



GARY R. HERBERT  
Governor

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Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

September 28, 2017

Karin Madsen, Resident Agent  
UtahAmerican Energy, Inc.  
P. O. Box 910  
East Carbon, Utah 84520-0910

Subject: Conditional Approval of Annual Report Completion, UtahAmerican Energy, Inc.,  
Horse Canyon Mine, C/007/0013, Task #5512

Dear Ms. Madsen:

The above-referenced amendment is approved conditioned upon receipt of 2 clean copies prepared for incorporation. Please submit these copies by October 27, 2017. Once we receive these copies, final approval will be granted.

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan.

If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen  
Permit Supervisor

SKC/sqs

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## Technical Analysis and Findings

### Utah Coal Regulatory Program

**PID:** C0070013  
**TaskID:** 5512  
**Mine Name:** HORSE CANYON MINE  
**Title:** ANNUAL REPORT COMPLETION

#### Operation Plan

##### Fish and Wildlife Wetlands and Habitats High Value

###### Analysis:

The response to this deficiency noted in the 2016 annual report meets the State of Utah R645 requirements at R645-301-322, 333, 342 and 358;

The permittee has provided a map that clearly shows the raptor nest locations in relation to mining and subsidence and the 200' buffer zone. Section 332 on Page 13 has been updated to note that the 200' barrier will be measured from the coal outcrop. The response is recommended for approval.

jhelfric

#### Vegetation

###### Analysis:

The response to this deficiency noted in the 2016 annual report meets the State of Utah R645 requirements at R645-301-330, 331 and 332;

As discussed with Karin Madsen via phone conversation on August 24th, the 5 year Infrared Vegetation Imagery was completed in 2016. This fulfills the requirement to conduct a color infrared photo survey of the permit area every 5 years. The comparison to the Infrared imagery that was completed in 2011 to determine if there have been any impacts from mining is being done by Mt. Nebo Scientific, and will be completed in the Spring of 2018. The comparison information will be submitted to the Division. The response is recommended for approval.

jhelfric

Print Form

Submit by Email

Reset Form

# Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

## GENERAL INFORMATION

Company Name	Utah American Energy	Mine Name	Horse Canyon/Lila Canyon Mine
Permit Number	C/007/0013	Permit expiration Date	5-6-21
Operator Name	UtahAmerican Energy	Phone Number	+1 (435) 888-4000
Mailing Address	PO Box 910	Email	kmadsen@coalsource.com
City	East Carbon		
State	UT	Zip Code	84520

## DOG M File Location or Annual Report Location

Excess Spoil Piles

- Required  
 Not Required

Refuse Piles

- Required  
 Not Required

Impoundments

- Required  
 Not Required

Annual certification reports are included for ponds #1 and #2.

Other:

## OPERATOR COMMENTS

## REVIEWER COMMENTS

- Met Requirements  Did Not meet Requirements

The Permittee submitted impoundment inspection reports for Sediment Pond #1 (Large) and Pond #2 (Small). The inspections were completed by Karin Madsen and stamped by David Hibbs (PE #6449561). Pond #1 suffered a record storm event in September 2016 that caused an undisturbed culvert beneath the pond to become clogged. As of 12-01-16, UEL is working to repair the damages. The Permittee has drained Pond #1 and construction on an emergency bypass line to divert drainages has begun. After the construction is complete the Permittee will replace the sediment marker in Pond #1. Both ponds were surveyed by Ware Surveying in November 2016. Sediment levels were 5841.3 feet and 5846 feet for Pond 1 and 2, respectively. There were no signs of instability or hazardous conditions identified for Pond 2 and the sediment marker is still visible. [AU]

# COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

## Title: RAPTOR SURVEY & PROTECTION

**Objective:** Identify and monitor all raptors and nests. For possible subsidence impacts to raptor nests, develop a mitigation plan that must be submitted and approved. Apply for 'take permit' through USFWS 2 years prior to subsidence of the nests. Maintain escarpment barrier of at least 200' to prevent cliff habitat loss. **The text of Chapter 3, pg. 13, sect 332 (1) needs to be revised or clarified to demonstrate how the 200' barrier will be measured**

**Frequency:** Annually

**Status:** Ongoing since 2005. The map must clearly show raptor nests in relation to mining and subsidence.

**Reports:** Annual Reports

**Citation:** MRP, Part B, Section 322.220, page 10, Section 330, page 20, Section 358.100 page 38, Sec. 332 P.13.

Operator Comments

The 2016 Raptor Survey was completed by EIS and the report is included in the Confidential folder.

Reviewer Comments    Met Requirements                       Did Not Meet Requirements

The 2016 raptor survey was conducted on May 11, 2016 by Environmental Industrial Services (EIS). The survey included cliff nesting areas that could potentially be impacted by mining as well as the Stinky Springs area that may be the location of a future breakout. There was one active Falcon nest observed, #1280 . The permittee should determine if there is tree nesting habitat to the east and south of the mine that should be surveyed in 2017. The permittee has provided a map that clearly shows the raptor nest locations in relation to mining and subsidence and the 200' buffer zone. Section 332 on Page 13 has been updated to note that the 200' barrier will be measured from the coal outcrop.

## Title: COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

**Objective:** Report water depletion for the CO River Endangered Fish Recovery Program

**Frequency:** Annually

**Status:** Ongoing

**Reports:** Annual

**Citation:** MRP, Section 322.220, page 11

Operator Comments

The Water Depletion Calculations for the Colorado River Endangered Fish Recovery Program is included.

Reviewer Comments    Met Requirements                       Did Not Meet Requirements

**Title: VEGETATION MONITORING**

**Objective:** Submit color infrared photography. Submit and implement a mitigation plan, if results indicate impact from mining operations.

**Frequency:** Prior to any mining, and every 5 years after.

**Status:** Ongoing. Baseline submitted in 2011. Next round of photos are due in 2016. A comparison between 2016 and 2011 photos will be required in 2016.

**Reports:** Annual Report

**Citation:** MRP, Part B, Section 332, page 14.

Operator Comments

Infrared photography was completed by Olympus Aerial Surveys and the imagery is attached.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

As discussed with Karin Madsen via phone conversation on August 24th, the 5 year Infrared Vegetation Imagery was completed in 2016. This fulfills the requirement to conduct a color infrared photo survey of the permit area once every 5 years. The comparison to the Infrared imagery that was completed in 2011 to determine if there have been any impacts from mining is being done by Mt. Nebo Scientific, and will be completed in the Spring of 2018. The comparison information will then be submitted to the Division.

**Title: RAIN GAUGES**

**Objective:** Establish on site climatological database

**Frequency:** No less than monthly from May 1 to October 30, monthly when feasible during the remaining months.

**Status:** To be implemented within 30 days of Board's approval of the Stipulation for Dismissal.

**Reports:** Data will be downloaded quarterly and included in the Annual Report.

**Citation:** Conditions to the Permit, Attachment A, Special Conditions (December 21, 2007).

Operator Comments

Rain gauge report prepared by Tom Suchoski and is included. The upper rain gauge data is missing data from 8-16 through 11-16 due to communication problems with the gauge. The gauge was repaired and data has been recording since. As of mid-4th quarter, the access road to the gauge has been impassible due to weather. As of 3-14-17, the road is still impassible. The missing data will be collected as soon as the road conditions improve, and will be included in the 2017 Annual Report, or sooner if requested.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The permittee submitted the rain gauge report and has included missing data from 2015. All required data has been submitted with explanations for all anomalies. Two data malfunctions occurred during this period of data collection. The upper gauge funnel became clogged and maintenance was unfeasible due to weather conditions. Therefore, all data collected at the upper gauge between December 2015 and June 2016 was discarded. The Permittee ensures that all future equipment maintenance will be conducted in early Fall to ensure access. At the lower gauge, data from August through November 2016 was lost due to cable malfunction. The Permittee has since replaced the cable and provided a back-up cable. In the future, the Permittee proposes to verify electronic data has been

collected prior to initiating the next collection period. [AU]

### Title: MAINTAIN RECORDS OF SOIL SALVAGE

**Objective:** Records of soil salvage will be maintained and included in the annual report. A soil specialist will oversee the soil removal. Soil pedestals will be left to verify soil removal depths.

**Frequency:** During phase 1 and 2 construction, the soils specialist will record topsoil salvaged and placed in the topsoil stockpile and number of acres salvaged.

**Status:** Ongoing, Topsoil salvage will resume in 2012.

**Reports:** Provide an update to the number of acres salvaged and volumes salvaged in the Annual report "Topsoil Movement and Construction Record" and include a map of salvaged and undisturbed acreage.

**Citation:** R645-301-232.500 and R645-301-232.100 and N10045 abatement.

#### Operator Comments

No topsoil was salvaged in 2016.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

05/30/3027, PB. The last soil salvage activity was in 2015 for the expansion of the storage yard by Pond 2. Plate 2-3a in the MRP shows undisturbed topsoil locations within the disturbed area boundary. A table on the map projects additional disturbance for the drainage revision task approved April 21, 2017. Drawing 2-3a Map states 31.88 acres are disturbed and 2.02 acres remain to be disturbed and 8.7 acres will always remain as undisturbed. The MRP Chapter 2 states 65,746 CY of topsoil are stored in the topsoil pile (Chap 2, p. 6).

### Title: SUBSOIL USED FOR CONSTRUCTION FILL

**Objective:** To record location of subsoil placement for use in reclamation. The location of subsoil with suitable reclamation characteristics will be mapped for ease of recovery and replacement during reclamation.

**Frequency:** During construction

**Status:** Ongoing

**Reports:** Annual report, Submit As built maps showing where subsoil materials have been used as fill material.

**Citation:** MRP, Section 232.500, Section 241, and Section 242.100.

#### Operator Comments

The subsoil location will be tracked when it is relocated, and the project is complete.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

5/30/2017, PB. The deepest pockets of subsoil (for use in final reclamation ) are identified on Map 2-3 as Strych Bouldery fine sandy loam (SBG) and Strych Very bouldery fine sandy loam (VBJ). These subsoils are shown on Map 2-3 in the location of the mine parking, employee parking, the storage yard, the topsoil storage pile, the substation, and the coal storage pile. This subsoil will be required for

cover over the 28,000 CY of mine waste. Therefore the statement above that it will be tracked and an as-built will be provided when construction is correct. In 2017 the undisturbed area South of the substation will be developed and the subsoil will be used as fill for the truck access ramp. An as-built is expected after completion of the work in 2017.

**Title: MEXICAN SPOTTED OWL**

**Objective:** Conduct two-year calling survey at least two years but no more than four years prior to undermining identified habitat. Results will be submitted to USFWS, DWR, and the Division immediately following each nighttime survey. If owls are observed, the agencies will immediately coordinate to determine appropriate measures.

**Frequency:** Dependent on habitat and mine plan

**Status:** Please keep confidential map 5-3 updated with correct mine workings to indicate when mining will occur under MSO habitat.

**Reports:** Submit final reports in annual report.

**Citation:** MRP, Part B, Section 333, page 17.

Operator Comments

MSO Survey Report two-year calling surveys were completed in 2013 and 2014. This was not required in 2016.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

**Title: REACTIVATION OF OPERATIONAL MONITORING OF SURFACE WATER SAMPLING LOCATIONS**

**Objective:** Quarterly sampling to initiate at least two years prior to resuming underground mining activities on sites L-6-G, L-7-G, L-8-G, L-9-G, L-10-G, L-11-G, L-12-G, L-13-S, L-14-S, L-15-S, L-18-S, L-19-S, L-20-S, IPA-1, IPA-2, IPA-3

**Frequency:** Notify Division once, quarterly sampling

**Status:** Monitoring suspended as of October 2011, Division awaiting reactivation notification.

**Reports:** Annual Report, notify Division if/when mining is to occur.

**Citation:** MRP, Part B, Section 731.222, table 7-3

Operator Comments

Quarterly sampling of locations: L-7-G, L-8-G, L-9-G, L-11-G, L-12-G, L-19-S, IPA 1, IPA 2, and IPA 3 have resumed, and an updated Monitoring Location table was incorporated into the MRP and approved as of May 28, 2015. L-6-G, L-10-G, L-13-S, L-14-S, L-15-S, and L-20-S were permanently suspended in 2003. See MRP Table 7-3 for further information.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The Permittee has provided a map and water monitoring coordinate data for each sampling location. The MRP is up to date with the

sampling locations.[AU]

**Title: GENEVA MINE/ LILA CANYON FAN PORTAL BARRICADES**

**Objective:** Inspect the Geneva Mine fan portal Barricades annually and report findings to Division and BLM.

**Frequency:** annually

**Status:** Ongoing

**Reports:** Annual Report.

**Citation:** MRP, Part B, Chapter 5, Section 529, page 54 and 55

Operator Comments

A report showing the annual inspection of the Old Geneva Mine/Lila Canyon Fan Portal Barricades was completed by EIS, and is included.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The Lila Canyon fan portals were inspected by Joe Via, an employee of Environmental Industrial Services on June 6, 2016. The barricades installed by UtahAmerican Energy, Inc., are required by the USDO/BLM and the Utah DOGM to be inspected annually for signs of vandalism & tampering. The cover letter forwarded to Mr. Jay Marshall of UAE indicates that no sign of vandalism has occurred to either of the two breakouts. The posted signs warning of possible dangerous atmospheric conditions remain in place. Mr. Via stated that there was a rockslide from above the southern portal and now multiple large rocks remain at the opening of the portal. Photographs were submitted and all chain link rock barricades appear intact within the breakouts. JE

**Title: North Fan Breakout As-Built**

**Objective:** To provide acreage of disturbance and a volume estimate and source for the fill required for reclamation of the breakout and define pre- and post mining topography.

**Frequency:** Within 60 days of completion

**Status:** Pending completion

**Reports:** Update the MRP Chapter 5 p. 65 with a volume estimate and source for the fill that will be required to reclaim the north breakouts and the south breakouts. 2. Create a figure for the north and south breakouts similar to Plate 5-9 which shows pre-existing, operating and final reclamation contours for the north and south breakout entries.

**Citation:** Conditional of approval Task 4818. Outgoing file 04162015.4818.pdf

Operator Comments

North Fan Breakout As-Built Drawings were completed in 2016, and submitted to the Division in February, 2016. The As-Built was approved by the Division June 2016.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

The breakout drawings that were submitted to the Division in June 2016 were found to meet the requirements of Utah R645-301. JE



[Empty box]

**Title: SUBSIDENCE MONITORING**

**Objective:** Aerial subsidence monitoring will be done annual while the significant subsidence is taking place. The subsidence monitoring will be initiated in an area prior to any 2nd mining being done within that area. Initial 12-16 control points, once per year a follow up aerial will be performed to determine the extent and degree of active subsidence for a minimum of 5 years. If any of the 3 prior years measures more than 10% of highest annual subsidence, monitoring will continue until 3 consecutive years less than 10%. A ground survey of the mine permit area where secondary extraction has occurred over the last year will be conducted in conjunction with the quarterly water monitoring program. Survey's will identify items listed within MRP Chapter 5 Section 525.440

**Frequency:** Annual/Quarterly

**Status:** Ongoing during 2nd mining or longwall mining

**Reports:** Annual Report

**Citation:** MRP Chapter 5 pg 43

Operator Comments

[Empty box]

Longwall Monitoring started February, 2016. Ware Surveying conducted Subsidence Monitoring in 2016 and the report is included.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

A subsidence survey by Ware Engineering, L.L.C. includes points surveyed in 2016 and compared to the results of those same points that were surveyed one year earlier. According to that survey, there was less than an inch of movement at all of the survey locations. This survey satisfies the requirements of Utah R645-301-525 & R645-301-632.

**Title: Noxious Weed Control Program**

**Objective:** To control invasive species in and adjacent to the disturbed area. The permittee should implement a noxious/invasive species weed control program.

**Frequency:** Once

**Status:** Need to submit program for MRP inclusion

**Reports:**

**Citation:** R645-301-357.320-.324

Operator Comments

[Empty box]

A Noxious Weed Control Program will be submitted and implemented in 2017.

Reviewer Comments  Met Requirements  Did Not Meet Requirements

[Empty box]

## FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

**Title: Wildlife**

**Objective:** Adhere to wildlife exclusionary periods: raptors (Feb 1 - July 1), bighorn sheep lambing, (May 1 - June 15), and pronghorn (May 15 - June 20).

**Frequency:** Prior to construction of any new facility projects, structures, and roads; and prior to reclamation.

**Status:**

**Reports:**

**Citation:** MRP-Part B, Sec. 330, p. 20.

**Title: TWO MONITORING WELLS TO BE ESTABLISHED IN FUTURE BOREHOLES**

**Objective:** Monitor water levels and water quality within the permit and adjacent areas.

**Frequency:** If wells are established.

**Status:** To be done when and if additional holes are bored from the surface to the coal seam.

**Reports:** Water quality and quantity data will be included in the quarterly hydrology reports. The MRP (and CHIA) to be updated as needed.

**Citation:** Conditions to the Permit, attachment A, special conditions (December 21, 2007).

**Title: LILA CANYON MINE SALVAGE OF CRYPTOGRAMS ON TOPSOIL PILE PRIOR TO RECLAMATION.**

**Objective:** Salvaged cryptograms will be added to the wood fiber mulch and hydrosprayed on the surface of the reclaimed site.

**Frequency:** Immediately after seeding of the reclaimed site.

**Status:** During reclamation of the Lila Canyon Mine.

**Reports:** Success of cryptogamic establishment will be evaluated (by Division and Permittee) prior to collection from topsoil stockpile.

**Citation:** MRP, Part B, Section 232.100, and Section 234.230

**Title: VEGETATION MONITORING**

**Objective:** Submit color infrared photography. Submit and implement a mitigation plan, if results indicate impact from mining operations.

**Frequency:** Prior to any mining, and every 5 years after.

**Status:** Ongoing. Baseline submitted in 2011. Next round of photos are due in 2016. A comparison between 2016 and 2011 photos will be required in 2016.

**Reports:** Annual Report

**Citation:** MRP, Part B, Section 332, page 14.

**OPERATOR COMMENTS (OPTIONAL)****REVIEWER COMMENTS**

## **REPORTING OF OTHER TECHNICAL DATA**

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Reviewer Comments

# MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map	Included	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Raptor Map	Included in Confidential file	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reviewer Comments    Met Requirements                       Did Not Meet Requirements

Up-to-date mine maps outlining projected mining into the year 2021 have been provided and are found to satisfy the requirements of Utah R645-301-525.240. JE