C/007/033 Incoming #4895

Los Angeles Department of Water & Power

November 30, 2015

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DIV. OF OIL, GAS & MINING

Hand Delivered on November 30, 2015

Utah Division of Oil, Gas & Mining Coal Program (DOGM)
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Dear Permit Supervisor:

Subject: Intermountain Power Agency (IPA) – Permit Change, Proposed Permit Boundary and Disturbed Area Increase, Task ID No. 4895
Wildcat Loadout Facility, C/007/0033

IPA respectfully submits, via hand delivery, two (2) final clean copies of the updated text portion for the proposed permit boundary and disturbed area change that will increase the disturbed area by 23 acres in our DOGM Permit C/007/0033 Wildcat Loadout Mining and Reclamation Plan, Task ID #4824. Also included is a fully executed Exhibit D, Stipulation to Revise Reclamation Agreement, Exhibit A, Bonded Area, and Permittee Affidavit.

The corresponding Plates, Maps & drawings that were stamped by a Certified Professional Engineer were previously submitted directly by Wild West's, Kit Pappas.

If you have any comments or questions, please contact me at (801) 748-1471.

Sincerely,

Lance C. Lee

Lance C. Lee
Project Manager
Intermountain Power Project

cc: James A. Hewlett (via email)
Intermountain Power Agency
Hamid Nejad (via email)
William W. Engels (via email)

111 N. Hope Street, Los Angeles, California 90012-2607 *Mailing address:* Box 51111, Los Angeles, CA 90051-5700
Telephone: (213) 367-4211 www.LADWP.com

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APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: INTERMOUNTAIN POWER AGENCY
Mine: WILDCAT LOADOUT **Permit Number:** C/007/0033
Title: PERMIT BOUNDARY AND DISTURBED AREA EXPANSION - TASK ID #4895 - FINAL CLEAN COPY SUBMITTAL

Description, Include reason for application and timing required to implement:
EXPAND EXISTING PERMIT BOUNDARY AND DISTURBED AREA BY 23 ACRES

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

☒ Yes ☐ No 1. Change in the size of the Permit Area? Acres: 23.00 Disturbed Area: 23.00 ☒ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☒ Yes ☐ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☒ Yes ☐ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☒ Yes ☐ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?
☐ Yes ☒ 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.

JAMES HEWLETT (Print Name) RESIDENT AGENT (Position) 11-19-15 (Date) _____ (Signature (Right-click above choose certify then have notary sign below))

Subscribed and sworn to before me this 19th day of November 2015

Notary Public: Michelle R. Miller, state of Utah.

My commission Expires: 8/30/2019
Commission Number: 684559
Address: 1023 So Riverfront Parkway Suite #120
City: South Jordan State: Utah Zip: 84095

} ss:

MICHELLE R. MILLER
NOTARY PUBLIC-STATE OF UTAH
COMMISSION# 684559
COMM. EXP. 08-30-2019

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Form DOGM- C1 (Revised December 10, 2007)

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: INTERMOUNTAIN POWER AGENCY
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Title: PERMIT BOUNDARY AND DISTURBED AREA EXPANSION - TASK ID #4895 - FINAL CLEAN COPY SUBMITTAL

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 2 PAGE 2-1
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 2 PAGE 2-1
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 2 - PAGE 2-1a
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 2 - PAGE 2-1a
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 2 - PAGE 2-7
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 2 PAGE - 2-7
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 2 - PAGE 2-25
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 2 - PAGE 2-25
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 3 - PAGE 3-1
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 3 - PAGE 3-1
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 3 - PAGE 3-5
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 3 - PAGE 3-5
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 3 - PAGE 3-15
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 3 - PAGE 3-15
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 3 - PAGE 3-17
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 3 - PAGE 3-17
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 3 - PAGE 3-26
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 3 - PAGE 3-26
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 4 - PAGE 4-1
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 4 - PAGE 4-1
☐ Add	☐ Replace	☒ Remove	REDLINE CHAPTER 4 - PAGE 4-5
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CHAPTER 4 - PAGE 4-5
☐ Add	☐ Replace	☒ Remove	REDLINE APPENDIX R - PAGE 10a
☐ Add	☒ Replace	☐ Remove	CLEAN COPY APPENDIX R - PAGE 10a
☐ Add	☐ Replace	☒ Remove	REDLINE APPENDIX R - PAGE 10b
☐ Add	☒ Replace	☐ Remove	CLEAN COPY APPENDIX R - PAGE 10b
☐ Add	☐ Replace	☒ Remove	REDLINE APPENDIX R - PAGE 10c
☐ Add	☒ Replace	☐ Remove	CLEAN COPY APPENDIX R - PAGE 10c

Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

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			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☐ Replace	☒ Remove	REDLINE APPENDIX R - PAGE 10d
☐ Add	☒ Replace	☐ Remove	CLEAN COPY APPENDIX R - PAGE 10d
☐ Add	☐ Replace	☒ Remove	REDLINE APPENDIX R - PAGE 10e
☐ Add	☒ Replace	☐ Remove	CLEAN COPY APPENDIX R - PAGE 10e
☒ Add	☐ Replace	☐ Remove	APPENDIX R - NEW ASCA A, SEDCAD CALCULATIONS
☒ Add	☐ Replace	☐ Remove	APPENDIX R - NEW ASCA B, SEDCAD CALCULATIONS
☒ Add	☐ Replace	☐ Remove	APPENDIX R - NEW ASCA C, SEDCAD CALCULATIONS
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 1 - SURFACE FACILITY MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 1 - SURFACE FACILITY MAP
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 2a - DRAINAGE MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 2a - DRAINAGE MAP
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 11 - SOIL MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 11 - SOIL MAP
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 13b - NEW TOPSOIL PILE "B" (INSITU)
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 13b - NEW TOPSOIL PILE "B" (INSITU)
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 15 - WATERSHED MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 15 - WATERSHED MAP
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 16 - OWNERSHIP MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 16 - OWNERSHIP MAP
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 16a - OWNERSHIP MAP WITH 1/4 QUARTERS
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 16a - OWNERSHIP MAP WITH 1/4 QUARTERS
☐ Add	☐ Replace	☒ Remove	REDLINE PLATE 29 - VEGETATION MAP
☐ Add	☒ Replace	☐ Remove	CLEAN COPY CERTIFIED PLATE 29 - VEGETATION MAP
☒ Add	☐ Replace	☐ Remove	EXHIBIT A
☒ Add	☐ Replace	☐ Remove	EXHIBIT D
☐ Add	☐ Replace	☐ Remove	
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☐ Add	☐ Replace	☐ Remove	

Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

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R645-301-200. SOILS

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

An Addendum to Appendix P has been included to reflect actions taken to mitigate NOV No. 10132 issued on November 26, 2013, which includes defining 6.83 acres of previously undisturbed area as disturbed area. The Division's soil scientist, Priscilla Burton, suggested and Division management concurred that protection of the topsoil resource "insitu"(A-1) was preferable to salvage and storage of topsoil, based on a lack of immediate need for expansion, limited activity foreseen at the site, and the historic difficulty in revegetation of topsoil stockpiles in this climate. This 6.83 acre area was included in the 2003 soil survey. (Refer to Appendix D)

To prevent further issues from potential wind blown and waterbourne fines, IPA is requesting to increase the existing permit area and disturbed area by approximately 23 acres. As discussed with the Division's soil scientist, Priscilla Burton, it was suggested that this proposed expansion area also be considered as an "insitu" topsoil pile (B-1) and no additional soil survey will be required unless construction activities or other significant disturbances are performed. This area was also included in the 2003 soil survey.(Refer to Appendix D and Plate 11-Soils Map). (Topsoile piles are located on Plates 13a and 13b).
Pursuant to discussions with the Division's Biologist, Joe Helfrich, it was also determined that no new Vegetation survey would be required for the proposed expansion area.
This proposed expansion area was also included in the Vegetation Survey. (Refer to Appendix I and Plate 29-Vegetation Map).

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

area. Where possible, all final grading and placement of topsoil will be done along the contour to minimize erosion.

In all cases, grading will be conducted in a manner which minimizes erosion and provides a stable surface for the placement of topsoils.

Upon reclamation, topsoil will be hauled to the area by end dump trucks, piled and spread using a grader. Where possible, the soil will be distributed along the contour. The thickness of the re-established soil will be consistent with soils in the vicinity and will be sufficient to support vegetation equal to or superior to pre-mining history. As previously mentioned, Andalex was unable to gather topsoil because of the previous disturbance. However, IPA has committed to identifying and testing topsoil substitute areas either within or outside of the permit area as needed so that

upon final reclamation, the entire disturbed area of approximately 111.62 acres can be resurfaced with six inches of topsoil or less if allowed by the Division (please see Plate 1 for the location of these topsoil substitute areas. They are identified on Plate 1 as revegetation test plots.) Existing topsoil piles on site total approximately 464,499 cubic feet (17,204 cubic yards)of material. IPA feels and it is apparent from the soils inventory, that much of the fill material used onsite could be used as topsoil substitute. As previously mentioned, four topsoil substitute areas have been identified and are shown on Plate 1. Soil samples from these locations have been analyzed and the results are included in Appendix N. Once it has been determined that the substitute material is suitable for reclamation purposes, the actual area of substitute material will be carefully outlined on Plate 1 and the volumes included in the Topsoil Pile Summary. These areas have been protected from wind and water erosion through revegetation using the currently approved seed mixture. Please refer to Appendix D for the specific methods for this

hydromulched.

Mulching Techniques

Vegetative cover will be promptly re-established following cessation of mining activities to stabilize erosion. Re-seeding will occur during the first normal period for favorable growth following regrading. Mulch will be applied to all reseeded areas. Areas which are hydromulched will be done so using an organic type mulch at the rate of one ton per acre. Where hydroseeding and hydromulching occur, a tackifier will be added to both the seed and the mulch.

Mulch will be used wherever seeds are planted. All disturbed areas will be reseeded. These areas are shown on Plate 1B and constitute 111.62 acres. (Not including the Utah Railway tracks).

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.

Note: To prevent further issues from potential wind blown and waterbourne fines, IPA is requesting to increase the existing permit area and disturbed area by approximately 23 acres. This area was included in the 1988 and subsequent 2007 vegetation surveys included in Appendix I and shown on Plate 29 - Vegetation Map. Pursuant to discussions with the Division's Biologist, Joe Helfrich, it was also determined that no new Vegetation survey would be required for the proposed expansion area unless construction activities or other significant disturbances are performed. No construction or significant disturbance activities are planned in this area.

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)**

Previously described vegetation provides fair to excellent habitat for a variety of wildlife species. It also provides critically important winter range for deer.

Species (Please see Table III-8)

Mammals

Mammals occurring in the area can be divided into two groups, game species and non-game species.

The main game species include mule deer, mountain lion, black bear, elk, and cottontail rabbits. Mule deer, however, are the most important wildlife resource in the area. Mountain lion are present but little information is available due to their ranging habits. Generally, their movement coincides with the migration of deer. Black bear may occasionally be found in the vegetated canyons, usually along the cliff face. They normally inhabit the Wasatch Plateau to the west but little data is available on their populations. The permit area is not within the limits of the elk range. Cottontail rabbits are distributed throughout the area.

Non-game mammals include several species of small animals inhabiting the area. Predator species such as coyote and bobcat occasionally are found in the area and depend on small rodents and rabbits for their source of food. Information on non-game species is ally unavailable.

No new construction or any significant disturbance is anticipated on the proposed lease and disturbed area expansion.
Please refer to the note on Page 3-1 and Appendix F which address Fish and Wildlife Information.

N/A

R645-301-323.400. PLANT COMMUNITIES

See R645-301-310.

No new construction or any significant disturbance is anticipated on the proposed lease and disturbed area expansion. Therefore, the Operations plan is not affected.

R645-301-330. OPERATION PLAN

Maps and Plans

The lands affected by this operation (surface only) are clearly shown on Plate 1. Plate 1 depicts all buildings, utilities, and facilities. All of the land within this permit area which is to be affected already has been. This is a surface facility only and involves no underground workings. The bond required by the Division is for the entire affected area including all the surface facilities.

Coal storage, topsoil storage, loading areas, coal preparation waste areas are all depicted on the surface facilities map. Additional detail on topsoil, diversions, and ponds can be found in Volume II on Plates *1, 1A, 2, 3 and 13*.

There is no storage of explosives at the Wildcat Loadout.

The final surface configurations will be similar to the surface prior to Andalex's involvement at Wildcat. Cross sections and a surface configuration plate are included ~~in~~ Volume II as 10 and 9 respectively.

Surface water monitoring locations are shown on Plate *2A*.

After the completion of activities at this facility, no structures will remain with the exception of the railroad grade, the tracks, and it's associated drainage structures.

All maps requiring certifications by a registered person have been done so. Included are stamps from experts in related fields such as surveying.

R645-301-331. MINIMIZING IMPACT AND SURFACE EROSION

Appendix F

No new construction or any significant disturbance is anticipated on the proposed lease and disturbed area expansion. Therefore, the Reclamation plan is not affected.

R645-301-340. RECLAMATION PLAN

The complete reclamation plan is described under R645-301-240.

R645-301-341. REVEGETATION

Revegetation

Revegetation will be accomplished by IPA or under IPA's direct supervision and under the recommendations of the regulatory authority. A seed mixture has been developed and can be found in this chapter. This mixture was developed by estimating vegetative types in the sagebrush/grass reference area established by DOGM and Andalex. Please refer to Appendix I and Plate 1.

R645-301-341.100 SCHEDULE AND TIMETABLE

Schedule of Revegetation

The seeding of native flora (consisting where possible of deer browse species), will commence as soon as is practical following regrading and topsoil replacement. This revegetation will help stabilize the soil and the fill quickly. Revegetation will be accomplished by IPA or under IPA's direct supervision and under the recommendations of the regulatory authorities. Revegetation will occur during the first fall planting season following the regrading and topsoil redistribution. Please refer to Revegetation Schedule.

examinations will be conducted to note any species which are not thriving or regenerating. If this occurs, species will be substituted at the recommendation of the regulatory authority. Any other species will be added at the time of reclamation upon recommendation of the regulatory authority. All reclaimed areas will be monitored and maintained by the constant observation of IPA until the surety release is granted. This will include slope staking on any sloped areas.

Revegetation monitoring parameters to be measured are growth rate, plant density and percent cover. We would expect to monitor or supervise monitoring at least monthly during the first two growing seasons. From experience with interim revegetation at the minesite, we have learned that two growing seasons are needed to establish any success. After this we would know whether reclamation was progressing successfully.

IPA is committed to quantitative sampling of reclamation cover, frequency and woody plant density during years 2, 3, 5, 9, and 10. Productivity will be sampled only during years 9 and 10. The reference area will be sampled during years 9 and 10.

IPA commits to consult with the Division prior to final reclamation to determine the status of the site in terms of coal fines accumulation and vegetation success.

R645-301-341.300. STUDIES AND TESTING TO DEMONSTRATE FEASIBILITY OF REVEGETATION PLAN

See R645-301-240.

R645-301-342. FISH AND WILDLIFE

See R645-301-310 and refer to note on page 3-1.

R645-301-342.100. ENHANCEMENT MEASURES

Appendix F. IPA will endeavor to use the best

CHAPTER 4, LAND USE & AIR QUALITY

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

No new construction or any significant disturbance is anticipated on the proposed lease and disturbed area expansion. Therefore, the Land Use and Air Quality,Premining Land use and Cultural Resource plans are not affected.

R645-301-400. LAND USE AND AIR QUALITY

R645-301-410. LAND USE

R645-301-411. ENVIRONMENTAL DESCRIPTION

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

R645-301-411.100. PREMINING LAND USE INFORMATION

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

R645-301-411.110. USES OF THE LAND AT THE TIME OF FILING APPLICATION

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

See *the Confidential Binder.*

R645-301-411.143.3 OTHER APPROPRIATE ANALYSES

See *the Confidential Binder.*

R645-301-411.144. APPROPRIATE MITIGATION AND TREATMENT MEASURES

See *the Confidential Binder.*

R645-301-411.200. PREVIOUS MINING ACTIVITY

No mining ever occurred at this site. The area was used as a coal processing and loadout facility.

R645-301-411.210. TYPE OF MINING METHOD USED

Area was used as a processing/loadout facility.

R645-301-411.220. COAL SEAMS OR OTHER MINERAL STRATA MINED

N/A

R645-301-411.230. EXTENT OF COAL OR OTHER MINERALS REMOVED

N/A

R645-301-411.240. APPROXIMATE DATES OF PAST MINING

The loadout area was used from approximately 1960 to present under various operators.

R645-301-411.250. USES OF LAND PRECEDING MINING

See R645-301-411.140.

R645-301-412. RECLAMATION PLAN

See R645-301-240.

R645-301-412.100. POSTMINING LAND USE PLAN

No new construction or any significant disturbance is anticipated on the proposed lease and disturbed area expansion. Therefore, the Postmining Land Use plan is not affected.

2.11 Alternate Sediment Control Areas (ASCA)

There will be 10 Alternate Sediment Control Areas (ASCA) remaining on this site. The ASCA designations are ASCA-1, ASCA-2, ASCA-3, ASCA-4, ASCA-5, ASCA-6, ASCA-7 and Proposed ASCA's-A,B & C Only areas not able or required to be drained to sediment ponds are included as ASCA's. All ASCA's are existing.

The following are descriptions of each of the ASCA's and methods of treatment:

ASCA-1 - This is the area west of the railroad right-of-way and scale house access road. The area is approximately 0.76 acres and is treated for sediment control by vegetation.

ASCA-2 - This is an existing ASCA area on the outslope east of Sediment Pond E. The area is approximately 0.15 acres and is treated by vegetation.

ASCA-3 - This is an area north of new Sediment Pond"G", and includes the area proposed for vacuum cleaning. The area is approximately 2.32 acres and is treated for sediment by straw bales and vegetation.

ASCA-4 - This is the area surrounding Sediment Pond "A" and including Topsoil Storage Pile A. This is an area of approximately 2.73 acres and is treated by straw bales and vegetation.

ASCA-5 - This is the area south and west of Topsoil Storage Piles E and B, including those piles. The area is approximately 1.71 acres, and is treated by a combination of berms, straw bales and vegetation.

ASCA-6 - This is an area southeast of the train loading facility along the Disturbed Area boundary. It is approximately 1.08 acres and is treated by vegetation.

ASCA-7 - This is Topsoil Storage Pile F. It is approximately 0.30 acres and is treated by a berm and vegetation.

ASCA-A- This will be a new ASCA located in the northernmost drainage of the proposed expansion area. It will have an area of approximately 3.62 acres and will be treated by vegetation and excelsior logs.

ASCA-B- This will be a new ASCA located in the center drainage of the proposed expansion area. It will have an area of approximately 6.84 acres and will be treated by vegetation and excelsior logs.

ASCA-C- This will be a new ASCA located in the southernmost drainage of the proposed expansion area. It will have an area of approximately 6.43 acres and will be treated by vegetation and excelsior logs.

The locations of the proposed new ASCA locations can be found on Plate 2a – Drainage Map

SEDCAD Calculations for proposed ASCA's A, B, and C are included.

A summary of the results and conclusions supporting the use of waddles as the primary method of sediment control in ASCA's A, B, and C follows on Page 10b, with Soil Erosion Calculations following on Pages 10c, 10d, and 10e.

Three ASCA areas have been added to the Wildcat surface facilities map to control runoff and sediment. These areas have been designated as follows: Area "A", Area "B" and Area "C". Waddles have been installed in the drainage to reduce the sediment leaving the areas.

Area " A" - The waddles would be placed approximately 90 to 100 feet apart and are approximately 140 to 180 feet in width, refer to Drainage Map (Plate 2A) in original submittal. The waddles are 9" in diameter logs and comprised of excelsior. Based upon the Universal Soil Loss Equation (see attached sheet titled "Soil Erosion for ASCA Area "A"), the sediment load per year in this area would be about 80.13 cubic feet per year or around to 80 cu.ft./yr. Total sediment containment forms an area of 9 inches in depth, 26 feet in length and 8 feet in width. Each waddle would contain a small portion of the sediment. The average width of the waddle would be about 160 feet and based on using 8 feet per year for sediment retention the waddle would last about 20 years. Additional waddles could be added if sediment continues to develop over the years.

Area " B" - The waddles would be placed approximately 60 to 95 feet apart and approximately 80 feet in width, refer to Drainage Map (Plate 2A) in original submittal. The waddles are 9" in diameter logs and comprised of excelsior. Based upon the Universal Soil Loss Equation (see attached sheet titled "Soil Erosion for ASCA Area "B"), the sediment load per year in this area would be about 484.94 cubic feet per year or around to 485 cu.ft./yr. There are six waddles in this area. Total sediment containment for each waddle forms an area of 9 inches in depth, 26 feet in length and 8 feet in width and holds approximately 81 cubic feet. Each waddle would contain a small portion of the sediment. The average width of the waddle would be about 78 feet and based on using 8 feet per year for sediment retention the waddle would last about 9¾ years. Additional waddles could be added if sediment continues to develop over the years.

Area " C" - The waddles have been placed approximately 30 to 50 feet apart and approximately 224 feet in width, refer to Drainage Map (Plate 2A) in original submittal. The waddles are 9" in diameter logs and comprised of excelsior. Based upon the Universal Soil Loss Equation (see attached sheet titled "Soil Erosion for ASCA Area "C"), the sediment load per year in this area would be about 291.67 cubic feet per year or around to 292 cu.ft./yr. There are four waddles in this area. Total sediment containment forms an area of 9 inches in depth, 24 feet in length and 8 feet in width and holds approximately 73 cubic feet. Each waddle would contain a small portion of the sediment. The average width of the waddle would be about 40 feet and based on using 8 feet per year for sediment retention the waddle would last about 5 years. Additional waddles could be added if sediment continues to develop over the years.

SOIL EROSION FOR ASCA AREA "A"

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
= 0.9 for barel

For ASCA "A"

R = 17.79 Foot-Ton/Acre/Hour
K= 0.16 Tons/Acre/EI

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

l = slope length – 1,688 ft,
s = slope gradient – 5.08%

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

$$LS = \frac{(65.41(5.08)^2+4.56(5.08)+0.065)}{(5.08)^2+10,000+(5.08)^2 *(10,000)^{0.5}} * \left(\frac{650}{72.6}\right)^{0.5}$$

DRAINAGE AREA	SLOPE LENGTH	SLOPE %	R	K	LS	VM	Tons/acre/ Yr (A)	ACRES	Tons/yr (A)
ASCA "A"	650	5.08	17.79	0.16	.27	0.9	.69	3.62	2.50

Determine cubic feet per year

Weight of Soil

Specific gravity of Soil = 1.0

Specific weight of Soil = 62.4lb/cu. ft. x 1.0 = 62.4 lbs./cu.ft.

2.50 Tons/yr. x 2,000 lbs = 5,000 lbs/yr. ÷ 62.4lbs./cu.ft. = 80.13 cu. ft. / yr.

SOIL EROSION FOR ASCA AREA "B"

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
= 0.9 for barel

For ASCA "B"

R = 17.79 Foot-Ton/Acre/Hour
K= 0.16 Tons/Acre/El

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

l = slope length – 715 ft,
s = slope gradient – 5.59%

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

$$LS = \frac{(65.41(5.59)^2+4.56(5.59)+0.065)}{(5.59)^2+10,000+(5.59)^2 *(10,000)^{0.5}} * \frac{715^{0.5}}{72.6}$$

DRAINAGE AREA	SLOPE LENGTH	SLOPE %	R	K	LS	VM	Tons/acre/ Yr (A)	ACRES	Tons/yr (A)
ASCA "B"	715	5.59	17.79	0.16	.86	0.9	2.21	6.84	15.13

Determine cubic feet per year

Weight of Soil

Specific gravity of Soil = 1.0

Specific weight of Soil = 62.4lb/cu. ft. x 1.0 = 62.4 lbs./cu.ft.

15.13 Tons/yr. x 2,000 lbs = 30,260.00 lbs/yr. ÷ 62.4lbs./cu.ft. = 484.94 cu. ft. / yr.

SOIL EROSION FOR ASCA AREA "C"

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
= 0.9 for barel

For ASCA "C"

R = 17.79 Foot-Ton/Acre/Hour
K= 0.16 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 – 900 ft,
s = slope gradient – 4.44%

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

$$LS = \frac{(65.41(4.44)^2+4.56(4.44)+0.065)}{(4.44)^2+10,000+(4.44)^2 *(10,000)^{0.5}} * \frac{715^{0.4}}{72.6}$$

DRAINAGE AREA	SLOPE LENGTH	SLOPE %	R	K	LS	VM	Tons/acre/ Yr (A)	ACRES	Tons/yr (A)
ASCA "C"	900	4.44	17.79	0.16	.55	0.9	1.43	6.34	9.10

Determine cubic feet per year

Weight of Soil

Specific gravity of Soil = 1.0

Specific weight of Soil = 62.4lb/cu. ft. x 1.0 = 62.4 lbs./cu.ft.

9.10 Tons/yr. x 2,000 lbs = 18,200.00 lbs/yr. ÷ 62.4lbs./cu.ft. = 291.67 cu. ft. / yr.

PERMIT AREA EXPANSION

ASCA AREA "A"

Tom Paluso

General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.640 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.026	0.399	
Null	#2	==>	End	0.000	0.000	

Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.75	0.026
#1	**Muskingum K:**					**0.026**

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	3.620	3.620	2.22	0.16
	Out			0.00	0.00
#2		0.000	3.620	2.22	0.00

**Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

Structure Detail:

Structure #1 (Pond)

Structure design parameters are not specified. No results to show.

Structure #2 (Null)

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	3.620	0.026	0.026	0.399	85.000	F	2.22	0.163
	Σ	**3.620**						**2.22**	**0.163**
#2	Σ	**3.620**						**2.22**	**0.000**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.750	0.026
#1	**1**	**Time of Concentration:**					**0.026**

Subwatershed Muskingum Routing Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.750	0.026
#1	**1**	**Muskingum K:**					**0.026**

PERMIT AREA EXPANSION
ASCA AREA "B"

Tom Paluso

General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.670 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.028	0.403	
Null	#2	==>	End	0.000	0.000	

Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.09	0.028
#1	**Muskingum K:**					**0.028**

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	6.840	6.840	2.97	0.21
	Out			0.00	0.00
#2		0.000	6.840	2.97	0.00

**Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

Structure Detail:

Structure #1 (Pond)

Structure design parameters are not specified. No results to show.

Structure #2 (Null)

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	6.840	0.028	0.028	0.403	80.000	F	2.97	0.212
	Σ	**6.840**						**2.97**	**0.212**
#2	Σ	**6.840**						**2.97**	**0.000**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.090	0.028
#1	**1**	**Time of Concentration:**					**0.028**

Subwatershed Muskingum Routing Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.090	0.028
#1	**1**	**Muskingum K:**					**0.028**

PERMIT AREA EXPANSION

ASCA AREA"C"

Tom Paluso

EIS Enviromental & Engineering Consulting
31 North Main Street
Helper, Utah 84526

General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.670 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.039	0.394	
Null	#2	==>	End	0.000	0.000	

Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.32	0.039
#1	**Muskingum K:**					**0.039**

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	6.430	6.430	2.79	0.20
	Out			0.00	0.00
#2		0.000	6.430	2.79	0.00

**Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

Structure Detail:

Structure #1 (Pond)

Structure design parameters are not specified. No results to show.

Structure #2 (Null)

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	6.430	0.039	0.039	0.394	80.000	F	2.79	0.200
	Σ	**6.430**						**2.79**	**0.200**
#2	Σ	**6.430**						**2.79**	**0.000**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.320	0.039
#1	**1**	**Time of Concentration:**					**0.039**

Subwatershed Muskingum Routing Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.320	0.039
#1	**1**	**Muskingum K:**					**0.039**

E 2,163,500 E 2,164,000 E 2,164,500 E 2,165,000 E 2,165,500 E 2,166,000 E 2,166,500 E 2,167,000

N 482,500 N 482,000 N 481,500 N 481,000 N 480,500 N 480,000 N 479,500 N 479,000 N 478,500 N 478,000

SEC. 33
SEC. 34

UTAH RAILWAY MAIN LINE
STATE HIGHWAY (139)
CONSUMERS ROAD
SHOP AND WAREHOUSE (OWNED BY OTHERS)
TRUCK SCALE AND OFFICE
STOKER LOADING BIN
REVEGETATION TEST PLOT
NATURAL DRAINAGE
COAL STORAGE AREA
TOPSOIL PILE "F"
SEDIMENT POND "E"
SEDIMENT POND "D"
SUB STATION
UPPER CELL
PERMANENT IMPOUNDMENT
LOWER CELL
LOADOUT CONVEYOR
TANK
WEST SIDE CONTROL BUILDING
NATURAL DRAINAGE ND-1
CRUSHER/SCREEN
MAGNETS
NON-COAL WASTE
WATER TANK
SHOP
MAGNET
CONTROL BUILDING
FUEL
SEDIMENT POND "C"
WATER TANK
OFFICE AND BATH HOUSE
RADIAL STACKER
TOPSOIL PILE A-1
REFUSE PILE
YARD CONVEYOR
36" CMP ESCAPE TUNNEL
PRIMARY COAL STORAGE AREA
SEDIMENT POND "B"
GAS WELL DISTURBED AREA (BY OTHERS)
COAL SPRAY TANK
LOADOUT TOWER
SEDIMENT POND "A"
TOPSOIL PILE "A"
REVEGETATION REFERENCE AREA
TRESTLE ROAD (PUBLIC)
SEDIMENT POND "F"
TOPSOIL PILE "B"
DOGM PERMIT AREA

T13S, R9E, SEC. 33
T14S, R9E, SEC. 4

BLM RIGHT-OF-WAY (U-48027)

LEGEND

- EXISTING BLM RIGHT OF WAY (U-48027)
- DOGM PERMIT BOUNDARY
- EXISTING DISTURBED AREA BOUNDARY (111.62 ACRES)

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PROFESSIONAL ENGINEER
No. 22-158267-2203
J. THOMAS PALUSO
STATE OF UTAH

CONTOUR INTERVAL = 2'
PHOTOGRAPHY DATE: 10/22/2006

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT – C/007/0030

SURFACE FACILITY MAP

REVISION NUMBER: 7	SCALE: 1" = 150'
PROPOSED DISTURBED AREA EXPANSION	
DATE: NOVEMBER 2015	PLATE 1

E 2,163,500 E 2,164,000 E 2,164,500 E 2,165,000 E 2,165,500 E 2,166,000 E 2,166,500 E 2,167,000

N 482,500 N 482,000 N 481,500 N 481,000 N 480,500 N 480,000 N 479,500 N 479,000 N 478,500 N 478,000

SEC. 33
SEC. 34

DA-37 DA-35 DA-36 DA-1 DA-2 DA-3 DA-4 DA-5 DA-6 DA-7 DA-8 DA-9 DA-9a DA-12 DA-13 DA-15 DA-33 DA-34 DA-29 DA-11 DA-14 DA-18 DA-17 DA-16 DA-30 DA-38 DA-31 DA-32 DA-19 DA-20 DA-21 DA-23 DA-24 DA-22

ASCA-1 ASCA-2 ASCA-3 ASCA-4 ASCA-5 ASCA-6 ASCA-7 ASCA-8 ASCA "A" ASCA "B" ASCA "C"

UTAH RAILWAY MAIN LINE

CONSUMERS ROAD (CARBON COUNTY)

SHOP AND WAREHOUSE (OWNED BY OTHERS)

UPPER CELL

PERMANENT IMPOUNDMENT LOWER CELL

REFUSE PILE

COAL STORAGE AREA

PRIMARY COAL STORAGE AREA

TOPSOIL PILE "E"

TOPSOIL PILE "B"

TOPSOIL PILE "A"

SEDIMENT POND "E"

SEDIMENT POND "D"

SEDIMENT POND "C"

SEDIMENT POND "B"

SEDIMENT POND "A"

POND "C"

NATURAL DRAINAGE

NATURAL DRAINAGE ND-1

NATURAL DRAINAGE ND-2

GAS WELL DISTURBED AREA

REVEGATION REFERENCE AREA

DOGM PERMIT AREA

WCW-1 WCW-2 WCW-3 WCW-4

C1 12" C2 12" C4 24" C5 36" C6 15" C7 24" C8 24" C9 18" C10 12" C11 12" C12 18" C14 18" C15 18" Primary C16 18" Emergency C17 24" C17a 18" Primary C17b 18" Emergency C19 24" C20 24" C21 12" C22 12" C23 24" C24 24" C25 12" C26 12" C27 18" C28 12" C29 18" Primary C30 18" Emergency C31 15" C32 12" C33 12" C34 15" C35 12" C35a 18" Primary C36 12" C38 12" Primary

24" Halfround 24" Halfround 24" Halfround 24" Half Round Inlet

Belting Belting

Open Spillway

D-1 D-2 D-3 D-4 D-5 D-6 D-7 D-8 D-9 D-11 D-12 D-13 D-14 D-15 D-16 D-17 D-18 D-19 D-20 D-21 D-22 D-23 D-24 D-31 D-32 D-33 D-34 D-35

UD-1 UD-2 UD-8

Berm Berm

T13S, R9E, SEC. 33

T14S, R9E, SEC. 4

BLM RIGHT-OF-WAY (U-48027)

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LEGEND:

- DOGM PERMIT AREA:
- BLM RIGHT-OF-WAY (U-48027):
- PRIMARY ROAD: PR-1
- FENCE LINE:
- CULVERT (CMP):
- DITCH:
- HALF-ROUND (CMP):
- WATER MONITORING STATION: WCW-3
- DRAINAGE AREA:
- ASCA AREA:
- EXISTING SEDIMENT CONTROLS

NOTE:

SEE PLATE 15 FOR EXTENDED WATERSHEDS.

EXISTING ASCA'S

EXISTING ASCA-1 – 0.76 ACRES – TREATMENT – VEGETATION
EXISTING ASCA-2 – 0.15 ACRES – TREATMENT – VEGETATION
EXISTING ASCA-3 – 2.32 ACRES – TREATMENT – STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-4 – 2.73 ACRES – TREATMENT – STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-5 – 1.71 ACRES – TREATMENT – BERMS, STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-6 – 1.08 ACRES – TREATMENT – VEGETATION
EXISTING ASCA-7 – 0.30 ACRES – TREATMENT – BERM & VEGETATION
EXISTING ASCA-A – 3.62 ACRES – TREATMENT – EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-B – 6.84 ACRES – TREATMENT – EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-C – 6.43 ACRES – TREATMENT – EXCELSIOR LOGS & VEGETATION

EXCELSIOR LOGS FOR SEDIMENT CONTROL (Quantities & locations may vary)

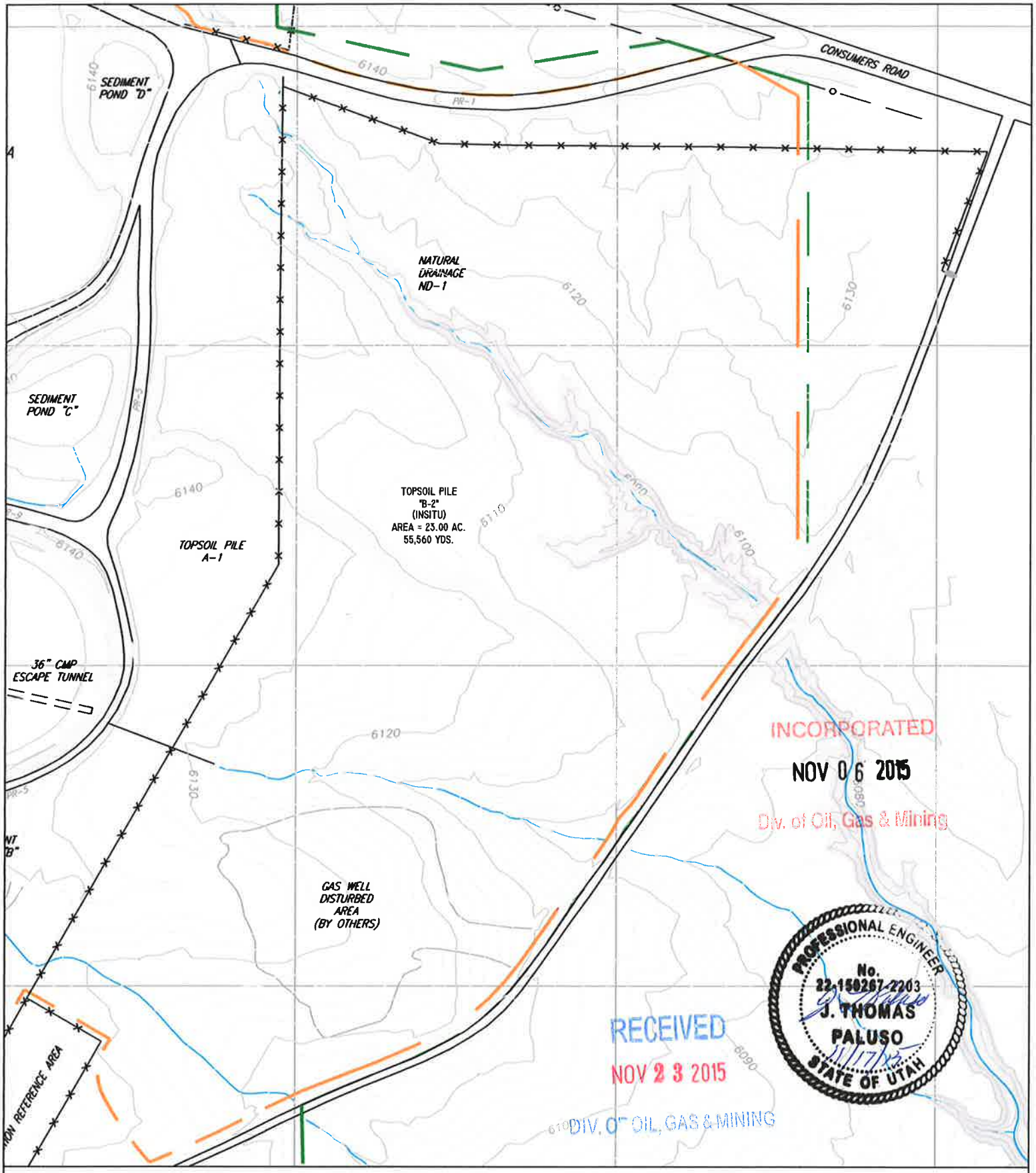
CONTOUR INTERVAL – 2'
PHOTOGRAPHY DATE: 10/22/2006

PROFESSIONAL ENGINEER No. 22-150267-2201 J. THOMAS PALUSO STATE OF UTAH

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT
PLATE 2A
DRAINAGE MAP

REVISION NUMBER:	SCALE:
5	1" = 150'
DATE: NOVEMBER 2015	PLATE 2A



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PROFESSIONAL ENGINEER
No. 22-150267-2203
J. THOMAS PALUSO
STATE OF UTAH

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NOV 23 2015

DIV. OF OIL, GAS & MINING

LEGEND

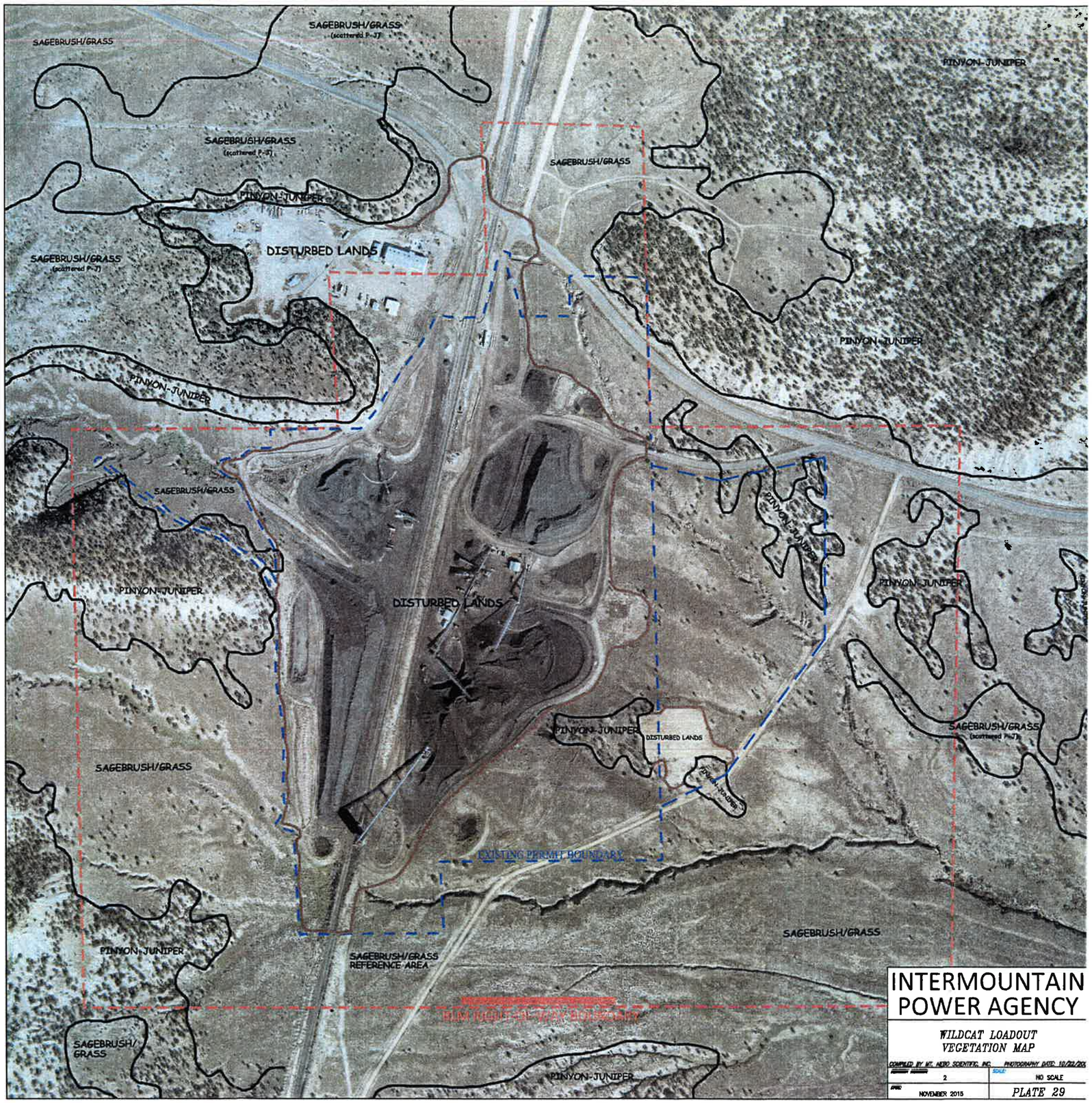
- DOGM PERMIT BOUNDARY - (EXISTING)
- TOPSOIL PILE "B-1" (INSITU) 23.00 ACRES

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT – C/007/0033
TOPSOIL PILE "B-1" (INSITU)

REVISION NUMBER:	SCALE:
PROPOSED DISTURBED AREA EXPANSION	1" = 200'
DATE: NOVEMBER 2015	PLATE 13B

PROFESSIONAL ENGINEER
No. 22-158267-2203
J. THOMAS PALUSO
STATE OF UTAH



INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT VEGETATION MAP

COMPILED BY: MT. NEBO SCIENTIFIC, INC. PHOTOGRAPHY DATE: 10/22/201

2	SCALE: NO SCALE
NOVEMBER 2015	PLATE 29

FEDERAL (BLM)

29

FEDERAL (BLM)

28

SITLA

27

SITLA

ROGER P
&
JANICE L

6487

6400

DWR

STATE OF UTAH
DWR

6306

6401

6200

6308

6042

DIANE PRICE

WINFORN
ROWLEY
ET AL

MASON
ROWLEY
ET AL

FEDERAL (BLM)

NW

NE

33

UTAH RAILWAY MAIN LINE

SITLA

6400

GRANT
ROWLEY
ET AL

32

DENNIS W
DALLIN
TR

6478

NE1/4

W1/2

E1/2

W1/2

E1/2

SE

SW

W1/2

E1/2

SE1/4 E1/2

34

6001

INCORPORATED

CONSUMERS ROAD

NOV 0 6 2015

Div. of Oil, Gas & Mining

DOGM PERMIT AREA (C/007/033)

BLM ROW

RECEIVED

NOV 2 3 2015

DIV. OF OIL, GAS & MINING

PROFESSIONAL ENGINEER
No. 22-150267-2203
J. THOMAS PALUSO
STATE OF UTAH

ROGER
ROWLEY
TR

6062

T13S, R9E
T14S, R9E

FEDERAL (BLM)

6180

SITLA

FEDERAL (BLM)

6200

FEDERAL (BLM)

6190

5

4

3

NOTE:
All Ownership is Surface and Subsurface.
Also Refer to Plate 1 for DOGM Permit Boundary.

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT
OWNERSHIP MAP W/ 1/4 CORNERS

REVISION NUMBER:	SCALE:
4	1" = 1000'
DATE: NOVEMBER 2015	*PLATE 16a*

FEDERAL (BLM)

29

FEDERAL (BLM)

28

SITLA

27

SITLA

ROGER P
&
JANICE L

6400

DWR

STATE OF UTAH
DWR

6487

6306

6401

6200

6042

6308

6200

DIANE PRICE

WINFORN
ROWLEY
ET AL

FEDERAL (BLM)

MASON
ROWLEY
ET AL

33

SITLA

UPPH GAS HWY MAIN LINE

INCORPORATED

34

6001

NOV 0 6 2015

6000

Div of Oil, Gas & Mining

6400

GRANT
ROWLEY
ET AL

32

DENNIS W
DALLIN
TR

6478

CONSUMERS ROAD

DOGM PERMIT AREA (C/007/033)

BLM ROW

RECEIVED

NOV 2 3 2015

DIV. OF OIL, GAS & MINING

ROGER
ROWLEY
TR

FEDERAL (BLM)

6062

T13S, R9E
T14S, R9E

FEDERAL (BLM)

6180

SITLA

FEDERAL (BLM)

6200

FEDERAL (BLM)

5

6190

4

3

NOTE:
All Ownership is Surface and Subsurface.
Also Refer to Plate 1 for DOGM Permit Boundary.

PROFESSIONAL ENGINEER
No. 22-158267-2203
J. THOMAS PALUSO
STATE OF UTAH

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT
OWNERSHIP MAP

REVISION NUMBER:	SCALE:
4	1" = 1000'
DATE: NOVEMBER 2015	PLATE 16

29
27
32
33
34
5
4
6306
6308
6200
6001
6478
6062
6180
6120
6190
DRAINS TO ND-1
DA-37
DA-34
DA-38
ND-1
ND-2
WCW-1
WCW-2
WCW-3
WCW-4
DOGM PERMIT AREA
UTAH RAILWAY MAIN LINE
CONSUMERS ROAD (CARBON COUNTY)
BLM RIGHT-OF-WAY (U-48027)
T13S, R9E
T14S, R9E
Garley
SPRING/SEEP
DA-1
DA-5
DA-6
DA-7
DA-8
DA-9
DA-11
DA-12
DA-15
DA-16
DA-17
DA-18
DA-21
DA-22
DA-23
DA-24
DA-29
DA-30
DA-33
DA-35
DA-36
ASCA "A"
ASCA "B"
ASCA "C"
ASCA-3
ASCA-4
ASCA-5
ASCA-6

INCORPORATED
NOV 06 2015
Div. of Oil, Gas & Mining

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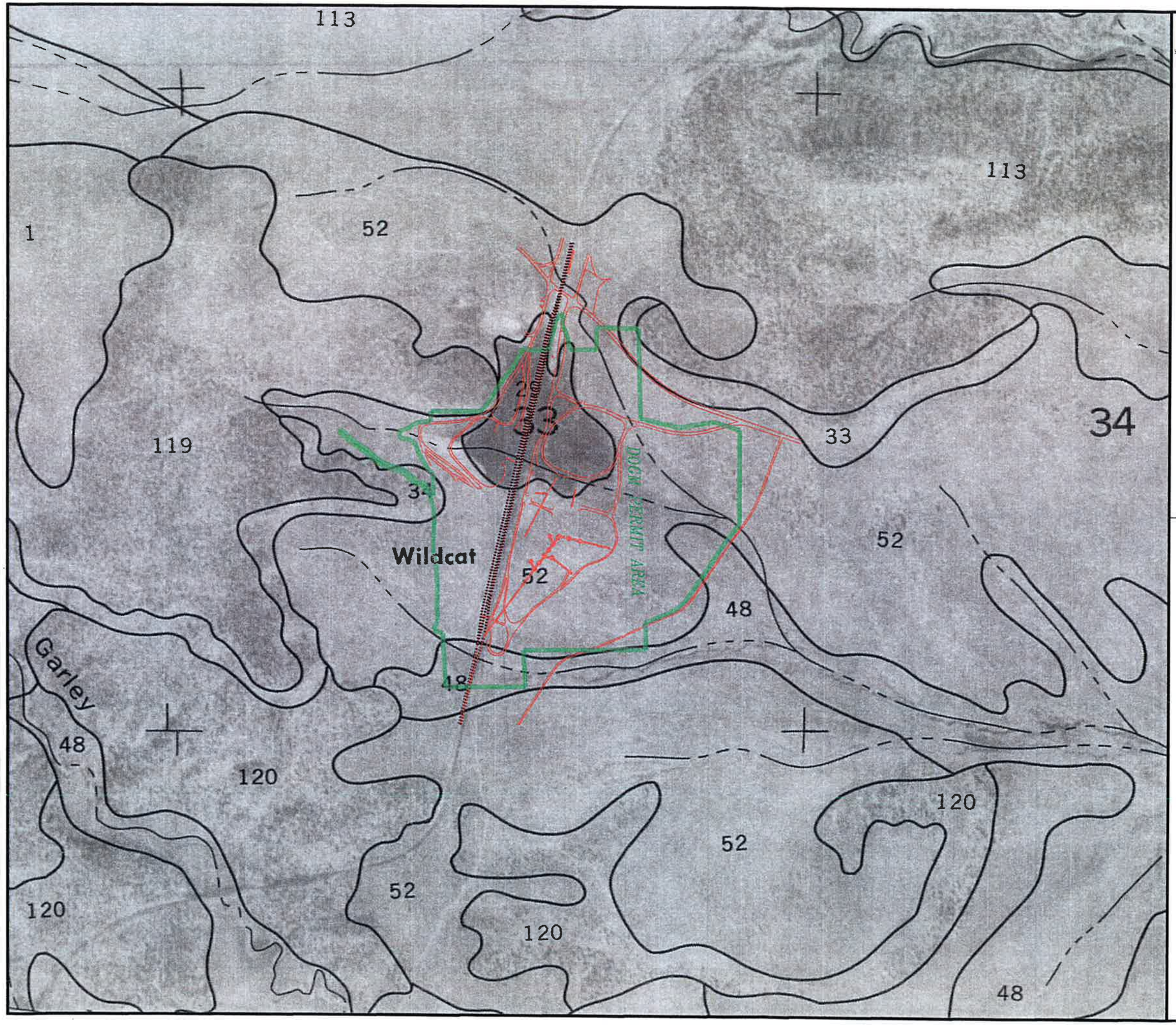
PROFESSIONAL ENGINEER
No. 22-158267-2202
S. THOMAS PALUSO
STATE OF UTAH

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT WATERSHED MAP

REVISION NUMBER:	SCALE:
3	1" = 800'
DATE: NOVEMBER 2015	PLATE 15



SOIL LEGEND

SYMBOL	NAME
1	Atraz very fine sandy loam, 1 to 6 percent slopes
2	Badland
3	Badland-Rubbleland-Rock outcrop complex
4	Bee very gravelly fine sandy loam, 1 to 6 percent slopes
5	Dale complex
6	Bue-Compsore complex
7	Bee-Trag complex
8	Billings silty clay loam, 1 to 3 percent slopes
9	Billings-Gullied land complex
10	Cobba family, 30 to 40 percent slopes
11	Cobba family, 40 to70 percent slopes
12	Cobba family-Badland-Rock outcrop complex
13	Cobba family-Guben-Rock outcrop complex
14	Crames Rock outcrop complex, 2 to 25 percent slopes
15	Cassety Rock outcrop complex, 40 to 70 percent slopes
16	Chipeta silty clay loam, 0 to 15 percent slopes
17	Chipeta Badland complex
18	Chipeta-Persayo complex
19	Chupaderra fine sandy loam, 1 to 6 percent slopes
20	Comostero Datura Variant complex
21	Croydon loam, 0 to 30 percent slopes
22	Croydon loam, 30 to 50 percent slopes
23	Curecanti family-Pathead complex
24	Datins Variant very stony loam, 20 to 65 percent slopes
25	Doney family, 3 to 15 percent slopes
26	Doney family, 50 to 70 percent slopes
27	Doney family-Poda complex
28	Doney-Tolz families, complex
29	Dumps, mine
30	Ekkum-Rock outcrop complex
31	Ferron silt loam
32	Ferrondsen-Gullied land complex
33	Gerst-Hickdale-Rubbleland complex, 15 to 65 percent slopes
34	Gerst-Badland-Rubbleland complex, 30 to 70 percent slopes
35	Gerst-Gaddard-Steinfell complex
36	Gerst-Strych-Badland complex, 3 to 50 percent slopes
37	Gerst-Strych-Badland complex, 50 to 70 percent slopes
38	Gerst-Travessilla complex
39	Glenbory family, 1 to 3 percent slopes
40	Glenbory family, 3 to 6 percent slopes
41	Green River-Jura Variant complex
42	Greybull loam, 0 to 8 percent slopes
43	Gravelle-Cobba families, complex
44	Guben-Doney family-Datura Variant complex, 15 to 40 percent slopes
45	Guben-Doney family-Datura Variant complex, 40 to 70 percent slopes
46	Guben-Pathead extremely stony loams
47	Guben-Rock outcrop complex
48	Haverdad loam, 1 to 3 percent slopes
49	Haverdad loam, shall, 0 to 3 percent slopes
50	Haverdad loam, shall, 3 to 6 percent slopes
51	Hernandez family, 1 to 3 percent slopes
52	Hernandez family, 3 to 8 percent slopes
53	Hernandez family, moist, 1 to 3 percent slopes
54	Hernandez family-Atraz complex
55	Hunting loam, 1 to 3 percent slopes
56	Hunting loam, moderately valine, 1 to 3 percent slopes
57	Hunting silty clay loam, 1 to 3 percent slopes
58	Jura Variant fine sandy loam
59	Kilpack clay loam, 1 to 3 percent slopes
60	Kilpack clay loam, 3 to 6 percent slopes
61	Listings silty clay loam
62	Mellork family-Considere complex
63	Mellork family-Poda association
64	Minchey loam, 1 to 3 percent slopes
65	Mivida very fine sandy loam, 1 to 6 percent slopes
66	Mivida gravelly fine sandy loam, 3 to 8 percent slopes
67	Mivida very stony fine sandy loam, 3 to 3 percent slopes
68	Moffat fine sandy loam, 3 to 6 percent slopes
69	Moffat-Persayo complex
70	Neiman-Travessilla Rock outcrop complex
71	Pathead extremely bouldery fine sandy loam, 40 to 70 percent slopes
72	Pathead-Curecanti family association
73	Persayo Variant loam, 1 to 3 percent slopes
74	Persayo Variant loam, 3 to 6 percent slopes
75	Persay family, 15 to 40 percent slopes
76	Persay family-Datino complex
77	Persayo loam, 3 to 8 percent slopes
78	Persayo very cobbly clay loam, 3 to 15 percent slopes
79	Persayo-Badland complex
80	Persayo-Chipeta complex
81	Persayo-Greybull complex
82	Poda gravelly sandy loam, 1 to 8 percent slopes
83	Poda-Cobba family complex
84	Poda-Rock outcrop complex,
85	Rabbitex silt loam, 15 to 50 percent slopes
86	Rabbitex-Doney family-Mellork family complex
87	Rabbitex-Pathead complex
88	Rabbitex family-Datura Variant complex
89	Rafael silty clay loam
90	Ravola loam, 1 to 3 percent slopes
91	Ravola loam, 1 to 6 percent slopes, eroded
92	Ravola-Gullied land complex
93	Ravola-Rock outcrop complex
94	Riverwash
95	Rock outcrop
96	Rock outcrop-Rubbleland-Travessilla complex
97	Rockdale family-Trag complex
98	Rogers silty clay loam
99	Sedalia silty clay loam
100	Senchert loam, 3 to 15 percent slopes
101	Senchert loam, 30 to 50 percent slopes
102	Senchert-Senchert family complex
103	Senchert-Tolz family complex
104	Senchert family, 1 to 15 percent slopes
105	Senchert family-Senchert complex
106	Shepspa-Poda-Rock outcrop complex
107	Sucker-Wendth complex
108	Sillas loam
109	Sillas-Ravola loams
110	Stormont gravelly sandy silty loam, 3 to 10 percent slopes
111	Stormont-Minchey complex
112	Strych very cobbery fine sandy loam, 3 to 25 percent slopes
113	Strych very stony loam, 3 to 15 percent slopes
114	Strych very stony loam, dry, 3 to 30 percent slopes
115	Trag stony loam, 30 to 50 percent slopes
116	Trag-Sine-Rockdale family complex
117	Trag-Sine-Senchert complex
118	Trag-Croydon complex
119	Travessilla sandy loam, 1 to 8 percent slopes
120	Travessilla-Rock outcrop complex
121	Travessilla-Rock outcrop-Gaddard complex
122	Travessilla-Travessilla family-Rock outcrop complex
123	Travessilla family, 8 to 15 percent slopes
124	Tunnle family-Poda association
125	Uinta-Tizer families complex
126	Wendth-Sucker family loam, 0 to 3 percent slopes

SOURCE:
Soil Survey of Carbon Area, Utah
USDA, Soil Conservation Service

INTERMOUNTAIN POWER AGENCY

WILDCAT LOADOUT SOIL MAP

REVISION NUMBER:	SCALE:
4	1" = 800'
DATE: NOVEMBER 2015	PLATE 11