



3/28/2017

Daron R. Haddock
Coal Program Manager

Subject: 2016 Annual Report Submittal for Castle Valley Mining LLC Bear Canyon Mine, C/015/0025

Dear Mr. Haddock:

The following 2016 Annual Report items are attached in this e-mail. PE certified Projections maps to follow of the Tank & Bear/Blind seams via ground mail.

Impoundments: Reports provided in e-mail in PDF format.

Subsidence Map & Data: This map shows all of the surveyed monitoring locations in relationship to the underground workings in PDF format. Survey monitored data is attached as well in PDF format in e-mail.

Projected Mining maps: These maps of the Tank & Bear seams show more than five years of projected mining in PDF format. PE certified maps to follow via ground mail.

Wildlife and awareness program: I would be glad to have someone from the Division come and talk to us. I have been incorporating this into our quarterly training. Our staff is well aware of wildlife protection here at the mining facility.

Identification of new cultural resources: We have not discovered any new cultural resources on the mining facility. If found the site will not be disturbed and Castle Valley Mining will contact the Division of Oil Gas and Mining.

Raptor Surveys: The 2016 Raptor survey was completed on 3/16/2016-5/6/2016 by company representative Jaren Jorgensen and Joe Via & Mindi Lundburg of EIS. Map & data provided in e-mail.

If you have any questions, please call me (435) 687-2178

Sincerely,

Jaren Jorgensen
Engineer

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	Rhino Energy	Mine Name	Bear Canyon Mine
Permit Number	C/015/0025	Permit expiration Date	2020-11-02
Operator Name	CASTLE VALLEY MINING	Phone Number	+1 (435) 687-2178
Mailing Address	BOX 475	Email	jjorgensen@rhinolp.com
City	HUNTINGTON		
State	UTAH	Zip Code	84513

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	Separate attachment in this e-mail marked CVM IMPOUNDMENTS 2016
Other:		

OPERATOR COMMENTS

CASTLE VALLEY MINING DOES NOT HAVE EXCESS SPOIL PILES OR REFUGE PILES. IMPOUNDMENT PONDS A,B,C,D ARE ATTACHED AND CERTIFIED. MARKED CVM IMPOUNDMENTS 2016

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: Determine subsidence effects from mining

Frequency: Annually

Status: On going

Reports: Submit surveyed monitoring data to the Division annually. **Please include a map showing the location of the subsidence points in relationship to the underground workings.**

Citation: MRP Chapter 5, Appendix 5C, pg 5c-8

Operator Comments

SUBSIDENCE SURVEY COMPLETED IN NOVEMBER 2016 BY WARE SURVEYING. ATTACHMENT MARKED CVM SUBSIDENCE 2016

Reviewer Comments Met Requirements Did Not Meet Requirements

Title: WILDLIFE AWARENESS PROGRAM

Objective: To inform employees of the wildlife and the need for protection in the mine facilities and access road areas.

Frequency: As needed.

Status: Ongoing.

Reports: Summary in Annual Report

Citation: Chapter three, page 3-45, paragraph 2.

Operator Comments

WE HAVE ANNUAL TRAINING HERE AT THE MINE. WILDLIFE AWARENESS IS PART OF THAT PROGRAM. ALSO WE HAVE MONTHLY MEETINGS WHERE THIS IS A TOPIC AS WELL. ANY SPECIAL TRAINING DOGM IS WILLING TO GIVE US AT CASTLE VALLEY WE WILL BE WILLING TO ACCEPT.

Reviewer Comments Met Requirements

Did Not Meet Requirements

Title: IDENTIFICATION OF NEW CULTURAL RESOURCES.

Objective: If during the course of mining operations, previously unidentified cultural resources are discovered, Permittee shall ensure that the site(s) is not disturbed and shall notify the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the Permittee of necessary actions required.

Frequency: The Permittee shall implement the mitigation measures required by the Division within the time specified by the Division.

Status: Ongoing.

Reports: Annual

Citation: MRP, Chapter 4, Section 411.144, page 4-15

Operator Comments

THE IDENTIFICATION OF NEW CULTURAL RESOURCES WILL NOT BE DISTURBED AND CASTLE VALLEY MINING WILL NOTIFY DOGM. THIS IS BEING FOLLOWED ON A DAILY BASIS HERE AT CASTLE VALLEY. ANY SPECIAL TRAINING DOGM IS WILLING TO GIVE US AT CASTLE VALLEY WE WILL BE WILLING TO ACCEPT.

Reviewer Comments Met Requirements

Did Not Meet Requirements

Title: Provide WHR Topsoil Stockpile "as-built"s.

Objective: Provide an "as-built" figure of WHR Topsoil Stockpile drawing 2-2B that shows the new contours of the topsoil pile and the berm adjacent to the road.

Frequency: Upon completion of construction of the access road.

Status: Pending construction of access road

Reports: 2016 annual

Citation: Chapter 2, page 2-28

Operator Comments

2-2B As-Built drawing on file with DOGM. Stamped copy incorporated July 20, 2016. A non stamped copy included marked as WHR Topsoil Stockpile 2-2B

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: VEGETATION MONITORING PROCEDURES

Objective: Qualitative observations of revegetated areas will be made yearly throughout the ten year liability period. (See R645-301-250).

Frequency: Quantitative measurements of reclamation will be collected during years 2,3,5,9, and 10 of the same bond liability period. Any areas not achieving success will be evaluated and revegetated as needed.

Status: Begin at reclamation

Reports: Annually after reclamation

Citation: Chapter three, page 3-41, paragraph 1

Title: SEALING OF WELLS

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

Frequency: Once, as wells are no longer needed.

Status: Wells are in use until no longer needed.

Reports: Report status when mining is terminated or wells no longer needed.

Citation: MRP, Chapter 6, page 6-10.

Title: DETAILED REVEGETATION PLAN

Objective: The Operator will submit a detailed revegetation plan in the last Five year permit renewal prior to reclamation. The plan will include detailed map(s) of sufficient scale to show exact areas and methods of revegetation (i.e. drill seeding, terraces, netting, etc.) based on the best technology available and final mine site conditions.

Frequency: Once during last five year permit renewal prior to reclamation. the operator will notify the Division two weeks prior to all seeding work (interim or permanent) to allow the Division to be on site when work is done.

Status: During last permit renewal prior to reclamation.

Reports: NA

Citation: Chapter 3, page 3-46, paragraph 2.

Title: ANALYSIS FOR RE-INITIATION OF SAMPLING SITES

Objective: Notify DOGM of any reactivation of water sampling stations if mining is to occur in the following areas: Leases U-46481; U-024316; T16N R8E Secs 7,17,18,19,20; Mine #4; Mohrland area, or portal opening accessing Leases U61048 or U-61049.

Frequency: Sampling to initiate at least 6 months prior to mining these areas.

Status: Ongoing

Reports: Notify Division in Annual report in mining is to occur.

Citation: Chapter 7, p 7-49.

Title: Substitute Topsoil Testing

Objective: To Confirm the suitability of substitute topsoil prior to reclamation.

Frequency: Within 5 years prior to reclamation

Status: Future Commitment

Reports: Proposed substitute topsoil that is designated by reclamation area in Summary table 2-8 and further described in appendix 5-1 will be re-tested in the final five years of operations according to table 5O-1 and testing will include total petroleum hydrocarbons by EPA Methods 8015 and 418.1

Citation: MRP, Chapter 2, Section R645-301-241, p 2-35

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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mine Map- see comments below		<input 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

Please include a mine map with dates of when the panels are projected to be mined. The Division requires that a map showing at least five years of projected mining be provided annually.



Reviewer Comments Met Requirements

Did Not Meet Requirements

Title: IDENTIFICATION OF NEW CULTURAL RESOURCES.

Objective: If during the course of mining operations, previously unidentified cultural resources are discovered, Permittee shall ensure that the site(s) is not disturbed and shall notify the Division of Oil, Gas, and Mining. The Division, after coordination with OSM, shall inform the Permittee of necessary actions required.

Frequency: The Permittee shall implement the mitigation measures required by the Division within the time specified by the Division.

Status: Ongoing.

Reports: Annual

Citation: MRP, Chapter 4, Section 411.144, page 4-15

Operator Comments

Reviewer Comments Met Requirements

Did Not Meet Requirements

Title: RAPTOR SURVEYS

Objective: Verify presence of nesting birds, and status of nests. Raptor surveys will be conducted every year during the mine life. Include follow-up surveys if conducted.

Frequency: annually for the life of the mine.

Status: Ongoing

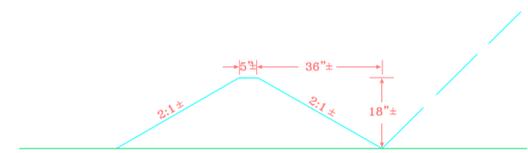
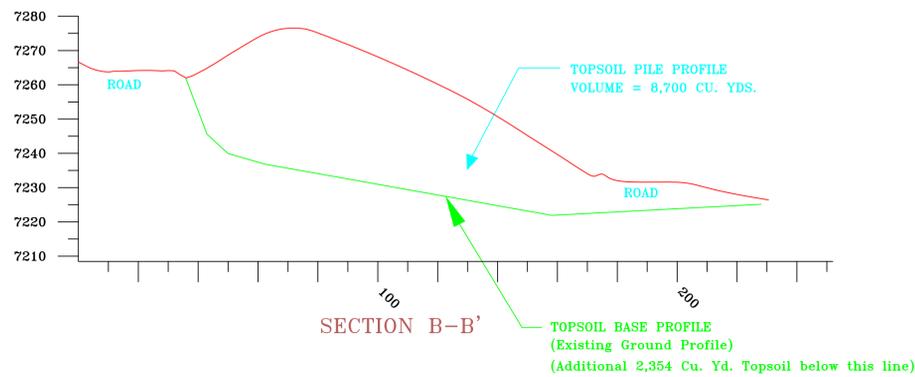
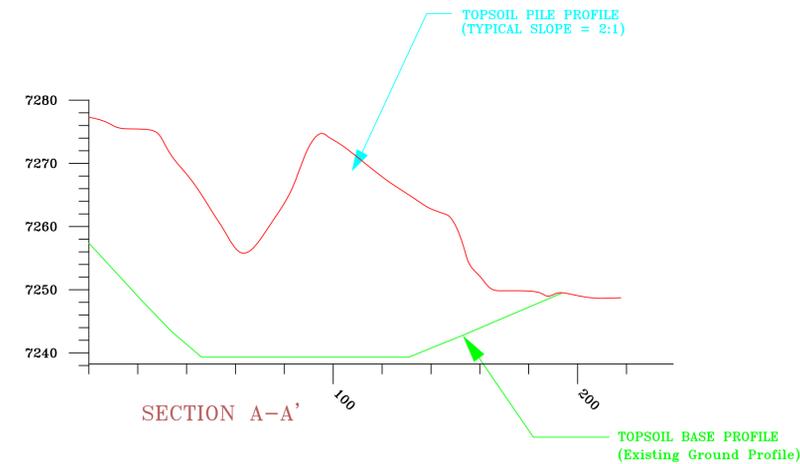
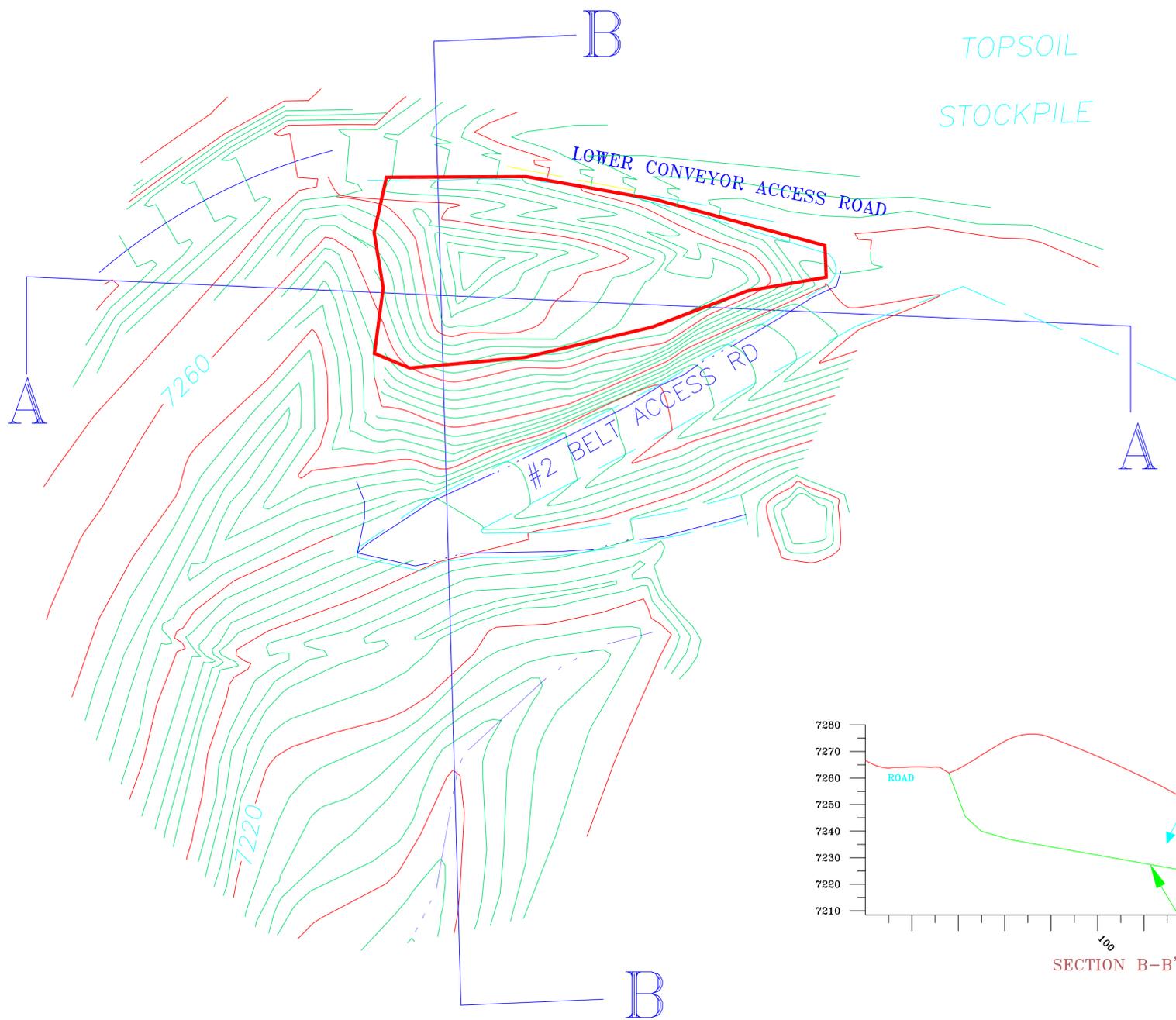
Reports: Annual

Citation: Chapter three, page 3-70, paragraph 2.

Operator Comments

SEPERATE ATTACHEMENT IN THIS E MIAL MARKED CVM RAPTOR SURVEYS CONFIDENTIAL

Reviewer Comments Met Requirements Did Not Meet Requirements



BERM TYPICAL
SCALE: 1" = 2'

NOTE: SEE SECTION 8.9.6 FOR TOPSOIL STOCKPILE DESCRIPTION
SEE SECTION 8.8.2.3 FOR TOPSOIL PROTECTION PLAN

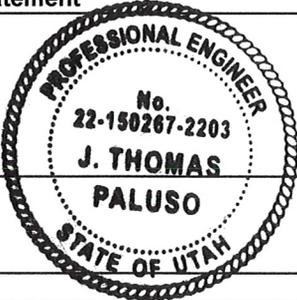
REV.	DATE	REMARKS	APPR.
1	8/01/02	Changed name from plate 8-7 to 2-2B.	12/8/05
2	5/09/10	Revised topsoil pile & road	
3			
4			
5			
6			
7			
8			
9			
10			

CO-OP MINING CO.
HUNTINGTON, UTAH

WHR TOPSOIL STOCKPILE

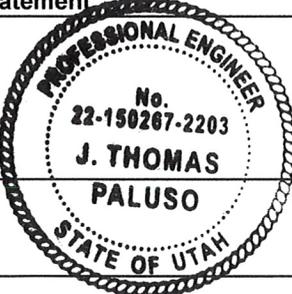
SCALE: 1" = 20' DRAWN BY: C. Reynolds DATE: 6-25-01

BEAR CANYON PLATE 2-2B

1. IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		007A	Page 1 of 2
Permit Number:	ACT/015/025	Report Date: 10/13/2016	
Mine Name:	Castle Valley Mine		
Company Name	Rhino Energy LLC		
Impoundment Identification:		Sediment Pond "A"	
	Impoundment Number:	002A	
	UPDES Permit Number:	UTG040006	
	MSHA ID Number:	42-02263, 42-02335	
IMPOUNDMENT INSPECTION			
Inspection Date:	9/28/2016		
Inspected By:	J.T. Paluso		
Reason for Inspection:	Annual Inspection		
(Annual, Quarterly or other Periodic Inspection, Critical Installation or Completion of Construction)			
1. Describe any appearances of any instability, structural weakness, or any other hazardous condition.			
The pond's dam shows no signs of structural instability or other hazardous conditions.			
Required for an impoundment which functions as a SEDIMENTATION POND	2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes and estimated average elevation of existing sediment.		
	Sediment storage capacity is 16,000 cu ft.		
	60% Cleanout Elevation: 7,086'		
	100% Sediment storage elevation: 7,087.9'		
	Existing sediment elevation: Approx. average sediment elevation 7,084.3'		
	3. Principle and emergency spillway elevations		
	Principle spillway elevation: 7,088'		
	Emergency spillway elevation: 7,094.5'		
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 out slopes of embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.			
Pond Water elevation is 7087.0'. Vegetative cover looked good with no signs of erosion. Recent heavy precipitation occurred.			
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.			
Principal spillway appears to have been bent during the removal of sediment in May 2010. This structure is still working properly. Bent pipe should be straightened to preserve water discharge elevations. Due to high water elevation, the exact sediment level can not be determined. Sediment has recently been removed.			
Qualified 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: <i>J.T. Paluso</i>	Date: 10/13/16	

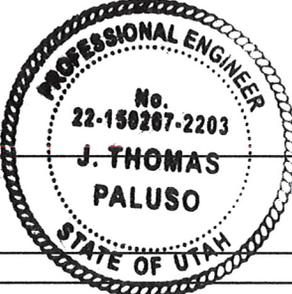


SEDIMENT POND A

1. IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		007A	Page 1 of 2
Permit Number:	ACT/015/025	Report Date: 10/13/2016	
Mine Name:	Castle Valley Mine		
Company Name	Rhino Energy LLC		
Impoundment Identification:	Impoundment Name	Sediment Pond "B"	
	Impoundment Number:	003A	
	UPDES Permit Number:	UTG040006	
	MSHA ID Number:	42-02263, 42-02335	
IMPOUNDMENT INSPECTION			
Inspection Date:	9/28/2016		
Inspected By:	J.T. Paluso		
Reason for Inspection:	Annual Inspection		
(Annual, Quarterly or other Periodic Inspection, Critical Installation or Completion of Construction)			
1. Describe any appearances of any instability, structural weakness, or any other hazardous condition.			
The pond's dam shows no signs of structural instability or other hazardous conditions.			
Required for an impoundment which functions as a SEDIMENTATION POND	2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes and estimated average elevation of existing sediment.		
	Sediment storage capacity is approximately 5,000 cu ft. Sediment has been removed.		
	60% Cleanout Elevation: 7,062.9'		
	100% Sediment storage elevation: 7,063.4'		
	Existing sediment elevation: Approx. average sediment elevation 7,061.7'		
	3. Principle and emergency spillway elevations		
	Principle spillway elevation: 7,064.9'		
	Emergency spillway elevation: 7066.9'		
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 out slopes of embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.			
Pond has water. Vegetative cover looked good with no signs of erosion. Recent heavy precipitation occurred.			
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.			
Due to high water elevation, the exact sediment level can not be determined. Sediment has recently been removed. Water elevation is 7064.2'.			
Qualified 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: <i>J. Paluso</i>		Date: <i>10/13/16</i>

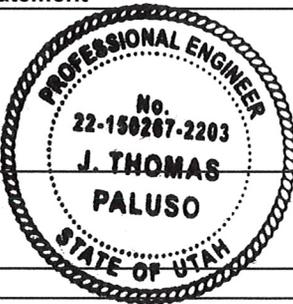


SEDIMENT POND B

1. IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		007A	Page 1 of 2
Permit Number:	ACT/015/025	Report Date: 10/13/2016	
Mine Name:	Castle Valley Mine		
Company Name	Rhino Energy LLC		
Impoundment Identification:		Sediment Pond "C"	
	Impoundment Number:	002A	
	UPDES Permit Number:	UTG040006	
	MSHA ID Number:	42-02263, 42-02335	
IMPOUNDMENT INSPECTION			
Inspection Date:	9/28/2016		
Inspected By:	J.T. Paluso		
Reason for Inspection:	Annual Inspection		
(Annual, Quarterly or other Periodic Inspection, Critical Installation or Completion of Construction)			
1. Describe any appearances of any instability, structural weakness, or any other hazardous condition.			
The pond's dam shows no signs of structural instability or other hazardous conditions.			
Required for an impoundment which functions as a SEDIMENTATION POND	2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes and estimated average elevation of existing sediment.		
	Sediment storage capacity is 4,500 cu ft.		
	60% Cleanout Elevation: 7,030.3'		
	100% Sediment storage elevation: 7,031.4'		
	Existing sediment elevation: Approx. average sediment elevation 7,028'		
	3. Principle and emergency spillway elevations		
	Principle spillway elevation: 7,032.3'		
	Emergency spillway elevation: 7,035.3'		
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 embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.			
Water level in pond is high. Vegetative cover looked good with no signs of erosion. Water level is at 7030.3'.			
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.			
Due to high water elevation, the exact sediment level can not be determined. Sediment has recently been removed. This structure is still working properly.			
Qualified 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: <i>J T Paluso</i>		Date: <i>10/13/16</i>



SEDIMENT POND C

1. IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		007A	Page 1 of 2
Permit Number:	ACT/015/025	Report Date: 10/13/2016	
Mine Name:	Castle Valley Mine		
Company Name	Rhino Energy LLC		
Impoundment Identification:	Impoundment Name	Sediment Pond "D"	
	Impoundment Number:	006A	
	UPDES Permit Number:	UTG040006	
	MSHA ID Number:	2-02263, 42-02335	
IMPOUNDMENT INSPECTION			
Inspection Date:	9/28/2016		
Inspected By:	J.T. Paluso		
Reason for Inspection:	Annual Inspection		
(Annual, Quarterly or other Periodic Inspection, Critical Installation or Completion of Construction)			
1. Describe any appearances of any instability, structural weakness, or any other hazardous condition.			
The pond's dam shows no signs of structural instability or other hazardous conditions. Pond elevations have been corrected.			
Required for an impoundment which functions as a SEDIMENTATION POND	2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes and estimated average elevation of existing sediment.		
	Sediment storage capacity: Estimated 1600 cu ft		
	60% Cleanout Elevation: 7,641.8'		
	100% Sediment storage elevation: 7,643.1'		
	Existing sediment elevation: Approx. average sediment elevation 7,640', water covering sediment level.		
	3. Principle and emergency spillway elevations		
	Principle spillway elevation: 7,644.1'		
	Emergency spillway elevation: 7,646.6'		
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 out slopes of embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.			
Incised pond has minimal vegetation with no signs of erosion. Water elevation is at 7642.9'. Recent heavy precipitation occurred.			
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.			
Pond elevation has been modified in the past. Oil removal elbow still needs to be installed on principal spillway. High water makes it impossible to determine sediment level.			
Qualified 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: <i>J. Paluso</i>		Date: <i>10/13/16</i>



SEDIMENT POND D

RHINO - CASTLE VALLEY MINING, LLC
November 2016 - Annual Subsidence Survey

Local - Mine Grid
 US Survey Feet

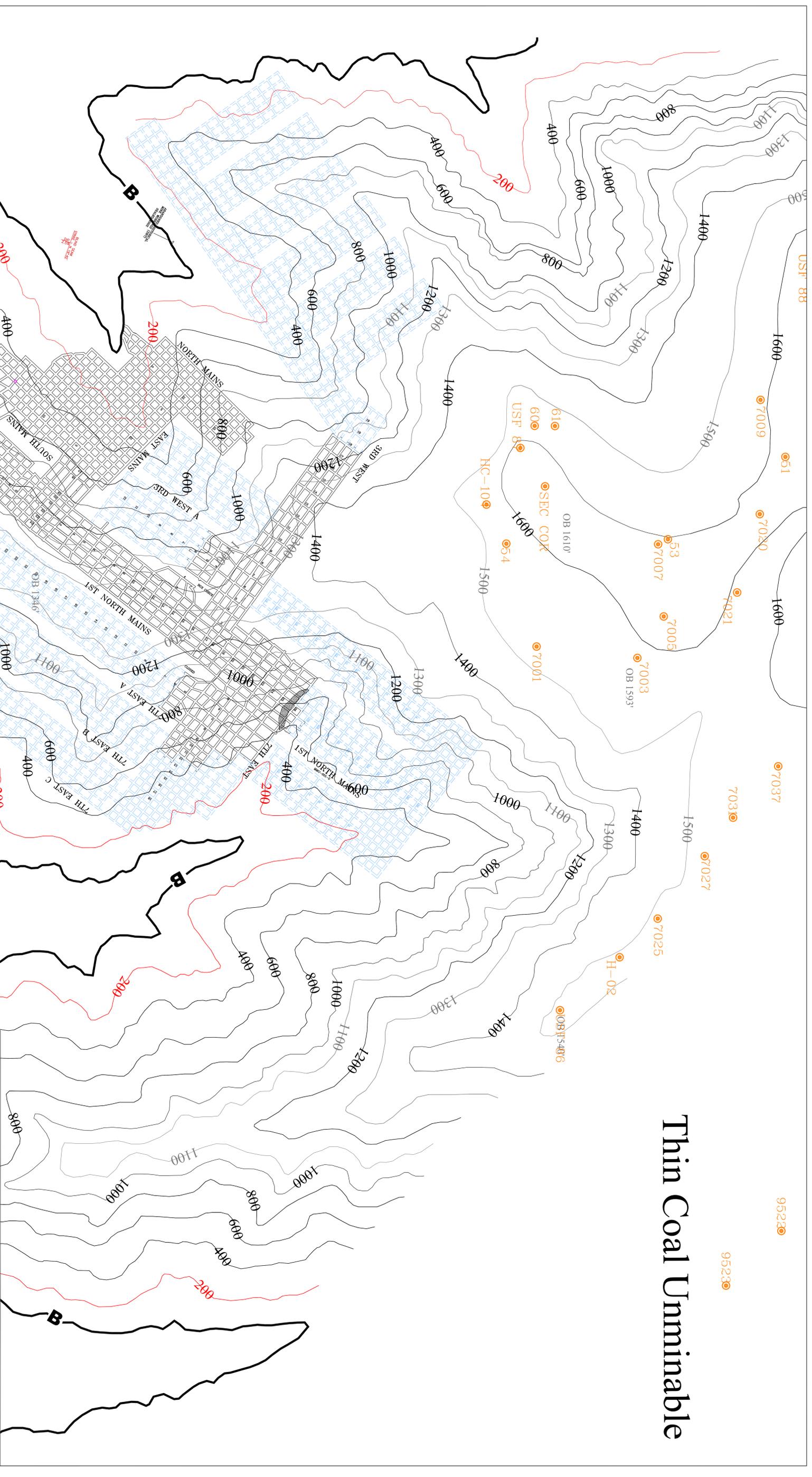
POINT NAME	NORTHING	EASTING	2011 ELEVATION	2012 ELEVATION	2013 ELEVATION	2014 ELEVATION	2015 ELEVATION	2016 ELEVATION	2015-2016	DESCRIPTION
SURVEY CONTROL										
Jaren	393054.68	2118087.27	7862.82	7862.82	7862.82	7862.82	7862.82	7862.82		Portal roof bolt
Cody	396881.88	2117797.46	9037.56	9037.56	9037.56	9037.56	9037.56	9037.56		Roof bolt on ridge
USF 88	400241.32	2117374.40	9457.00	9457.00	9457.00	9457.00	9457.00	9457.00		US Fuel monument
MEASURED POINTS										
USF 86	397853.04	2124558.33	9257.79	9257.79	9257.79	9257.79	9257.79	9257.37	0.42	US Fuel monument
USF 87	397477.08	2119241.97	9361.60	9361.58	9361.60	9361.62	9361.66	9361.65	0.01	US Fuel monument
HC 104	397155.69	2119777.29	9342.42	9342.34	9342.35	9342.36	9342.37	9342.37	0.00	Aerial target
SECTION COR.	397711.91	2119605.13	9360.78	9360.73	9360.78	9360.73	9360.83	9360.78	0.05	Cor. 13-18-24-19
51	399991.27	2119326.68	9377.02	9377.00	9376.94	9376.97	9376.88	9376.87	0.01	Old CW Nail
53	398876.88	2120105.47	9351.63	9351.60	9351.63	9351.61	9351.51	9351.56	-0.05	Old CW Nail
54	397344.13	2120147.61	9338.27	9338.25	9338.24	9338.24	9338.29	9338.26	0.03	Old CW Nail
60	397612.68	2119033.17	9341.33	9341.31	9341.28	9341.26	9341.39	9341.37	0.02	Old CW Nail
61	397805.20	2119034.97	9303.95	9303.92	9303.93	9303.96	9304.08	9304.04	0.04	Old CW Nail
H-02	398418.80	2124057.80	9280.23	9280.32	9280.29	9280.28	9279.92	9279.56	0.36	Aerial target
7001	397631.19	2121120.12	9314.89	9314.90	9314.88	9314.91	9314.76	9314.77	-0.01	Drill hole in stone
7003	398587.12	2121227.74	9330.49	9330.53	9330.52	9330.50	9330.26	9330.23	0.03	Drill hole in stone
7005	398837.32	2120835.56	9344.74	9344.77	9344.80	9344.81	9344.57	9344.58	-0.01	Drill hole in stone
7007	398784.23	2120153.00	9357.07	9357.09	9357.08	9357.10	9356.88	9356.85	0.03	Roof bolt
7009	399755.75	2118787.41	9373.94	9373.95	9373.95	9373.93	9373.86	9373.89	-0.03	Roof bolt
7020	399748.80	2119868.08	9363.64	9363.64	9363.67	9363.64	9363.48	9363.45	0.03	Roof bolt
7021	399534.00	2120608.72	9335.41	9335.39	9335.43	9335.42	9335.33	9335.34	-0.01	Rebar
7025	398780.34	2123692.63	9291.55	9291.58	9291.52	9291.56	9291.41	9291.12	0.29	Roof bolt
7027	399226.23	2123101.63	9309.81	9309.50	9309.49	9309.47	9309.44	9309.41	0.03	Roof bolt
7031	399495.28	2122737.96	9322.41	9322.14	9322.12	9322.10	9322.01	9321.88	0.13	Rebar
7037	399923.44	2122252.31	9336.45	9336.42	9336.46	9336.44	9336.30	9336.27	0.03	Drill hole in stone
7038	400660.66	2122795.16	9290.65	9290.67	9290.66	9290.67	9290.44	9290.41	0.03	Drill hole in stone
108	401103.58	2123249.49	9303.38	9303.38	9303.40	9303.40	9303.26	9303.24	0.02	Drill hole in stone
7040	400298.73	2121793.12	9348.89	9348.91	9348.90	9348.94	9348.88	9348.87	0.01	Drill hole in stone
7041	400336.90	2121826.52	9351.14	9351.12	9351.12	9351.15	9351.07	9351.09	-0.02	Drill hole in stone
7042	400760.89	2121155.79	9368.94	9368.97	9368.91	9368.93	9368.86	9368.84	0.02	Drill hole in stone
7043	400393.78	2121698.65	9352.35	9352.32	9352.34	9352.33	9352.19	9352.21	-0.02	Drill hole in stone
7046	400636.74	2120631.98	9380.58	9380.60	9380.63	9380.65	9380.53	9380.49	0.04	Drill hole in stone
7047	400233.18	2120602.12	9364.93	9364.92	9364.93	9364.95	9364.87	9364.88	-0.01	Roof bolt
7058	401389.57	2121440.23	9367.74	9367.76	9367.71	9367.74	9367.63	9367.65	-0.02	Roof bolt
9518	402226.36	2126036.89		9316.28	9316.33	9316.31	9316.34	9316.32	0.02	Drill hole in stone
9519	401417.44	2126104.04		9299.34	9299.45	9299.40	9299.17	9299.17	0.00	Drill hole in stone
9520	400960.03	2125938.17		9298.11	9298.13	9298.10	9297.84	9297.84	0.00	Drill hole in stone
9521	400256.37	2126240.56		9281.72	9281.79	9281.76	9281.47	9281.44	0.03	Drill hole in stone
9522	399953.29	2126645.50		9268.89	9268.93	9268.94	9268.72	9268.73	-0.01	Drill hole in stone
9523	399428.51	2127162.49		9249.20	9249.19	9249.21	9249.17	9249.19	-0.02	Drill hole in stone
9524	401089.42	2127798.48		9261.67	9261.68	9261.70	9261.56	9261.55	0.01	Drill hole in stone
9525	401694.22	2127530.06		9285.48	9285.39	9285.35	9285.35	9285.36	-0.01	Aerial target
9526	402207.22	2126788.84		9304.29	9304.24	9304.19	9304.20	9304.16	0.04	Rebar
9615	401671.29	2124448.46			9304.78	9304.81	9304.76	9304.78	-0.02	Rebar
NW 18 16S8E	402976.84	2119613.89				9454.78	9454.80	9454.79	0.01	Section Corner



WARE SURVEYING & ENGINEERING
 G.P.S. & CONVENTIONAL SURVEYING - AUTOCAD MAPPING - CIVIL ENGINEERING



Thin Coal Uminable

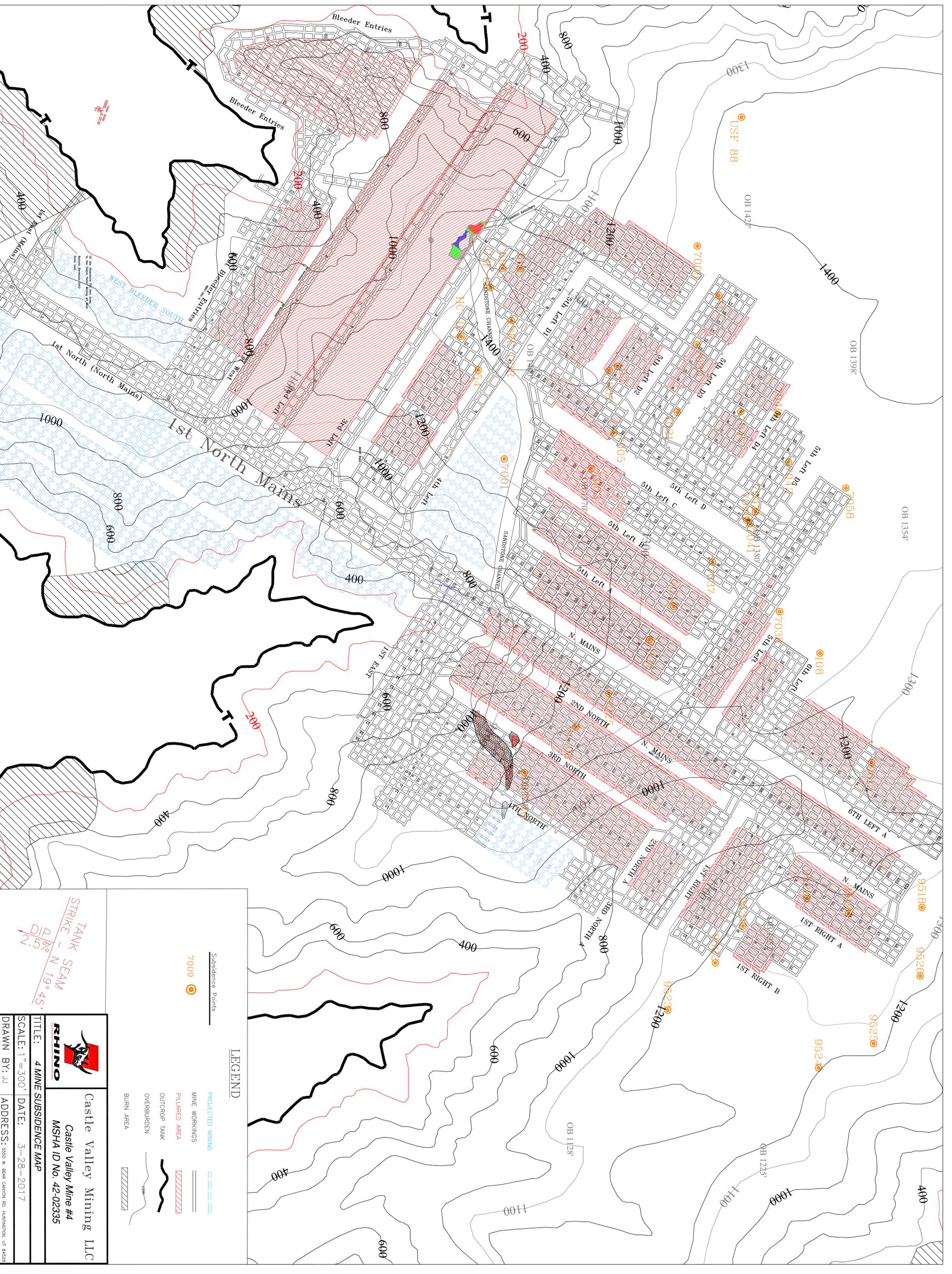


LEGEND

- Subsidence Points
7009
- PROJECTED MINING
- MINE WORKINGS
- PILARED AREA
- OUTCROP TANK
- OVERBURDEN
- BURN AREA

 Castle Valley Mining LLC
Castle Valley Mine #3
MSHA ID No. 42-02263

TITLE: 3 MINE SUBSIDENCE MAP
SCALE: 1" = 300'
DATE: 3-28-2017
DRAWN BY: JJ
ADDRESS: 5550 W. BEAR CANYON RD. HUNTINGTON, UT 84302



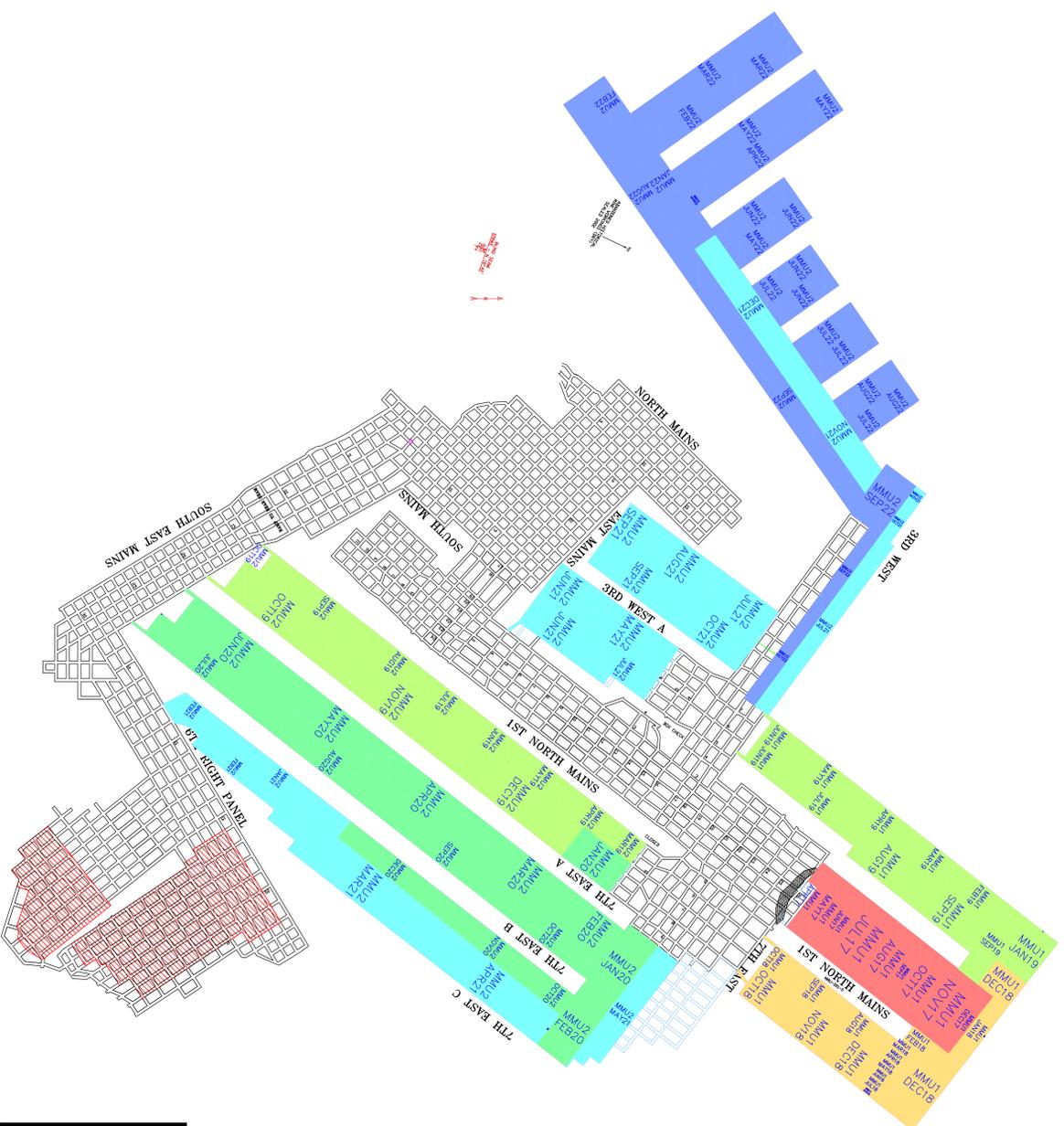
LEGEND

- Subsidence Points: 7009
- PROJECTED MINING: Blue dashed line
- MINE WORKINGS: Black line
- PILLARED AREA: Red hatched area
- OUTCROP TANK: Black wavy line
- OVERBURDEN: Black wavy line
- BURN AREA: Black hatched area

TANK SEAM
 STRIKE - N 19° 45'
 DIP 2.5%

RHINO
 Castle Valley Mining LLC
 Castle Valley Mine #4
 MSHA ID No. 42-02335

TITLE: 4 MINE SUBSIDENCE MAP
 SCALE: 1" = 300'
 DATE: 3-28-2017
 DRAWN BY: JJ
 ADDRESS: 5550 W. BEAR CANYON RD. HUNTINGTON, UT 84303



RHINO
CASTLE VALLEY MINING LLC

**BLIND/BEAR
2017 TIMING MAP**



SCALE: 1" = 500'

DATE: 3-28-2017

MINE WORKINGS
PILARED AREA



