U.S. DEPT. OF THE INTERIOR
OFFICE OF SURFACE MINING
Mine Site Evaluation
State Program

1. Permittee/Person	OAKRIDGE ENERGY INC
2. Address	4613 JACKSBORO HWY
3. City	WICHITA FALLS
4. State	TX
5. Zip Code	76301
6. Phone Number	(940) 322-4772
7. Operator Name, if Different than Permittee	OAKRIDGE ENERGY INC
8. Mine Name	CARBON JUNCTION

9. Permit Number	C-1992-080
10. Permit Type	PP
11. Field Visit Date (mm-dd-yyyy)	4/30/2013
12. Purpose	OP
13. SRA Present	Y
14. Permit Status	A
15. Site Status	AN
16. Facility Type	A
17. OSM Office #	141
18. CCID #	
19. Land Code	S
20. M.S.H.A. ID #	05-03683
21. State Abbrev.	CO
22. County/Burrough	LA PLATA
23. AVS Permittee Entity ID Number	123708
24. State Office	

25. Hours

10.0	a. Permit Review
5.0	b. Site Visit Time
12.0	c. Travel Time
5.0	d. Report Writing

26. Signature Block

Signature:

Elizabeth Shaeffer, ID#377
Printed Name:

Date: 5/20/2013

27. Reviewing Official:

Signature:

Review Date: 05-20-2013 (mm-dd-yyyy)

Is Supplemental MSE Page Used Y/N: Y

Permit Type - Item 10 IP = Interim Program PP = Permanent Program NP = No Permit

Purpose Type Codes - Item 12
Oxx...Oversight
Axx...Assistance
RFx..Reclamation Fees
Fxx...Federal Actions
CCR..Citizen Complaint Referral (non-site visit
CC.....Citizen Complaint (initial site visit)
CCF...Assistance

Joint Inspection - Item 13 A joint inspection is when a state inspector accompanies an OSM inspector at any time during the review of the mine site

Permit Status - Item 14
- A Active: Coal mining activities occurring or permitted but not yet disturbed.
- IN Inactive (Permanent Program Permit): Phase II completed or Temporary Cessation of Operations. (Interim Program Permit): Coal mining completed and reclamation activities initiated.
- BR Bond Release: Reclamation completed and State Regulatory Authority(RA) has released all of the bond (Phase III Release).
- AB Abandoned: All surface and underground coal mining activities have ceased and operator has left the site without completing reclamation as defined in 30 CFR 840:11(g).
- AB1 Bond Forfeiture: Bond forfeiture officially in process or completed and reclamation in progress or not yet commenced.
- AB2 Partially Reclaimed Forfeiture: Forfeited site where all bonds have been used to reclaim site, but site not reclaimed to Program standards.
- AB3 Reclaimed Forfeiture: Forfeited site that has been reclaimed to Program standards.
- NA Not Applicable: When site is unpermitted.

Site Status - Item 15
- ND No Disturbance: No coal mining and reclamation operations have been started.
- EX Coal Exploration: Coal exploration operations have started and where coal mining operations have not begun.
- AP Active Coal Producing: Coal surface mining activities are occurring.
- AN Active Non-Producing: Active non-producing facility such as tipple or preparation plant.
- NM No Mining: The Permit Status is active, site is not in Temporary Cessation, no surface coal mining activity, and site not regraded.
- MC Mining Complete: No mining activity on site, site regraded and awaiting bond release.
- TC Temporary Cessation: The RA has granted cessation of mining pursuant to 30 CFR 816/817:13(b).
- P1 Phase I Release: At least Phase I bond release granted for entire permitted area. For interim permits, partial bond release.
- P2 Phase II Release: At least Phase II bond release for the entire permitted area.
- P3 Phase III Release: Reclamation completed and the RA has released all bond.
- NS Non-Site Visit: Status of site not determined.
- FP Forfeiture Pending: The RA is pursuing actions to revoke the permit, collect the performance bond(s), and/or reclamation of forfeited site is in progress.
- FR Forfeited and Reclaimed: Forfeiture reclamation completed.
- FO Abandoned Site: Abandoned site that is permitted but there is no bond.
- WC Wildcat: Coal mining and reclamation operations have or are taking place and the activity is not covered by the required permits from the RA.

Facility Type Codes - Item 16
A....Surface
B....Underground
C....Preparation Plant
D....Ancillary (Haulroad, Conveyor, and/or Rails
E....Refuse and/or Impoundment
F....Loading Facility and/or Tipple
G....Stockpiles
H...Exploration Permits
I....Notice of Intent to Explore
J...,Exempt 16 and 2/3
K....Government Financed Construction Exemption
L....Remining site permitted under 30 CFR 785.25

Small Business Regulatory Enforcement Fairness Act (SBREFA)
Your Comments are Important

The Small Business and Agriculture Regulatory Enforcement Ombudsman and 10 Regional Fairness Boards were established to receive comments from small businesses about Federal agency enforcement actions. The Ombudsman will annually evaluate the enforcement activites and rate each agency's responsiveness to small business. If you are a small business (a business with 500 or fewer employees including those of affiliates) and wish to comment on the enforcement or compliance activities of OSM, call 1-888-REG-FAIR (1-888-734-3247).

U.S. DEPT. OF THE INTERIOR
OFFICE OF SURFACE MINING
Mine Site Evaluation

Permittee/ Person	OAKRIDGE ENERGY INC	Permit Number	C-1992-080	Field Visit Date	4/30/2013	State Program Continuation Page

28. Performance Standard Categories

Codes:1=Compliance, 2=Noncompliance, 3=Not Planned, 4=Not Started, 5=Noncompliance Identified Elsewhere, 6=Previously Cited, 7=Permit Defect

A. Administrative
1. 1 Mining within Valid Permit
2. _____ Mining within Bonded Area
3. 2 Terms & Conditions of Permit
4. _____ Liability Insurance
5. _____ Ownership and Control
6. _____ Temporary Cessation
7. _____ AML Rec. Fees - Non-Respondent
8. _____ AML Rec. Fees - Failure to Pay

B. Hydrologic Balance
1. 2 Drainage Control
2. _____ Inspections & Certifications
3. _____ Siltation Structures
4. _____ Discharge Structures
5. 2 Diversions
6. _____ Effluent Limits
7. _____ Ground Water Monitoring
8. _____ Surface Water Monitoring
9. _____ Drainage - Acid-Toxic Materials
10. _____ Impoundments
11. _____ Stream Buffer Zones

C. Topsoil & Subsoil
1. _____ Removal
2. _____ Substitute Materials
3. _____ Storage and Protection
4. _____ Redistribution

D. Backfilling & Grading
1. _____ Exposed Openings
2. _____ Contemporaneous Reclamation
3. _____ Approximate Original Contour
4. _____ Highwall Elimination
5. _____ Steep Slopes (includes downslope)
6. _____ Handling of Acid and Toxic Materials
7. _____ Stabilization (rills and gullies)

E. Excess Spoil Disposal
1. _____ Placement
2. _____ Drainage Control
3. _____ Surface Stabilization
4. _____ Inspections & Certifications

F. Coal Mine Waste (Refuse Piles/Impoundments)
1. _____ Drainage Control
2. _____ Surface Stabilization
3. _____ Placement
4. _____ Inspections & Certifications
5. _____ Impounding Structures

G. Use of Explosives
1. _____ Blaster Certification
2. _____ Distance Prohibitions
3. _____ Blast Survey/Schedule
4. _____ Warnings & Records
5. _____ Control of Adverse Effects

H. _____ Subsidence Control Plan

I. Roads
1. _____ Road Construction
2. _____ Certification
3. _____ Drainage
4. 1 Surfacing and Maintenance
5. 1 Reclamation

J. Signs & Markers
1. 1 Signs
2. 1 Markers

K. _____ Distance Prohibitions

L. Revegetation
1. _____ Vegetative Cover
2. _____ Timing

M. _____ Postmining Land Use

N. Other

General Performance Category		
_____	_____	_____
_____	_____	_____
_____	_____	_____

Performance Standard Categories 30 CFR Counterparts

A. Administrative
1. Valid Permit — 773.11
2. Mining within Bonded Area — 773.11
3. Terms & Conditions of Permit — 773.17
4. Liability Insurance — 800.60
5. Ownership and Control — 778.13
6. Temporary Cessation — 842.11(e) & 816/817.131
7. AML Rec. Fees – Non-Respondent — 870.15(b)
8. AML Rec. Fees – Failure to Pay — 870.15(a)

B. Hydrologic Balance — (816/817.41-57)
1. Drainage Control — 45
2. Inspections & Certifications — 49(a)(10)
3. Siltation Structures — 46
4. Discharge Structures — 47
5. Diversions — 43
6. Effluent Limits — 42
7. Ground Water Monitoring — 41(c)
8. Surface Water Monitoring — 41(e)
9. Drainage–Acid - Toxic Materials — 41(f)
10. Impoundments — 49
11. Stream Buffer Zones — 57

C. Topsoil & Subsoil — (816/817.22)
1. Removal — 22(a)
2. Substitute Materials — 22(c)
3. Storage and Protection — 22(c)
4. Redistribution — 22(d)

D. Backfilling & Grading — 816/817.95-107)
1. Exposed Openings — 816/817.13, 14, 15, & 823.11 & 21
2. Contemporaneous Reclamation — 100
3. Approximate Original Contour — 102(a)(1)
4. Highwall Elimination — 102(a)(2)
5. Steep Slopes (includes downslope) — 107
6. Handling of Acid & Toxic Materials — 102(c)
7. Stabilization (rills and gullies) — 95(b)

E. Excess Spoil Disposal — (816/817.71-74)
1. Placement — 71(e)
2. Drainage Control — 71(f)
3. Surface Stabilization — 71(g)
4. Inspections & Certifications — 71(h)

F. Coal Mine Waste (Refuse Piles/Impoundments) — 816/817.81-84)
1. Drainage Control — 83(a)
2. Surface Stabilization — 83(b)
3. Placement — 83(c)
4. Inspections and Certifications — 83(d)
5. Impounding Structures — 84

G. Use of Explosives — (816/817.61-68)
1. Blaster Certification — 61(c)
2. Distance Prohibitions — 61(d)
3. Blast Survey/Schedule — 62-64
4. Warnings & Records — 66 & 68
5. Control of Adverse Effects — 67

H. Subsidence Control Plan — (817.121-122)

I. Roads — (816/817.150-151)
1. Road Construction — 150(c)
2. Certification — 151(a)
3. Drainage — 150(b)-151(d)
4. Surfacing and Maintenance — 150(e)-151(d)
5. Reclamation — 150(f)

J. Signs & Markers — 816/817.11)
1. Signs — 11(a),(b),&(c)
2. Markers — 11(a),(b),(d),(e),&(f)

K. Distance Prohibitions — (761.11)

L. Revegetation — (816/817.111-116)
1. Vegetative Cover — 111 & 116
2. Timing — 113

M. Postmining Land Use — (816/817.133)

OSM Action
1) Deferred to State Action
2) TDN Issued
3) NOV Issued
4) FTA-CO Issued
5) IH-CO Issued
6) ID-CO Issued (Imminent Danger to Public)
7) Previously cited by RA, abatement pending
8) Abated during or before OSM Inspection
9) Follow-up of Federal Action
0) Off-site impact with no violation

Off-Site Impacts
For each type of impact and resource affected, enter "N, D, or J" to describe the degree of off-site impact:
N - Minor Occurrence
D - Moderate Occurrence
J - Major Occurrence

Revised October 1, 2010

Carbon Junction Mine Partial Oversight Inspection
Colorado Division of Reclamation, Mining and Safety (DRMS) Permit ID # C-1992-080
Tuesday, April 30, 2013, 9:30 p.m. – 2:30 p.m.
Operator: Oakridge Energy, Inc.

Participants:
Marcia Talvitie, Colorado Division of Reclamation, Mining and Safety (DRMS)
Sandy Brown, DRMS
Joe Wilcox, Office of Surface Mining (OSM)
Spencer Shumate, OSM
Elizabeth Shaeffer, OSM, Badge # 377

Weather conditions: 73 degrees, sunny, windy

Background:

The purpose of this oversight inspection was to determine whether DRMS is achieving reclamation success by ensuring the effectiveness of current stream channel and drainage reconstruction efforts that have been implemented to manage overland flow, as required at selected sites in accordance with applicable state laws and regulations and as approved in DRMS permits. Effectively managing overland flow is integral to stabilizing regraded lands and ensuring successful reclamation.

Colorado Code of Regulations 407-2 Rule 2.05.4 (2)(c) requires the permittee to provide a reclamation plan for backfilling, soil stabilizing, compacting, and grading with post mining contour maps and appropriate cross sections that are representative for stream channel reconstruction in accordance with Rule 4.05.4. Similar to the performance standards found at Colorado Rule 4.05.4, Rule 4.05.3 provides performance standards associated with temporary or permanent diversion of ephemeral streams draining a watershed less than one square mile.

Colorado Rules 4.05.3(4), 4.05.3(7), and 4.05.4(4) contain specific design performance standards relating to stream channel reconstruction. In the field, the Team evaluated the Carbon Junction Canyon drainage for compliance with the applicable drainage performance standards.

Stream Channel and Drainage Reconstruction Evaluation:

The Team chose to observe the Carbon Junction Canyon drainage feature during this special focus topic evaluation. Prior to the field evaluation, the Team reviewed the following documents:

- Carbon Junction Mine Revised Permit Document CDMG # C-92-080 (February 2008) Section 2.05.3(4) Ponds, Impoundments, and Diversions
- Stream Channel Reconstruction (Carbon Junction Canyon), pages 5-7 to 5-16
- Post Mining Topography Map, Technical Revision 13, approved 09/07/06
- Oakridge Energy, Inc. Carbon Junction Mine, Site Cross Sections Map, Technical Revision 11, approved 10/09/02

- Oakridge Energy, Inc. Carbon Junction Mine, Mine Hydrology Map, Technical Revision 11, approved 10/09/02
- Appendix 5-2, Sediment Control Design
- Savage and Savage Environmental transmittal memo to Colorado Division of Reclamation, Mining and Safety dated May 15, 2007, that included an As-built design depicting the capacity currently installed under the main access road for the Segment 4 culvert system as part of the Carbon Junction Canyon Stream Channel Reconstruction project.

The approved Mining and Reclamation Plan (MRP) states: "Carbon Junction Canyon was reconstructed for use as a permanent diversion as detailed below. The work involved a diversion of 1962 feet that was riprap lined and with one culvert crossing under the main access road. The channel itself is 14' wide after lining and varies in depth from 1.9 feet to 2.8 feet including freeboard."

The following Table is included to show the segment details:

Segment	Length (feet)	Grade%	Comments
1	333	7.3	Lined Section
2	436	2.19	Lined Section
3	277	5.31	Lined Section
4	84	16.14	Section in Culvert
5	184	9.78	Lined Section
6	648	2.15	Lined Section
Total	1,962		

Appendix 2.05 of the MRP, page 5-7, shows that the peak flow for the upper segment (located above the drainage's junction with the mine access road) is 346 cubic feet per second (cfs) for a 100-year event for a drainage area of 188 acres. Yet, the design data in Appendix 2.05 states that the peak discharge is 293 cfs, the length of the channel is 2,800 feet, the channel width is 20 feet, and the wall slope steepness is 1v:4h. There is a discrepancy between the MRP and the design data.

The Team concluded that a design evaluation of Carbon Junction Canyon Stream Channel Reconstruction could not be performed in accordance with the Colorado program at this time for the following reasons:

1. There are conflicting design standards between Appendix 2.05 and Section 2.05.3(4) of the MRP: (1) No watershed boundaries are identified for the diversion, (2) the length of the diversion is stated to be 2,800 feet in Appendix 2.05 versus 1,962 feet in Section 2.05.3(4) of the MRP, and (3) no data sheets or supporting documentation is supplied in Appendix 2.05.
2. The Mine Hydrology Map, approved on October 9, 2002, as part of Technical Revision 11(TR-11) shows a diversion channel located to the left of the original Carbon Junction Canyon drainage (upstream of the reconstructed channel). In the field, the Team observed that this channel has erosion and down cutting that has not been reclaimed. The original channel has filled in with vegetation and needs additional work in order to be reestablished to its original condition all the way upstream to the undisturbed natural Carbon Junction Channel and downstream to the Carbon Junction Canyon drainage.
3. The Post Mining Topography (PMT) Map submitted with Technical Revision 13 (approved September 7, 2006) was not certified and does not show the actual topography that the Team observed in the field. Additionally, the Mine Hydrology Map is not field-verifiable. The permit boundary is different on the above mentioned maps.
4. On all observed maps (Mine Hydrology Map, PMT Map, and the Site Cross Sections Map), the twin culverts in Segment 4 of the Carbon Junction Canyon drainage are not correctly identified. The maps show a single pipe arch culvert that is 9 feet 4 inches in diameter passing under the main road, not the existing two side-by-side 66" culverts. The Division has received as-builts for the twin culverts, but the as-builts have not been incorporated into the MRP.
5. A determination cannot be made regarding the location or status of the East Diversion Ditch observed in the field due to the lack of clear and concise information in the MRP.
6. Page 5-10c of the MRP explains that there are two additional areas to be rock lined upstream from the main diversion. These two areas are named "Upstream 1" and "Upstream 2". The text states that "Upstream 1" is 150 feet long, contains D50 rip rap with a 1.5 diameter, is placed (on average) two feet thick, will be placed in a channel 14 feet wide, and will not contain an underlying filter since "the existing material is rocky". The same characteristics apply to "Upstream 2", except that its length is 350 feet. The Team was unable to locate or identify either of these diversion segments in the field.

Please note that this list is not all-inclusive; it includes only deficiencies identified as part of OSM's "Stream Channel and Drainage Reconstruction" special focus topic evaluation for Evaluation Year 2013.

Additional Inspection Details:

Hydrology

The Team walked the 1962 foot-long Carbon Junction Canyon permanent diversion channel containing six distinct segments (as identified in Section 2.05.3(4) of the MRP) from bottom, where the drainage joins with a tributary to Carbon Junction Canyon (Segment 1), to top-where the reconstructed drainage commences upstream (Segment 6) . The Team took measurements at random locations for channel segment length, width, riprap sizes, and gradient of the drainage. The slopes and lengths were confirmed within prudent engineering practices and functioning as

designed in accordance with the Site Cross Sections map approved by DRMS on October 9, 2002 as part of the Technical Revision 11 (TR-11) approval, although the reconstructed drainage appeared to be overdesigned with larger than necessary riprap. Additionally, the Team's gradient measurements for Segment 1 was much steeper than the gradient listed on the Site Cross Sections Map (7.30% design versus 14% field-measured).

Segment 4 contains two culverts with 66-inch diameters that pass under the main haul road. Ms. Talvitie informed us that the culverts were installed when Sediment Ponds 1 and 2 were removed in 2008 and 2009. The Site Cross Sections Map approved with TR-11 indicates that Segment 4 contains a single pipe arch culvert that is 9 feet 4 inches in diameter passing under the main road. The designs in the current MRP do not reflect field conditions (Photo 11386).

Sediment Pond 2 was inspected. Ms. Talvitie informed us that the dam was removed in 2009. The high banks above Pond 2 are not well vegetated, and the site has historic problems with Canada thistle (Photo 11388). There is not a truly defined channel that carries water from above Pond 2 and meets the original stream, and it is apparent that water collects in a flat, wide area (Photo 11389).

As noted in Item 2 above, the Team observed that the diversion channel located to the left of the original Carbon Junction Canyon drainage (upstream of the reconstructed channel) has erosion and down cutting that has not been reclaimed (Photos 11390 and 11391). The Team walked the entire length of the drainage until the undisturbed, original channel was identified. The Team estimated the depth of this drainage in certain areas to be up to 10 feet. Ms. Talvitie informed us that last fall, she directed the mine operator to eliminate the berm directing the flow to the left of the original Carbon Junction Canyon drainage so that the natural drainage channel could be restored. At the location where the berm was removed, there is a large bare area that should be seeded and mulched to prevent further erosion (Photos 11392 and 11393). The original channel has filled in with vegetation and needs additional work in order to be reestablished to its original condition all the way upstream to the undisturbed natural Carbon Junction Channel and downstream to the reconstructed Carbon Junction Canyon drainage.

Signs and Markers

The mine ID sign at the entrance gate was intact and contained all of the necessary information. Permit boundary markers were visible from the main access road (Photo 11394).

Non-Compliance

Colorado Division of Reclamation, Mining and Safety preparing a Notice of Violation (No. CV-2013-005) to Oakridge Energy, Inc. for the deficiencies and non-compliance issues identified at the Carbon Junction Mine as a result of this special focus topic evaluation.

I&E Inspection Photos

Permit: C-1992-080 Inspection Date: 4/30/2013

Permittee: OAKRIDGE ENERGY INC

Notes:

Photo ID: 11386

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

County: LA PLATA

Latitude: 37.23483611

Longitude: -107.85075611

Subject: CULVERTS UNDER MAIN ACCESS ROAD

Mine Name: CARBON JUNCTION

Notes: Bare bank with historic Canada thistle problems

Photo ID: 11388

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

County:

Latitude: 37.23460861

Longitude: -107.85084639

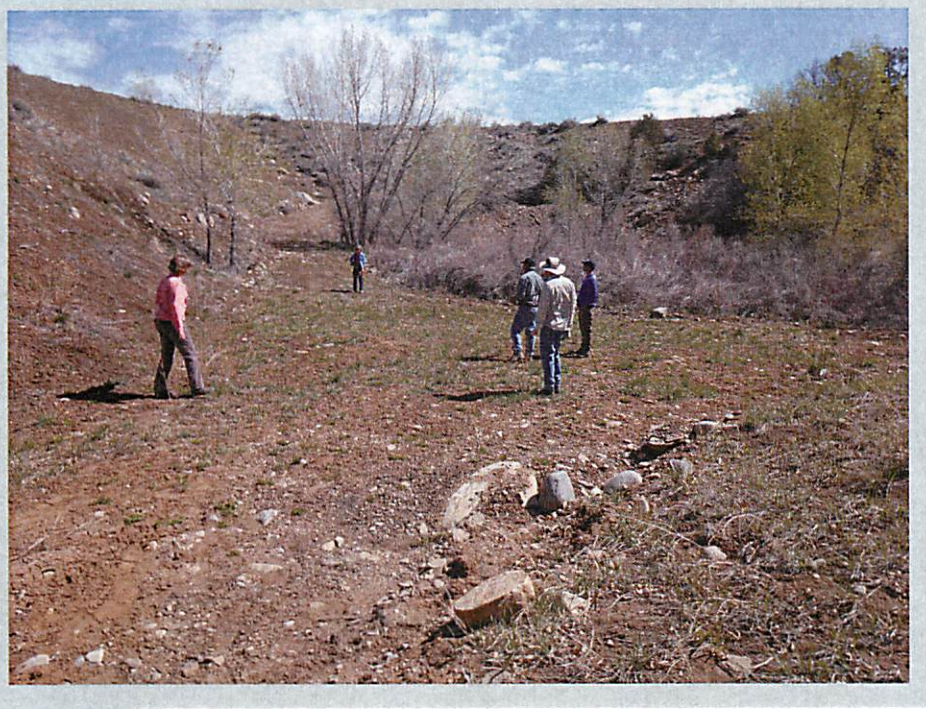
Subject: HIGH BANK ABOVE POND 2

Mine Name: CARBON JUNCTION

I&E Inspection Photos

Permit: C-1992-080 Inspection Date: 4/30/2013

Permittee: OAKRIDGE ENERGY INC



Notes:

Pond 2 and area in left foreground of photo where water collects

Photo ID: 11389

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

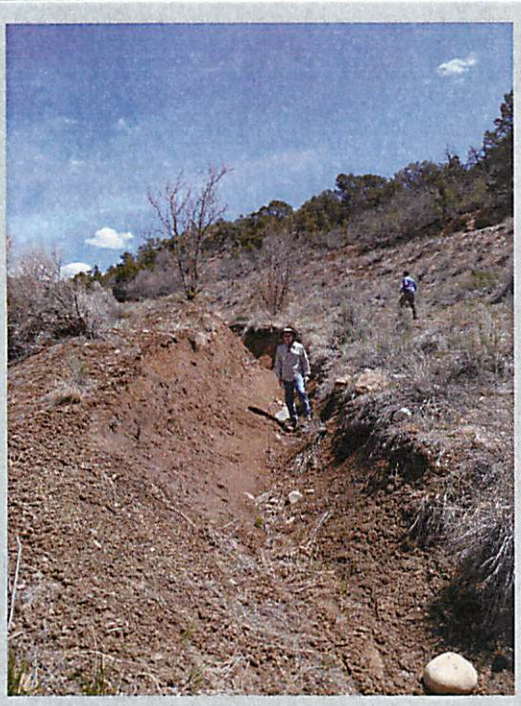
County: LA PLATA

Latitude: 37.23460861

Longitude: -107.85084639

Subject: POND 2

Mine Name: CARBON JUNCTION



Notes:

Channel is located upstream of reconstructed riprap channel, erosion and downcutting has not been reclaimed.

Photo ID: 11390

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

County: LA PLATA

Latitude: 37.23489667

Longitude: -107.85036278

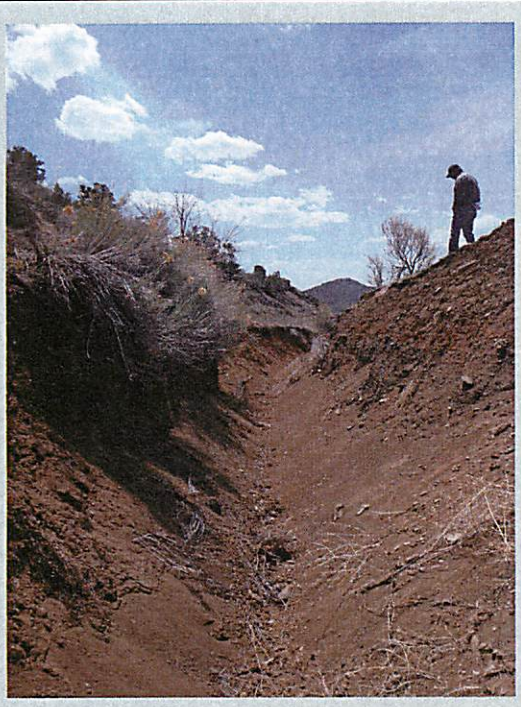
Subject: CHANNEL LEFT OF ORIGINAL CJC DRAINAGE

Mine Name: CARBON JUNCTION

I&E Inspection Photos

Permit: C-1992-080 Inspection Date: 4/30/2013

Permittee: OAKRIDGE ENERGY INC

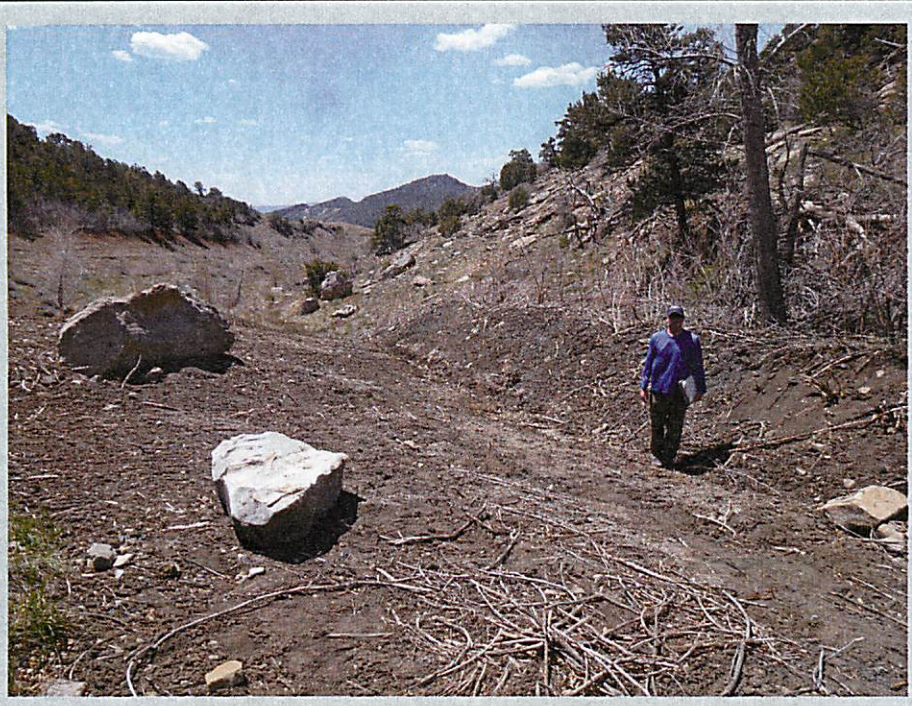


Notes:

Channel is located upstream of reconstructed riprap channel, erosion and downcutting has not been reclaimed. Photo is taken from floor of gully with person for scale on upper right bank.

Photo ID: 11391
Photographer: SM\ESHAEFFER
Date Taken: 4/30/2013
State: CO
County: LA PLATA
Latitude: 37.25005528
Longitude: -107.85020583

Subject: Channel left of original CJC Drainage 2
Mine Name: CARBON JUNCTION



Notes:

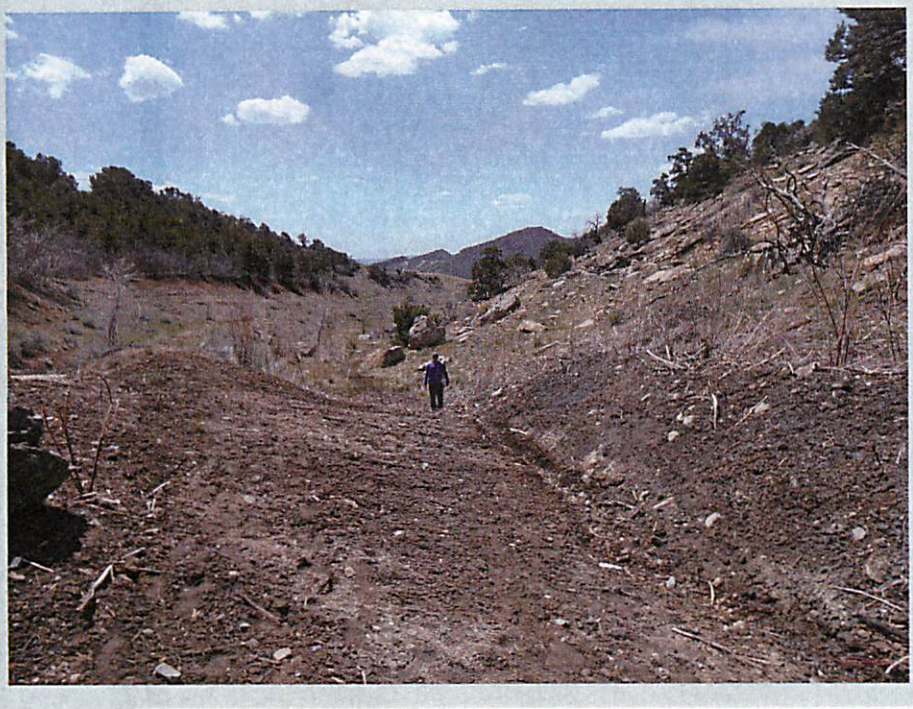
Photo ID: 11392
Photographer: SM\ESHAEFFER
Date Taken: 4/30/2013
State: CO
County: LA PLATA
Latitude: 37.25009667
Longitude: -107.85021889

Subject: BARE AREA NEAR CJC BERM REMOVAL
Mine Name: CARBON JUNCTION

I&E Inspection Photos

Permit: C-1992-080 Inspection Date: 4/30/2013

Permittee: OAKRIDGE ENERGY INC



Notes:

disturbed area

Photo ID: 11393

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

County: LA PLATA

Latitude: 37.25009111

Longitude: -107.85019917

Subject: BARE AREA NEAR CJC berm REMOVAL 2

Mine Name: CARBON JUNCTION

Notes:

Photo ID: 11394

Photographer: SM\ESHAEFFER

Date Taken: 4/30/2013

State: CO

County: LA PLATA

Latitude: 0.00000000

Longitude: 0.00000000

Subject: MINE ID SIGN

Mine Name: CARBON JUNCTION