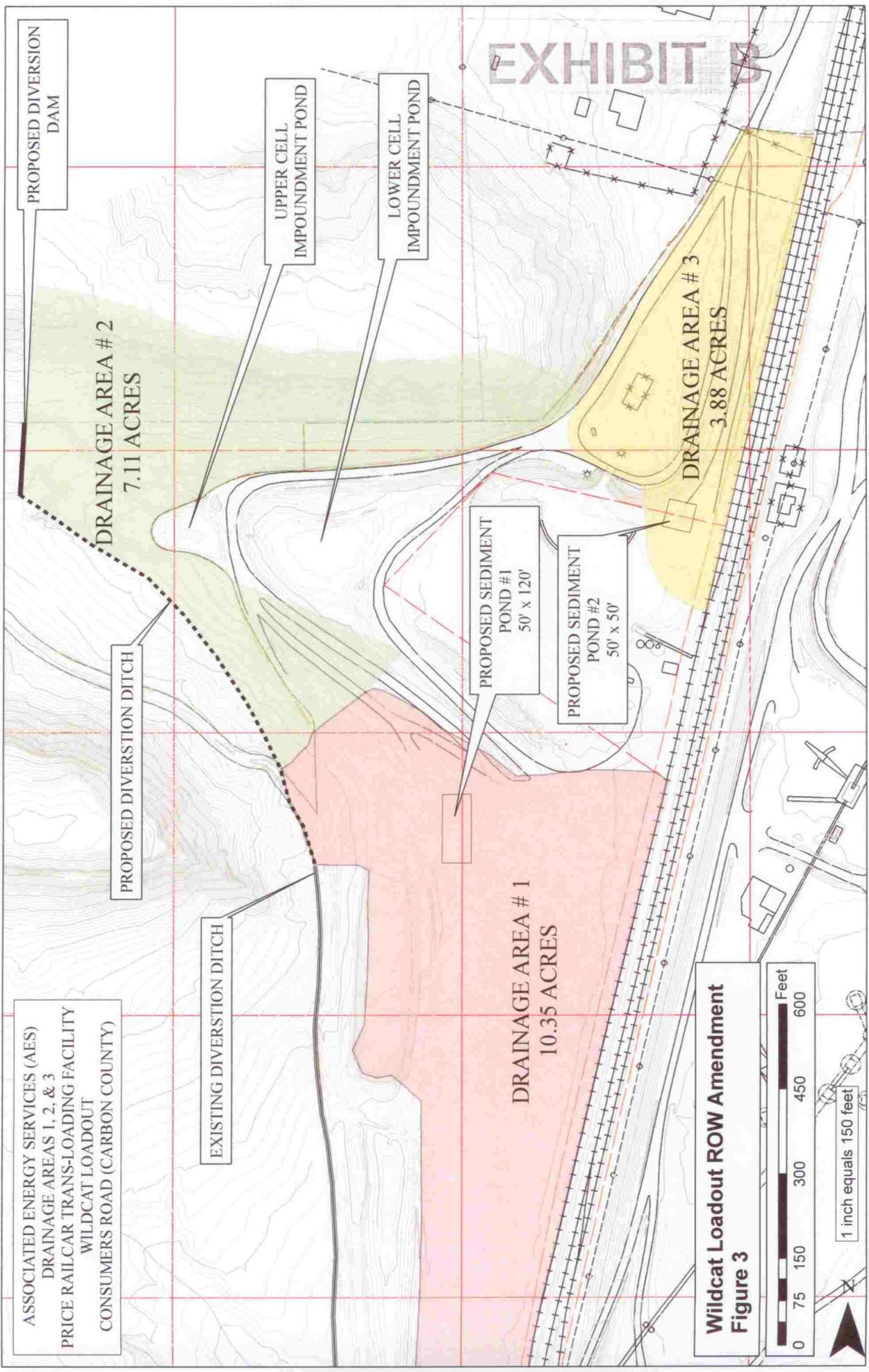
EXHIBIT B



Wildcat Loadout Modification EA
BLM Lease U-48027
Site Layout

Figure
2

EXHIBIT B



PROPOSED DIVERSION DAM

DRAINAGE AREA # 2
7.11 ACRES

PROPOSED DIVERSION DITCH

EXISTING DIVERSION DITCH

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

UPPER CELL
IMPOUNDMENT POND

LOWER CELL
IMPOUNDMENT POND

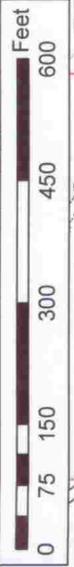
PROPOSED SEDIMENT
POND #1
50' x 120'

PROPOSED SEDIMENT
POND #2
50' x 50'

DRAINAGE AREA # 1
10.35 ACRES

DRAINAGE AREA # 3
3.88 ACRES

Wildcat Loadout ROW Amendment
Figure 3



1 inch equals 150 feet



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 NE¹/₄SW¹/₄NE¹/₄, S¹/₂SW¹/₄NE¹/₄, E¹/₂SW¹/₄, SE¹/₄ 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 ~~100.19~~ 123.19 acres on the following described lands:

Township 13 South, Range 9 East, SLBM

Section 33: NW¹/₄SE¹/₄, N¹/₂SW¹/₄SE¹/₄, E¹/₂E¹/₂NE¹/₄SW¹/₄, E¹/₂NE¹/₄SE¹/₄SW¹/₄, NE¹/₄SE¹/₄SE¹/₄SW¹/₄, NW¹/₄SW¹/₄SW¹/₄SE¹/₄, E¹/₂SE¹/₄SW¹/₄NE¹/₄ and Portions of N¹/₂NW¹/₄NE¹/₄SE¹/₄, NE¹/₄SW¹/₄NE¹/₄, SW¹/₄SW¹/₄NE¹/₄, NW¹/₄SE¹/₄SW¹/₄NE¹/₄, W¹/₂NE¹/₄SW¹/₄, W¹/₂E¹/₂NE¹/₄SW¹/₄, W¹/₂E¹/₂SE¹/₄SW¹/₄, SW¹/₄SE¹/₄SW¹/₄NE¹/₄ containing ~~100.19~~ 123.19 acres.

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