



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

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

March 11, 2020

Attn: Steve Christensen
Permit Supervisor

Re: West Ridge Mine C/007/041
2019 Annual Report

Dear Mr. Christensen,

Please find attached all required information to complete the Annual Report for 2019.

If you have any questions, or need any additional information regarding this submittal, please contact me directly at 435-888-4000.

Sincerely,

Karin Madsen
Environmental Permitting Engineer
UtahAmerican Energy, Inc.

APPLICATION FOR PERMIT PROCESSING

<input type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/007/41
Title of Proposal: WR20-001 2019 Annual Report						Mine: West Ridge
						Permittee: West Ridge Resources, Inc

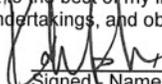
Description, include reason for application and timing required to implement:

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

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

X Attach 1 complete digital copy 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.

 Karin Madsen / Enviro Permitting Eng./ 3-11-2020
Signed - Name - Position - Date

Subscribed and sworn to before me this 11th day of March, 20 20.


Notary Public
My Commission Expires: 11/9/2028, 20 28
Attest: STATE OF Utah
COUNTY OF Carbon



Received by Oil, Gas & Mining

ASSIGNED TRACKING NUMBER

2019 ANNUAL REPORT

Submit the completed document and any additional information identified to the Division by March 31, 2020.

GENERAL INFORMATION

Company Name	West Ridge Resources, LLC	Mine Name	West Ridge Mine
Permit Number	C/007/0041	Permit Expiration Date	4-1-24
Operator Name	West Ridge Resources	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	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required	
Refuse Piles	<input type="checkbox"/> Required <input type="checkbox"/> Not Required	
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	Annual pond certification included
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS Met Requirements Did Not Meet Requirements

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: SUBSIDENCE MONITORING

Objective: To monitor subsidence from longwall mining practices. Subsidence monitoring of panels until the effects of mining have stabilized and vertical movement is less than six inches per year.

Frequency: annual

Status: Ongoing

Reports: annual report

Citation: Chapter 5, page 5-23b to 5-23e

OPERATOR COMMENTS

Subsidence monitoring completed by Cody Ware but he has not released the report yet. Will provide when available.

REVIEWER COMMENTS

Met Requirements

Did Not Meet Requirements

Empty box for reviewer comments.

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: RECLAMATION MONITORING

Objective: Visually assess the revegetation success.

Frequency: Quarterly for the first three years and annually in June of each year thereafter

Status: Implement at reclamation

Reports: Annual Report

Citation: Chapter 3, page 3-16

Title: SOIL SAMPLING OF FILL AT T1, T2 AND T3

Objective: To protect buried substitute topsoil in the fill. Collect a composite sample from several locations near each site to obtain a more average value.

Frequency: At Final Reclamation

Status: Future Commitment

Reports: Annual Report

Citation: Appendix 2-6 addendum, page 3 and Volume A, Map 2-4

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

Met Requirements

Did Not Meet Requirements

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map		<input checked="" type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REVIEWER COMMENTS Met Requirements Did Not Meet Requirements

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of											
Permit Number	ACT/007/041	Report Date	12-26-19										
Mine Name	West Ridge Mine												
Company Name	UtahAmerican Energy, Inc												
Impoundment Identification	Impoundment Name	None											
	Impoundment Number	None											
	UPDES Permit Number	UTG040023											
	MSHA ID Number	42-02233											
IMPOUNDMENT INSPECTION													
Inspection Date	12-26-19												
Inspected By	Karin Madsen												
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	4th Quarter												
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>No appearance of instability, structural weakness, or any other hazardous condition was observed at the time of inspection.</p>													
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment Elevations:</p> <table border="0"> <tr> <td>Cell A (Upper)</td> <td>Cell B (Lower)</td> </tr> <tr> <td>60% 6942.8'</td> <td>60% 6928.8'</td> </tr> <tr> <td>100% 6945.4'</td> <td>100% 6930.0'</td> </tr> </table> <p>Current Sediment Levels:</p> <table border="0"> <tr> <td>Cell A (Upper)</td> <td>Cell B (Lower)</td> </tr> <tr> <td>6937.9'</td> <td>6926.5'</td> </tr> </table>			Cell A (Upper)	Cell B (Lower)	60% 6942.8'	60% 6928.8'	100% 6945.4'	100% 6930.0'	Cell A (Upper)	Cell B (Lower)	6937.9'	6926.5'
	Cell A (Upper)	Cell B (Lower)											
60% 6942.8'	60% 6928.8'												
100% 6945.4'	100% 6930.0'												
Cell A (Upper)	Cell B (Lower)												
6937.9'	6926.5'												
	<p>3. Principle and emergency spillway elevations.</p> <table border="0"> <tr> <td>Cell A (Upper)</td> <td>Cell B (Lower)</td> </tr> <tr> <td>Principle 6952.5'</td> <td>Principle 6937.0'</td> </tr> <tr> <td>Emergency -----</td> <td>Emergency 6938.0'</td> </tr> </table>			Cell A (Upper)	Cell B (Lower)	Principle 6952.5'	Principle 6937.0'	Emergency -----	Emergency 6938.0'				
Cell A (Upper)	Cell B (Lower)												
Principle 6952.5'	Principle 6937.0'												
Emergency -----	Emergency 6938.0'												

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

Snow is covering entire site.

Cell A (Upper) is currently snowcovered.

Cell B (Lower) is currently snowcovered.

No discharge occurred from 001.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

No changes in geometry have occurred.

No observable conditions were apparent that could affect the stability or function of the structures.

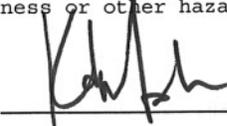
Ware Surveying recently surveyed the ponds, but has not reported his data yet.

The water elevation is below the spillway in Cell A (Upper) and in Cell B (Lower). I do not foresee any discharge within the near future.

Qualification Statement

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: _____



Date: _____

12-26-19

CERTIFIED REPORT

IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	XXXXX	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	XXXXX	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	XXXXX	

COMMENTS AND OTHER INFORMATION

NONE



Certification Statement:

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

[PE Cert. Stamp]

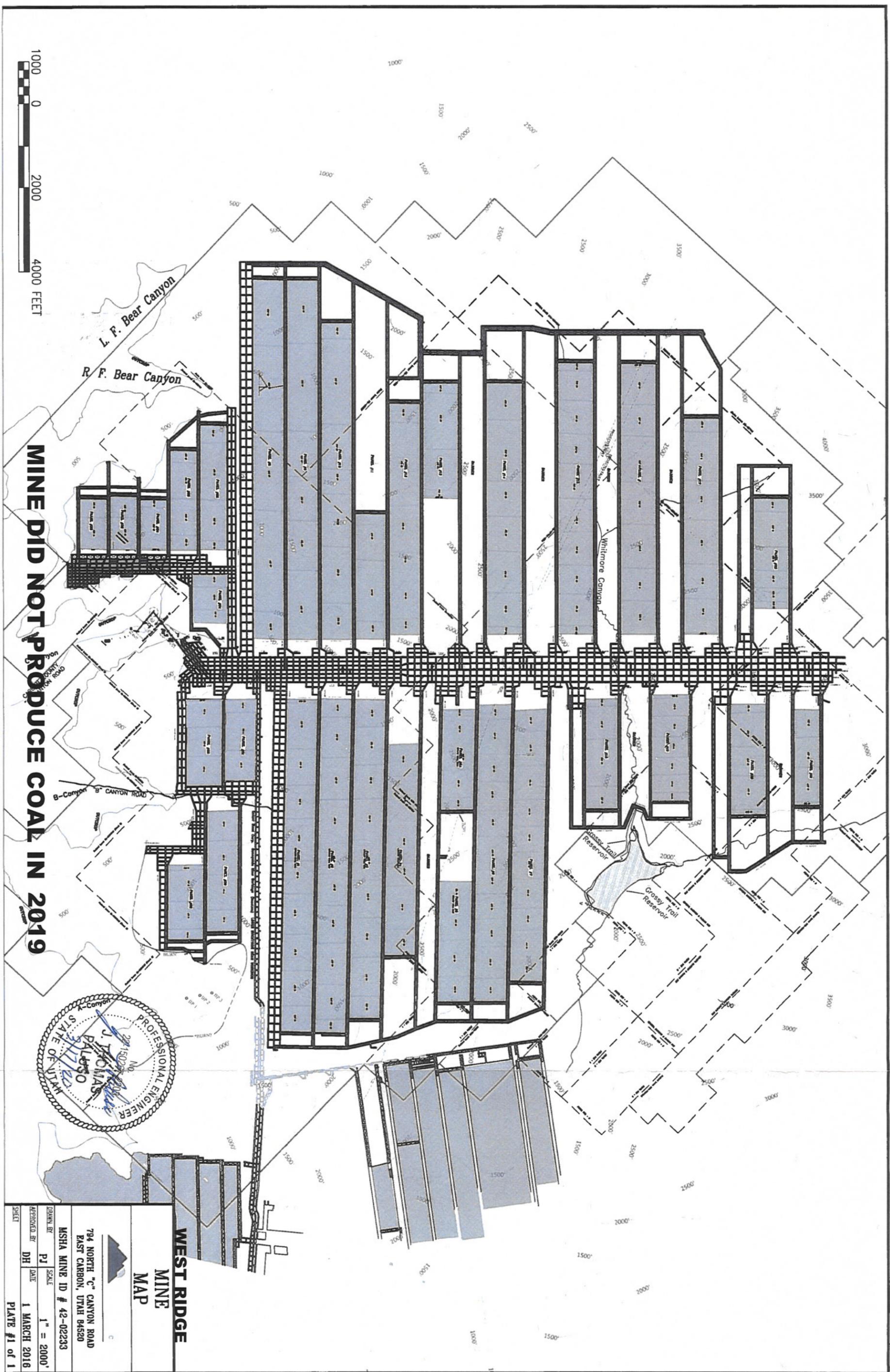
By: Richard B. White, Consulting Civil Engineer
 (Full Name and Title)

Signature: Richard B. White Date: 7 Jan 2020

P.E. Number & State: 168246 Utah



MINE DID NOT PRODUCE COAL IN 2019



**WEST RIDGE
MINE
MAP**

794 NORTH "C" CANYON ROAD
EAST CARBON, UTAH 84520

MSHA MINE ID # 42-02233

DESIGNED BY	PJ	SCALE	1" = 2000'
APPROVED BY	DH	DATE	1 MARCH 2016
SHEET			
PLATE #1 of 1			

UtahAmerican Energy

West Ridge Mine

Grassy Trail Reservoir
Differential Level survey data

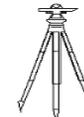
10/9/2019

STATION	C-1	C-2	C-3	C-4	C-5	C-6	C-7
NORTHING	38,830.55	38,865.88	38,892.13	38,917.88	38,943.74	38,969.37	38,996.01
EASTING	37,333.20	37,471.64	37,570.28	37,668.82	37,767.40	37,866.16	37,964.74
Differential level survey data.							
07/30/2002 Elevation	7593.49	7590.63	7590.29	7590.67	7590.44	7590.08	7590.08
08/29/2003 Elevation	7593.50	7590.65	7590.31	7590.69	7590.46	7590.08	7590.08
10/27/2004 Elevation	7593.50	7590.62	7590.30	7590.68	7590.45	7590.08	7590.08
08/12/2005 Elevation	7593.52	7590.66	7590.32	7590.69	7590.46	7590.09	7590.08
03/21/2006 Elevation	7593.50	7590.70	7590.30	7590.68	7590.45	7590.09	7590.08
04/14/2006 Elevation	7593.53	7590.73	7590.31	7590.67	7590.44	7590.08	7590.08
05/4/2006 Elevation	7593.54	7590.75	7590.31	7590.66	7590.43	7590.08	7590.08
05/30/2006 Elevation	7593.55	7590.78	7590.31	7590.65	7590.43	7590.07	7590.08
08/11/2006 Elevation	7593.49	7590.79	7590.31	7590.64	7590.43	7590.07	7590.08
09/18/2006 Elevation	7593.51	7590.82	7590.33	7590.66	7590.43	7590.08	7590.08
10/09/2007 Elevation	7593.54	7590.83	7590.33	7590.67	7590.44	7590.08	7590.08
04/28/2008 Elevation	7593.59	7590.84	7590.34	7590.69	7590.45	7590.09	7590.08
05/30/2008 Elevation	7593.56	7590.82	7590.32	7590.65	7590.44	7590.09	7590.08
07/13/2008 Elevation	7593.56	7590.84	7590.33	7590.66	7590.44	7590.08	7590.08
08/29/2008 Elevation	7593.57	7590.83	7590.33	7590.67	7590.44	7590.08	7590.08
09/27/2008 Elevation	7593.56	7590.84	7590.34	7590.68	7590.45	7590.09	7590.08
11/24/2008 Elevation	7593.55	7590.82	7590.32	7590.66	7590.44	7590.08	7590.08
02/23/2009 Elevation	7593.57	7590.83	7590.33	7590.67	7590.45	7590.08	7590.08
03/31/2009 Elevation	7593.57	7590.83	7590.32	7590.67	7590.44	7590.08	7590.08
04/27/2009 Elevation	7593.58	7590.83	7590.33	7590.68	7590.45	7590.08	7590.08
05/29/2009 Elevation	7593.59	7590.84	7590.33	7590.67	7590.44	7590.08	7590.08
06/28/2009 Elevation	7593.57	7590.83	7590.33	7590.67	7590.44	7590.08	7590.08
08/6/2009 Elevation	7593.57	7590.84	7590.33	7590.68	7590.45	7590.08	7590.08
09/9/2009 Elevation	7593.58	7590.84	7590.33	7590.68	7590.45	7590.08	7590.08
10/25/2009 Elevation	7593.56	7590.84	7590.33	7590.68	7590.44	7590.08	7590.08
11/20/2009 Elevation	7593.56	7590.83	7590.32	7590.67	7590.44	7590.08	7590.08
03/05/2010 Elevation	7593.58	7590.84	7590.33	7590.67	7590.45	7590.08	7590.08
04/15/2010 Elevation	7593.60	7590.84	7590.34	7590.68	7590.46	7590.08	7590.08
05/17/2010 Elevation	7593.59	7590.84	7590.33	7590.67	7590.45	7590.08	7590.08
06/24/2010 Elevation	7593.58	7590.84	7590.34	7590.68	7590.45	7590.08	7590.08
07/27/2010 Elevation	7593.56	7590.83	7590.32	7590.68	7590.45	7590.08	7590.08
09/02/2010 Elevation	7593.56	7590.84	7590.33	7590.69	7590.46	7590.08	7590.08
10/15/2010 Elevation	7593.56	7590.84	7590.33	7590.69	7590.46	7590.08	7590.08
11/18/2010 Elevation	7593.56	7590.83	7590.33	7590.67	7590.48	7590.08	7590.08
05/05/2011 Elevation	7593.58	7590.84	7590.33	7590.68	7590.45	7590.08	7590.08
06/03/2011 Elevation	7593.59	7590.84	7590.34	7590.68	7590.46	7590.08	7590.08
07/21/2011 Elevation	7593.58	7590.84	7590.33	7590.68	7590.45	7590.08	7590.08
08/29/2011 Elevation	7593.58	7590.83	7590.34	7590.67	7590.46	7590.08	7590.08
10/4/2011 Elevation	7593.57	7590.83	7590.33	7590.67	7590.45	7590.08	7590.08
11/7/2011 Elevation	7593.58	7590.84	7590.34	7590.67	7590.46	7590.08	7590.08
10/05/2012 Elevation	7593.58	7590.83	7590.33	7590.66	7590.44	7590.08	7590.08
10/22/2013 Elevation	7593.58	7590.84	7590.33	7590.66	7590.44	7590.08	7590.08
11/19/2014 Elevation	7593.59	7590.84	7590.33	7590.67	7590.44	7590.08	7590.08
09/10/2015 Elevation	7593.61	7590.85	7590.34	7590.69	7590.45	7590.08	DESTROYED?
09/24/2016 Elevation	7593.62	7590.85	7590.34	7590.68	7590.44	7590.08	DESTROYED?
11/29/2016 Elevation	7593.61	7590.84	7590.33	7590.68	7590.44	7590.08	DESTROYED?
05/31/2017 Elevation	7593.63	7590.86	7590.35	7590.70	7590.46	7590.08	DESTROYED?
06/24/2017 Elevation	7593.62	7590.87	7590.36	7590.70	7590.46	7590.08	DESTROYED?
07/30/2017 Elevation	7593.60	7590.86	7590.35	7590.69	7590.45	7590.08	DESTROYED?
08/18/2017 Elevation	7593.62	7590.86	7590.35	7590.69	7590.45	7590.08	DESTROYED?
09/29/2017 Elevation	7593.61	7590.86	7590.35	7590.68	7590.45	7590.08	DESTROYED?
10/28/2017 Elevation	7593.60	7590.86	7590.35	7590.69	7590.46	7590.08	DESTROYED?
11/19/2017 Elevation	7593.59	7590.86	7590.35	7590.68	7590.45	7590.08	DESTROYED?
10/8/2018 Elevation	7593.61	7590.85	7590.34	7590.69	7590.46	7590.08	DESTROYED?
10/9/2019 Elevation	7593.59	7590.85	7590.33	7590.67	7590.44	7590.08	DESTROYED?
Difference	0.02	0.00	0.01	0.02	0.02	0.00	



WARE SURVEYING, L.L.C.

1344 North 1000 West – Price, UT 84501
Office: 435-820-4335
Email: waresurveying@emerytelcom.net

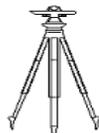


UtahAmerican Energy
West Ridge Mine
 Grassy Trail Reservoir
 "Straight line" survey data

10/9/2019

Distance from control point to face of Monitoring Well (MW) in feet									
Date of survey	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	West Mon.	Straight Line Movement
12/14/2006	94.21	141.49	245.90	295.13	394.71	493.96	556.71	na	No
1/31/2007	94.21	141.49	245.90	295.13	394.71	493.96	556.71	na	No
3/1/2007	94.21	141.49	245.90	295.13	394.71	493.96	556.71	na	No
3/29/2007	94.21	141.49	245.90	295.13	394.71	493.95	556.70	na	No
5/30/2007	94.20	141.49	245.89	295.12	394.70	493.94	556.70	na	No
6/5/2007	94.20	141.49	245.89	295.12	394.69	493.94	556.68	na	No
7/2/2007	94.20	141.49	245.89	295.12	394.69	493.94	556.69	na	No
10/9/2007	94.21	141.50	245.90	295.13	394.71	493.95	556.70	na	No
11/10/2007	94.22	141.50	245.90	295.13	394.70	493.95	556.70	na	No
12/27/2007	94.21	141.50	245.91	295.13	394.71	493.95	na	710.95	No
4/28/2008	94.20	141.49	245.90	295.12	394.70	493.95	556.69	710.95	No
5/30/2008	94.20	141.49	245.90	295.12	394.70	493.94	556.69	710.94	No
7/13/2008	94.20	141.49	245.90	295.12	394.70	493.95	556.69	710.94	No
8/29/2008	94.21	141.50	245.90	295.14	394.71	493.96	556.70	710.95	No
9/27/2008	94.21	141.50	245.91	295.14	394.71	493.96	556.70	710.95	No
11/24/2008	94.21	141.51	245.91	295.14	394.71	493.96	556.70	710.95	No
1/26/2009	94.20	141.50	245.91	295.13	394.71	493.96	556.70	710.94	No
2/23/2009	94.20	141.49	245.90	295.13	394.70	493.96	556.69	710.94	No
3/31/2009	94.20	141.50	245.90	295.13	394.71	493.96	556.70	710.95	No
4/27/2009	94.21	141.50	245.90	295.13	394.70	493.95	556.70	710.95	No
5/29/2009	94.20	141.49	245.90	295.12	394.70	493.95	556.69	710.95	No
6/28/2009	94.21	141.51	245.91	295.13	394.71	493.96	556.70	710.95	No
8/6/2009	94.21	141.51	245.91	295.14	394.70	493.96	556.70	710.96	No
9/9/2009	94.22	141.51	245.91	295.14	394.71	493.96	556.70	710.96	No
10/25/2009	94.21	141.51	245.91	295.14	394.71	493.96	556.70	710.96	No
11/20/2009	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.95	No
3/5/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.95	No
4/15/2010	94.21	141.50	245.90	295.13	394.70	493.94	556.69	710.94	No
5/17/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.95	No
6/24/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.95	No
7/22/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.70	710.95	No
9/2/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.94	No
10/15/2010	94.21	141.50	245.90	295.13	394.70	493.95	556.69	710.94	No
11/18/2010	94.20	141.49	245.89	295.12	394.70	493.95	556.68	710.94	No
5/5/2011	94.21	141.49	245.89	295.12	394.69	493.94	556.68	710.94	No
6/3/2011	94.20	141.49	245.90	295.12	394.69	493.93	556.68	710.93	No
7/21/2011	94.21	141.50	245.90	295.13	394.69	493.94	556.68	710.94	No
8/29/2011	94.20	141.49	245.89	295.12	394.70	493.94	556.69	710.93	No
10/4/2011	94.21	141.49	245.90	295.13	394.70	493.95	556.69	710.93	No
11/7/2011	94.21	141.49	245.90	295.13	394.70	493.94	556.69	710.93	No
12/5/2011	94.21	141.50	245.90	295.13	394.70	493.94	556.69	710.94	No
1/2/2012	94.21	141.50	245.90	295.14	394.70	493.95	556.69	710.94	No
10/5/2012	94.21	141.49	245.89	295.12	394.68	493.93	556.67	710.91	No
10/22/2013	94.21	141.49	245.89	295.13	394.69	493.93	556.67	710.91	No
11/19/2014	94.22	*141.69*	245.90	295.13	394.69	493.93	556.67	710.92	No*
9/10/2015	94.21	141.69	245.89	295.12	394.68	493.92	556.66	710.90	No
9/24/2016	94.21	141.68	245.89	295.12	394.68	493.92	556.65	710.90	No
11/29/2016	94.20	141.67	245.89	295.12	394.68	493.92	556.65	710.90	No
12/22/2016	94.20	141.67	245.89	295.12	394.68	493.92	556.65	710.90	No
5/31/2017	94.19	141.66	245.88	295.10	394.66	493.91	556.64	710.89	No
6/24/2017	94.20	141.67	245.89	295.11	394.67	493.91	556.65	710.89	No
7/30/2017	94.19	141.67	245.88	295.10	394.66	493.91	556.64	710.88	No
8/18/2017	94.20	141.66	245.88	295.11	394.66	493.91	556.64	710.88	No
9/29/2017	94.20	141.67	245.88	295.11	394.67	493.91	556.64	710.88	No
10/28/2017	94.20	141.67	245.88	295.11	394.67	493.91	556.64	710.88	No
11/19/2017	94.20	141.67	245.88	295.11	394.67	493.91	556.64	710.88	No
10/8/2018	94.20	141.68	245.89	295.11	394.67	493.91	556.64	710.88	No
10/9/2019	94.29	141.77	245.98	295.21	394.77	494.00	REMOVED	710.97	SEE NOTE
Difference									

Control point for this survey has been bumped by large equipment, new baseline started. Differential between monuments indicates no movement.



WARE SURVEYING, L.L.C.

1344 North 1000 West – Price,
 UT 84501
 Office: 435-820-4335



UtahAmerican Energy

West Ridge Mine

Grassy Trail Reservoir

GPS Survey Data

Estimated vertical accuracy ~ 0.08'+/-

10/9/2019

STATION	12	13	14	MID	TOE
NORTHING	38,509.85	38,555.42	38,610.87	38,828.21	38,719.59
EASTING	37,047.46	37,064.56	37,099.85	37,580.00	37,664.94
GPS survey date.					
September 2004	7789.87	7771.43	7739.26		
November 2004	7789.84	7771.39	7739.21		
August 2005	7789.75	7771.30	7739.13		
April 2006	7789.46	7771.02	7738.83		
October 2006	7789.39	7770.95	7738.66		
May 2007	7789.45	7771.00	7738.77		
October 2007	7789.45	7771.01	7738.76		
May 2008	7789.57	7771.10	7738.78	7565.52	7515.69
7/13/2008	7789.54	7771.12	7738.82	7565.54	7515.68
8/29/2008	7789.51	7771.08	7738.75	7565.51	7515.63
9/27/2008	7789.49	7771.05	7738.79	7565.52	7515.66
11/24/2008	7789.52	7771.09	7738.76	7565.54	7515.67
3/31/2009	7789.52	7771.07	7738.74	7565.55	7515.65
4/27/2009	7789.50	7771.05	7738.71	7565.53	7515.64
5/29/2009	7789.39	7771.01	7738.72	7565.48	7515.62
6/28/2009	7789.44	7771.08	7738.71	7565.50	7515.63
8/6/2009	7789.49	7771.12	7738.68	7565.49	7515.64
9/9/2009	7789.50	7771.10	7738.67	7565.51	7515.66
10/25/2009	7789.48	7771.11	7738.70	7565.50	7515.67
11/20/2009	7789.49	7771.10	7738.69	7565.49	7515.65
4/15/2010	7789.35	7770.99	7738.80	7565.49	7515.66
5/26/2010	7789.32	7770.91	7738.84	7565.50	7515.66
6/24/2010	7789.36	7770.96	7738.74	7565.46	7515.64
7/22/2010	7789.33	7770.93	7738.75	7565.48	7515.64
9/2/2010	7789.32	7770.91	7738.75	7565.47	7515.64
10/15/2010	7789.34	7770.93	7738.76	7565.49	7515.66
11/18/2010	7789.33	7770.92	7738.73	7565.49	7515.65
5/5/2011	7789.44	7770.93	7738.70	7565.46	7515.62
6/3/2011	7789.46	7770.99	7738.72	7565.50	7515.61
7/21/2011	7789.40	7770.96	7738.75	7565.47	7515.64
8/29/2011	7789.36	7770.96	7738.74	7565.49	7515.62
10/4/2011	7789.33	7770.95	7738.78	7565.48	7515.65
11/7/2011	7789.38	7770.92	7738.77	7565.48	7515.63
10/5/2012	7789.35	7770.91	7738.78	7565.47	7515.62
10/22/2013	7789.37	7770.95	7738.79	7565.47	7515.65
11/19/2014	7789.36	7770.92	7738.78	7565.49	7515.63
9/10/2015	7789.63	7771.15	7739.08	7565.52	7515.65
9/24/2016	7789.54	7771.10	7738.91	7565.51	7515.62
11/29/2016	7789.50	7771.02	7738.97	7565.48	7515.63
5/31/2017	7789.54	7771.07	7738.96	7565.50	7515.65
6/24/2017	7789.49	7771.05	7738.99	7565.47	7515.65
7/30/2017	7789.56	7771.08	7739.03	7565.49	7515.64
8/18/2017	7789.54	7771.10	7739.01	7565.49	7515.66
9/29/2017	7789.48	7771.02	7738.90	7565.50	7515.68
10/28/2017	7789.56	7771.06	7738.94	7565.48	7515.65
11/19/2017	7789.51	7771.03	7738.99	7565.49	7515.59
10/8/2018	7789.44	7771.07	7738.96	7565.51	7515.62
10/9/2019	7789.49	7771.02	7738.92	7565.44	7515.68
Difference	-0.05	0.05	0.04	0.07	-0.06



WARE SURVEYING, L.L.C.

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