C/007/019 Incoming
#4552

GENWAL™ RESOURCES, INC.

794 North "C" Canyon Rd,
P.O. Box 910,
East Carbon, Utah 84520
Telephone (435) 888-4000 Fax (435) 888-4002

Daron Haddock
Permit Supervisor
Utah Division of Oil, Gas and Mining
P.O. Box 145801
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

March 17, 2014

Re: Permit Revision
to add Kenilworth Lease
007/019

Dear Mr. Haddock:

UtahAmerican Energy, Inc. has held the Kenilworth lease for almost six years and as of now the lease has not been added to the Approved Tower MRP. By means of this application UEI desires to add the lease to the Tower Permit.

It is our understanding since the permit area will increase 56% the submittal will be considered a significant revision. Since the expansion is totally underground there is no increase in disturbed area.

Please find attached a proposed legal notice, revised maps and revised chapters 1-8. Let me know when we can advertise. As previously discussed, UEI needs an administrative completeness by June of 2014, but will not need an approved permit until June of 2018.

Attached you will find the revisions to the approved MRP reflecting adding Kenilworth to the Permit. As was done in the previous submittals a new Appendix AB will be added to include the Kenilworth Lease within the currently approved MRP.

Since the Kenilworth lease was included in the Willow Creek permit, which has Federal Mine Approval, the submittal may not need additional Federal Approval.

If you have any questions please give me a call.

Sincerely,

R. Jay Marshall

R. Jay Marshall
Resident Agent

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

APPLICATION FOR PERMIT PROCESSING

mit Change ☐	New Permit ☐	Renewal ☐	Transfer ☐	Exploration ☐	Bond Release ☐	Permit Number: ACT/007/019
Title of Proposal: Adding Kenilworth Lease to the Permit 14-002						Centennial Coal Mine
						Permittee: UtahAmerican Energy, Inc.

Description, include reason for application and timing required to implement

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation*

☐ Yes	☐ No	1. Change in the size of the Permit Area? 1,7611.3 acres Disturbed Area? NA acres decrease.
☐ Yes	☐ No	2. Is the application submitted as a result of a Division Order? DO #
☐ Yes	☐ No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes	☐ No	4. Does application include operations in hydrologic basins other than as currently approved?
☐ Yes	☐ No	5. Does 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 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 calculations?
☐ Yes	☐ No	20. Does the application require or include subsidence control or monitoring?
☐ Yes	☐ No	21. Have reclamation costs for bonding been provided for?
☐ Yes	☐ No	22. Does 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?

X Attach 3 complete copies of the application.

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.

Signed - Name - Position - Date: 3/17/14

Subscribed and sworn to before me this 17th day of March, 19 2014

Notary Public

My Commission Expires: 03.27.17, 19

Attest: STATE OF Utah } ss:
COUNTY OF Carbon }

LINDA KERNS
NOTARY PUBLIC • STATE of UTAH
COMMISSION # 663615
COMM. EXP. 03/27/2017

Received by Oil, Gas & Mining
RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

Application for Permit Processing
Detailed Schedule of Changes to the MRP

Title of Proposal: Adding Kenilworth Lease to the Permit 14-002

Permit Number: ACT/007/019

Mine: Centennial Mine

Permittee: UtahAmerican Energy, Inc.

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. **Include page, section and drawing numbers as part of the description.**

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☐ REPLACE	☐ REMOVE	Plates : 1, 2, 3, 4, 21, 22, 25, 26, 29, 34A, 34B, 34C, and 34D
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	Plates: Figure 5, Figure 6, Figure 1-2, Figure 1-2A, Figure 7-1, and Figure 1-1.
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	Add Appendix AB to the end of the appendix volume
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
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Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

RECEIVED

MAR 18 2014

DIV. OF OIL, GAS & MINING

LEGAL NOTICE

Andalex Resources, Inc. has filed a complete application with the Division of Oil, Gas and Mining for a revision of the existing Mining and Reclamation Plan, C/007/019 for the Aberdeen Mine. Andalex Resources, Inc. is a subsidiary of UtahAmerican Energy, Inc. and operates the Aberdeen Mine in Dead Canyon which is located approximately 8 miles NE of the town of Price, Utah. The lease revision will increase the lease acreage by approximately 1,760 acres, with no additional surface disturbance proposed.

Underground coal mining will take place in coal reserves owned or leased by Andalex Resource, Inc. A legal description of the proposed areas for additional underground Mining and Reclamation Activities are described as follows:

Federal Lease UTU-81893 (Kenilworth Lease)
T. 12 S., R. 10 E., SLM, Utah

Section 26			
	N1/2 SW1/4	80.00	Acres
	SE SW	40.00	Acres
	SE	160.00	Acres
Section 27			
	S1/2	320.00	Acres
Section 34			
	S1/2 NE 80.00	Acres	
	NW NE 40.00	Acres	
	NW	160.00	Acres
	S1/2	320.00	Acres
Section 35			
	NE	160.00	Acres
	S1/2 NW 80.00	Acres	
	S1/2	320.00	Acres
	Total	**1,760.00**	**Acres**

The address of the applicant is : Andalex Resources
794 North "C" Canyon Road
P.O. Box 910
East Carbon, UT 84520-0910

After filing, copies of this permit revision application will be available for inspection at the Carbon County Court House, and at the Utah Division of Oil Gas, and Mining website under the Coal Permit files.

Written comment or requests regarding this permit revision must be made within 30 days of the last publication of this notice, and may be addressed to the Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210, Salt Lake City, Utah84114-5801.
Published in the Sun Advocate March ___ ___ ___ and ___ 2014.

Centennial Project
List of Plates in Permit
(March 2014)

Plate Number	Plate Name	New or Revised	Electronic Copy	Mylar Only	Notes
1	Centennial Project - General Location Map	X	dwg		
1A	Centennial Project - Coal Leases and Acquisitions		dwg		Omitted
2	Centennial Project - Surface Ownership Map	X	dwg		
3	Centennial Project - Mineral Ownership Map	X	dwg		
4	Centennial Project - Leases	X	dwg		
5	Surface Area Boundary - Deadman Canyon			X	No change
6	As-Constructed Surface Facilities - Deadman Canyon		dwg		
6A	Left-Fork Fan Area - As Constructed			X	No change
7	As Proposed Surface Facilities - Deadman Canyon			X	No change
8	Support Facilities - Surface Area Drainage		PDF		
9	Watershed & Culvert Sizing and Revegetation Reference Areas			X	No change
10	Proposed Sediment Pond 'E-PM' - Post Mining			X	No change
11	Catch Basin 'B' - As Constructed			X	No change
12	Sediment Pond 'C' - As Constructed			X	No change
13	Sediment Pond 'E' - Proposed Aberdeen Surface			X	No change
14	Cut & Fill Cross Section Reference - Deadman Canyon		PDF		
15	Cut & Fill Cross Sections; Original Surface, As Constructed, As Reclaimed - Deadman Canyon (18 Sheets)			X	No change
16	Post Mining Hydrology - Final Reclamation Plan - Deadman Canyon - Phase I		PDF		
17	Final Mining Hydrology - Final Reclamation - Phase II - Deadman Canyon		PDF		
17A	Reclamation Watershed Map			X	No change
18	Soil Survey Map - Deadman Canyon			X	No change
19	Vegetation Survey Map - Deadman Canyon			X	No change
19A	Vegetation Map - Mt. Nebo				No Original
20	Revegetation Map - Deadman Canyon			X	No change
21	Surface Geology of the Andalex Resources' Mine Plan Area	X	dwg		
22	Centennial Project - Geologic Cross Section Reference and Drill Hole Locations	X	dwg		
23	Centennial Project - Cross Section A-A'		PDF		No change
24	Centennial Project - Cross Section B-B'		PDF		No change
25	Centennial Project - Subsidence Monitoring Stations	X	dwg		
26	Lower Sunnyside Seam Production Areas	X	dwg		
27	Centennial Seam Production Areas		dwg		No change
28	Gilson Seam Production Areas		dwg		No change
29	Proposed Mine Plan - Aberdeen Seam	X	dwg		
30	Proposed Mine Plan - Gilson Seam		dwg		Omitted
31	Proposed Mine Plan - Centennial Seam				No change
32	Pinnacle Mine - Current Mine Plan (Mine is closed and sealed)				Missing (Omitted)
33	Apex Mine - Current Mine Plan (Mine is closed and sealed)				Missing (Omitted)
34A	Centennial Project - Wildlife Distribution Map	X	dwg		
34B	Centennial Project - Wildlife Distribution Map	X	dwg		
34C	Centennial Project - Wildlife Distribution Map	X	dwg		
34D	Centennial Project - Wildlife Distribution Map	X	dwg		
35	Typical Road Cross Sections			X	No change
36	Topsoil Storage Pile "G"			X	No change
37	Topsoil Piles - Deadman Canyon			X	No change
38	Previously Omitted				Omitted
39	Previously Omitted				Omitted
40	Centennial Seam Isopach (Mine is closed and sealed)				Omitted
41	Proposed Mine Plan - Centennial Seam (Mine is closed and sealed)				Omitted
Figure 4	Water Quality Data		PDF		No change
Figure 5	Surface and Ground Water Rights	X	PDF		
Figure 6	Ground and Surface Water Monitoring	X	PDF		
Figure 1-2	Centennial Leases / Permit Area	X	dwg		
Figure 1-2A	Centennial Disturbed Area	X	dwg		
Figure 7-1	Water Monitoring Locations	X	dwg		
Figure 1-1	GVH Locations Map	X	dwg		

ANDALEX RESOURCES, INC.

APPENDIX AB

CENTENNIAL PROJECT

Adding Kenilworth Lease

C/007/019

(Revised)
March, 2014

CHAPTER 1
LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

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110 MINIMUM REQUIREMENTS FOR LEGAL, FINANCIAL, COMPLIANCE AND RELATED INFORMATION

111 Introduction

UtahAmerican Energy, Inc. operates the Centennial Project under the Division of Oil, Gas and Mining permit number ACT 007/019. Coal has been mined on Federal leases SL-027304, SL-063058, U-010581, U-05067-08916, UTU-66060, UTU-69600, and UTU-79975. The Centennial Project mined three different seams in various areas. The Aberdeen seam ranged from approximately 5' to 8'. The Centennial seam ranged from approximately 5' to 7' and the Lower Sunnyside seam ranged from 4' to 6'. Both Longwall and Room and Pillar methods of mining were utilized in mining the reserves. A significant amount of coal has been mined from all of the leases. Some leases have been mined out and others have very little remaining recoverable reserves.

UtahAmerican Energy, Inc. Relinquished portions of the mined out leases in two relinquishments. The first relinquishment approved 3/12/2012 reduced the Federal coal leased acreage from 5,436.24 down to 2,813.48. The second relinquishment reduced the Federal coal lease even further down to 894.55 acres remaining. UEI retained all areas of surface disturbance conducted in association with the underground mining and surface access to the gob-vent holes was retained through surface use agreements.

The permit acreage dropped from 6,516.91 down to 2,274.77 acres. When Kenilworth lease is added the permit acreage goes up to 4,035.90 which is the new permit acreage. The disturbed area has not changed and remains at 47.19 acres. Since the disturbed area has not changed and the disturbed legal description stays the same the bond does not change.

The Kenilworth lease UTU-81893 is being added to the permit at this time (1,760.00 Acres).

A new lease area legal description can be found in Table 1-1 and the new permit area is described in Table 1-2.

A General Location Map can be found as Plate 1 in the Tower MRP.

A Surface Ownership Map can be found as Plate 2 in the Tower MRP.

A Mineral Ownership Map can be found as Plate 3 in the Tower MRP.

A Lease Map can be found as Plate 4 in the Tower MRP.

TABLE 1-1

Andalex Resources, Inc.
Tower Division
Centennial Project Permit Lease Areas

Federal Lease UTU-66060

T. 13 S., R. 10 E., SLM, Utah

Section 1

Lot 3	40.59	Acres
Lot 4	40.82	Acres
S1/2 NE	80.00	Acres
Total	**161.41**	**Acres**

Federal Lease UTU-69600

T. 13 S., R.10 E., SLM, Utah

Section 1

SW1/4	160.00	Acres

Section 12

Lot 3	36.71	Acres
Lot 4	37.16	Acres
Lot 5	44.08	Acres
Lot 6	45.01	Acres
Lot 7	47.17	Acres
Lot 11	47.05	Acres
W1/2 NW	80.00	Acres
Total	**497.18**	**Acres**

Federal Lease UTU-010581

T. 13 S., R. 11 E., SLM, Utah

Section 7

NW SE	40.00	Acres
Total	**40.00**	**Acres**

Federal Lease UTSL-27304

T. 13 S., R. 11 E., SLM, Utah

Section 7

Lot 4	42.98	Acres

Section 18

Lot 1	42.98	Acres
NW NE	40.00	Acres
N1/2 NE NW	20.00	Acres
SW NE NW	10.00	Acres
Total	**155.96**	**Acres**

Federal Lease SL-63058

T. 13 S., R. 11 E., SLM, Utah
Section 18

SW NE	40.00	Acres
Total	**40.00**	**Acres**

Federal Lease UTU-81893 (Kenilworth Lease)

T. 12 S., R. 10 E., SLM, Utah
Section 26

N1/2 SW1/4	80.00	Acres
SE SW	40.00	Acres
SE	160.00	Acres

Section 27

S1/2	320.00	Acres

Section 34

S1/2 NE	80.00	Acres
NW NE	40.00	Acres
NW	160.00	Acres
S1/2	320.00	Acres

Section 35

NE	160.00	Acres
S1/2 NW	80.00	Acres
S1/2	320.00	Acres
Total	**1,760.00**	**Acres**

Total of Federal Leases 2,654.55 Acres

Mathis Fee Lease

T. 12 S., R. 10 E., SLM, Utah
Section 36

All	640.00	Acres
Total	**640.00**	**Acres**

Zion Fee Lease

T. 13 S., R. 11 E., SLM, Utah
Section 7

Lot 2	42.99	Acres
Lot 3	42.99	Acres
SE NW	40.00	Acres
E1/2 SW	80.00	Acres
Total	**205.98**	**Acres**

Total of Fee Leases 845.98 Acres

Bureau of Land Management ROW U-62045

T. 13 S., R. 11 E., SLM, Utah
Section 18
SE NE NW 10.00 Acres

Total **10.00** **Acres**

Bureau of Land Management ROW UTU-64158 (Left fork fan and access road)

Located within:

T. 13 S., R. 10 E., SLM, Utah
Section 13
Lot 1

T. 13 S., R. 11 E., SLM, Utah
Section 18
Lot 2
NE SW

Total **1.45** **Acres**

Total of BLM R.O.W.'S 11.45 Acres

Cave Private Easement

Located within:

T. 13 S., R. 11 E., SLM, Utah
Section 18
SE NW 1.50 Acres

Total Cave **1.50** **Acres**

Total Private Easements 1.50 Acres

TABLE 1-2

Andalex Resources, Inc.
Tower Division
Centennial Project Surface Only Permit Area

Federal Lease UTU-66060

T. 13 S., R. 10 E., SLM, Utah
Section 1

Lot 1	40.12	Acres
Lot 2	40.35	Acres

T. 12 S., R. 11 E., SLM, Utah
Section 31

Lot 3	7.58	Acres
Lot 4	7.60	Acres
Lot 5	7.17	Acres
Lot 12	40.00	Acres
Lot 13	1.13	Acres
Lot 14	40.00	Acres
Lot 15	40.00	Acres
Lot 16	40.00	Acres
Lot 21	22.86	Acres
Total	**286.81**	**Acres**

Federal Lease UTU-79975

T. 12 S., R. 11 E., SLM, Utah
Section 31

Lot 2	7.53	Acres
Lot 7	40.00	Acres
Lot 8	40.00	Acres
Lot 10	40.00	Acres
Lot 11	40.00	Acres
Total	**167.53**	**Acres**

Federal Lease UTU-010581

T. 13 S., R. 11 E., SLM, Utah
Section 7

SW NE	40.00	Acres
Total	**40.00**	**Acres**

Federal Lease UTSL-27304

T. 13 S., R. 11 E., SLM, Utah
Section 7

SW SE	40.00	Acres
Total	**40.00**	**Acres**

Surface Only Permit Area **534.34** **Acres**

PERMIT AREA TABULATION

Federal Coal Leases:	2,654.55	Acres (Including Kenilworth)
Fee Coal Leases:	845.98	Acres
BLM Surface R.O.W.	11.45	Acres
Private Easements:	1.50	Acres
Surface Only Federal Leases:	534.34	Acres
Permit Area Subtotal	4,047.82	Acres
Less OSO Gaswell Area	-11.92	Acres
Total Permit Area:	**4,035.90**	**Acres**

112 Identification of Interests

Refer to the same section of the approved M&RP.

112.100 Business Entity

Refer to the same section of the approved M&RP.

112.200 Applicant and Operator

Applicant and Operator:	Andalex Resources, Inc Tower Division P.O. Box 910 East Carbon, Utah 84520 Telephone: (435) 888-4000
Contact Person and Resident Agent:	R. Jay Marshall Andalex Resources, Inc Tower Division P.O. Box 910 East Carbon, Utah 84520 Telephone: (435) 888-4000

Responsibility: Andalex Resources, Inc. is responsible for submission of information and will pay abandoned mine reclamation fees.

112.300 Officers of the Applicant

Refer to the same section of the approved M&RP.

112.400 Coal Mining and Reclamation Operation Owned or Controlled

Refer to the same section of the approved M&RP.

112.500 Legal or Equitable Owner of the Surface and Mineral Properties

The legal and equitable owner of the surface and mineral properties to be affected by this operation during the duration of the permit period are listed below:

Surface Owners

David R. & Mildred Cave, et al.
144 South 1650 East
Price, Utah 84501

Mathis Land Co.
Sunnyside Star Route
Price, Utah 84501

F. and D. Shimmin
711 North 500 East
Price, Utah 84501

Sub-Surface Owners

United States of America
Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

Mathis Land Co.
Sunnyside Star Route
Price, Utah 84501

Oso Energy Resources Corp.
900 Main Avenue, Suite D
Durango, Colorado 81301 (gas rights)

112.600 Owners of Record of Property Contiguous to Proposed Permit Area

Owners of record for surface and mineral properties contiguous to the proposed permit area are listed below:

Contiguous Surface Owners

David R. & Mildred Cave, et al.
144 South 1650 East
Price, Utah 84501

Mathis Land Co.
Sunnyside Star Route
Price, Utah 84501

F. and D. Shimmin
711 North 500 East
Price, Utah 84501

Contiguous Sub-Surface Owners

United States of America
Bureau of Land Management
Utah State Office
136 East South Temple
Salt Lake City, Utah 84111

State of Utah
School Trust Lands Administration
675 East 500 South
Salt Lake City, Utah 84102

Mathis Land Co.
Sunnyside Star Route
Price, Utah 84501

Oso Energy Resources Corp.
900 Main Avenue, Suite D
Durango, Colorado 81301 (gas rights)

112.700 MSHA Numbers

Refer to the same section of the approved M&RP.

112.800 Interest in Contiguous Lands

Andalex Resources, Inc. has no interest in contiguous lands other than those currently owned as shown on Plate 1A of the approved M&RP.

112.900 Certification of Submittal Information

No information has changed in the approved M&RP because of this submittal. Refer to the same section of the approved M&RP.

113 Violation Information

Refer to the same section in the approved M&RP.

114 Right-of-Entry Information

Refer to the same section of the approved M&RP. A surface use agreement with the

private surface owners is in place. A memorandum of this agreement is included in the MRP and is on record at the County Recorder's office. (See Appendix X-1)

** Existing acres reflect contemporaneous reclamation work completed to date.

115 Status of Unsuitability Claims

Refer to the same section of the approved M&RP.

116 Permit Term

Refer to the same section of the approved M&RP.

117 Insurance, Proof of Publication, and Facilities and Structures Used in Common

The certificate of insurance(s) will be included in Appendix B of the approved M&RP.

118 Filing Fees

Refer to the same section of the approved M&RP.

120 PERMIT APPLICATION FORMAT AND CONTENTS

This amendment submittal will comply with R645-301-120.

130 REPORTING OF TECHNICAL DATA

All technical data submitted in the amendment will be accompanied by the name or organization responsible for the collection and analysis of data, dates of collection and descriptions of methodology used. Technical analyses will be planned by or under the direction of a qualified professional in the subject to be analyzed.

140 MAPS AND PLANS

The maps and plans in the Mining and Reclamation Plan will correspond with the requirements in R645-301-140.

150 COMPLETENESS

Andalex Resources, Inc. believes the information in this permit application to be complete and correct.

(Revised)
March, 2014

CHAPTER 2

SOILS

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no effect on soils. The addition of the Kenilworth Lease will not increase the disturbed areas. Only the Prime Farmland Investigation section of the regulations have been addressed. Please refer to the approved MRP for current Chapter 2 information.

2.21 Prime Farmland Investigation

The land within the Kenilworth lease area has not been historically used as cropland, contains steep slopes, and the area is not conducive to intensive agricultural uses and no surface disturbance. The Permittee does not believe that any Prime Farmland exists with the permit revision area, Kenilworth lease, being added to the Mine and Reclamation Plan. The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

Since Kenilworth lease is found in T12S R10E Section 26, the Willow Creek Permit information found below is pertinent.

Quoted Directly From the Willow Creek Permit

> Several previous investigations have been conducted for the permit area to determine whether any prime farmlands exist in the area. Each of these investigations involved formal consultation with the USDA-SCS. The initial determination, included in PRCCs Mining and Reclamation Permit application, was provided by Mr. George D. McMillan, USDA-SCS State Conservationist in a letter dated July 16, 1979. This letter concluded that, based upon the absence of any irrigation, and excessive slopes, no prime farmlands existed in the area corresponding to Townships 12 & 13 South, Ranges 8, 9 and 10 East. A second negative determination for prime farmlands in the permit area was issued in connection with the permitting efforts for the CGCC Permit submitted to UDOGM in February 1991. The CGCC permit application contains a letter dated May 21, 1991 from Mr. Ferris P. Allgood, USDA-SCS State Soil Scientist, stating that due to the excessive amount of rock fragments, high erodibility and lack of a reliable source of irrigation waters for lands within the CGCC Mine Permit area, the soils within this area are excluded from consideration as important farmlands. Confirmation of these negative determinations was included in the findings documents issued by UDOGM for both permit applications and documentation is provided in Exhibit 5, Soils Information. Since the limitations which exclude these soils for consideration as prime farmlands still exist, and all surface disturbance associated with the mining and reclamation activities will occur on either previously disturbed areas or on slopes greater than ten percent,

UIXXJM is requested to reaffirm the negative determination regarding the presence of prime farmland soils in the permit area.

A regional Soils Map can be found in the Willow Creek Permit Map #3. This map covers the Kenilworth Lease Area as well as the total Willow Creek Permit Area.

(Revised)
March, 2014

CHAPTER 3

BIOLOGY

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no effect on vegetation, fish or wildlife.

The Biology portion of the disturbed area of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (007/019) for current Chapter 3 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

A regional vegetation map of the area can be found as See Map 5 of the Willow Creek Mine Permit ACT/007/004.

A regional Wildlife map can be found in the Willow Creek Mine Permit as Map #7.

A Raptor survey map can be found as Plate 34A in the Tower Permit.

A Mule Deer Range map can be found as Plate 34B in the Tower Permit.

An Elk Range map can be found as Plate 34C in the Tower Permit.

A Sage Grouse Range map can be found as Plate 34D in the Tower Permit.

The Land Use & Air Quality portions of the disturbed area of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 4 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Land Use or Air Quality surveys should not be required.

Prior to mining the Permittee will consult with the Division to discuss additional or updated surveys and or studies that might be necessary prior to second mining.

The extension of the underground workings will not result in any additional surface disturbance therefore additional T&E or Raptor surveys should not be required. Prior to mining the Permittee will consult with the Division to discuss additional or updated surveys and or studies that might be necessary prior to second mining.

(Revised)
March, 2014

CHAPTER 4

LAND USE & AIR QUALITY

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no effect on Land Use or Air Quality.

The Land Use & Air Quality portions of the disturbed area of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 4 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004. A regional Land Use Map can be found in the Willow Creek Permit as Map #9.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Land Use or Air Quality surveys should not be required.

Prior to mining the Permittee will consult with the Division to discuss additional or updated surveys and or studies that might be necessary prior to second mining.

(Revised)
March, 2014

CHAPTER 5

ENGINEERING

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no additional surface disturbance.

The Engineering section of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 5 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

The Permittee will utilize the Willow Creek Mine proposed subsidence points located within the Kenilworth Lease. The subsidence monitoring points are shown on Willow Creek Map #20. The Permittee will start the subsidence monitoring, using the Willow Creek points within the Kenilworth Lease, one year prior to any second mining.

A subsidence Monitoring plan specific for the Kenilworth map is shown on Plate 25.

The production areas are shown on Plate 26 in the Tower Permit.

The mine workings are shown on Plate 29 in the Tower Permit.

A R2P2 will be submitted to the BLM at a later date.

The GVH locations are shown on Figure 1-1 in the Tower Permit.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Engineering surveys should not be required.
Prior to mining the Permittee will consult with the Division to discuss additional or updated surveys and or studies that might be necessary prior to second mining.

(Revised)
March, 2014

CHAPTER 6

GEOLOGY

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no additional surface disturbance.

The Geology section of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 6 information.

The general surface geology is shown on Map 21 in the Tower Permit.

Geologic Cross Section and Drill Hole References is shown on Plate 22 in the Tower Permit.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Geological information should not be required.

(Revised)
March, 2014

CHAPTER 7

HYDROLOGY

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no additional surface disturbance.

The Hydrology section of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 7 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

The Permittee will utilize the Willow Creek Mine proposed water monitoring locations located within the Kenilworth Lease. The water monitoring points and regional hydrology are shown on Willow Creek Map #15. Water Rights are shown on Willow Creek Map #17. The Permittee will begin water monitoring, using the Willow Creek points within the Kenilworth Lease, one year prior to any second mining.

Water Rights locations are also shown on Figure 5 of the Tower MRP.

Water monitoring locations are shown on Figure 6 of the Tower MRP.

Water Monitoring Locations are shown also on Figure 7-1 of the Tower MRP.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Engineering surveys should not be required.
Prior to mining the Permittee will consult with the Division to discuss additional or updated surveys and or studies that might be necessary prior to second mining.

(Revised)
March, 2014

CHAPTER 8

BONDING

Since the Kenilworth Lease boundary change is simply an extension of underground mine workings under roughly 2,600 to 3,000 feet of cover there will be absolutely no additional surface disturbance.

The Boding section of the Permit is addressed with the existing approved Mine and Reclamation Plan. Please refer to the approved Tower MRP (ACT 007/019) for current Chapter 8 information.

The Kenilworth lease has been previously permitted under the Willow Creek Mine Permit ACT/007/004.

The extension of the underground workings will not result in any additional surface disturbance therefore additional Boding should not be required.

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MAR 18 2014
DIV. OF OIL, GAS & MINING

CENTENNIAL PROJECT
GENERAL LOCATION MAP
PLATE 1

DATE: MARCH 2014
REVISION NUMBER: 6

R. 9 E.
R. 10 E.
R. 10 E.
R. 11 E.

T. 12 S.
T. 13 S.

UNLEASED

PERMIT AREA

SURFACE PERMIT ONLY
(NO MINERALS)

OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)

T. 12 S.
T. 13 S.

SURFACE PERMIT ONLY
(NO MINERALS)

SURFACE FACILITIES

ANCILLARY ROAD
RIGHT-OF-WAY

HELPER CITY

KENILWORTH

COUNTY ROAD

I CERTIFY THIS MAP TO BE TRUE AND CORRECT
TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#180606
R. Jay Marshall
3/12/14
PROFESSIONAL ENGINEER

N

T. 13 S.
T. 14 S.

T. 13 S.
T. 14 S.

R. 9 E.
R. 10 E.
R. 10 E.
R. 11 E.

PRICE CITY

COUNTY
AIRPORT

1/2 0 1 2 MILES
SCALE: 1" = 1 MILE

NOTES
1. SEE PLATE 4 FOR LEASE AND RIGHT-OF-WAY DETAILS.

ANDALEX RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

CENTENNIAL PROJECT
SURFACE OWNERSHIP MAP
PLATE 2

DATE: MARCH 2014
REVISION NUMBER: 2

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#162606
R. Jay Marshall
3/13/14
PROFESSIONAL ENGINEER

USA
Dennis Bottino
Mary Frandsen Trust
Blackhawk Coal Co.
Mathis Land Inc.
John Critchlow et al
R. 10 E.
R. 11 E.
Jay Critchlow et al
R.D. Campbell
Shimmin Investments
Scott W. Mathis
Scott and Donna Mathis
Mathis Canyon Inc.
Scott Mathis
Mathis Land Inc.
Jerry Carlson Properties
SURFACE PERMIT ONLY (NO MINERALS)
Dave Cave et al
Shimmin Investments
T. 12 S.
T. 13 S.
Scott W. Mathis
Mathis Land Inc.
Shimmin Investments
Blackhawk Coal Company
Blackhawk Coal Company
OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)
Dave Cave et al
Blackhawk Coal Company
Blackhawk Coal Company
Blackhawk Coal Company
Deseret Title Corp.
Robert Nelson
AMCA
Canyon Fuel
SURFACE PERMIT ONLY (NO MINERALS)
SURFACE FACILITIES
Cave et al
Blackhawk Coal Company
Blackhawk Coal Company
KENILWORTH
Blackhawk Coal Company
State of Utah

LEGEND
PROPERTY LINES
PERMIT LINE
PERMIT LINE (SURFACE ONLY)

N

1250 0 2500 5000 FEET
SCALE: 1" = 2,500 FEET

ANDALEX RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

USA-BLM
Carbon County
USA-BLM
USA-BLM
R. 10 E.
R. 11 E.
1250 0 2500 5000 FEET
SCALE: 1" = 2,500 FEET
RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING
N
CENTENNIAL PROJECT
MINERAL
OWNERSHIP MAP
PLATE 3
DATE MARCH 2014
REVISION NUMBER 2
USA-BLM
Carbon County
USA-BLM
Whitmore
Fee Lease
USA-BLM
MATHIS FEE
(UNLEASED)
State of Utah
T. 12 S.
T. 13 S.
Fee Coal
FEDERAL LEASE
UTU-81893
MATHIS FEE
USA-BLM
SURFACE PERMIT ONLY
(NO MINERALS)
FEDERAL
LEASE
UTU-66060
USA-BLM
AEP Fee Coal
OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)
USA-BLM
I CERTIFY THIS MAP TO BE TRUE AND CORRECT
TO THE BEST OF MY KNOWLEDGE.
UTAH REGISTERED
R. Jay Marshall
#162606
R. Jay Marshall
3/17/14
PROFESSIONAL ENGINEER
T. 12 S.
T. 13 S.
Carbon County
Sublease
AEP Fee Coal
Carbon County
Edwards
AEP Fee Coal
USA-BLM
AEP Fee Coal
FEDERAL LEASE
UTU-69600
ZION
FEE
SURFACE
FACILITIES
SURFACE PERMIT ONLY
(NO MINERALS)
USA-BLM
Andalex
Fee
Sunedco
Fee Lease
USA-BLM
USA-BLM
USA-BLM
Blackhawk
Coal Company
KENILWORTH
State
of Utah
USA-BLM
R. 10 E.
R. 11 E.
USA-BLM
LEGEND
PERMIT BOUNDARY
SURFACE PERMIT BOUNDARY
LEASE BOUNDARY
1 FEDERAL LEASE UTU-010581
2 FEDERAL LEASE UTSL-27304
3 FEDERAL LEASE UTSL-63058
ANDALEX
RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

R. 10 E.
R. 11 E.

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

CENTENNIAL PROJECT
LEASES
PLATE 4
DATE: MARCH 2014
REVISION NUMBER: 2

MATHIS FEE
(UNLEASED)

FEDERAL LEASE
UTU-81893

MATHIS FEE

SURFACE PERMIT ONLY
(NO MINERALS)

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#162606
R. Jay Marshall
3/13/14
PROFESSIONAL ENGINEER

T. 12 S.
T. 13 S.

FEDERAL
LEASE
UTU-66060

OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)

T. 12 S.
T. 13 S.

FEDERAL LEASE
UTU-69600

ZION
FEE

SURFACE PERMIT ONLY
(NO MINERALS)

SURFACE
FACILITIES

N

1250 0 2500 5000 FEET
SCALE: 1" = 2,500 FEET

R. 10 E.
R. 11 E.

LEGEND

- PERMIT BOUNDARY
- SURFACE PERMIT BOUNDARY
- LEASE BOUNDARY
- (1) FEDERAL LEASE UTU-010581
- (2) FEDERAL LEASE UTSL-27304
- (3) BLM R.O.W. UTU-64158
- (4) BLM R.O.W. UTU-062045
- (5) CAVE PRIVATE EASEMENT
- (6) FEDERAL LEASE UTSL-63058

ANDALEX
RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

CENTENNIAL PROJECT
SURFACE GEOLOGY MAP

DATE: MARCH 2014
REVISION NUMBER: 2

PLATE 21

1500 0 3000 6000 FEET
SCALE: 1" = 3,000 FEET

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SURFACE PERMIT ONLY
(NO MINERALS)

OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)

SURFACE PERMIT ONLY
(NO MINERALS)

SURFACE FACILITIES

R. 10 E.
R. 11 E.

T. 12 S.
T. 13 S.

KENILWORTH

N

LEGEND
PROPERTY LINES
PERMIT LINE
PERMIT LINE (SURFACE ONLY)

LEGEND

TKfn	FLAGSTAFF LIMESTONE (PALEOCENE) AND NORTH HORN FORMATION (PALEOCENE AND UPPER CRETACEOUS)
Kpr	PRICE RIVER FORMATION (UPPER CRETACEOUS)
Kc	CASTLE GATE SANDSTONE (UPPER CRETACEOUS)
Kbh	BLACKHAWK FORMATION (UPPER CRETACEOUS)
Kmbg	MAIN BODY OF THE BLUE GATE MEMBER
QTpm	PEDIMENT MANTLE (HOLOCENE TO MIOCENE?)

NOTE:
MAP DATA TRACED FROM THE "GEOLOGIC MAP OF THE PRICE 30' X 60' QUADRANGLE, CARBON, DUCHESNE, UINTAH, AND WASATCH COUNTIES, UTAH" BY MALCOLM P. WEISS, IRVING J. WITKIND, AND WILLIAM B. CASHION, 1990.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#162606
R. Jay Marshall
9/19/14
PROFESSIONAL ENGINEER

ANDALEX RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

CENTENNIAL PROJECT
GEOLOGIC CROSS SECTION and DRILL HOLE REFERENCE

DATE: MARCH 2014
REVISION NUMBER: 2

PLATE 22

1250 0 2500 5000 FEET

SCALE: 1" = 2,500 FEET

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DIV. OF OIL, GAS & MINING

R. 10 E.
R. 11 E.

T. 12 S.
T. 13 S.

TYPICAL SURFACE PERMIT ONLY (NO MINERALS)

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#2606
R. Jay Marshall
3/12/14
PROFESSIONAL ENGINEER

A'

B'

OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)

DH-6

DH PG&E

DH-5

MC-191

77-3-CP

DH-2

89-1-APEX

DH-7 NACC

77-2-CP

DH-2A

77-1-CP

MC-193

77-5-CP

77-4-CP

77-6-CP

77-7-CP

SURFACE FACILITIES

DH-1

NOTE:
SEE PLATES 23 & 24 FOR GEOLOGIC CROSS SECTION DETAILS.

KENILWORTH

N

LEGEND

PROPERTY LINES

PERMIT LINE

PERMIT LINE (SURFACE ONLY)

ANDALEX RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

R. 10 E.
R. 11 E.

1250 0 2500 5000 FEET
SCALE: 1" = 2,500 FEET

RECEIVED
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DIV. OF OIL, GAS & MINING

T. 12 S.
T. 13 S.

OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)

TYPICAL SURFACE PERMIT
ONLY (NO MINERALS)

LIMIT OF SUBSIDENCE
(20 DEGREE)

SURFACE
FACILITIES

Rebar
w/yellow cap

Rebar on ridge

North

East

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#132606
R. Jay Marshall
3/12/14
PROFESSIONAL ENGINEER

LEGEND
- SUBSIDENCE MONITORING STATION
- PERMIT LINE
- PERMIT LINE (SURFACE ONLY)

CENTENNIAL PROJECT
SUBSIDENCE
MONITORING

PLATE 25

DATE MARCH 2014
REVISION NUMBER 2

ANDALEX
RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

CENTENNIAL PROJECT
LOWER SUNNYSIDE SEAM PRODUCTION AREAS
PLATE 26

DATE: MARCH 2014
REVISION NUMBER: 2

1250 0 2500 5000 FEET
SCALE: 1" = 2,500 FEET

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I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#172606
R. Jay Marshall
3/18/14
PROFESSIONAL ENGINEER

T. 12 S.
T. 13 S.

R. 10 E.
R. 11 E.

TYPICAL SURFACE PERMIT ONLY (NO MINERALS)

OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)

DH-6
DH PG&E
DH-5
MC-191
77-3-CP
DH-2
89-1-APEX
DH-7 NACC
77-2-CP
77-1-CP
DH-2A
DH-1
MC-193
77-5-CP
77-4-CP
77-6-CP
77-7-CP

APEX MINE
LOWER SUNNYSIDE SEAM

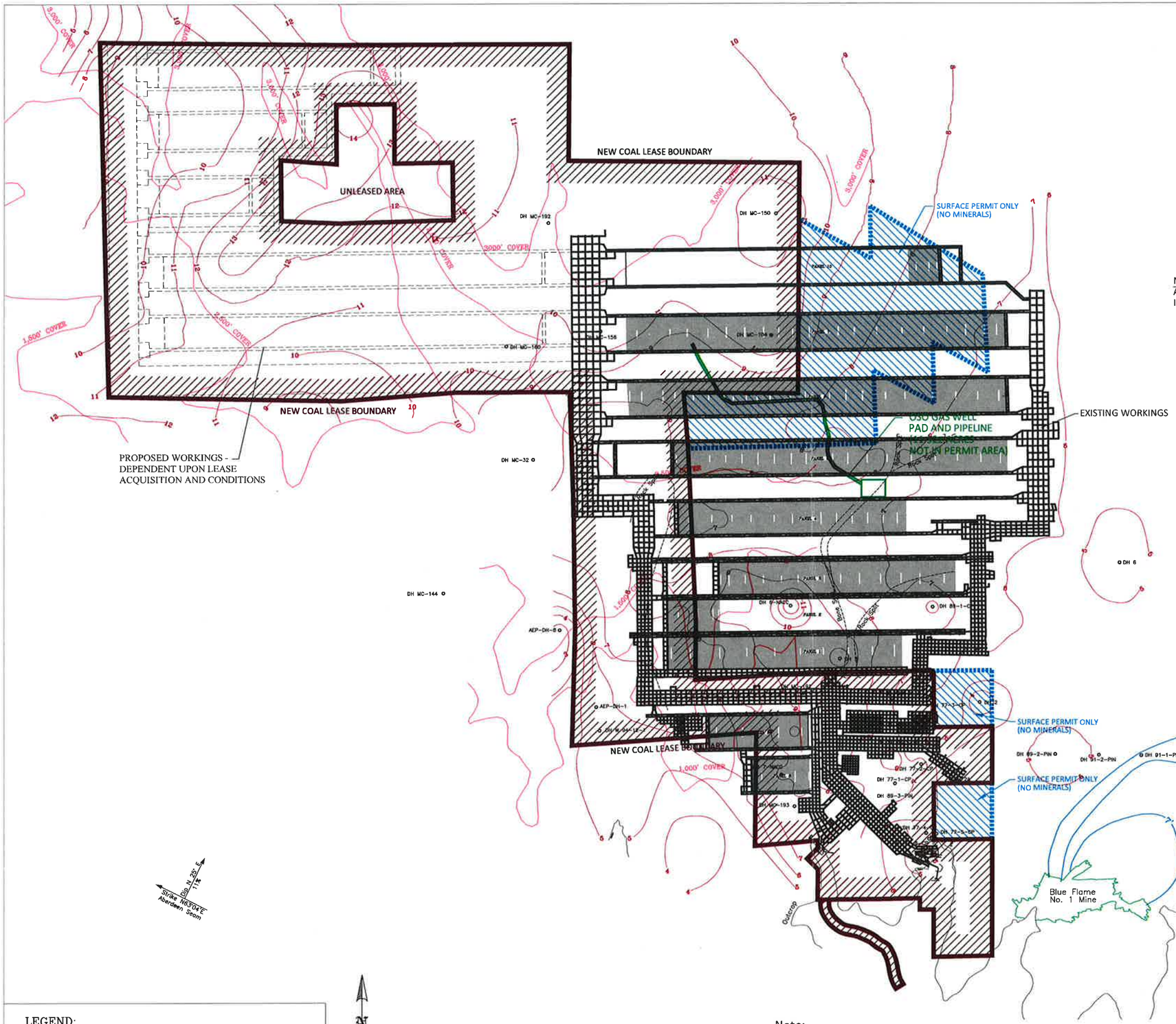
SURFACE FACILITIES

NOTE:
THE APEX MINE IS NOW INACTIVE, CLOSED AND SEALED.

LEGEND
PERMIT LINE
PERMIT LINE (SURFACE ONLY)

ANDALEX RESOURCES, INC.
TOWER DIVISION
PRICE, UTAH

KENILWORTH



TOWER DIVISION
ABERDEEN SEAM

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

NOTE:
ADDITIONAL LEASES SHALL BE ACQUIRED PRIOR TO MINING IN ANY CURRENTLY UNLEASED AREAS.

LEGEND:

Mined Areas

Note:
The Aberdeen Mine in now inactive, closed and sealed.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED #176606 R. Jay Marshall 3/17/14 PROFESSIONAL ENGINEER

ANDALEX RESOURCES, INC.
Tower Division

SCALE: 500' 0' 1000' 2000'

REVISION DATE: MARCH 2014

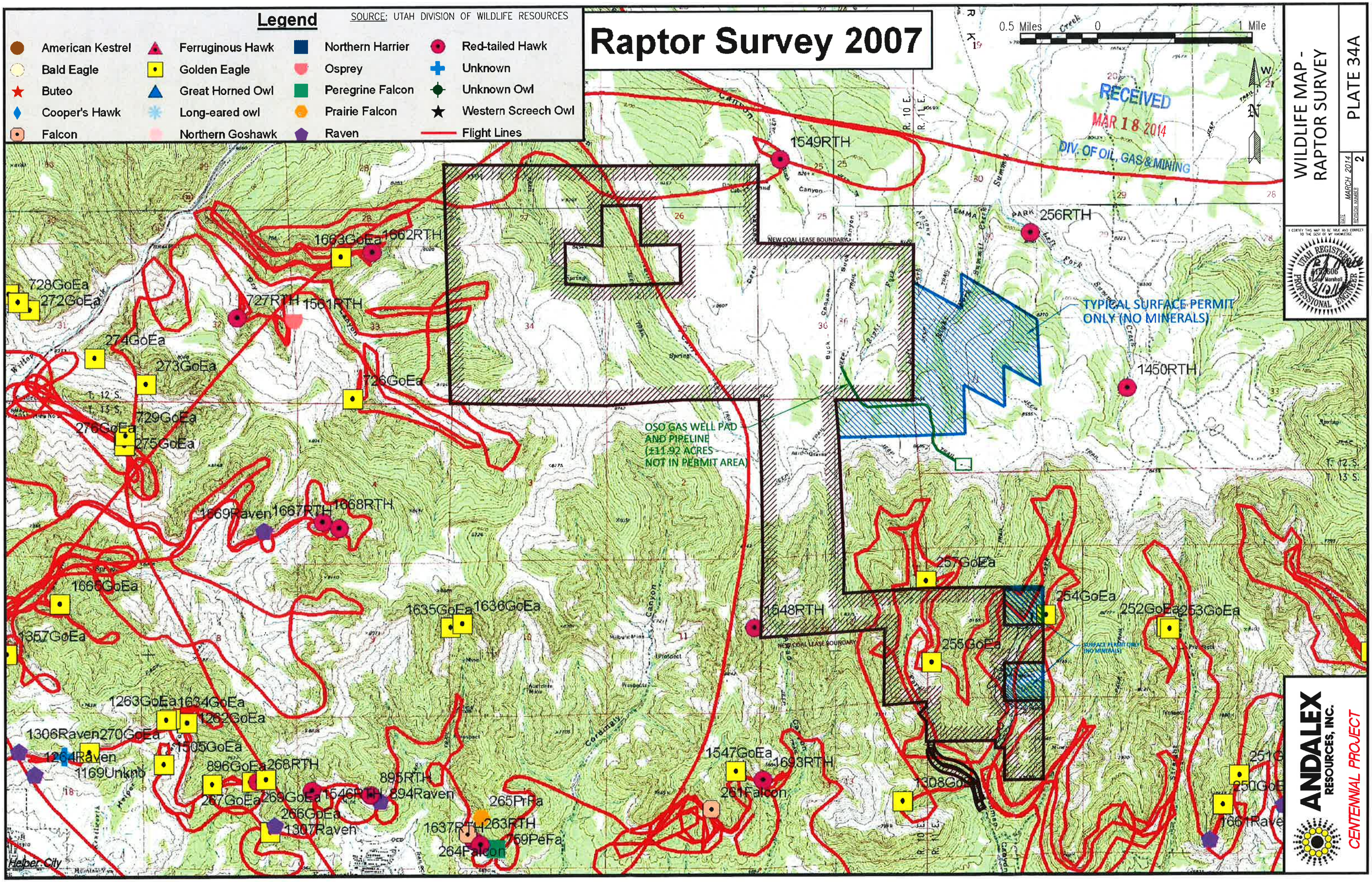
ACAD REF: Plate 29 - Aberdeen Seam

Aberdeen Mine
P.O. Box 910
East Carbon, Utah 84520

PLATE 29

Isopachs
Current Mining

Cover
Drillhole Location



Raptor Survey 2007
Legend
SOURCE: UTAH DIVISION OF WILDLIFE RESOURCES
American Kestrel
Bald Eagle
Buteo
Cooper's Hawk
Falcon
Ferruginous Hawk
Golden Eagle
Great Horned Owl
Long-eared owl
Northern Goshawk
Northern Harrier
Osprey
Peregrine Falcon
Prairie Falcon
Raven
Red-tailed Hawk
Unknown
Unknown Owl
Western Screech Owl
Flight Lines
0.5 Miles
0
1 Mile
RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING
WILDLIFE MAP - RAPTOR SURVEY
PLATE 34A
MARCH 2014
2
1549RTH
256RTH
1663GoEa
1662RTH
728GoEa
272GoEa
727RTH
1561RTH
274GoEa
273GoEa
726GoEa
729GoEa
276GoEa
275GoEa
1450RTH
TYPICAL SURFACE PERMIT ONLY (NO MINERALS)
OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES NOT IN PERMIT AREA)
1669Raven
1667RTH
1668RTH
1666GoEa
1357GoEa
1635GoEa
1636GoEa
1548RTH
257GoEa
254GoEa
252GoEa
253GoEa
255GoEa
1263GoEa
1634GoEa
1262GoEa
1306Raven
270GoEa
1505GoEa
1264Raven
1169Unkno
896GoEa
268RTH
267GoEa
269GoEa
1546RTH
895RTH
894Raven
266GoEa
1307Raven
265PrFa
1637RTH
263RTH
759PeFa
264Falcon
1547GoEa
1693RTH
261Falcon
1308GoEa
250GoEa
1661Raven
Helper City
ANDALEX RESOURCES, INC.
CENTENNIAL PROJECT

WILDLIFE MAP - MULE DEER RANGE

PLATE 34B

DATE: MARCH 2014

DRAWING NUMBER: 2

LEGEND

- DENOTES DEER SUMMER RANGE
- DENOTES DEER WINTER RANGE
- DENOTES DEER YEAR–LONG RANGE
- DENOTES OTHER DEER RANGE

MAP INFORMATION OBTAINED FROM THE UTAH DIVISION OF WILDLIFE RESOURCES CONSERVATION DATA CENTER.

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED PROFESSIONAL ENGINEER
#162606
R. W. Marshall
3/13/14

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

TYPICAL SURFACE PERMIT ONLY (NO MINERALS)

OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)

NEW COAL LEASE BOUNDARY

SURFACE PERMIT ONLY (NO MINERALS)

T. 12 S.
T. 13 S.

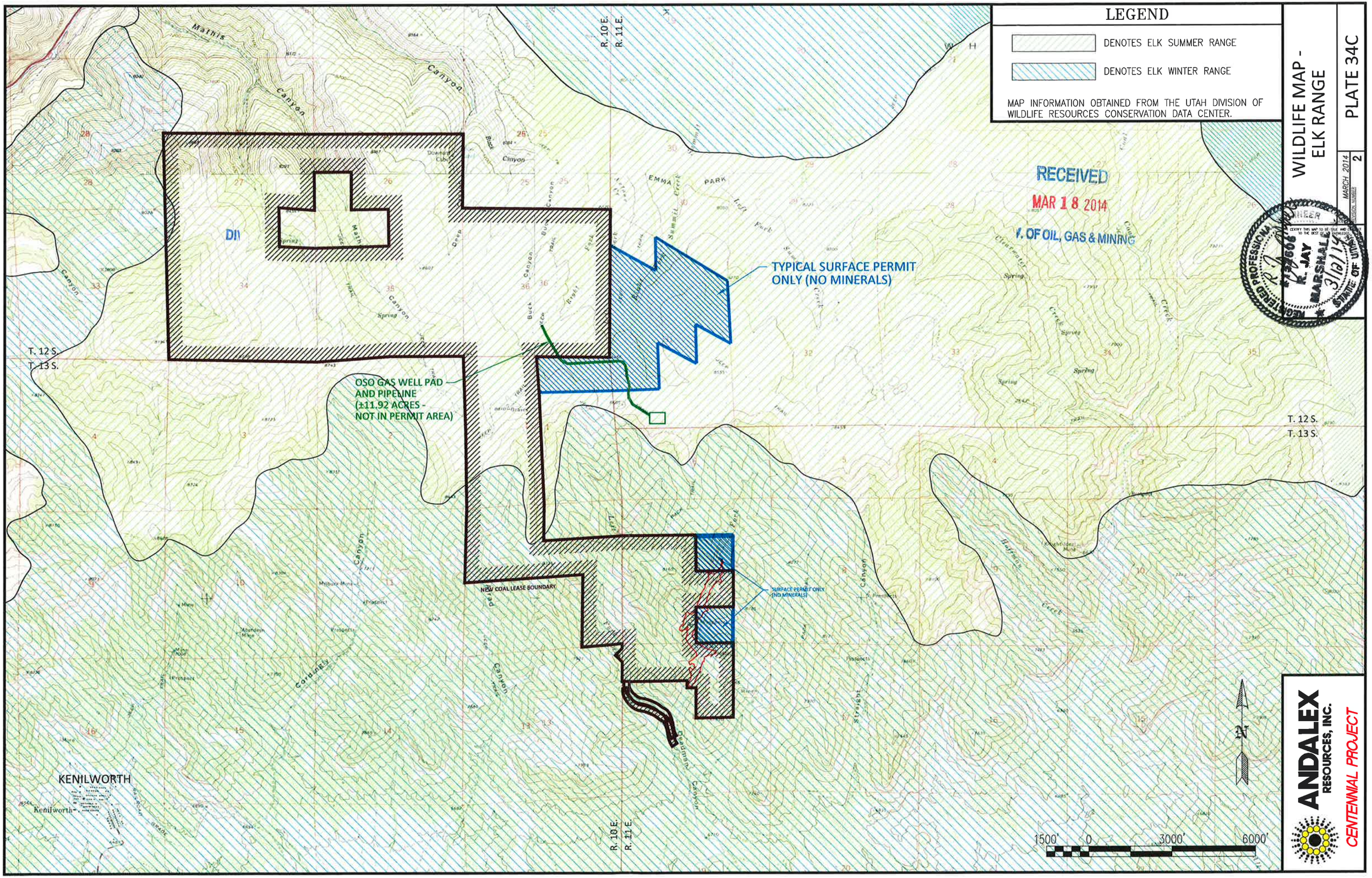
R. 10 E.
R. 11 E.

KENILWORTH

1500' 0 3000' 6000'

ANDALEX RESOURCES, INC.

CENTENNIAL PROJECT


LEGEND
DENOTES ELK SUMMER RANGE
DENOTES ELK WINTER RANGE
MAP INFORMATION OBTAINED FROM THE UTAH DIVISION OF WILDLIFE RESOURCES CONSERVATION DATA CENTER.
WILDLIFE MAP - ELK RANGE
PLATE 34C
MARCH 2014
2
RECEIVED
MAR 18 2014
V. OF OIL, GAS & MINING
TYPICAL SURFACE PERMIT ONLY (NO MINERALS)
OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)
SURFACE PERMIT ONLY (NO MINERALS)
NEW COAL LEASE BOUNDARY
T. 12 S.
T. 13 S.
R. 10 E.
R. 11 E.
KENILWORTH
Kenilworth
EMMA PARK
1500' 0 3000' 6000'
N
ANDALEX RESOURCES, INC.
CENTENNIAL PROJECT

WILDLIFE MAP - SAGE GROUSE RANGE

PLATE 34D

MARCH 2014

REVISION NUMBER 2

LEGEND

DENOTES SAGE GROUSE RANGE

MAP INFORMATION OBTAINED FROM THE UTAH DIVISION OF WILDLIFE RESOURCES CONSERVATION DATA CENTER.

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED PROFESSIONAL ENGINEER
No. 6606
R. Jay Marshall

NEW COAL LEASE BOUNDARY

TYPICAL SURFACE PERMIT ONLY (NO MINERALS)

OSO GAS WELL PAD AND PIPELINE (±11.92 ACRES - NOT IN PERMIT AREA)

SURFACE PERMIT ONLY (NO MINERALS)

T. 12 S.
T. 13 S.

R. 10 E.
R. 11 E.

KENILWORTH

1500′ 0 3000′ 6000′

ANDALEX RESOURCES, INC.

CENTENNIAL PROJECT

1250 0 2500 5000 FEET

RECEIVED
MAR 18 2014
DIV. OF OIL, GAS & MINING

R 10 E
R 11 E

NEW COAL LEASE BOUNDARY

UNLEASED AREA

MATHIS FEE LEASE
(640 Acres)

UTU-81893
(1760.00 Acres)

NEW COAL LEASE BOUNDARY

T 12 S
T 13 S

UTU-66060
(161.41 Acres)

UTU-79975
(Surface Only -
167.53 Acres)

UTU-66060
(Surface Only -
285.68 Acres)

OSO GAS WELL PAD
AND PIPELINE
(±11.92 ACRES -
NOT IN PERMIT AREA)

PREVIOUS PERMIT
BOUNDARY (C/007/019)

T 12 S
T 13 S

UTU-010581
(Surface Only -
40.00 Acres)

UTU-69600
(497.18 Acres)

ZION FEE
LEASE
(205.98 Acres)

UTU-010581
(40.00 Acres)

NEW COAL LEASE BOUNDARY

UTSL-27304
(Surface Only -
40.00 Acres)

UTSL-27304
(155.96 Acres)

BLM ROW UTU-64158
(Left Fork Fan
and Access Road)
(1.45 Acres)

SL-63058
(40.00 Acres)

BLM ROW U-62045
(10 Acres)

CAVE PRIVATE
EASEMENT
(1.5 Acres)

R 10 E
R 11 E

UTAH REGISTERED
PROFESSIONAL ENGINEER
David W. Hibbs
3/10/14

PERMIT AREA TABULATION

FEDERAL COAL LEASES (MINERALS):	2,654.55 ACRES
FEE COAL LEASES:	845.98 ACRES
BLM SURFACE R.O.W.:	11.45 ACRES
PRIVATE EASEMENT:	1.50 ACRES
FEDERAL COAL LEASES (SURFACE ONLY):	533.21 ACRES
PERMIT AREA SUBTOTAL:	4,046.69 ACRES
LESS OSO GASWELL AREA	(11.92) ACRES
TOTAL PERMIT AREA:	4,034.77 ACRES

ANDALEX RESOURCES, INC.
Tower Division

Centennial Leases/Permit Area

DATE: MARCH 2014
SCALE: 1" = 2500'
REVISION NUMBER: 105
PLATE: FIGURE 1-2

1250 0 2500 5000 FEET

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R 10 E
R 11 E

NEW COAL LEASE BOUNDARY

UNLEASED AREA

GOB GAS
VENT HOLE PADS
(15 EACH)

SURFACE PERMIT ONLY
(NO MINERALS)

T 12 S
T 13 S

NEW COAL LEASE BOUNDARY

OSO GAS WELL
PAD AND PIPELINE
(11.92± ACRES -
NOT IN PERMIT AREA)

PREVIOUS PERMIT BOUNDARY
(C/007/019)

T 12 S
T 13 S

MINESITE SURFACE
FACILITY AREA

SURFACE PERMIT ONLY
(NO MINERALS)

NEW COAL LEASE BOUNDARY

LEFT FORK
VENTILATION FAN
AND ACCESS ROAD

R 10 E
R 11 E

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David W. Hibbs
3/12/14

N

ANDALEX RESOURCES, INC.
Tower Division

Centennial Disturbed Areas

DATE	SCALE
MARCH 2014	1" = 2500'
REVISION NUMBER	105
PLATE	FIGURE 1-2(A)

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B263
B261
AC-1
SC-1
NEW COAL LEASE BOUNDARY
UNLEASED AREA
B362
LAST MINING 7/2006 (1)
LAST MINING 12/2005 (1)
B352
B351
LAST MINING 4/2004 (1)
NEW COAL LEASE BOUNDARY
31-1
5/2000
OSO GAS WELL PAD AND PIPELINE (11.92± ACRES NOT IN PERMIT AREA)
7-1
PINNACLE MINE - GILSON SEAM
MINED AREA SEALED 6/1993
APEX MINE WORKINGS 3/1995
8-1
MINED AREA SEALED 2/1987
25-2
LAST MINED AREA SEALED 8/1995
S25-1
LAST MINED AREA SEALED 8/1995
17-1
17-2
18-2
NEW COAL LEASE BOUNDARY
WELL 1
002
001
003
004
18-3
18-4
S18-1
12-1
LAST MINING 7/2006 (1)

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.
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#172606
R. Jay Marshall
3/18/14

WATER MONITORING LOCATIONS WITH MINE WORKINGS

LEGEND:
Surface Monitoring Points 12-1
Ground Monitoring Points B362

ABERDEEN MINE
TOWER DIVISION
6750 AIRPORT ROAD
PRICE, UTAH 84501
MSHA MINE ID #42-02028

DRAWN BY	PJ	SCALE	1" = 2500'
APPROVED BY	DH	DATE	MARCH 2014
SHEET			Figure 7-1

NEW COAL LEASE BOUNDARY

NEW COAL LEASE BOUNDARY

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REMONUMENTED SECTION CORNER (BLM)

SURFACE ONLY - NO MINERALS

GVH 16A
GVH 15A
GVH 14A
GVH 13A
GVH 12A
GVH 11A

GVH 17 (PAD ONLY)
GVH 16 (PAD ONLY)
GVH 15 (PAD ONL
GVH14
GVH 13
GVH 12
GVH 11
GVH 10 (ELIMINATED)

OSO COMPRESSOR STATION

GVH 9
GVH 8A
GVH 8
GVH 7
GVH 7A
GVH 6
GVH 5A

Aspen/Grass Reference Area

Sagebrush/Grass Reference Area

GVH 4
GVH 3

OSO GAS WELL PAD AND PIPELINE (11.92 ACRES - NOT IN PERMIT AREA)

PANEL 10
PANEL 7
PANEL 6
PANEL 4
PANEL 3

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

UTAH REGISTERED PROFESSIONAL ENGINEER
#349561
David W. Hibbs
3/20/14

LEGEND

- CURRENT GVH LOCATIONS
- PROPOSED GVH LOCATIONS (Primary)
- PROPOSED GVH LOCATIONS (Alternate)
- OSO PIPELINE CORRIDOR (APPROXIMATE LOCATION)
- EXISTING ROADS
- NEWLY CONSTRUCTED ROADS
- SURFACE OWNERSHIP BOUNDARY
- ANDALEX PERMIT BOUNDARY
- VEGETATION REFERENCE AREAS

GVH LOCATIONS MAP

CENTENNIAL PROJECT

ANDALEX RESOURCES, INC.
6750 AIRPORT ROAD
PRICE, UTAH 84501

MSHA MINE ID #42-02028

DRAWN BY	SCALE
PJ	1" = 1000'
APPROVED BY	DATE
DH	MARCH 2014

FIGURE 1-1

NEW COAL LEASE BOUNDARY

SURFACE RIGHTS ONLY (NO MINERALS)

MINE PLAN BOUNDARY

91-3663
91-882
91-860
91-861
91-889
91-1204
91-1203
91-1202
91-1234
91-1235
91-1230
91-229
91-1228
91-1231
91-1567
91-886
91-885
91-887
91-858
91-859
91-887
91-856
91-884
91-4800
91-883
91-855
91-1232
91-4805
91-351
91-4803
91-1206
91-1187
91-1188
91-1205
91-1215
91-1216
91-845
91-847
91-843
91-844
91-1942
91-1194
91-1195
91-1198
91-1197
91-1220
91-1212
91-1378
91-1372
91-1213
91-1214
91-1255
91-4171
91-4173
91-2670
91-2575
91-2671
91-340

FIGURE 5 - Surface and Ground Water Rights On and Adjacent to the Andalex Resources, Inc. Mine Plan Area

Legend

90-290 Water Use Claim Number
Stream Segment
Diversion Point, Stock Pond or Reservoir Use
Spring
Diversion by Well or Mine

1"= 2000'
2000 0 2000 4000
scale feet

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UTAH REGISTERED #162606 R. Jay Marshall 1/20/14 PROFESSIONAL ENGINEER

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DIV. OF OIL, GAS & MINING

Prepared by:
Vaughn Hanson Associates
Salt Lake City, Utah
February 1981

Revisions:

03/06/98	JCB	Andalex Resources, Inc.
05/14/98	JCB	Andalex Resources, Inc.
12/28/98	JCB	Andalex Res., Inc.
2/13/02	JCB	Andalex Res., Inc.
8/16/02	JCB	Andalex Res. Inc.
2/20/04	DG	
07/12/05 01/20/14	DG PJ	

Figure 5

NEW COAL LEASE BOUNDARY

SURFACE PERMIT ONLY
(NO MINERALS)

OSO GAS WELL
PAD AND PIPELINE
(11.92± ACRES -
NOT IN PERMIT AREA)

PREVIOUS
MINE PLAN BOUNDARY

NEW COAL LEASE BOUNDARY

SURFACE PERMIT ONLY
(NO MINERALS)

FIGURE 6- Location of the Proposed Ground and Surface Water Monitering Stations of the Andalex Resources, Inc. Mine Plan Area

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED
#152606
R. Jay Marshall
PROFESSIONAL ENGINEER

Legend

- Ground Water Monitoring Station
- Surface Water Monitoring Station

1"=2000'

2000 0 2000 4000

scale feet

Prepared by:
Vaughn Hanson Associates
Salt Lake City, Utah
February 1981

Revisions:
03/06/98 JCB Andalex Resources, Inc.
05/14/98 JCB Andalex Resources, Inc.
01/20/14 PJ

Figure 6