PLATES -A-
Figure 22. The different electrofacies types (1 through 7) are distributed throughout cross-section 1.
Figure 23. The different electrofacies types (1 through 7) are distributed throughout cross-section 2.
Figure 24. The different electrofacies types (1 through 7) are distributed through cross-section 3.
Figure 25. The different electrofacies types (1 through 7) are distributed throughout cross-section 4.
PLATES -B-
Figure 20. Sequence-stratigraphic correlation of cross-section 1 showing the intense landward overlap of incised-valley fills of CZ, CZ, and R.
Figure 28. Sequence-stratigraphic correlation of cross-section 3 showing the strike-oriented section of the incised-valley fills. Incised-valley fill of CZ  (IVF-3) is thicker than incised-valley fills (IVF-1 and IVF-2) of CZ  and CZ .
Figure 29. Sequence-stratigraphic correlation of cross-section 4 showing the constant thickness of CZ, the basinward thickening of R, and the occurrence of an isolated incised-valley fill (IVF-3) in the extreme basinward extent of the study area.
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**COGIS - WELL Information**

**Scout Card**

Surface Location Data for API # 05-077-08493

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<td>MESA #077</td>
<td>Federal or State Lease #: 35257</td>
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<td>Field:</td>
<td>BRONCO FLATS - #7563</td>
<td>Location: NEST 18 9S 98W 6 PM</td>
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<td>1503 FSL 2104 FWL</td>
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<td>Lat/Long Calculated From Footages</td>
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**Wellbore Data for Sidetrack #00**

**Wellbore Permit**

| Permit #:       | 820773 | Expiration Date: 9/4/1982 |
| Prop Depth/Form:|       | Surface Mineral Owner Same: |
| Mineral Owner:  | FEDERAL | Surface Owner: |
| Unit:           |       | Unit Number: C-12645A |
| Formation and Spacing: | Code: DKTA, Formation: DAKOTA, Order: 0, Unit Acreage: 0, Drill Unit: |

**Wellbore Completed**

| Completion Date: | 9/3/1982 |
| Measured TD:     | 7437     |
| True Vertical TD:| 0        |
| Casing:          | String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 338, Weight: |
| Cement:          | Sacks: 225, Top: 0, Bottom: , Method Grade: |
| Cement:          | String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 7428, Weight: |
| Sacks:           | 0, Top: 0, Bottom: , Method Grade: |

**Completed information for formation DKTA**

| 1st Production Date: | N/A |
| Status Date:         | 5/28/2003 |
| Commingled:          |     |
| Formation Name:      | DAKOTA |
| Formation Treatment: |     |
| Tubing Size:         |     |
| Tubing Packer Depth: |     |
| Open Hole Top:       |     |
| Choke Size:          | 10,000.000 |
| Hole Completion:     |     |
| Production Method:   |     |
| Status:              | PR |
| Tubing Setting Depth:|     |
| Tubing Multiple Packer: |     |
| Open Hole Bottom:    |     |

**No Initial Test Data was found for formation DKTA.**

**No Perforation Data was found for formation DKTA.**
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08435
Well Name/No: USA #1-16SC (click well name for production)
Operator: MARALEX RESOURCES, INC - 53255
Status Date: 9/1/1995
County: MESA #077
Field: SHEEP CREEK - #77200
Planned Location: 519 FNL 1288 FWL
Lat/Long: 39.278654/-107.676151
Wellbore Data for Sidetrack #00
Spud Date: 11/8/1981
Permit #: 811631
Expiration Date: 1/17/1982
Prop Depth/Form: FEDERAL
Unit Number: Surface Mineral Owner Same
Unit: Surface Owner
Formation and Spacing: Code: CZ-CR , Formation: COZZETTE-CORCORAN , Order: 0 , Unit Acreage: 640, Drill Unit: ALL
Wellbore Completed
Completion Date: 4/16/1981
Measured TD: 8876
True Vertical TD: 0
Casing: String Type: SURF , Hole Size: 13.375, Size: 10.75, Top: 0, Depth: 680, Weight:
Cement: Sacks: 250, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 8596, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Formation Log Top Log Bottom Cored
ROLLINS 7800
COZZETTE 8330
CORCORAN 8490
Completed information for formation COZZ
1st Production Date: 2/26/1982
Status Date: 7/28/1983
Commingle: COZZETTE
Formation Name: COZZETTE
Formation Treatment: Status: PR
Choke Size:
Hole Completion:
Production Method:
No Initial Test Data was found for formation COZZ.
No Perforation Data was found for formation COZZ.
Completed information for formation CRCRN
1st Production Date: 2/26/1982
Status Date: 7/28/1983
Commingle: CORCORAN
Formation Name: CORCORAN
Formation Treatment: Status: PR
Choke Size:
Hole Completion:
Production Method:
Tubing Setting Depth:
Tubing Multiple Packer:
**No Initial Test Data was found for formation CRCRN.**

**No Perforation Data was found for formation CRCRN.**

**Completed information for formation CZ-CR**

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**No Initial Test Data was found for formation CZ-CR.**

**No Perforation Data was found for formation CZ-CR.**
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08189

Well Name/No: VEGA UNIT #4 (click well name for production)
Operator: DELTA PETROLEUM CORPORATION - 16800
Status: SI
County: MESA #077
Field: VEGA - #85930
Planned Location 1693 FSL 1834 FWL
Lat/Long: 39.230094/-107.739943
Lat/Long Calculated From Footages
Wellbore Data for Sidetrack #00
Spud Date: 10/1/1979
Spud Date is: ACTUAL
Wellbore Permit
Permit #: 20088365
Expiration Date: 12/21/2009
Prop Depth/Form: 8999
Surface Mineral Owner Same: N
Mineral Owner: FEDERAL
Surface Owner: FEE
Unit Number:
Formation and Spacing: Code: MVRDC , Formation: MESAVERDE COAL, Order: 0 , Unit Acreage: 0, Drill Unit:
Formation and Spacing: Code: WSTC , Formation: WASATCH, Order: , Unit Acreage: , Drill Unit:
Cement: Sacks: 760, Top: 0, Bottom: 1800, Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 5.5, Top: , Depth: 8999, Weight: 17
Cement: Sacks: 980, Top: 4250, Bottom: 8999, Method Grade:
Wellbore Completed
Completion Date: 4/21/1981
Measured TD: 8999
True Vertical TD: 0
Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 1800, Weight:
Cement: Sacks: 610, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 5.5, Top: 0, Depth: 8999, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Formation Log Top Log Bottom Cored DSTs
MESAVERDE 5361 8330
MANCOS 8511
COZZETTE 8692
CORCORAN 8840
Completed information for formation MVRD
1st Production Date: N/A
Status Date: 1/6/2009
Commingled: N
Formation Name: MESAVERDE
Formation Treatment: TEMPORARILY ABANDONED MESAVERDE TO TEST THE WATER INJECTION CAPABILITY OF WASATCH FORMATION (SEE PLUG FORMATION BELOW).
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
Initial Test Data:
Test Date: N/A
Hours Tested:
Gas Disposal:
Test Type Measure
Choke Size:
Hole Completion: N
Production Method:
Status: TA
Tubing Setting Depth:
Tubing Multiple Packer:
Open Hole Bottom:
Test Method:
Gas Type:
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**Perforation Data:**
- Interval Bottom: 7804
- Interval Top: 6343
- # of Holes: 96
- Hole Size: 0.43

**Completed information for formation MVRDC**
- 1st Production Date: N/A
- Status Date: 4/19/1981
- Formation Name: MESAVEDE COAL
- Choke Size: 2,064,000
- Status: CM

**Completed information for formation WSTC**
- 1st Production Date: N/A
- Status Date: N/A
- Formation Name: WASATCH
- Choke Size: N
- Status: SI
- Production Method: TEST WATER INJECTION CAPABILITY OF WASATCH FOR PURPOSES OF DETERMINING WHETHER WELL CAN BE CONVERTED TO A WATER DISPOSAL WELL. UNABLE TO RECOVER FORMATION WATER SAMPLE. PUMPED 252 GALLONS OF 7.5% HCL ACID. PUMPED 406,602 GALS OF PRODUCED WATER.
- Tubing Size: 2.375
- Tubing Packer Depth: 4550
- Open Hole Top: 4595
- Interval Bottom: 5096
- Interval Top: 4595
- # of Holes: 118
- Hole Size: 0.41

**No Initial Test Data was found for formation MVRDC.**

**No Perforation Data was found for formation MVRDC.**

**No Initial Test Data was found for formation WSTC.**
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08485
Well Name/No: MOONEY #2-10
Operator: ENCANA OIL & GAS (USA) INC - 100185
Status Date: 7/8/2002
County: MESA #077
Field: PLATEAU - #69300
Planned Location: 843 FNL, 1013 FEL
As Drilled Location: Footages Not Available

Wellbore Data for Sidetrack #00
Status: PR 7/8/2002

Wellbore Permit
Permit #: 820493
Expiry Date: 7/25/1982
Prop Depth/Form:
Mineral Owner: FEE
Unit:
Formation and Spacing: Code: CRCZR, Formation: CORCORAN-COZZETTE-ROLLINS, Order: 0, Unit Acreage: 160, Drill Un

Wellbore Completed
Completion Date: 6/14/1982
Measured TD: 5325
True Vertical TD: 0
Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 310, Weight:
Cement: Sacks: 230, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 5321, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

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Completed information for formation COZZ
1st Production Date: N/A
Status Date: N/A
Commingled: Formation Name: COZZETTE
Formation Treatment: Choke Size:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:  No Initial Test Data was found for formation COZZ.
No Perforation Data was found for formation COZZ.

Completed information for formation CRCRN
1st Production Date: N/A
Status Date: N/A
Commingled: Formation Name: CORCORAN
Formation Treatment: Choke Size:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:  No Initial Test Data was found for formation CRCRN.
No Perforation Data was found for formation CRCRN.

**Completed information for formation CRCZR**

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<tr>
<td>Production Method</td>
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<tr>
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<tr>
<td>Tubing Setting Depth</td>
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<tr>
<td>Tubing Multiple Packer</td>
<td></td>
</tr>
<tr>
<td>Open Hole Bottom</td>
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</tr>
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</table>

No Initial Test Data was found for formation CRCZR.

No Perforation Data was found for formation CRCZR.

**Completed information for formation RLNS**

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<tr>
<td>Formation Treatment</td>
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<td>Tubing Packer Depth</td>
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<td>Tubing Multiple Packer</td>
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<td>Open Hole Bottom</td>
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No Initial Test Data was found for formation RLNS.

No Perforation Data was found for formation RLNS.
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08391

Well Name/No: DOLLEY #6-2 (click well name for production)
Operator: OXY USA INC - 66561
Status Date: 9/9/1981
County: MESA #077
Field: PLATEAU - #69300
Planned Location: 2115 FNL 616 FWL
Lat/Long: 39.221193/-107.931569

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 810963
Expiration Date: 10/5/1981
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEE
Surface Owner:
Unit Number:
Formation and Spacing: Code: RCZCR , Formations: ROLLINS-COZZETTE-CORCORAN, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 9/8/1981
Measured TD: 5980
True Vertical TD: 5980
Casing: String Type: CONDUCTOR , Hole Size: 24, Size: 16, Top: 0, Depth: 40, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 320, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 5982, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Completed information for formation COZZ
1st Production Date: N/A
Status Date: N/A
Commingled: Choke Size:
Formation Name: COZZETTE
Formation Treatment: Status: PR
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation COZZ.
No Perforation Data was found for formation COZZ.

Completed information for formation CRCRN
1st Production Date: N/A
Status Date: N/A
Commingled: Choke Size:
Formation Name: CORCORAN
Formation Treatment: Status: PR
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation CRCRN.
**Completed information for formation RLNS**

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<tr>
<td>Choke Size</td>
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<td>Hole Completion</td>
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<tr>
<td>Production Method</td>
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<tr>
<td>Status</td>
<td>PR</td>
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<tr>
<td>Formation Name</td>
<td>ROLLINS</td>
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<tr>
<td>Formation Treatment</td>
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<tr>
<td>Tubing Size</td>
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<tr>
<td>Tubing Setting Depth</td>
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<td>Tubing Packer Depth</td>
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<td>Tubing Multiple Packer</td>
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<tr>
<td>Open Hole Top</td>
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<tr>
<td>Open Hole Bottom</td>
<td></td>
</tr>
</tbody>
</table>

**No Initial Test Data was found for formation RLNS.**

**No Perforation Data was found for formation RLNS.**
COGIS - WELL Information

Scout Card  Related  Insp.  MIT  GIS  Doc  Wellbore  Orders

Surface Location Data for API # 05-077-08491
Well Name/No: WEBB #2-9  (click well name for production)
Operator: BROWN INC* TOM - 11050
Status Date: 3/14/1996
County: MESA #077
Field: PLATEAU - #69300
Planned Location 1931 FNL, 1844 FWL

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 820752
Expiration Date: 8/29/1982
Prop Depth/Form:
Mineral Owner: FEE
Surface Mineral Owner Same: FEE
Unit:
Surface Owner: FEE
Unit Number:
Formation and Spacing: Code: RCZCR, Formation: ROLLINS-COZZETTE-CORCORAN, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 7/15/1982
Measured TD: 4960
True Vertical TD: 0
True Vertical PB depth:
Casing:
String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 335, Weight:
Cement:
Sacks: 230, Top: 0, Bottom: , Method Grade:
Casing:
String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 4907, Weight:
Cement:
Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored
ROLLINS 4274
COZZETTE 4612
CORCORAN 4750

Completed information for formation RCZCR
1st Production Date: N/A
Status Date: 3/14/1996
Commingled:
Formation Name: ROLLINS-COZZETTE-CORCORAN
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
Choke Size: 0.000
Hole Completion:
Production Method:

No Initial Test Data was found for formation RCZCR.
No Perforation Data was found for formation RCZCR.
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08316
Well Name/No: NICHOLS #3-7 (click well name for production)
Operator: COORS ENERGY COMPANY - 20170
Status Date: 4/5/1990
County: MESA #077 Location: SWSW 7 10S 95W 6 PM
Field: PLATEAU - #69300 Elevation: 5,906 ft.
Planned Location 895 FSL 976 FWL Lat/Long: 39.197713/-108.041222 Lat/Long Calculated From Footages
Wellbore Data for Sidetrack #00 PA 4/5/1990
Wellbore Permit
Permit #: 801309 Expiration Date: 1/24/1981
Prop Depth/Form: FEDERAL Surface Mineral Owner Same: Surface Owner:
Mineral Owner: Unit Number:
Unit:
Formation and Spacing: Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:
Wellbore Completed
Completion Date: 12/6/1980
Measured TD: 4222 Measured PB depth: 4146
True Vertical TD: 4222 True Vertical PB depth:
Casing: String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 197, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 4222, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Formation Log Top Log Bottom Cored DSTs
ROLLINS 2777
COZZETTE 3012
CORCORAN 3178
DAKOTA 7411
MORRISON 7590
Completed information for formation DKTA
1st Production Date: N/A Choke Size: 10,000.000
Status Date: 12/5/1980 Hole Completion:
Commingled: Production Method:
Formation Name: DAKOTA Status: PA
Formation Treatment:
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:
No Initial Test Data was found for formation DKTA .
No Perforation Data was found for formation DKTA .
COGIS - WELL Information

Scout Card
Surface Location Data for API # 05-077-08321
Well Name/No: WOODRING #8-16 (click well name for production)
Operator: CHANDLER & ASSOCIATES LLC - 15850
Status Date: 4/28/1986 Federal or State Lease #: SENE 16 10S 96W 6 PM
County: MESA #077 Location: 35808
Field: PLATEAU - #69300 Elevation: 5,460 ft.
Planned Location 1579 FNL 1008 FEL Lat/Long: 39.190752/-108.104103
Lat/Long Calculated From Footages

Wellbore Data for Sidetrack #00
PA 4/28/1986
Wellbore Permit
Permit #: 100001 Expiration Date: 2/15/1981
Prop Depth/Form: FEE Surface Mineral Owner Same:
Mineral Owner: Unit Number:
Unit:
Formation and Spacing: Code: CRCRN, Formation: CORCORAN, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 1/23/1981 Measured PB depth: 3402
Measured TD: 3443 True Vertical PB depth:
True Vertical TD: 3443
Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 320, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 5.5, Top: 0, Depth: 3443, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored DSTs
Completed information for formation CRCRN
1st Production Date: N/A Choke Size: 732.000
Status Date: 4/28/1986 Hole Completion:
Commingled:
Formation Name: CORCORAN Status: PA
Formation Treatment:
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top:
No Initial Test Data was found for formation CRCRN.
No Perforation Data was found for formation CRCRN.
## COGIS - WELL Information

### Scout Card

**Surface Location Data for API # 05-077-08513**  
**Operator:** BLACK HILLS PLATEAU PRODUCTION LLC - 10150  
**County:** MESA #077  
**Field:** BRONCO FLATS - #7563  
**Planned Location:** 2124 FNL 1410 FEL  
**Well Name/No:** WINTER FLATS #1-12-100D (click well name for production)  
**Status:** SI  

### Wellbore Data for Sidetrack #00

**Wellbore Permit**  
**Permit #:** 821220  
**Expiration Date:** 11/24/1982  
**Prop Depth/Form:** Surface Mineral Owner Same  
**Mineral Owner:** FEDERAL  
**Unit:** Unit Number: C 12657A  
**Formation and Spacing:** Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:  

**Wellbore Completed**  
**Completion Date:** 10/26/1982  
**Measured TD:** 6794  
**True Vertical TD:** 6794  
**Casing:** String Type: SURF , Hole Size: 13.75, Size: 9.625, Top: 0, Depth: 313, Weight:  
**Cement:** Sacks: 0, Top: 0, Bottom: , Method Grade:  
**Formation:** ROLLINS , COZZETTE , CORCORAN , MANCOS , DAKOTA , CEDAR MOUNTAIN , MORRISON  
**Log Top** | **Log Bottom** | **Cored**  
---|---|---  
1833 | 6632 |  
1950 | 6710 |  
2212 |  
2456 |  
6495 |  

**Completed information for formation DAKOTA**  
**1st Production Date:** 10/4/1982  
**Status Date:** 10/30/1982  
**Commingled:**  
**Formation Name:** DAKOTA  
**Formation Treatment:**  
**Tubing Size:**  
**Tubing Packer Depth:**  
**Open Hole Top:**  
**Initial Test Data:**  
**Test Date:** 10/30/1982  
**Hours Tested:** 24  
**Gas Disposal:** VENTED  
**Test Type** | **Measure**  
---|---  
CASING_PRESS | 200  
MCF_GAS | 226  
TUBING_PRESS | 50  
**Choke Size:** 20,000,000  
**Hole Completion:**  
**Production Method:**  
**Status:** SI  
**Tubing Setting Depth:**  
**Tubing Multiple Packer:**  
**Open Hole Bottom:**  
**Test Method:** FLOWING  
**Gas Type:**
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08443
Well Name/No: WINTER FLATS #2-11-100 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 8/15/2005
County: MESA #077
Field: BRONCO FLATS - #7563
Planned Location 1475 FNL 1955 FEL
Lat/Long: 39.291379/-108.517567
Wellbore Data for Sidetrack #00
Spud Date: 7/9/1982
Wellbore Permit
Permit #: 821071
Expiration Date: 10/25/1982
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Unit: C 12657
Formation and Spacing: Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:
Wellbore Completed
Completion Date: 8/11/1982
Measured TD: 6755
True Vertical TD: 6755
Log Types: IND, GR, FDC, CNL, SP
Casing: String Type: SURF , Hole Size: 13.75, Size: 9.625, Top: 0, Depth: 318, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Cement: Sacks: 320, Top: , Bottom: , Method Grade:
Casing: String Type: 2ND , Hole Size: 8.75, Size: 4.5, Top: , Depth: 6755, Weight: 10.5
Cement: Sacks: 280, Top: , Bottom: , Method Grade:
Formation
ROLLINS 1803
COZZETTE 1918
CORCORAN 2168
DAKOTA 6445
CEDAR MOUNTAIN 6581
MORRISON 6683
Completed information for formation CDMTN
1st Production Date: N/A
Status Date: 9/11/2006
Commingled: Hole Completion:
Formation Name: CEDAR MOUNTAIN
Formation Treatment:
Status: PR
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
No Initial Test Data was found for formation CDMTN.
No Perforation Data was found for formation CDMTN.
**COGIS - WELL Information**

**Scout Card**

**Surface Location Data for API # 05-077-08191**

Status: PA

Well Name/No: JENACARO #2-17 (click well name for production)

Operator: CHANDLER & ASSOCIATES LLC - 15850

Status Date: 8/31/1979

County: MESA #077

Field: PLATEAU - #69300

Elevation: 5,468 ft.

Planned Location: 624 FNL 2246 FEL Lat/Long: 39.193582/-108.127584

**Wellbore Data for Sidetrack #00**

PA 8/31/1979

**Wellbore Permit**

Permission #: 790748

Expiration Date: 12/1/1979

Prop Depth/Form: Surface Mineral Owner Same:

Mineral Owner: FEE

Surface Owner:

Unit:

Unit Number:

Formation and Spacing: Code: COZZ, Formation: COZZETTE, Order: 0, Unit Acreage: 0, Drill Unit:

**Wellbore Completed**

Completion Date: 8/31/1979

Measured TD: 3460

Measured PB depth:

True Vertical TD: 3460

True Vertical PB depth:

Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 265, Weight:

Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Casing: String Type: 1ST, Hole Size: 7.875, Size: 5.5, Top: 0, Depth: 3432, Weight:

Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

**Formation Log Top Log Bottom Cored DSTs**

**Completed information for formation COZZ**

1st Production Date: N/A

Choke Size: 102.000

Status Date: 10/15/1979

Production Method:

Formation Name: COZZETTE

Status: PA

Formation Treatment:

Tubing Size:

Tubing Packer Depth:

Open Hole Top:

No Initial Test Data was found for formation COZZ.

No Perforation Data was found for formation COZZ.
## COGIS - WELL Information

### Scout Card

- **Surface Location Data for API # 05-077-08518**
  - **Well Name/No:** WINTER FLATS #1 10 100 (click well name for production)
  - **Operator:** BLACK HILLS PLATEAU PRODUCTION LLC - 10150
  - **Status Date:** 8/1/1983
  - **County:** MESA #077
  - **Field:** BRONCO FLATS - #7563
  - **Location:**
    - **Elevation:** 7,101 ft.
  - **Lat/Long:** 39.285659/-108.541798
  - **Planned Location:** 1632 FSL 1780 FWL
  - **Lat/Long Calculated From Footages**

### Wellbore Data for Sidetrack #00

- **Wellbore Permit**
  - **Permit #:** 821409
  - **Expiration Date:** 12/30/1982
  - **Prop Depth/Form:** Surface Mineral Owner Same
  - **Mineral Owner:** FEDERAL
  - **Surface Owner:**
  - **Unit Number:** C-12661-A
  - **Formation and Spacing:** Code: DKTA, Formation: DAKOTA, Order: 0, Unit Acreage: 440, Drill Unit:

### Wellbore Completed

- **Completion Date:** 11/4/1982
- **Measured TD:** 6679
- **True Vertical TD:** 0
- **Casing:**
  - **String Type:** SURF, **Hole Size:** 13.75, **Size:** 9.625, **Top:** 345, **Depth:** 6679, **Weight:** 36
  - **Cement:**
    - **Sacks:** 300, **Top:** 0, **Bottom:** 345, **Method Grade:**
  - **Casing:**
    - **String Type:** SURF, **Hole Size:** 13.75, **Size:** 9.625, **Top:** 0, **Depth:** 345, **Weight:**
    - **Cement:**
      - **Sacks:** 300, **Top:** 0, **Bottom:** , **Method Grade:**
      - **Casing:**
        - **String Type:** 1ST, **Hole Size:** 8.75, **Size:** 4.5, **Top:** , **Depth:** 6679, **Weight:** 10.5
        - **Cement:**
          - **Sacks:** 250, **Top:** 5600, **Bottom:** 6679, **Method Grade:**
  - **Casing:**
    - **String Type:** 1ST, **Hole Size:** 8.75, **Size:** 4.5, **Top:** 0, **Depth:** 6679, **Weight:**
    - **Cement:**
      - **Sacks:** 0, **Top:** 0, **Bottom:** , **Method Grade:**

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<th>Log Top</th>
<th>Log Bottom</th>
<th>Cored</th>
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<td>COZZETTE</td>
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<td>CORCORAN</td>
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<td>MANCOS</td>
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<td>DAKOTA</td>
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<td>MORRISON</td>
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### Completed information for formation DKTA

- **1st Production Date:** 10/15/1982
- **Status Date:** 11/8/1982
- **Commingled:**
- **Formation Name:** DAKOTA
- **Formation Treatment:**
- **Tubing Size:**
- **Tubing Packer Depth:**
- **Open Hole Top:**
- **Initial Test Data:**
  - **Test Date:** 11/8/1982
  - **Test Method:** FLOWING
  - **Hours Tested:** 24
  - **Gas Disposal:** VENTED

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Measure</th>
</tr>
</thead>
</table>
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08192
Well Name/No: FEDERAL #1-3 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 11/9/2007 Federal or State Lease #: 36052
County: MESA #077 Location: SWSW 1 10S 97W 6 PM
Field: SHIRE GULCH - #77450 Elevation: 5,947 ft.
Planned Location: 1236 FSL 1002 FWL Lat/Long: 39.212352/-108.172886
Lat/Long Calculated From Footages

Wellbore Data for Sidetrack #00
Wellbore Permit
Permit #: 790794 Expiration Date: 4/15/1979
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL Surface Owner:
Unit: Unit Number:
Formation and Spacing: Code: CRCRN, Formation: CORCORAN, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 12/4/1979
Measured TD: 3367 Measured PB depth: 3328
True Vertical TD: 3367 True Vertical PB depth:
Casing: String Type: SURF, Hole Size: 8.625, Top: 360, Depth: 360, Weight: 24
Cement: Sacks: 235, Top: 0, Bottom: 360, Method Grade:
Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 360, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 4.5, Top: , Depth: 3365, Weight: 15.5
Cement: Sacks: 450, Top: 2200, Bottom: 3365, Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 3366, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored Depth
ROLLINS 2748
COZZETTE 2978
CORCORAN 3149

Completed information for formation CRCRN
1st Production Date: N/A Choke Size: 102.000
Status Date: 11/29/1979 Hole Completion:
Commingled: Production Method:
Formation Name: CORCORAN Status: PR
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
No Initial Test Data was found for formation CRCRN.
No Perforation Data was found for formation CRCRN.
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08230

Well Name/No: HORSEHOE CANYON #5 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 5/13/1980
County: MESA #077
Field: SHIRE GULCH - #77450
Planned Location 2300 FSL 1400 FEL
Rural Location Lat/Long: 39.229531/-108.200077
Federal or State Lease #: 36077
Location: NWSE 34 9S 97W 6 PM
Elevation: 5,663 ft.
Lat/Long Calculated From Footages

Wellbore Data for Sidetrack #00

Wellbore Permit

Status: PR 5/13/1980
Permit #: 800046
Expiration Date: 5/16/1980
Surface Mineral Owner Same:
Surface Owner:
Unit Number: CR-27999
Formation and Spacing: Code: MVRD , Formation: MESAVERDE , Order: 0 , Unit Acreage: 320, Drill Unit: E2

Wellbore Completed

Completion Date: 5/16/1980
Measured TD: 3285
True Vertical TD: 3285
Measured PB depth: 3243
String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 195, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 3285, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Completed information for formation COZZ

Formation Name: COZZETTE
Formation Treatment:
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation COZZ .

Registered: 4/30/1980 Challenge Size:
Status Date: 3/28/2006 Hole Completion:
Commingled: Production Method:
Formation Name: COZZETTE Status: SI
Formation Treatment:
Perforation Data:
Interval Bottom: 2747 Interval Top: 2709
# of Holes: Hole Size: 0.38

Completed information for formation CCRN

Formation Name: CORCORAN
Formation Treatment:

1st Production Date: 4/30/1980 Choke Size:
Status Date: 5/13/1980 Hole Completion:
Commingled: Production Method:
Formation Name: CORCORAN Status: PR

Completed information for formation CCRN
Tubing Size:   
Tubing Packer Depth:   
Open Hole Top:   

No Initial Test Data was found for formation CRCRN.

Perforation Data:
Interval Bottom: 2954  
# of Holes:  

Committed information for formation CZ-CR

1st Production Date: 4/30/1980  
Status Date: 5/13/1980  
Commingled:  
Formation Name: COZZETTE-CORCORAN  
Formation Treatment:  
Tubing Size:  
Tubing Packer Depth:  
Open Hole Top:  

Initial Test Data:
Test Date: 5/13/1980  
Hours Tested: 24  
Gas Disposal: VENTED

Test Type  Measure
BBLs_H2O    37
CASING_PRESS 145
MCF_GAS    208
TUBING_PRESS  70

Perforation Data:
Interval Bottom: 2954  
# of Holes:  

Interval Top: 2938  
Hole Size: 0.38

Choke Size: 20,000.000  
Hole Completion:  
Production Method:  
Status: CM

Test Method: FLOWING

Gas Type:
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08427

Well Name/No: HORSESHOE CANYON #C 2-27 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 11/28/1981
County: MESA #077
Field: SHIRE GULCH - #77450
Planned Location: 1223 FSL, 1572 FWR
Federal or State Lease #: 36122
Location: SESW 27 9S 97W 6 PM
Elevation: 5,786 ft.
Lat/Long: 39.241161/-108.208387
Lat/Long Calculated From Foot

Wellbore Data for Sidetrack #00

Status: PR 11/28/1981

Wellbore Permit

Permit #: 811523
Expiration Date: 1/4/1982
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Surface Owner:
Unit Number:
Formation and Spacing: Code: MVRD, Formation: MESAVERDE, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed

Completion Date: 12/12/1981
Measured TD: 7566
True Vertical TD: 7566
Measured PB depth: 7560
True Vertical PB depth:
Casing: String Type: SURF, Hole Size: 14.75, Size: 10.75, Top: 0, Depth: 320, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 8.75, Size: 7, Top: 0, Depth: 3568, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

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<thead>
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<th>Formation</th>
<th>Log Top</th>
<th>Log Bottom</th>
<th>Cored</th>
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<tbody>
<tr>
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<td>COZZETTE</td>
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<td>MORRISON</td>
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Completed information for formation CRCRN

1st Production Date: 12/10/1981
Choke Size:
Status Date: 1/2/2001
Hole Completion:
Commingled:
Production Method:
Formation Name: CORCORAN
Status: PR
Formation Treatment:
Tubing Size:
Tubing Setting Depth:
Tubing Packer Depth:
Tubing Multiple Packer:
Open Hole Top:
Open Hole Bottom:
Initial Test Data:
Test Date: 12/14/1981
Test Method: FLOWING
Hours Tested: 24
Gas Type:
Gas Disposal: VENTED

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<tbody>
<tr>
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<td>450</td>
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Perforation Data:
**Completed information for formation DKTA**

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<tr>
<td>Choke Size</td>
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<td>Status Completion</td>
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<td>Tubing Packer Depth</td>
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<tr>
<td>Open Hole Bottom</td>
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<td>Gas Disposal</td>
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**Test Type**

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COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08456
Well Name/No: HORSESHOE CANYON #1-21 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 2/28/1997
County: MESA #077
Field: SHIRE GULCH - #77450
Planned Location 900 FSL 1000 FWL

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 811211 Expiration Date: 3/30/1982
Prop Depth/Form: DIRECTIONAL
Mineral Owner: FEE
Unit:
Formation and Spacing: Code: DK-CM, Formation: DAKOTA-CEDAR MOUNTAIN, Order: 0, Unit Acreage: 640, Drill Unit: ALL

Wellbore Completed
Completion Date: 7/16/1982
Measured TD: 7850 Measured PB depth: 7806
True Vertical TD: 0 True Vertical PB depth:
Casing: String Type: SURF, Hole Size: 13.75, Size: 9.625, Top: 0, Depth: 400, Weight:
Cement: Sacks: 285, Top: 0, Bottom:, Method Grade:
Casing: String Type: 1ST, Hole Size: 8.75, Size: 7, Top: 0, Depth: 4090, Weight:
Cement: Sacks: 0, Top: 0, Bottom:, Method Grade:
Casing: String Type: 2ND, Hole Size: 6.25, Size: 4.5, Top: 0, Depth: 7850, Weight:
Cement: Sacks: 0, Top: 0, Bottom:, Method Grade:

Formation Log Top Log Bottom Cored
CAMEO 2544
ROLLINS 2814
COZZETTE 3030
CORCORAN 3230
SEGO 3384
MANCOS 3514
DAKOTA 7520
MORRISON 7748

Completed information for formation COZZ
1st Production Date: 1/21/1993 Choke Size:
Status Date: N/A Hole Completion:
Commingled:
Formation Name: COZZETTE Production Method:
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:

No Initial Test Data was found for formation COZZ.

Completed information for formation CRCRN
1st Production Date: 10/16/1992 Choke Size:
COGIS - WELL Information

Surf Location Data for API # 05-077-08360

Well Name/No: HORSESHOE CANYON C #1 31 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 5/15/1981
County: MESA #077
Field: ROBERTS CANYON - #74000
Planned Location: 1279 FNL 1685 FEL

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 810420
Expiration Date: 7/15/1981
Prop Depth/Form: FEDERAL
Surface Mineral Owner Same: Surface Owner:
Unit: C-18819
Unit Number:
Formation and Spacing: Code: DKTA, Formation: DAKOTA, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 5/13/1981
Measured TD: 7056
True Vertical TD: 7056
Casing: String Type: SURF, Hole Size: 13.75, Size: 10.75, Top: 0, Depth: 258, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:
Cement: String Type: 1ST, Hole Size: 8.75, Size: 7, Top: 0, Depth: 3272, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 2ND, Hole Size: 6.25, Size: 4.5, Top: 0, Depth: 7056, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation
ROLLINS
COZZETTE
MANCOS
FRONTIER
DAKOTA
CEDAR MOUNTAIN
MORRISON

Log Top
2094
2294
2786
6570
6730
6850
6956

Log Bottom

Cored

Completed information for formation DAKOTA

1st Production Date: 5/8/1981
Status Date: 5/15/1981
Commingled: DAKOTA
Formation Name:
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
Initial Test Data:
Test Date: 5/15/1981
Hours Tested: 24
Gas Disposal: VENTED

Test Type
CASING_PRESS
MCF_GAS

Measure
50
1880

Choke Size: 20,000,000
Hole Completion: PR
Production Method:
Status:
Tubing Setting Depth:
Tubing Multiple Packer:
Open Hole Bottom:
Test Method:
Gas Type:
FLOWING
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<td>Hours Tested:</td>
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<td>Gas Disposal:</td>
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**Test Type** | **Measure**
--- | ---
CASING_PRESS | 240
MCF_GAS | 750

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**Completed information for formation CZ-CR**

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<td>Formation Treatment:</td>
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</tr>
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<td>Gas Disposal:</td>
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**Test Type** | **Measure**
--- | ---
CASING_PRESS | 240
MCF_GAS | 750

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**Completed information for formation DKTA**

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<tr>
<td>Formation Name:</td>
<td>DAKOTA</td>
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<tr>
<td>Formation Treatment:</td>
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<tr>
<td>Tubing Size:</td>
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<tr>
<td>Tubing Packer Depth:</td>
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<td>Open Hole Top:</td>
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<tr>
<td>Gas Disposal:</td>
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**Test Type** | **Measure**
--- | ---
CASING_PRESS | 300
MCF_GAS | 3403
TUBING_PRESS | 50

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<table>
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**Choke Size:**

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**Completed information for formation Double**

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<td>Gas Disposal:</td>
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**Test Type** | **Measure**
--- | ---
CASING_PRESS | 300
MCF_GAS | 3403
TUBING_PRESS | 50

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**Choke Size:**

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**Completed information for formation E2**

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**Test Type** | **Measure**
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CASING_PRESS | 300
MCF_GAS | 3403
TUBING_PRESS | 50

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<table>
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COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08685
Status: WO

Well Name/No: SULFUR GULCH 9-98-23 ##1 (click well name for production)
Operator: MARALEX RESOURCES, INC - 53255
Status Date: 12/20/1994
County: MESA #077
Field: BRONCO FLATS - #7563
Planned Location 1933 FNL 620 FWL

Location: SWNW 23.9S 98W 6 PM
Elevation: Unknown ft.
Lat/Long: 39.26074/-108.30466
Lat/Long Calculated From Footag

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 941685
Expiration Date: 4/25/1995
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Surface Owner:
Unit: Unit Number: C-11443
Formation and Spacing: Code: CAMMV , Formation: CAMEO COALS-MESAVERDE , Order: 0 , Unit Acreage: 160, Drill Unit: N

Wellbore Completed
Completion Date: N/A
Measured TD:
Measured PB depth:
True Vertical TD:
True Vertical PB depth:

Formation Log Top Log Bottom Cored

No additional interval records were found for sidetrack 00.
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08687
Well Name/No: SULFUR GULCH 9-98-22 #1 (click well name for production)
Operator: MARALEX RESOURCES, INC - 53255
Status Date: 11/1/2007
County: MESA #077
Federal or State Lease #:
Field: BRONCO FLATS - #7563
Location: NENW 22 9S 98W 6 PM
Planned Location 1055 FNL 1208 FWL
Elevation: 5,733 ft.
Lat/Long: 39.263/-108.320981
Lat/Long Calculated From Footages

Wellbore Data for Sidetrack #00
Spud Date: 3/15/1995
Spud Date is: ACTUAL

Wellbore Permit
Permit #: 941760
Expiration Date: 5/9/1995
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Surface Owner:
Unit: Unit Number: C-55611
Formation and Spacing: Code: ROLCM , Formation: ROLLINS-CAMEO , Order: 0 , Unit Acreage: 160, Drill Unit: NW4

Wellbore Completed
Completion Date: 6/6/2001
Measured TD: 2408
Measured PB depth: 2367
True Vertical TD: True Vertical PB depth:
Log Types: CEMENT BOND LOG CDL SPACED NEUTRON, DUAL INDUCTION/HR COMP DENSITY, MICROLOG/GR/CALIPER
Log Types: CDL SPACED NUE, DUAL IND/HR, COMP DENS, MICRO/GR/CALIPER,CBL.
Cement: Sacks: 200, Top: 0, Bottom: 264, Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 5.5, Top: , Depth: 2408, Weight: 15.5
Cement: Sacks: 250, Top: 0, Bottom: 2408, Method Grade:
Casing: String Type: S.C. 1.1 , Hole Size: , Size: , Top: , Depth: , Weight:
Cement: Sacks: 100, Top: , Bottom: , Method Grade:

Formation Log Top Log Bottom Cored
MESAVERDE 0 1952 N
CAMEO COAL 1952 2216 N
ROLLINS 2216 N

Completed information for formation CMEOC
1st Production Date: N/A
Status Date: 11/1/2007
Commingled: N
Formation Name: CAMEO COAL
Formation Treatment: SEE ATTACHED REPORT
Tubing Size: 2.375
Tubing Packer Depth: Tubing Setting Depth: 2228
Open Hole Top: Tubing Multiple Packer:
Initial Test Data: Open Hole Bottom:
Test Date: 6/21/2001
Hours Tested: Test Method: FLOWING
Gas Disposal: SOLD Gas Type: COAL GAS

Test Type Measure
BBLs_H2O 234
BBLs_OIL 0
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08371
Well Name/No: USA #1-20 JC  (click well name for production)
Operator: MARALEX RESOURCES, INC - 53255
Status Date: 10/1/1983  Federal or State Lease #: 35258
County: MESA #077  Location: NWNE 20 9S 98W 6 PM
Field: BRONCO FLATS - #7563 Elevation: 5,921 ft.
Planned Location 998 FNL 2148 FEL  Lat/Long: 39.26309/-108.351182
Wellbore Data for Sidetrack #00  Lat/Long Calculated From Footages
Status: SI 10/1/1983

Wellbore Permit
Permit #: 810640  Expiration Date: 8/28/1981
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL  Surface Owner:
Unit: C-12645 A  Unit Number:
Formation and Spacing: Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:

Wellbore Completed
Completion Date: 7/20/1981
Measured TD: 7356  Measured PB depth: 7205
True Vertical TD: 0  True Vertical PB depth:
Casing: String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 419, Weight:
Cement: Sacks: 400, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 7356, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored
Completed information for formation DKTA
1st Production Date: N/A  Choke Size: 10,104.000
Status Date: 7/20/1981  Hole Completion:
Commingled: Production Method:
Formation Name: DAKOTA  Status: Si
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:
No Initial Test Data was found for formation DKTA.
No Perforation Data was found for formation DKTA.
COGIS - WELL Information

Scout Card [Related Insp. MIT GIS Doc. Wellbore Orders]

Surface Location Data for API # 05-077-08464
Status: SL

Well Name/No: WINTER FLATS #1-11-99 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 6/1/1982 Federal or State Lease #:
County: MESA #077 Location: NWSW 11 9S 99W 6 PM
Field: BRONCO FLATS - #7563 Elevation: 6,090 ft.
Planned Location Lat/Long: 39.284819/-108.412414
As Drilled Location Lat/Long: 39.284819/-108.412414
Permit: Lat/Long Calculated From Footages
Footages Not Available Lat/Long Source: Calculated From Footages

Wellbore Data for Sidetrack #00
Status: SI 6/1/1982

Wellbore Permit
Permit #: 812342 Expiration Date: 4/30/1982
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL Surface Owner:
Unit: Unit Number: C-12651-A
Formation and Spacing: Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:

Wellbore Completed
Completion Date: 4/28/1982
Measured TD: 7200 Measured PB depth: 6980
True Vertical TD: 0 True Vertical PB depth:
Casing:
String Type: SURF , Hole Size: 14.75, Size: 10.75, Top: , Depth: 282, Weight: 40.5
Sacks: 300, Top: 0, Bottom: 282, Method Grade:
Cement:
String Type: SURF , Hole Size: , Size: 10.75, Top: 0, Depth: 282, Weight:
Sacks: 300, Top: 0, Bottom: , Method Grade:
Casing:
String Type: 1ST , Hole Size: 8.75, Size: 7, Top: , Depth: 3340, Weight: 23
Sacks: 325, Top: 1840, Bottom: 3340, Method Grade:
Cement:
String Type: 1ST , Hole Size: , Size: 7, Top: 0, Depth: 3340, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing:
String Type: 2ND , Hole Size: 6.25, Size: 4.5, Top: , Depth: 7200, Weight: 10.5
Sacks: 250, Top: 5100, Bottom: 7200, Method Grade:
Casing:
String Type: 2ND , Hole Size: , Size: 4.5, Top: 0, Depth: 7200, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored
ROLLINS 2231
COZZETTE 2391
CORCORAN 2594
SEGO 2767
MANCOS 2928
MANCOS B 4837
FRONTIER 6746
DAKOTA 6888
CEDAR MOUNTAIN 6981
MORRISON 7077

Completed information for formation DAKOTA
1st Production Date: 4/28/1982 Choke Size: 20,000,000
Status Date: 6/11/1982 Hole Completion:
Commingled:
Formation Name: DAKOTA Production Method:
Formation Treatment:
COGIS - WELL Information

Surface Location Data for API # 05-077-08502

Well Name/No: WINTER FLATS #1 18 99 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 11/3/1982
County: MESA #077
Field: BRONCO FLATS - #7563
Planned Location 1375 FNL 1080 FEL
Lat/Long: 39.277179/-108.474795
Lat/Long Calculated From Footages

Wellbore Data for Sidetrack #00
Spud Date: 9/30/1982
Spud Date is: ACTUAL

Wellbore Permit
Permit #: 820942
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Unit: Unit Number: C-12651-A
Formation and Spacing: Code: DKTA , Formation: DAKOTA , Order: 0 , Unit Acreage: 0 , Drill Unit:

Wellbore Completed
Completion Date: N/A
Measured TD: 6654
True Vertical TD: 6654
Log Types: DIL, GR, SP, FDC, CNL
Cement: Sacks: 300, Top: 0, Bottom: 323, Method Grade:
Casing: String Type: 1ST , Hole Size: 8.75, Size: 4.5, Top: , Depth: 6650, Weight: 10.5
Cement: Sacks: 275, Top: 5948, Bottom: 6650, Method Grade:

Formation Log Top Log Bottom Cored
ROLLINS 1726 N
COZZETTE 1850 N
CORCORAN 2085 N
MANCOS 2390 N
DAKOTA 6372 N
CEDAR MOUNTAIN 6490 N
MORRISON 6576 N

Completed information for formation DKTA
1st Production Date: 10/29/1982
Status Date: 11/3/1982
Commingle: Y
Formation Name: DAKOTA
Formation Treatment: 3000 GAL 7 1/2% HCL W/40 BS FRAC W/115,000# 20/40 54,120 GAL VERSAGEL&600 SCF CO2 BB
Tubing Size: 2.375
Tubing Packer Depth: Tubing Setting Depth: 6540
Open Hole Top: Open Hole Bottom:
Initial Test Data:
Test Date: 11/3/1982
Hours Tested: 24
Gas Disposal: VENTED

Test Type Measure Gas Type:
BBLS_OIL 0
CALC_MCF_GAS 317
## COGIS - WELL Information

### Scout Card

**Surface Location Data for API # 05-045-06722**  
**Well Name/No:** EXXON #GV 18-23  
**Operator:** WILLIAMS PRODUCTION RMT COMPANY - 96850  
**Status Date:** 2/14/1991  
**County:** GARFIELD #045  
**Location:** NENW 23 7S 96W 6 PM  
**Field:** GRAND VALLEY - #31290  
**Elevation:** 5,118 ft.  
**Planned Location Lat/Long:** 39.426994/-108.081555  
**Status:** PR  

### Wellbore Data for Sidetrack #00

#### Wellbore Permit

**Permit #:** 901023  
**Expiration Date:** 1/9/1991  
**Prop Depth/Form:** Surface Mineral Owner Same  
**Mineral Owner:** FEE  
**Surface Owner:**  
**Unit Number:**  
**Formation and Spacing:** Code: WFCM, Formation: WILLIAMS FORK - CAMEO, Order: 0, Unit Acreage: 320, Drill Unit: W2

#### Wellbore Completed

**Completion Date:** 2/9/1991  
**Measured TD:** 5600  
**True Vertical TD:** 0  
**Casing:** String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 338, Weight:  
**Cement:** Sacks: 200, Top: 1, Bottom: , Method Grade:  
**Casing:** String Type: 1ST, Hole Size: 7.875, Size: 5.5, Top: 0, Depth: 5558, Weight:  
**Cement:** Sacks: 0, Top: 0, Bottom: , Method Grade:  

#### Formation

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<tr>
<th></th>
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<tbody>
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<td>ROLLINS</td>
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### Completed information for formation CMEOC

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<td>Formation Name:</td>
<td>CAMEO COAL</td>
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<td>Formation Treatment:</td>
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**No Initial Test Data was found for formation CMEOC.**

**No Perforation Data was found for formation CMEOC.**

### Completed information for formation WFCM

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<td>Commingled:</td>
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<td>Production Method:</td>
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<td>Formation Name:</td>
<td>WILLIAMS FORK - CAMEO</td>
<td>Status:</td>
<td>PR</td>
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<td></td>
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<tr>
<td>Tubing Size:</td>
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<td>Tubing Setting Depth:</td>
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<td>Tubing Packer Depth:</td>
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<td>Tubing Multiple Packer:</td>
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<tr>
<td>Open Hole Top:</td>
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<td>Open Hole Bottom:</td>
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</tbody>
</table>
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08455

Well Name/No: WINTER FLATS #1 10 99 (click well name for production)
Operator: BLACK HILLS PLATEAU PRODUCTION LLC - 10150
Status Date: 6/1/1984
County: MESA #077
Field: BRONCO FLATS - #7563
Planned Location: 1563 FSL 1273 FWL

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 812086
Expiration Date: 3/25/1982
Prop Depth/Form:
Mineral Owner: FEDERAL
Unit: C-12651-A

Wellbore Completed
Completion Date: 5/10/1982
Measured TD: 7120
True Vertical TD: 0
Cement: Sacks: 355, Top: 0, Bottom: 322, Method Grade:
Casing: String Type: SURF , Hole Size: 14.75, Size: 10.75, Top: 0, Depth: 322, Weight:
Cement: Sacks: 355, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST , Hole Size: 8.75, Size: 7, Top: , Depth: 3205, Weight: 23
Cement: Sacks: 150, Top: 1958, Bottom: 3205, Method Grade:
Casing: String Type: 1ST , Hole Size: 8.75, Size: 7, Top: 0, Depth: 3205, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:
Casing: String Type: 2ND , Hole Size: 4.25, Size: 4.5, Top: , Depth: 718, Weight: 11.6
Cement: Sacks: 150, Top: 5964, Bottom: 7118, Method Grade:
Casing: String Type: 2ND , Hole Size: 6.25, Size: 4.5, Top: 0, Depth: 7118, Weight:
Cement: Sacks: 0, Top: 0, Bottom: , Method Grade:

Formation Log Top Log Bottom Cored
CAMEO 1992
ROLLINS 2172
COZZETTE 2328
CORCORAN 2542
SEGO 2686
MANCOS 2820
DAKOTA 6804
CEDAR MOUNTAIN 6930
MORRISON 7024

Completed information for formation DKTA
1st Production Date: 5/5/1982
Status Date: 8/15/2001
Commingled:
Formation Name: DAKOTA
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Choke Size: 20,000.000
Hole Completion:
Production Method:
Status: PR
Tubing Setting Depth:
Tubing Multiple Packer:
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-045-06730

Well Name/No: EXXON #GV 33-22 (click well name for production)
Operator: WILLIAMS PRODUCTION RMT COMPANY - 96850
Status Date: 5/22/2001
County: GARFIELD #045
Field: GRAND VALLEY - #31290
Planned Location: 601 FSL 1545 FEL
Location: SWSE 22 7S 96W 6 PM
Elevation: 5,112 ft.
Lat/Long Calculated From Footages
Lat/Long: 39.417449/-108.092475
Status: PR

Wellbore Data for Sidetrack #00

Wellbore Permit

Permit #: 901212
Expiration Date: 2/15/1991
Prop Depth/Form:
Mineral Owner: FEE
Unit:
Formation and Spacing: Surface Mineral Owner Same:
Surface Owner:
Unit Number:
Code: WFCM , Formation: WILLIAMS FORK - CAMEO , Order: 0 , Unit Acreage: , Drill Unit:

Wellbore Completed

Completion Date: 2/9/1991
Measured TD: 5365
Measured PB depth: 0
True Vertical TD: 0
True Vertical PB depth:
Casing: String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 301, Weight:
Cement: Sacks: 200, Top: 0, Bottom: , Method Grade:
Casing:
String Type: 1ST , Hole Size: 7.875, Size: 5.5, Top: 0, Depth: 5351, Weight:
Cement:
Sacks: 0, Top: 0, Bottom: , Method Grade:

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<tr>
<th>Formation</th>
<th>Log Top</th>
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<th>Cored</th>
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<tr>
<td>MESACERIDE</td>
<td>2288</td>
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<tr>
<td>CAMEO COAL</td>
<td>4681</td>
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<td>ROLLINS</td>
<td>5107</td>
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Completed information for formation WFCM

1st Production Date: N/A
Status Date: 5/22/2001
Choke Size: 0.000
Commingled: Production Method:
Formation Name: WILLIAMS FORK - CAMEO
Status: PR
Formation Treatment:
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation WFCM.
No Perforation Data was found for formation WFCM.
BBLS_OIL 0
BTU_GAS 1170
CALC_BBLS_H2O 35
CALC_MCF_GAS 534
CASING_PRESS 1150
MCF_GAS 534
TUBING_PRESS 1050

Perforation Data:
Interval Bottom: 5315 Interval Top: 4828
# of Holes: 186 Hole Size:

Completed information for formation RLNS
1st Production Date: N/A Choke Size:
Status Date: N/A Hole Completion: N
Commingled: Y Production Method:
Formation Name: ROLLINS Status: PR
Formation Treatment: STAGE 4 WAS TREATED W/2798 BBL SLICKWATER AND 120,000# OF 20-40 SAND.
Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top:

No Initial Test Data was found for formation RLNS.

Perforation Data:
Interval Bottom: 4622 Interval Top: 4566
# of Holes: 56 Hole Size:

Completed information for formation WMFK
1st Production Date: N/A Choke Size:
Status Date: N/A Hole Completion: N
Commingled: Y Production Method:
Formation Name: WILLIAMS FORK Status: PR
Formation Treatment: STAGES 5 THROUGH 6 WERE TREATED WITH A TOTAL OF 3359 BBL SLICKWATER, 2888 BBL O FRAC, AND 310,600# PF 20-40 SAND.
Tubing Size: 2.375 Tubing Setting Depth: 4940
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top:
Initial Test Data:
Test Date: N/A Test Method: FLOWING
Hours Tested: 24 Gas Type:
Gas Disposal: SOLD

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<th>Test Type</th>
<th>Measure</th>
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<tr>
<td>BTU_GAS</td>
<td>1170</td>
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Perforation Data:
Interval Bottom: 4406 Interval Top: 3508
# of Holes: 40 Hole Size:
**COGIS - WELL Information**

**Scout Card**

**Surface Location Data for API # 05-077-08796** (click well name for production)

<table>
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<tr>
<th><strong>Well Name/No:</strong></th>
<th>ORCHARD UNIT #17-14A(N17OU)</th>
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<tr>
<td><strong>Operator:</strong></td>
<td>ENCANA OIL &amp; GAS (USA) INC - 100185</td>
</tr>
<tr>
<td><strong>Status Date:</strong></td>
<td>11/21/2004</td>
</tr>
<tr>
<td><strong>County:</strong></td>
<td>MESA #077</td>
</tr>
<tr>
<td><strong>Field:</strong></td>
<td>GRAND VALLEY - #31290</td>
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<tr>
<td><strong>Planned Location</strong></td>
<td>801 FSL 2004 FWL</td>
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<tr>
<td><strong>As Drilled Location</strong></td>
<td>Footages Not Available</td>
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**Wellbore Data for Sidetrack #00**

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<th><strong>Spud Date:</strong></th>
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<tr>
<td><strong>Status:</strong></td>
<td>PR 11/21/2004</td>
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</table>

**Wellbore Permit**

| **Permit #:**   | 20031795 |
| **Prop Depth/Form:** | 6500 |
| **Mineral Owner:** | FEDERAL |
| **Unit:**        | ORCHARD UNIT |
| **Formation and Spacing:** | Code: CZ-CR , Formation: COZZETTE-CORCORAN , Order: , Unit Acreage: , Drill Unit: |

**Wellbore Completed**

| **Completion Date:** | 11/20/2004 |
| **Measured TD:**     | 5505 |
| **True Vertical TD:** | 5503 |
| **Log Types:**       | PEX, FMI, SONIC, CBL GAMMA RAY CCL, CONMPNSATED NEUTRON |
| **Casing:**          | String Type: SURF , Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 796, Weight: 24 |
| **Cement:**          | Sacks: 465, Top: 0, Bottom: 796, Method Grade: CALC |

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<tr>
<th><strong>Formation</strong></th>
<th><strong>Log Top</strong></th>
<th><strong>Log Bottom</strong></th>
<th><strong>Cored</strong></th>
<th><strong>Choke Size:</strong></th>
<th><strong>Hole Completion:</strong></th>
<th><strong>Production Method:</strong></th>
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**Completed information for formation CZ-CR**

| **1st Production Date:** | N/A |
| **Status Date:**         | 11/21/2004 |
| **Commingled:**          | Y |
| **Formation Name:**      | COZZETTE-CORCORAN |
| **Formation Treatment:** | STAGES 1 THROUGH 3 WERE TREATED WITH A TOTAL OF 6424 BBLS SLICKWATER & 282,640# SAND. |
| **Tubing Size:**         | 2.375 |
| **Tubing Packer Depth:** |               |
| **Open Hole Top:**       |               |
| **Initial Test Data:**   |               |
| **Test Date:**           | 11/21/2004 |
| **Hours Tested:**        | 24 |
| **Gas Disposal:**        | SOLD |
| **Test Type:**           | BBL_S_H2O |
| **Measure:**             | 35 |
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08593
Well Name/No: ZUPANCIS-CALLAHAN #1-29 DCB (click well name for production)
Operator: WILLIAMS PRODUCTION RMT COMPANY - 96850
Status Date: 6/1/2006
County: MESA #077
Field: DE BEQUE - #16150
Planned Location 1597 FNL 1935 FEL
Federal or State Lease #: SWNE 29 8S 97W 6 PM
Location:
Elevation: 5,052 ft.
Lat/Long: 39.33373/-108.240419
Lat/Long Calculated From Fc
Status: PA

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 890964
Expiration Date: 2/28/1990
Prop Depth/Form:
Surface Mineral Owner Same:
Mineral Owner: FEE
Surface Owner:
Unit Number:
Formation and Spacing: Code: RLNS, Formation: ROLLINS, Order: 0, Unit Acreage: 160, Drill Unit: NE4

Wellbore Completed
Completion Date: 12/5/1989
Measured TD: 3098
Measured PB depth: 2900
True Vertical TD: 0
True Vertical PB depth:
Casing:
String Type: SURF, Hole Size: 12.25, Size: 8.625, Top:, Depth: 316, Weight: 24
Sacks: 200, Top: 0, Bottom: 316, Method Grade:
Cement:
String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 316, Weight:
Sacks: 200, Top: 0, Bottom: , Method Grade:
Casing:
String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top:, Depth: 3077, Weight: 10.5
Sacks: 800, Top: 1428, Bottom: 3077, Method Grade:
Casing:
String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 3087, Weight:
Sacks: 0, Top: 0, Bottom: , Method Grade:

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Completed information for formation RLNS
1st Production Date: N/A
Status Date: 6/1/2006
Commingled:
Formation Name: ROLLINS
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:

No Initial Test Data was found for formation RLNS.
No Perforation Data was found for formation RLNS.
COGIS - WELL Information

Surfacer Location Data for API # 05-077-08249
Well Name/No: FEDERAL HARVEY #36-3 (click well name for production)
Operator: PIUTE ENERGY CO - 70445
Status Date: 8/28/1984
Federal or State Lease #:
County: MESA #077
Location:
Field: COON HOLLOW - #11640
Elevation:
Unknown ft.
Planned Location 910 FSL 1420 FWL
Lat/Long: 39.3136/-108.28342
Lat/Long Calculated From Footages
Wellbore Data for Sidetrack #00
Status: PA 8/28/1984
Wellbore Permit
Permit #: 800148
Expiration Date: 1/11/1980
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL
Surface Owner:
Unit:
Unit Number: C-9380
Formation and Spacing:
Code: MRSN, Formation: MORRISON, Order: 0, Unit Acreage: 0, Drill Unit:
Wellbore Completed
Completion Date: N/A
Measured TD:
Measured PB depth:
True Vertical TD:
True Vertical PB depth:
Formation Log Top Log Bottom Cored
No additional interval records were found for sidetrack 00.
COGIS - WELL Information

Scout Card

Surface Location Data for API # 05-077-08314

Well Name/No: USA #1-17JC (click well name for production)
Operator: MARALEX RESOURCES, INC - 53255
Status Date: 6/1/1993
County: MESA #077
Field: BRONCO FLATS - #7563
Planned Location 2000 ftL 1000 ftW

Wellbore Data for Sidetrack #00

Wellbore Permit
Permit #: 801303 Expiration Date: 1/19/1981
Prop Depth/Form: Surface Mineral Owner Same:
Mineral Owner: FEDERAL Surface Owner:
Unit: Unit Number: C-12645
Formation and Spacing: Code: DKTA, Formation: DAKOTA, Order: 0, Unit Acreage: 0, Drill Unit:

Wellbore Completed
Completion Date: 10/17/1984
Measured TD: 7515 Measured PB depth: 7005
True Vertical TD: 0 True Vertical PB depth:
Casing: String Type: SURF, Hole Size: 12.25, Size: 8.625, Top: 0, Depth: 201, Weight:
Cement: Sacks: 200, Top: 0, Bottom: , Method Grade:
Casing: String Type: 1ST, Hole Size: 7.875, Size: 4.5, Top: 0, Depth: 7455, Weight:
Cement: Sacks: 0, Top: 0, Bottom:, Method Grade:

<table>
<thead>
<tr>
<th>Formation</th>
<th>Log Top</th>
<th>Log Bottom</th>
<th>Cored</th>
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<tbody>
<tr>
<td>ROLLINS</td>
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<td>D</td>
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<td>COZZETTE</td>
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<td>CORCORAN</td>
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<tr>
<td>MORRISON</td>
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</table>

Completed information for formation DKTA
1st Production Date: N/A
Status Date: 10/17/1984
Commingled:
Formation Name: DAKOTA
Formation Treatment:
Tubing Size:
Tubing Packer Depth:
Open Hole Top:

No Initial Test Data was found for formation DKTA.
No Perforation Data was found for formation DKTA.
## COGIS - WELL Information

### Scout Card
- Related
- Insp.
- MIT
- GIS
- Doc
- Wellbore
- Orders

### Surface Location Data for API # 05-077-08545
- **Well Name/No:** PORTER MOUNTAIN FEDERAL #1-35 (click well name for production)
- **Operator:** CELERON OIL AND GAS COMPANY - 14796
- **Status:** PA
- **Federal or State Lease #:**
- **Location:**
- **Elevation:** 8,257 ft.
- **Lat/Long:** 39.234095/-107.627939
- **Lat/Long Calculated From:**
- **Status:** PA

### Wellbore Data for Sidetrack #00
- **Permit #:**
- **Prop Depth/Form:**
- **Mineral Owner:** FEE
- **Unit:**
- **Formation and Spacing:** Code: UNK, Formation: UNKNOWN, Order: 0, Unit Acreage: 0, Drill Unit:

### Wellbore Permit
- **Expiration Date:** 10/29/1983
- **Surface Mineral Owner Same:**
- **Surface Owner:**
- **Unit Number:**

### Wellbore Completed
- **Completion Date:** 9/14/1985
- **Measured TD:** 8800
- **True Vertical TD:** 0
- **Measured PB depth:** 0
- **True Vertical PB depth:**
- **Choke Size:** 0.000
- **Hole Completion:**
- **Production Method:**
- **Status:** AB
- **Tubing Setting Depth:**
- **Tubing Multiple Packer:**
- **Open Hole Bottom:**

### Completed information for formation UNK
- **1st Production Date:** N/A
- **Status Date:** N/A
- **Commingled:**
- **Formation Name:** UNKNOWN
- **Formation Treatment:**
- **Tubing Size:**
- **Tubing Packer Depth:**
- **Open Hole Top:**

No Initial Test Data was found for formation UNK.
No Perforation Data was found for formation UNK.