



**ANDALEX**  
**RESOURCES, INC.**

P.O. Box 910, 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: Andalex Resources, Inc. C/007/019  
T20-001 2019 Annual Report

Dear Mr. Christensen,

Please find attached everything needed to complete the annual report for 2019.

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

Sincerely,

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Karin Madsen  
Environmental Permit Engineer  
UtahAmerican Energy, Inc.

# APPLICATION FOR PERMIT PROCESSING

<input type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input checked="" type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: ACT/007/019
Title of Proposal: T20-001 2019 Annual Report						Centennial Coal Mine
						Permittee: UtahAmerican Energy, Inc.

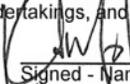
Description, include reason for application and timing required to implement:

**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

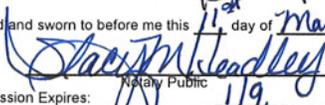
<input type="checkbox"/> Yes	<input type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres decrease.
<input type="checkbox"/> Yes	<input type="checkbox"/> No	2. Is the application submitted as a result of a Division Order? DO #
<input type="checkbox"/> 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.** In PDF Format

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  
 Karin Madsen - Enviro. Permitting Eng./ 3-11-2020

Subscribed and sworn to before me this 11<sup>th</sup> day of March 2020.

  
 Stacy M Headley  
 Notary Public  
 My Commission Expires: 119 2023  
 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	Andalex Resources Inc	Mine Name	Centennial Mine
Permit Number	C/007/0019	Permit Expiration Date	1-4-22
Operator Name	Andalex Resources	Phone Number	+1 (435) 888-4000
Mailing Address	PO Box 910	Email	kmadsen@coalsource.com
City	East Carbon		
State	UT	Zip Code	84520

## DOGM 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 checked="" type="checkbox"/> Not Required	
Impoundments	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required	Annual Pond Certifications included
Other:		

## OPERATOR COMMENTS

Tower Mine was inactive during 2019.

## REVIEWER COMMENTS

Met Requirements  Did Not meet Requirements



# 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: SAGE GROUSE NEST SITE EVALUATION**

**Objective:** Prior to development of the well site, a Sage Grouse nest site evaluation will be conducted by a knowledgeable wildlife biologist. If nests are located, an alternative drill site location will be determined.

**Frequency:** Based on the need to drill additional de-gas wells.

**Status:** Required in future if new de-gas wells are proposed.

**Reports:** Send with application

**Citation:** Appendix X, Chapter 3, page 3-5, paragraph 1

## **Title: RECLAMATION SUCCESS**

**Objective:** Determine reclamation success.

**Frequency:** Reclaimed areas will be qualitatively monitored monthly for the first two growing seasons following reclamation. Quantitative veg analysis will be completed in years 5, 9 and 10. In year 7, a consultation with DOGM will determine if an additional inventory might be necessary.

**Status:** Check at reclamation.

**Reports:** When monitoring commences.

**Citation:** Chapter 3, page 3-17

## **Title: RECLAMATION ENHANCEMENT MEASURES**

**Objective:** Andalex will consult with the Division of Wildlife Resources, at the time of final reclamation, to determine exactly what reclamation designs, planting arrangements, and artificial structures would best enhance wildlife habitat.

**Frequency:** Once

**Status:** Will be required prior to final reclamation

**Reports:** Report reclamation plans to Division for incorporation into MRP

**Citation:** Volume 1, Chapter 3, page 3-23, paragraph 1

## **Title: SEALING OF WELLS**

**Objective:** Permanent closure of wells using measures required by the Division to prevent access and contamination of groundwater.

**Frequency:** When wells are no longer needed.

**Status:** Throughout mining

**Reports:** Report in Annual report the year when wells are completed.

**Citation:** Gob Gas Vent Wells: Appendix X R645-301.542.700 All other exploration and water wells: MRP - 301.529.100 301.755

# 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

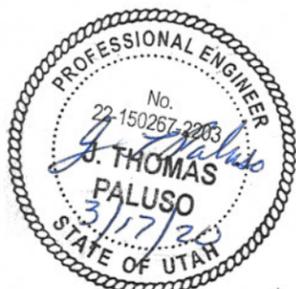
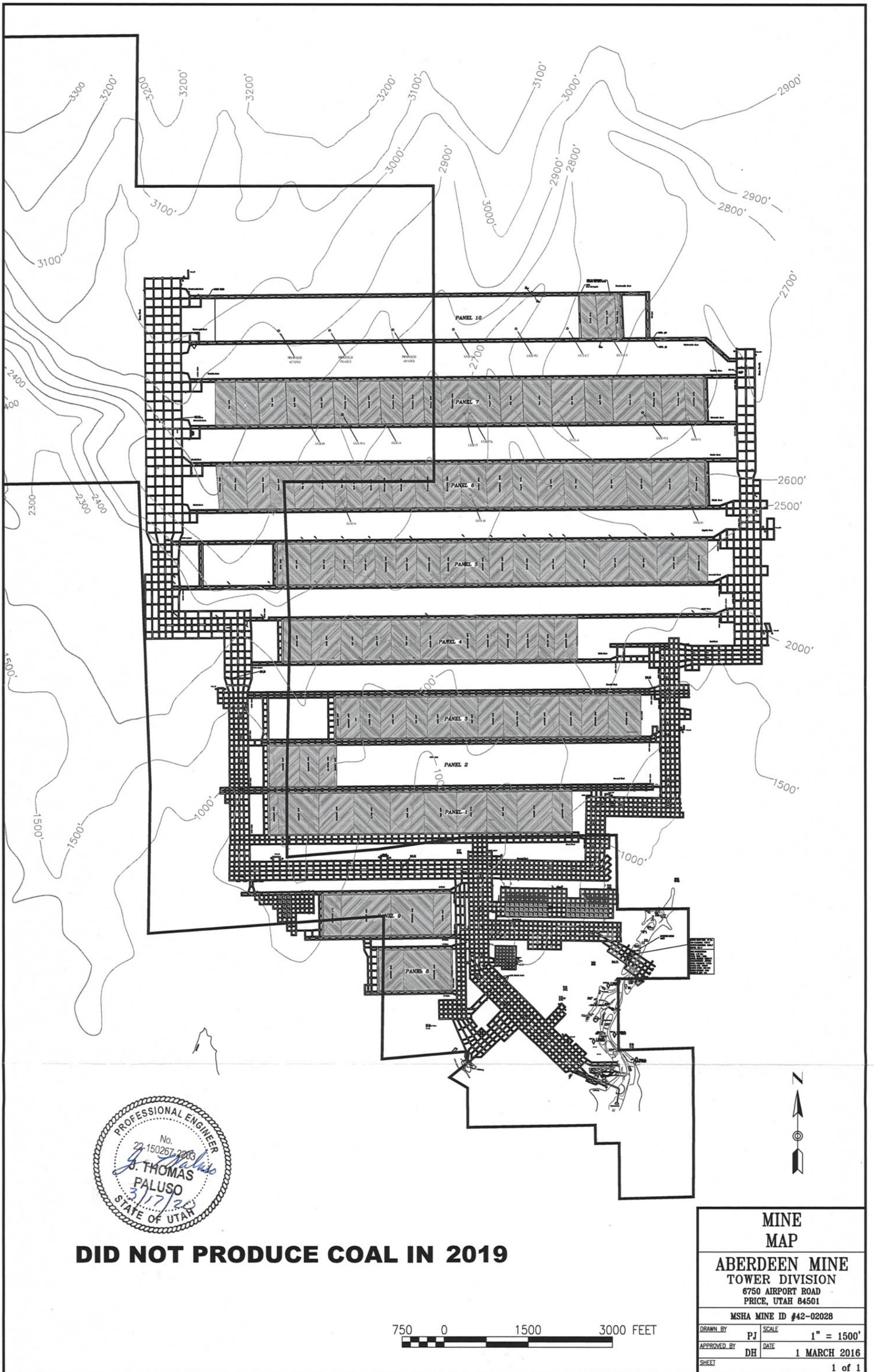
Did Not Meet Requirements

# 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.

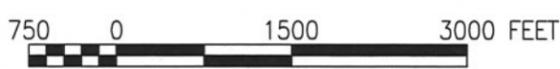
Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Mine Map	included	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**REVIEWER COMMENTS**     Met Requirements                       Did Not Meet Requirements



**DID NOT PRODUCE COAL IN 2019**

<b>MINE MAP</b>	
<b>ABERDEEN MINE TOWER DIVISION</b>	
6750 AIRPORT ROAD PRICE, UTAH 84501	
MSHA MINE ID #42-02028	
DRAWN BY	PJ
APPROVED BY	DH
SHEET	1 of 1
SCALE	1" = 1500'
DATE	1 MARCH 2016



Permit Number	C/007/0019	Report Date	12-26-19
Mine Name	Tower Mine		
Company Name	UtahAmerican Energy, Inc.		
Impoundment Identification	Impoundment Name	B, C & E	
	Impoundment Number	None	
	UPDES Permit Number	UTG040029	
	MSHA ID Number	NA	

**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		

1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

Ponds B, C & E

No instability, structural weaknesses, or visible hazards were observed at time of inspection.

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 style="text-align: center;">Sediment Elevations (Per Approved MRP):</p> <table style="width:100%; border: none;"> <tr> <td style="width:33%;">Cell B1 (South Cell)</td> <td style="width:33%;">Cell B2</td> <td style="width:33%;">Cell B3</td> </tr> <tr> <td style="text-align: center;">Max Water Level 7077'</td> <td style="text-align: center;">60% 7081'</td> <td style="text-align: center;">Max Water and Sed. Level 7087'</td> </tr> <tr> <td style="width:33%;">Cell B4 (North Cell)</td> <td style="width:33%;">Pond C</td> <td style="width:33%;">Pond E</td> </tr> <tr> <td style="text-align: center;">Max Water and Sed Level 7091'</td> <td style="text-align: center;">60% 7046.9' 100% 7048.7'</td> <td style="text-align: center;">60% 6947.5' 100% 6949.3'</td> </tr> </table> <p>Cleaning of all B Cells must take place when sediment level reaches 7081' in Cell B2.</p> <p>See section 5 for current sediment levels.</p>	Cell B1 (South Cell)	Cell B2	Cell B3	Max Water Level 7077'	60% 7081'	Max Water and Sed. Level 7087'	Cell B4 (North Cell)	Pond C	Pond E	Max Water and Sed Level 7091'	60% 7046.9' 100% 7048.7'	60% 6947.5' 100% 6949.3'
Cell B1 (South Cell)	Cell B2	Cell B3											
Max Water Level 7077'	60% 7081'	Max Water and Sed. Level 7087'											
Cell B4 (North Cell)	Pond C	Pond E											
Max Water and Sed Level 7091'	60% 7046.9' 100% 7048.7'	60% 6947.5' 100% 6949.3'											

3. Principle and emergency spillway elevations.

Pond (B2 Cell 3)	Pond (C)	Pond (E)
Principle 7081.0' (Bottom of the culvert)	Principle 7053.1' Emergency 7056.05'	Principle 6957.6' Emergency 6958.6'

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.

Sediment markers visible in ponds B, E and C.

Pond E has approximately 2' of ice. Snow is covering entire site. Pond C has no water accumulated.

B ponds has no water accumulated at time of inspection.

- No discharge has occurred from the pond UPDES, therefore no samples were taken.
- No observable problems exist at the inlets or outlets.
- No observable conditions were apparent that could affect the stability or function of the structure as a whole.
- Vegetation on out-slopes of pond embankments growing well.

Decant visible.

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 change has occurred to the structure that would affect its stability or function.

None of the ponds are discharging, and no discharge is anticipated within the near future.

**Current Sediment Levels (approximate):**

Ware Surveying recently surveyed the ponds, but has not reported his data yet. Sediment levels at time of last survey were:

Pond (B cell 2)	Pond (C)	Pond (E)
7075.4	7046.7'	6945.2

**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



**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

**TOWER RESOURCES, INC.**  
2019 RTK GPS SUBSIDENCE SURVEY

11/15/2019

STATION	NORTHING (FEET)	EASTING (FEET)	2003 ELEVATION	2007 ELEVATION	2008 ELEVATION	2009 ELEVATION	2010 ELEVATION	2011 ELEVATION	2012 ELEVATION	2013 ELEVATION	2014 ELEVATION	2015 ELEVATION	2016 ELEVATION	2017 ELEVATION	2018 ELEVATION	2019 ELEVATION	2018-2019	NOTES
Rebar on ridge	505,141.92	2,217,261.07	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	8,241.62	0.00	CONTROL
Yellow Rebar	507,073.59	2,223,128.18	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	8,534.90	0.00	CONTROL
S-10	507,824.28	2,217,196.61	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	8,594.59	0.00	CONTROL
S16	508,650.48	2,210,725.70	8,809.53	8,809.64	8,809.75	8,809.71	8,809.72	8,809.70	8,809.68	8,809.69	8,809.68	8,809.70	8,809.73	8,809.75	8,809.72	8,809.68	0.04	---
S17	508,190.63	2,213,802.51	8,624.48	8,624.43	8,624.43	8,624.44	8,624.43	8,624.45	8,624.46	8,624.44	8,624.46	8,624.48	8,624.45	8,624.46	8,624.48	8,624.42	0.06	---
99-1	508,942.12	2,215,063.90	8,572.35	8,572.13	8,572.14	8,572.12	8,572.14	8,572.13	8,572.13	8,572.12	8,572.13	8,572.14	8,572.13	8,572.13	8,572.12	8,572.14	-0.02	---
99-2	509,023.29	2,218,624.20	8,551.12	8,551.01	8,550.98	8,550.96	8,551.00	8,550.98	8,550.97	8,550.99	8,550.97	8,550.97	8,550.99	8,550.97	8,551.00	8,551.03	-0.03	---
S20	510,331.29	2,217,642.56	8,574.26	8,573.87	8,573.78	8,573.77	8,573.78	8,573.82	8,573.79	8,573.80	8,573.79	8,573.81	8,573.81	8,573.78	8,573.78	8,573.76	0.02	---
S21	510,581.75	2,214,956.87	8,489.90	8,489.22	8,489.35	8,489.39	8,489.48	8,489.45	8,489.41	8,489.42	8,489.41	8,489.44	8,489.40	8,489.42	8,489.43	8,489.39	0.04	---
S32	509,739.02	2,218,933.12	8,548.93	8,548.80	8,548.81	8,548.79	8,548.77	8,548.80	8,548.81	8,548.80	8,548.81	8,548.82	8,548.83	8,548.80	8,548.83	8,548.87	-0.04	---
G-17	513,692.46	2,210,938.01	---	8,488.24	8,488.23	8,488.22	8,488.24	8,488.25	8,488.23	8,488.23	8,488.23	8,488.26	8,488.24	8,488.26	8,488.24	8,488.24	0.00	---
G-12	513,184.13	2,216,526.83	---	8,311.00	8,311.02	8,311.00	8,311.01	8,311.02	8,311.03	8,311.01	8,311.03	8,311.03	8,311.01	8,311.01	8,311.01	8,311.00	0.01	---
E1/4 36	513,118.57	2,214,340.00	---	8,280.66	8,280.65	8,280.61	8,280.61	8,280.64	8,280.60	8,280.62	8,280.60	8,280.59	8,280.60	8,280.62	8,280.65	8,280.61	0.04	Section cor.
S1/4 36	510,454.70	2,211,696.79	---	8,606.46	8,606.43	8,606.44	8,606.43	8,606.43	8,606.43	8,606.44	8,606.43	8,606.40	8,606.38	8,606.41	8,606.42	8,606.41	0.01	Section cor.
<b>West Side Subsidence Line, Set in 2007</b>																	0.00	
1	509,702.03	2,211,401.87	---	8,702.64	8,702.59	8,702.60	8,702.61	8,702.62	8,702.63	8,702.61	8,702.63	8,702.64	8,702.60	8,702.62	8,702.59	8,702.61	-0.02	W. side line
2	509,802.00	2,211,401.17	---	8,693.70	8,693.69	8,693.69	8,693.69	8,693.67	8,693.68	8,693.70	8,693.68	8,693.68	8,693.66	8,693.71	8,693.70	8,693.71	-0.01	W. side line
3	509,905.87	2,211,391.89	---	8,684.35	8,684.35	8,684.36	8,684.34	8,684.35	8,684.37	8,684.37	8,684.37	8,684.35	8,684.36	8,684.35	8,684.31	8,684.33	-0.02	W. side line
4	510,003.89	2,211,387.55	---	8,673.73	8,673.77	8,673.77	8,673.75	8,673.75	8,673.78	8,673.75	8,673.78	8,673.77	8,673.74	8,673.74	8,673.76	8,673.75	0.01	W. side line
5	510,100.53	2,211,381.55	---	8,663.92	8,663.94	8,663.94	8,663.92	8,663.94	8,663.92	8,663.94	8,663.92	8,663.90	8,663.93	8,663.90	8,663.93	8,663.94	-0.01	W. side line
6	510,205.72	2,211,424.42	---	8,646.43	8,646.50	8,646.49	8,646.51	8,646.53	8,646.54	8,646.52	8,646.54	8,646.56	8,646.55	8,646.59	8,646.59	8,646.57	0.02	W. side line
7	510,305.04	2,211,417.01	---	8,635.74	8,635.70	8,635.68	8,635.70	8,635.69	8,635.72	8,635.70	8,635.72	8,635.73	8,635.71	8,635.68	8,635.69	8,635.67	0.02	W. side line
8	510,401.40	2,211,415.19	---	8,625.82	8,625.81	8,625.80	8,625.81	8,625.80	8,625.83	8,625.81	8,625.83	8,625.77	8,625.79	8,625.78	8,625.80	8,625.76	0.04	W. side line
9	510,505.66	2,211,402.20	---	8,614.38	8,614.39	8,614.39	8,614.38	8,614.38	8,614.39	8,614.37	8,614.39	8,614.39	8,614.40	8,614.37	8,614.40	8,614.41	-0.01	W. side line
10	510,608.91	2,211,401.63	---	8,603.45	8,603.45	8,603.46	8,603.45	8,603.47	8,603.46	8,603.47	8,603.46	8,603.48	8,603.51	8,603.50	8,603.49	8,603.47	0.02	W. side line
11	510,709.16	2,211,393.00	---	8,596.31	8,596.29	8,596.29	8,596.30	8,596.28	8,596.30	8,596.30	8,596.30	8,596.31	8,596.26	8,596.32	8,596.28	8,596.25	0.03	W. side line
12	510,798.94	2,211,380.99	---	8,588.76	8,588.74	8,588.72	8,588.72	8,588.75	8,588.73	8,588.74	8,588.73	8,588.75	8,588.72	8,588.74	8,588.73	8,588.77	-0.04	W. side line
13	510,898.92	2,211,375.38	---	8,576.09	8,576.10	8,576.09	8,576.09	8,576.11	8,576.09	8,576.12	8,576.09	8,576.07	8,576.07	8,576.07	8,576.09	8,576.05	0.04	W. side line
14	511,010.59	2,211,370.03	---	8,561.49	8,561.50	8,561.47	8,561.49	8,561.47	8,561.48	8,561.50	8,561.48	8,561.50	8,561.47	8,561.51	8,561.49	8,561.50	-0.01	W. side line
15	511,112.19	2,211,366.93	---	8,548.90	8,548.83	8,548.81	8,548.81	8,548.82	8,548.80	8,548.83	8,548.80	8,548.80	8,548.81	8,548.82	8,548.79	8,548.83	-0.04	W. side line
16	511,228.34	2,211,359.45	---	8,543.69	8,543.65	8,543.61	8,543.63	8,543.63	8,543.62	8,543.63	8,543.62	8,543.66	8,543.62	8,543.65	8,543.65	8,543.63	0.02	W. side line
17	511,338.04	2,211,366.01	---	8,542.64	8,542.59	8,542.57	8,542.60	8,542.59	8,542.58	8,542.57	8,542.58	8,542.59	8,542.57	8,542.56	8,542.57	8,542.55	0.02	W. side line
18	511,437.15	2,211,398.56	---	8,535.12	8,535.08	8,535.06	8,535.10	8,535.08	8,535.09	8,535.07	8,535.09	8,535.08	8,535.05	8,535.08	8,535.07	8,535.07	0.00	W. side line
19	511,553.98	2,211,419.93	---	8,526.12	8,526.05	8,526.02	8,526.04	8,526.05	8,526.03	8,526.06	8,526.03	8,526.06	8,526.07	8,526.04	8,526.01	8,526.05	-0.04	W. side line
20	511,693.22	2,211,455.79	---	8,517.15	8,517.08	8,517.07	8,517.06	8,517.11	8,517.12	8,517.10	8,517.12	8,517.07	8,517.09	8,517.13	8,517.11	8,517.08	0.03	W. side line
21	511,807.12	2,211,469.85	---	8,512.56	8,512.50	8,512.49	8,512.47	8,512.52	8,512.50	8,512.50	8,512.50	8,512.53	8,512.52	8,512.54	8,512.54	8,512.55	-0.01	W. side line
22	511,915.39	2,211,476.19	---	8,510.95	8,510.89	8,510.90	8,510.87	8,510.89	8,510.91	8,510.89	8,510.91	8,510.94	8,510.88	8,510.86	8,510.89	8,510.89	0.00	W. side line
23	512,092.42	2,211,408.58	---	8,505.00	8,504.98	8,504.98	8,504.93	8,504.95	8,504.98	8,504.95	8,504.98	8,504.96	8,504.99	8,504.97	8,505.00	8,505.01	-0.01	W. side line
24	512,192.21	2,211,384.74	---	8,495.80	8,495.72	8,495.71	8,495.73	8,495.73	8,495.71	8,495.72	8,495.71	8,495.73	8,495.66	8,495.69	8,495.71	8,495.67	0.04	W. side line
25	512,292.93	2,211,375.13	---	8,483.93	8,483.94	8,483.94	8,483.94	8,483.92	8,483.92	8,483.95	8,483.92	8,483.92	8,483.96	8,483.92	8,483.95	8,483.92	0.03	W. side line
26	512,408.97	2,211,358.60	---	8,471.08	8,471.04	8,471.05	8,471.04	8,471.06	8,471.07	8,471.05	8,471.07	8,471.07	8,471.06	8,471.05	8,471.04	8,471.04	0.00	W. side line
27	512,515.37	2,211,308.35	---	8,462.95	8,462.90	8,462.89	8,462.91	8,462.92	8,462.90	8,462.91	8,462.90	8,462.93	8,462.88	8,462.90	8,462.87	8,462.89	-0.02	W. side line
28	512,650.10	2,211,333.27	---	8,449.75	8,449.72	8,449.72	8,449.73	8,449.73	8,449.74	8,449.72	8,449.74	8,449.72	8,449.77	8,449.76	8,449.76	8,449.79	-0.03	W. side line
29	512,873.07	2,211,295.54	---	8,430.09	8,430.05	8,430.03	8,430.06	8,430.04	8,430.04	8,430.06	8,430.04	8,430.05	8,430.07	8,430.07	8,430.04	8,430.05	-0.01	W. side line
30	512,993.25	2,211,287.69	---	8,428.71	8,428.68	8,428.69	8,428.74	8,428.74	8,428.75	8,428.71	8,428.75	8,428.74	8,428.73	8,428.76	8,428.70	8,428.73	-0.03	W. side line
31	513,091.16	2,211,285.96	---	8,427.18	8,427.16	8,427.15	8,427.18	8,427.20	8,427.20	8,427.19	8,427.20	8,427.21	8,427.20	8,427.18	8,427.16	8,427.19	-0.03	W. side line
32	513,217.13	2,211,297.36	---	8,423.25	8,423.21	8,423.20	8,423.24	8,423.23	8,423.21	8,423.22	8,423.21	8,423.22	8,423.24	8,423.21	8,423.20	8,423.22	-0.02	W. side line

## Gob Vent Hole Status, Centennial Mine 2019

The following report is for the Centennial Mine Gob Vent Hole (GVH) project. It is to be noted that the vertical CMP vent pipes present on most of the GVH sites are part of the collection system, which is the responsibility of OSO/Liberty Pioneer, as outlined in the Operating Agreement. The compressor station located adjacent to GVH pad #9 is also part of the collection system, and is a separate entity from the GVH Project.

### **GVH #1**

Drilled in 2005. Because GVH #1 was never included in the Operating agreement, and this hole was not considered necessary for future ventilation of the mine operation, it was plugged and the surface pad was reclaimed in 2009. The vegetation inventory was conducted and the GVH hole can now qualify for Phase II Bond Release.

### **GVH #2**

Never drilled, not permitted, no disturbance, eliminated from consideration.

### **GVH #3**

Drilled in 2005. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

### **GVH #4**

Drilled in 2005. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

### **GVH #5**

Drilled in 2005. Because GVH #5 was never included in the agreement, and this hole was not considered necessary for future ventilation of the mine operation, it was plugged and the surface pad was reclaimed in 2009. The vegetation inventory was conducted and the GVH hole can now qualify for Phase II Bond Release.

### **GVH #5A**

Drilled in 2006. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

### **GVH #5B**

Permitted but never drilled, no pad was ever created. Eliminated from consideration. However was considered in the bonding.

## **GVH #6**

Drilled in 2005. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

## **GVH #7**

Drilled in 2006. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

## **GVH #7A**

Drilled in 2006 from GVH pad #7. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

## **GVH #8**

Drilled in 2006. Hole has drill collar with valves. Site has been reduced, fenced, top-soiled, pocked, and seeded.

## **GVH #8A**

Drilled in 2006. Currently capable of production. Hole has drill collar with valves, and vertical CMP drain. Site has been fenced, reduced, top-soiled, pocked, and seeded.

## **GVH #9**

Drilled in 2006. Currently capable of production. Hole has drill collar and a blind flange was installed in June 2018 to repair leak. Has vertical CMP drain, and condenser-cooler structures. Site has been fenced, top-soiled, pocked, and seeded.

## **GVH #10**

Permitted but never drilled, no pad preparation. Eliminated from consideration, however was considered in the bonding.

## **GVH 10A**

Permitted by never drilled, no pad preparation. Eliminated from consideration.

## **GVH #11**

Drilled in 2008. Andalex equipment removed and well was plugged by Boart Longyear in 2019. The surface pad was reclaimed in 2019. Seeding will occur as soon as accessible in 2020, and will then be eligible for Phase II Bond Release.

**GVH #11A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #12**

Drilled in 2008. This GVH is no longer needed for future ventilation and was never tied into the ventilation network: Plugged in July of 2014, as per the approved BLM plugging plan. The collar and all valves were removed and the pipe cut off at 18" below ground level. This GVH was fenced and re-seeded to augment existing vegetation in September of 2014. The vegetation inventory was conducted and the GVH can now qualify for Phase II Bond Release.

**GVH #12A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #13**

Drilled in 2008. This GVH is no longer needed for future ventilation and was never tied into the ventilation network: Plugged in July of 2014, as per the approved BLM plugging plan. The collar and all valves were removed and the pipe cut off at 18" below ground level. This GVH was fenced and re-seeded to augment existing vegetation in September of 2014. All Andalex equipment is removed from the site. Eligible for Phase II Bond Release.

**GVH #13A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #14**

Drilled in 2008. This GVH is no longer needed for future ventilation and was never tied into the ventilation network: Plugged in July of 2014, as per the approved BLM plugging plan. The collar and all valves were removed and the pipe cut off at 18" below ground level. This GVH was fenced and re-seeded to augment existing vegetation in September of 2014. The vegetation inventory was conducted and the GVH can now qualify for Phase II Bond Release.

**GVH #14A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #15**

The drilling pad was prepared but the hole was never drilled. This GVH was reduced, fenced and re-seeded to augment existing vegetation in September of 2014. All Andalex equipment has been removed from the site, and the site is now eligible for Phase II Bond Release.

**GVH #15A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #16**

The drilling pad was prepared but the hole was never drilled. This GVH was fenced and re-seeded to augment existing vegetation in September of 2014. All Andalex equipment has been removed from the site, and the site is now eligible for Phase II Bond Release.

**GVH #16A**

Proposed, conditionally approved but never drilled. No bonding.

**GVH #17**

The drilling pad was prepared but the hole was never drilled. This GVH was reduced, fenced and re-seeded to augment existing vegetation in September of 2014. All Andalex equipment has been removed from the site, and the site is now eligible for Phase II Bond Release.