



410 17th Street, Denver, Colorado 80202, Suite 500  
(303) 571-0160

May 29, 1981

Mr. Cleon Fight  
State of Utah-Natural Resources  
Division of Oil, Gas & Mining  
1588 West North Temple Street  
Salt Lake City, Utah 84116

Re: State Crescent Unit  
#14-36 - Blaze Canyon Area  
Grand County, Utah

Dear Mr. Fight:

Further to our telephone conversation regarding the permitting the captioned well, I am herewith enclosing in triplicate Application for Permit to Drill, along with the surveyor's plat and a copy of a topo map showing access to location.

Per your instructions, I am not providing a fee to accompany this Application for Permit.

I have also forwarded my Bond, on the proper State of Utah, Bond of Lessee Form my Bond for \$10,000.00 to cover this well.

Thank you for your help - should you wish to discuss this further, please contact either the undersigned or Mr. Roger Bureau at the letterhead telephone number.

Very truly yours,

Black Hawk Resources Corporation

Donna L. Malcolm  
Secretary to  
Roger G. Bureau

/dlm  
Enclosures

JUN 8 1981

DIVISION OF  
OIL, GAS & MINING

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

5. Lease Designation and Serial No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work

DRILL  DEEPEN  PLUG BACK

7. Unit Agreement Name

b. Type of Well

Oil Well  Gas Well  Other  Single Zone  Multiple Zone

8. Farm or Lease Name

State Crescent Unit

2. Name of Operator

BHRC, Inc. (Black Hawk Resources Corporation, DBA)

9. Well No.

#14-36

3. Address of Operator

410 17th St. Suite 500, Denver, 80202

10. Field and Pool, or Wildcat

WC (B17-2-1-1 Area)

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface

500' FSL & 800' FWL Section 36, T20 $\frac{1}{2}$ S-R18E

11. Sec., T., R., M., or Blk. and Survey or Area

SW/4 SW/4 Sec. 36-T20 $\frac{1}{2}$ S-R18E

At proposed prod. zone

Same as above

12. County or Parrish 13. State

Grand Co. Utah

14. Distance in miles and direction from nearest town or post office\*

Approx. 6 1/2 miles northeast of Floy, Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

500'

16. No. of acres in lease

673.48\*

17. No. of acres assigned to this well

80

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft.

N/A

19. Proposed depth

9500'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5466' G.R.

22. Approx. date work will start\*

July 15, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12 1/4	8 5/8"	24.00	500	cmt to surface
7 7/8	5 1/2"	15.50 & 17.00	9500	sufficient to cover pay zones

\*Lease consists of: Lots 1,2,3, & 4 Section 36-T20 $\frac{1}{2}$ S-R18E  
S/2 N/2 & S/2 Section 36-T20 $\frac{1}{2}$ S-R18E

Blow out preventer equipment will be 3000 psi W.P. with choke and kill lines installed.

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 6/19/81  
BY: [Signature]

OK Paul C-3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. Signed Roger G. Bureau  
Roger G. Bureau

Title Operations Manager

Date May 22, 1981

(This space for Federal or State office use)

Permit No. ....

Approval Date

JUN 3 1981

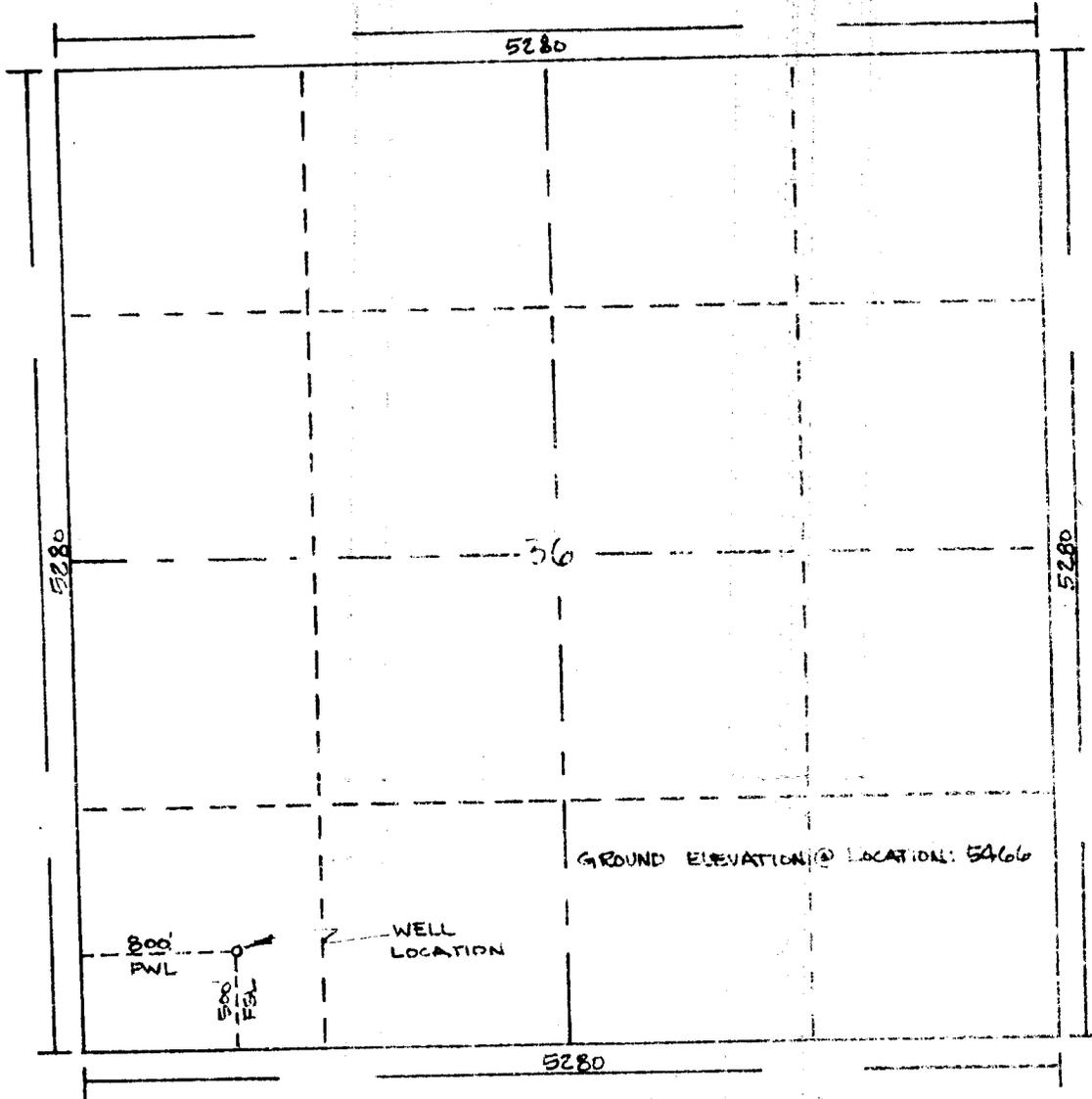
Approved by  
Conditions of approval, if any:

Title

Date



R. 18 E



T.  
20 1/2  
S

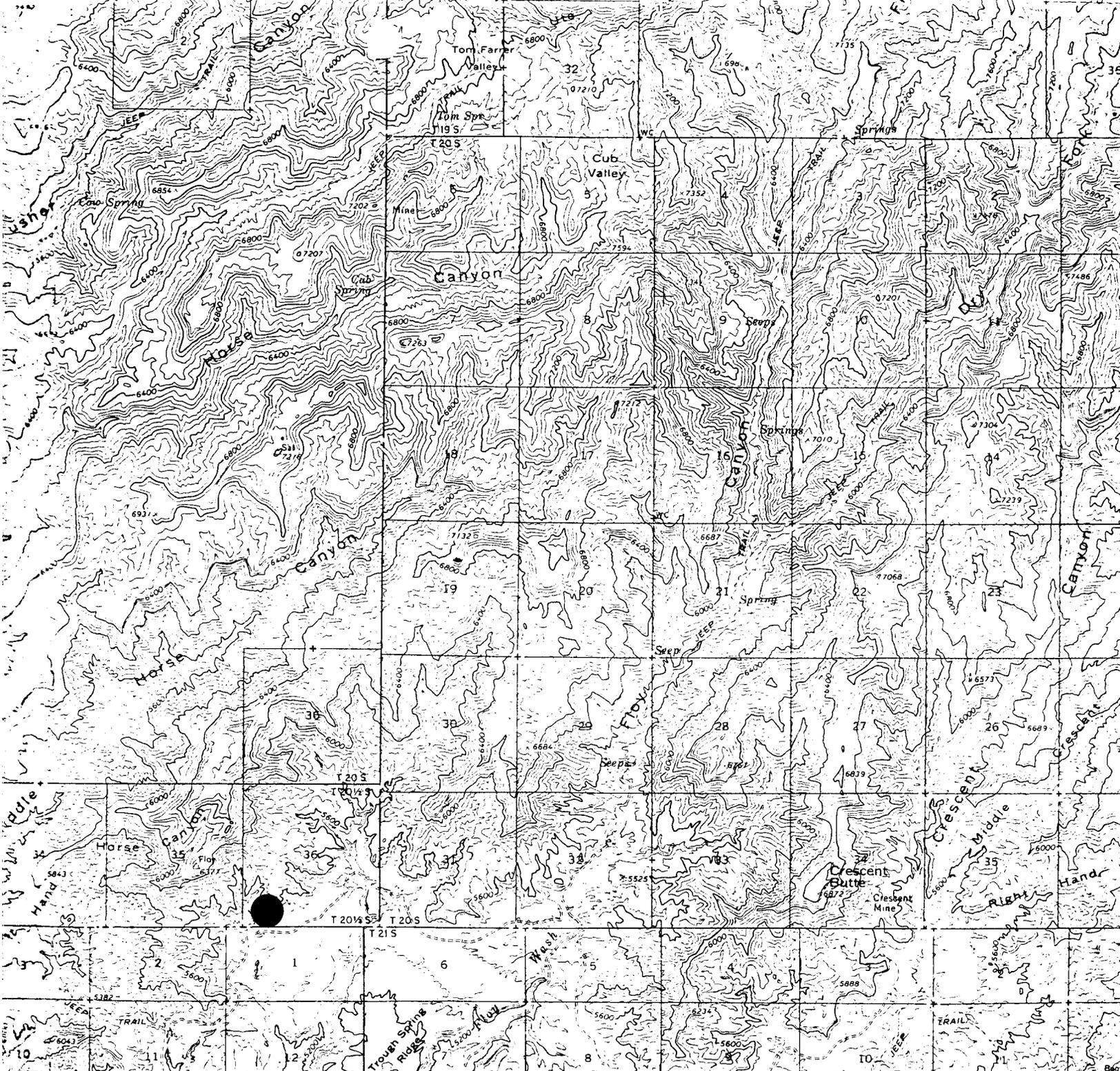
Scale... 1" = 1000'

**Powers Elevation of Denver, Colorado**  
 has in accordance with a request from ROGER BURAU  
 for BLACKHANK RESOURCES CORPORATION  
 determined the location of STATE-CRESENT UNIT #14-36  
 to be 500' FSL & 800' FWL of Section 36 Township 20 1/2 S  
 Range 18E of the SALT LAKE Meridian  
 GRAND County, UTAH.

I hereby certify that this plot is an  
 accurate representation of a correct  
 survey showing the location of  
 STATE-CRESENT UNIT 14-36

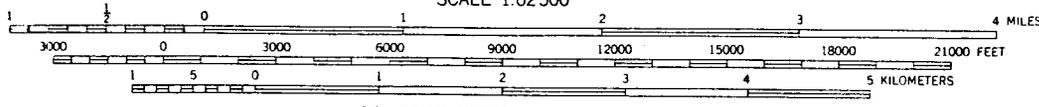
Date: MAY 12, 1981

*Edward C. Dennis*  
 Licensed Land Surveyor No. 5443  
 State of Utah

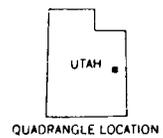


(CRESCENT JUNCTION) R. 18 E. 4061 IV R. 19 E. CRESCENT JUNCTION 5.7 MI. 50' 602 603 604

SCALE 1:62500



CONTOUR INTERVAL 80 FEET  
DATUM IS MEAN SEA LEVEL



QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

FLOY  
N3  
AMS

\*\* FILE NOTATIONS \*\*

DATE: July 1, 1981  
OPERATOR: Black Hawk Resources, Corporation, DBA  
WELL NO: State Crescent Unit #14-36  
Location: Sec. 34b T. 00 1/2 S R. 18 E County: Grand

File Prepared:  Entered on N.I.D.:   
Card Indexed:  Completion Sheet:

API Number 43-019-30 8 1/4

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_  
\_\_\_\_\_

Director: OK as per Rule C-3  
\_\_\_\_\_

Administrative Aide: OK as per Rule C-3, OK on boundaries,  
OK on any other oil or gas wells  
\_\_\_\_\_

APPROVAL LETTER:

Bond Required:  Survey Plat Required:

Order No. \_\_\_\_\_ O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage  
within a 660' radius of proposed site

Lease Designation  Plotted on Map

Approval Letter Written

Hot Line  P.I.

July 6, 1981

Black Hawk Resources Corp.  
410 17th Street, Ste. #500  
Denver, Colo. 80202

RE: Well No. State Cresent Unit #14-36  
Sec. 36, T. 20 $\frac{1}{2}$ S, R. 18E,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019-30816.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Cleon B. Feight  
Director

CBF/db  
CC: State Lands Attn: Donald Prince

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
BHRC, Inc. (Black Hawk Resources Corp., DBA)

3. ADDRESS OF OPERATOR  
999 18th St. STE 1101 Tower 11, Denver, Co. 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL Sec. 36-  
AT TOP PROD. INTERVAL: T20½S-R18E  
AT TOTAL DEPTH: Same as above

5. LEASE  
U-18665A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Blaze Canyon Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SW SW Sec. 36-T20½S-R18E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-019-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466' Ground Level

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>

(other) Change of surface csg. size (1)

Change setting surf. csg w/small rig to hold lease (2)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

(1) The well was permitted with our proposed surface casing size as 8 5/8" 24# to be set at 500'. We now plan to drill a 17½" hole and set 13 3/8" 54.50# surface casing. We further plan to drill 8 3/4" hole, rather than 7 7/8" hole, to total depth.

(2) Due to a lease expiration of July 31, 1981 and our inability to secure a drilling rig of 9500' depth capacity to spud this well on or before this deadline, we propose the following: Spud the well with a small drlg. rig, set 13 3/8" surface casing, and cement to surface. Move out the small rig and move in the large rig within 30 days.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Roger G. Bureau TITLE Operations Manager DATE July 16, 1981  
Roger G. Bureau

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: 7/21/81  
BY: RB [Signature]

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
BLACK HAWK RESOURCES CORPORATION 303-571-0160

3. ADDRESS OF OPERATOR  
999 18th St. STE: 1101, Denver, Co. 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL Sec. 36,  
AT TOP PROD. INTERVAL: T20½S-R18E  
AT TOTAL DEPTH:

5. LEASE  
ML - 27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 36, T20½S-R18E

12. COUNTY OR PARISH | 13. STATE  
Grand | Utah

14. API NO.  
43-019-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466' G.R.

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Operations	<input type="checkbox"/>	<input type="checkbox"/>

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

This well spudded 7/22/81 @ 4:00 p.m. They ran 13 jts of 13 3/8" 54.50# K-55 ST&C csg, set @ 521' and cmt w/480 sxs class G with 2% CaCl & 1/4#/sx celloflake. They have drilled to 521' and are presently moving in a larger rig. (8/12/81)

RECEIVED  
AUG 17 1981

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

DIVISION OF  
OIL, GAS & MINING

SIGNED Roger Q. Bureau TITLE Operations Manager DATE August 12, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Black Hawk Resources Corporation

3. ADDRESS OF OPERATOR  
999 18th St. - Ste 1101 Denver, CO 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL Sec. 36-  
AT TOP PROD. INTERVAL: T20½S - R18E  
AT TOTAL DEPTH:

5. LEASE  
ML - 27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
# 14- 36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 36 - T 20½S-R18E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-019-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466 G.R. 5488' KDB

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) <u>Operations</u>		

**FILED**  
SEP 11 1981  
DIVISION OF  
OIL, GAS & MINING

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Denton Brothers Drilling Finished Moving in and rigging up of their Rig #2 on August 20, 1981. Drilling of 8 3/4" hole below the 13 3/8" surface casing began at 4:30 P.M. on this date. At 6:00 A.M. on September 1, 1981 the rig was drilling ahead at 5502'.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED Roger J. Bureau TITLE Operations Mgr. DATE September 11, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Black Hawk Resources Corporation

3. ADDRESS OF OPERATOR  
STE 1101 999-18th Street Denver, Co. 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
ML-27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 36- T20½S-R18E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-019-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466' GR 5488' KB

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) Operations	<input type="checkbox"/>		<input type="checkbox"/>

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

NOV 09 1981

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The well was drilled to a total depth of 8478' and efforts to recover the drill string, which became stuck on the trip out of hole to log, were unsuccessful. No sample shows were encountered below 3500'. Therefore, with the top of the fish at 3541', decision was made to abandon the hole below this depth. CNL-FDC, DIL -GR, and BHC-Sonic logs were run from 3500' to 521'. We then tripped in hole with open ended drill pipe to 3628' (87' beside fish) and spotted a 100 sack cement plug. Top of cement was at 3486'. Ran 83 jts. 5½" 15.50 LT & C casing, set at 3486', and cemented with 2125 sacks. Plug down at 3:15 a.m. on the 10/09/81. Present status is waiting on service unit to complete the Ferron Sandstone formation.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Roger J. Bureau TITLE Operations Manager DATE November 05, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Black Hawk Resources Corporation

3. ADDRESS OF OPERATOR  
STE 1101 999-18th Street Denver, Co. 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input checked="" type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other)	<input type="checkbox"/>		<input type="checkbox"/>

5. LEASE  
ML-27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 36-T20½S-R18E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-091-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466' GR 5488' KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Proposed completion procedure on Ferron Sandstone formation attached. We anticipate beginning completion efforts on about November 16, 1981.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Roger J. Burau TITLE Operations Manager DATE November 05, 1981

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Blackhawk Resources Bill Lockey 303-882-4350

WELL NAME: St. Crescent Unit 14-36

SECTION SW36 TOWNSHIP 20 1/2S RANGE 18E COUNTY Grand

VERBAL APPROVAL GIVEN TO PLUG AND ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 8478 3406 PB

CASING PROGRAM:

13 3/8" @ 521' cemented to surf.  
Top of fish at 3541'  
5 1/2" @ 3486' (TOC? 2125 sxs)  
Perfs. 3092' - 3062'

FORMATION TOPS:

Not available

PLUGS SET AS FOLLOWS:

Previously set plug: 3628' - 3486'

Present:

1. 3150' - 3000'
2. 1850' - 1700'
3. 600' - 450'
4. 50' - surface

The interval between plugs shall be filled with a 9.2#, 50 vis. vresh water gel based mud; erect regulation dryhole marker; clean up, grade and restore the location; and notify this Division when the location is prepared for inspection.

DATE December 4, 1981

SIGNED MTM



**BH**  
**BLACK HAWK RESOURCES CORPORATION**

Tower II, One Denver Place, Suite 1101 • 999 Eighteenth Street • Denver, Colorado 80202  
(303) 571-0160

December 7, 1981

Mr. Cleon B. Feight  
State of Utah  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: State Crescent Unit #14-36  
Grand County  
Utah

RECEIVED  
DEC 10 1981  
DIVISION OF  
OIL, GAS & MINING

Dear Mr. Feight:

Enclosed in triplicate please find Form #9-331, Sundry Notices and Reports on Wells covering activities on the captioned well for the month of November.

Please let me hear from you if there are any problems, etc.

Thank you.

Very truly yours,

Black Hawk Resources Corporation

*Roger G. Bureau*

Roger G. Bureau  
Operations Manager

/dlm  
Enclosures

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
Black Hawk Resources Corporation

3. ADDRESS OF OPERATOR  
#1101, 999-18th Street, Denver, Colo. 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 550' FSL & 800' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other) Operations	<input type="checkbox"/>	<input type="checkbox"/>

5. LEASE  
ML-27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 36, T20½S, R18E

12. COUNTY OR PARISH | 13. STATE  
Grand | Utah

14. API NO.  
43-019-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
GR 5466' - KB 5488'

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Moved in service unit on November 24, 1981. Ran cement bond log and perforated the Ferron Sandstone Formation from 3062'-3092' w/1 JSPF - swabbed well down w/no gas or fluid entry-acidized w/500 gal. 7½% MSR acid. Swabbed well down. Operations as of 6:00 AM on 12/1/81 were preparing to frac well.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Roger J. Bureau TITLE Operations Mgr. DATE Dec. 7, 1981  
Roger J. Bureau

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

cc: USGS-Salt Lake City  
State of Utah-Salt Lake City  
BHRC Partners

December 23, 1981

Black Hawk Resources Corp.  
410 17th Street, Ste. #500  
Denver, Colorado 80202

Re: Well No. State Crescent Unit #14-36  
Sec. 36, T. 20½S, R. 18E  
Grand County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING



Cari Furse  
Clerk Typist

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other Dry Hole

2. NAME OF OPERATOR  
BHRC, INC. (BLACK HAWK RESOURCES CORP dba)

3. ADDRESS OF OPERATOR  
999 18 Street Ste. 1101 Denver, Colorado 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 500' FSL & 800' FWL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(other)		

5. LEASE  
MI-27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Crescent Unit Area

8. FARM OR LEASE NAME  
State Crescent Unit

9. WELL NO.  
#14-36

10. FIELD OR WILDCAT NAME  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 36, T20S-R18E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-091-30816

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5466' GR 5488' KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

On December 8, 1981 the State Crescent Unit #14-36 in Grand County Utah was plugged and abandoned. Plugs were set as follows:

- 20 sxs 3150-3000'
- 20 sxs 1850-1700'
- 20 sxs 600- 450'
- 10 sxs 50- 0'

Plugs were displaced with 9.2 lb/gal mud.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Roger J. Bureau TITLE Operations Manager DATE 01/04/82  
Roger J. Bureau

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

SUBMIT IN DUPLICATE\*

STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

(See other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

ML - 27899

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

1b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR

BHRC, INC. (BLACK HAWK RESOURCES CORPORATION, dba )

3. ADDRESS OF OPERATOR

999-18th St. Suite 1101 Tower II Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 500' FSL & 800' FWL Sec. 36, T20½S-R18E

At top prod. interval reported below

At total depth  
Same as above

14. PERMIT NO. DATE ISSUED

43-019-30816 07-06-81

7. UNIT AGREEMENT NAME

Crescent Unit Area

8. FARM OR LEASE NAME

State Crescent Unit

9. WELL NO.

#14-36

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Section 36, T20½S-R18E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

15. DATE SPUNDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (FEET, FT., OR ETC.)\* 19. ELEV. CASINGHEAD

07-23-81 09-22-81 P&A - 12-08-81 5488' 5467'

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY CABLE TOOLS

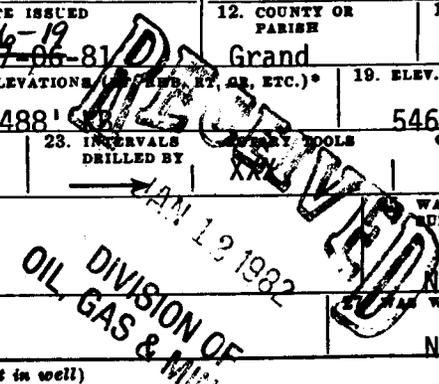
8478 3486'

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

Completion attempts were made in Ferron - 3062-92'

25. TYPE ELECTRIC AND OTHER LOGS RUN

CNI-EDC, DTI, BHC Sonic



26. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54.50	521'	17 1/2"	480 sxs class "G"	NONE
5 1/2"	15.50	3486' *	8 3/4"	2125 sxs class "G" **	NONE
Well plugged from 3628-3486'					
**Note: cmt to surface					

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A					N/A		

31. PERFORATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

3063-3092'  
1 shot per 2 foot  
.51 diameter holes

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3062-3092'	500 gal 7 1/2% MSR
3062-3092'	30,000 gal WF-40 gel
	88,000 lbs. sand
	35 tons carbon dioxide

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
PA - 12-08-81		P & A					
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Lithologic Log, Deviation Record, Oil-Gas Shows, Sample logs

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Roger J. Burau TITLE Operations Manager DATE 01-04-82

\*(See Instructions and Spaces for Additional Data on Reverse Side)



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 15, 1982

Black Hawk Resources Corp.  
999 18 Street Ste. 1101  
Denver, Colorado 80202

Re: Well No. State Cresent Unit #14-36  
Sec. 36, T. 20½S, R. 18E  
Grand County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and also all drilling information on this well is needed to be forwarded to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

A handwritten signature in cursive script that reads "Cari Furse".

Cari Furse  
Clerk Typist



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 23, 1982

Black Hawk Resources, Inc.  
Tower II, One Denver Place  
999 Eighteenth Street, Ste 1101  
Denver, Colorado 80202

Re: Well No. State Cresent Unit #14-36  
Sec. 36, T. 20½S, R. 18E  
Grand County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office January 4, 1982, from above referred to well, indicates the following electric logs were run: CNL-FDC, DIL, BHC Sonic. As of todays date, this office has not received these logs: DIL.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS AND MINING

A handwritten signature in cursive script that reads "Cari Furse".

Cari Furse  
Clerk Typist

  
**BLACK HAWK RESOURCES CORPORATION**

Tower II, One Denver Place, Suite 1101 • 999 Eighteenth Street • Denver, Colorado 80202  
(303) 571-0160

March 8, 1982

State of Utah  
Natural Resources & Energy  
Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Attention: Cari Furse  
Clerk Typist

Re: State Crescent Unit #14-36  
Grand County, Utah

Ladies and Gentlemen:

In regards to the request you made in your February 23, 1982 letter, enclosed please find a copy of the Dual Induction Guard Log for the above captioned well.

If we can be of any further assistance, please let me hear from you.

Very truly yours,

BLACK HAWK RESOURCES CORPORATION

*Cathy Morrison*

Cathy Morrison  
Drilling Department

/cm  
Enclosure

**RECEIVED**  
MAR 10 1982

DIVISION OF  
OIL, GAS & MINING

  
**BLACK HAWK RESOURCES CORPORATION**

Tower II, One Denver Place, Suite 1101 • 999 Eighteenth Street • Denver, Colorado 80202  
(303) 571-0160

State Crescent Unit #14-36  
SW SW Section 36, T20½S-R18E  
Grand County, Utah  
Blaze Canyon Prospect  
Elevation:  
Contractor: Utah Well Service  
Est TD: 9000'

A.F.E. Cost: \$1,279,800.00

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July 23, 1981	41'/41'/Drlg Spud 4:00 pm, 07/22/81 Drill 12 1/4" hole to 41' w/air	Cost to dte: \$ 31,000
July 24, 1981	61'/20'/Nipple up on 20" conductor csg Remarks: Run 60' 20" conductor csg, cmt w/36 sxs Class B cmt. SDON Day Cost: \$ 3,287.00 Cst to dte:\$ 34,287.00	
July 25	61'/0'/WO Fuel tank & fuel Day Cost: \$ 2,500.00 Cst to dte:\$ 36,787.00	
July 26	100'/39'/Drlg 17 1/2" hole. Day Cost: \$ 3,125.00 Cst to dte: \$ 39,912.00	
July 27	144'/44'/Drlg 17 1/2" w/air Rate of penetration - 4'/hr White Quartzitic sand Day Cost: \$ 3,450.00 Cst to dte: \$ 43,362.00	
July 28	168'/24'/Repair rig Remarks: Drill 17 1/2" hole 144' to 158'. TOH,PU 12 1/4" bit. Drill 12 1/4" to 168'. SDON. Day Cost: \$ 2,700.00 Cst to dte: \$ 46,062.00	
July 29	169'/1'/Repair Rig Remarks: WO Welder, repair rig table, broke hydraulic line in power swivel. Day Cost: \$ 450.00 Cst to dte: \$ 46,512.00	

State Crescent Unit #1  
Blaze Canyon Prospect

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July 30 301'/132'/Dr1g  
Remarks: WO parts, finish rig repairs, drill 9 1/2 hrs.  
Day Cost: \$ 4,696.00  
Cst to dte: \$ 51,208.00

July 31 370'/69'/Dr1g  
Remarks: 1/2 hr rig service, 5 3/4 hrs drl, 1 1/4 hrs WO welder, repair hyd. line., 3 hrs drill.  
Day Cost: \$ 2,925.00  
Cst to dte: \$ 54,133.00

August 1 521'/151'/Open 12 1/4 " hole to 17 1/2"  
Remarks: Open hole to 17 1/2" from 160-270'.  
Day Cost: \$ 4,450.00  
Cst to dte: \$ 58,583.00

August 2 521'/0'/WO crew  
Remarks: Open hole to 17 1/2" to 307', repair power swivel.  
Day Cost: \$ 3,070.00  
Cst to dte: \$ 61,653.00

August 3 521'/0' - 80' reaming/Open hole to 17 1/2"  
Remarks: Opening hole at 387'  
Day Cost: \$ 2,950.00  
Cst to dte: \$ 64,603.00

August 4 521'/43' Reaming/Reaming @ 430'  
Remarks: Open hole from 387-430'.  
Day Cost: \$ 3,700.00  
Cst to dte: \$ 68,303.00

August 5 521'/0'/ Reaming  
Remarks: Reamed 12 1/4" hole to 17 1/2" from 430-475'. Total-515.28' csg.  
Day Cost: \$ 3,450.00  
Cst to dte: \$ 71,753.00

August 6 521'/0'/Repair Rig  
Remarks: Reamed 12 1/4" hole to 17 1/2" from 475-485'. WO rig repairs.  
(Repairs on swivel packing)  
Day Cost: \$ 1,450.00  
Cst to dte: \$ 73,203.00

August 7 521'/0'/Prep to run 13 3/8" csg  
Remarks: Reamed 12 1/4" to 17 1/2" from 485-513'. Prep to run 13 3/8" csg.  
Another unit should be on location @ noon 08/07/81 to run csg.  
Day Cost: \$ 3,950.00  
Cst to dte: \$ 77,153.00

August 8 521'/0'/Running 13 3/8" csg  
Remarks: Repair rig hydraulic system. Drilled sanitary holes. RU & run 2 jts 13 3/8" csg. SDON.  
Day Cost: \$ 1,820.00  
Cst to dte: \$ 78,973.00

State Crescent Unit #14-36  
Blaze Canyon Prospect

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- August 9 521'/0'/WO Drlg contractor  
Remarks: Ran 13 jts 13 3/8" 54.50 K-55 ST&C csg w/reg. guide shoe & insert float. Welded shoe jt & #2 jt together. Cmt w/480 sxs class G w/ 2% CaCl & 1/4#/sx celloflake. Slurry weight- 15.8 #/gal. Plug down @ 4:30 pm, 08/08/81. Top cmt'd from 20' to surface. Move out small rig. WO drlg contractor.  
NO FURTHER REPORT UNTIL STATUS CHANGES.  
Day Cost: \$ 25,764.00  
Cst to dte:\$104,737.00
- August 12 Move in Denton Brothers Rig #2
- August 19 At rpt. time: 13 3/8" csg. set @ 506' below ground level. MI & RURT - Denton Bros., Rig #2. Anticipate begin drilling at noon on 8/19/81.  
Update: At 11:00 last night started NU operation. At the present they are changing BOP rams then will test BOP's. If everything tests they will go to drilling.
- August 20 At rpt. time: Blow hole dwn.- prep. to drl. cmt. @ 486'  
Total Depth: 513'  
NU B.O. P.'s and tested to 1500 psi and was ok. RU blooie line and air line. T.I.H. w/15-16 1/2" D.C.'s w/ shock sub and jars. Tag cmt. @486'  
Cost Updates:  
Day Cost: \$27,930.00  
Total Cost: \$189,367.00
- August 21 At rpt. time: Drlg. ahead  
1329'/816'/ Drlg. ahead  
Blew hole dry. Drld. cmt. and shoe. T.O.H. for survey tool which was dropped in D.P.  
Bit #1: 8 3/4' in @ 816' and made 49.4' in 16 1/2 hrs.  
Day Cost: \$9,870.00  
Total Cost: \$199,237.00
- August 22 At rpt. time: Blow and hole dry.  
2042'/ 713'/ 2 days from spud  
Drld. to 1879'. gas showed. 656 units C began having tight connections. Background gas decreased to 60 units. Drld. to 2042'-tripped for plugged bit. T.I.H., blow hole trip gas-9600 units C.  
Bit #1: 8 3/4, made 1603' in 28 1/2 hrs.  
Deviation Survey: 1 1/2° @ 1791'.  
Day Cost: \$11,445.00  
Total Cost: \$210,682.00
- August 23 At rpt. time: Drlg. ahead w/ air.  
3072'/1030'/ Drlg. ahead w/ air- hole dusting.  
Background gas- 32 units. Short trip gas- 480 units.  
110 PSI @ 3200 CFM  
Bit #2: FP52, 939940. made 1030' in 18 1/2 hrs.  
Day Cost: \$10,470.00  
Total Cost: \$221,152.00

State Crescent #14-36  
Blaze Canyon Prospect

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August 24      At rpt. time: Drlg. w/ low weights in shale  
3890'/ 818'/  
Tops - Greenhorn from 3480'-3650'.  
Gas 8 units background -C, 400 units survey gas C.  
Drld. Greenhorn from 3480'-3650'  
Trace C<sub>2</sub> gas @ 3700'  
Mud: 8.6  
Vis: 34  
Water Loss: 25  
Ph: 10  
Bit #2: 8 3/4 " 939940 was @ 1848' and made btm. in 39 hrs.  
WOB: 20-12,000  
Deviation Survey: 4 1/2° @ 3650'  
6° @ 3890'  
Day Cost: \$18,152.00  
Total Cost: \$239,304.00

August 25      At rpt. time: Drlg.  
4170'/280'/ Drlg. w/air  
Tops: Volcanic Tuff: 3900'  
Morrison: 4040'  
Note: No Dakota FM  
Gas: Background: 10 units  
Trip gas: 30 units  
Mud: 8.6  
Viscosity: 34  
Water Loss: 25  
Bit #2: 8 3/4" made 2128' in 59 1/2 hrs.  
Deviation Survey: 6° @ 4017'  
4° @ 4170'  
Day Cost: \$18,750.00  
Total Cost: \$258,054.00

August 26      At rpt. time: Prep. to Mud UP. (5 Days from spud)  
4451'/281'/ Drlg. w/air  
Water entering hole @ 4000'. Volcanic Tuff FM caving in. Pipe stuck 3  
times and worked free. T.O.H. and cut drlg. line. Switch equip. and  
prep. to load hole w/ mud.  
Gas: Background: 0 Units  
Connection: 10 Units.  
Mud: 8.6  
Vis.: 34  
Water Loss: 25  
pH: 10  
Bit #2: 8 3/4" was in @ 2409' and made 4451' in 68 hrs.  
Deviation Survey: 5° @ 4350'  
Day Cost: \$10,770.00  
Total Cost: \$268,824.00

State Crescent #14-36  
Blaze Caynon Prospect

A.F.E. Cost: \$1,279,800.00

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- August 27 At rpt. time: Cond. mud and ream to btm.  
4451'/0'/  
Cut drlg. line and nipple down air equipment. Install mud lines and B.O.P. spacer spool. T.I.H. to 2500', load hole w/ mud. T.I.H. to 3900' wash and ream to btm. At rpt. time they were at 4044'/.  
Mud: 8.5  
Vis. 43  
Water Loss: 13.8  
pH: 10  
Solids: TR  
Gels: 2/4  
PV: 16  
YP: 8  
% Sand: TR  
Cake: 2  
32 Cl ppm: 20  
3% LCM  
Day Cost: \$14,136.00  
Total Cost: \$278,960.00
- August 28 At rpt. time: T.QH. to install reamer  
4546'/95'/ 7 days from spud.  
Wash and ream to btm w/sloughing. Hole problems. Drl. to 4546' and ran survey. 40' fill on survey. T.O.H. to check bit.  
Mud 8.8  
Vis.: 46  
Water Loss: 13.8  
pH: 10  
Bit #3: 8 3/4" was in @ 95' and drld. for 11 1/4hrs.  
WOB: 14,000  
RPM: 65  
PSI: 800  
GPM: 300  
Deviation Survey: 6° @ 4504'  
Day Cost: \$11,600.00  
Total Cost: \$290,560.00
- August 29 At rpt. time: Drlg.  
4648'/67'/  
Circ. 6 jts. out of hole. T.O.H. and picked up new bit and blade stabilizer. T.I.H. to 4310' and wash and ream to 4581'. Drlg. to Morrison.  
Mud: 8.9  
Vis.: 40  
Water Loss: 8.2  
pH: 9.5  
Solids: 4  
Gels 2/7  
PV: 14  
YP: 10  
% Sand: 3/4  
Cake: 2 /32  
CL ppm: Trace  
Bit #3: 8 3/4 , Make: Reed, Type: F153, Jets: 12,12,12, In @67' and drld. 8/14 hrs.

State Crescent #14-36  
Blaze Caynon Prospect

A.F.E. Cost: \$1,279,800.00

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Day Cost: \$23,666.00  
Total Cost: \$314,226.00

August 30 At rpt. time: Drlg.  
4834'/186'/  
Drlg. ahead in salt water FM. No gas. Tops: Salt Wash @4500'/  
Mud: 9.1  
Vis.: 37  
Water Loss: 7.4  
pH: 9.5  
% Solids: 5.5  
Gels: 2/5  
PV: 15  
YP: 6  
% Sand: 3/8  
Cake: 2 /32  
CL ppm: Trace  
Bit #3: 8 3/4", Make: Reed, Type:FP53, in @ 249' and drld. 31 3/4 hrs.  
WOB: 24,000  
RPM: 63  
PSI: 1400  
GPM: 398  
Deviation Survey: 5° @ 4650'.  
Day Cost: \$11,187.00  
Total Cost: \$325,413.00

August 31 At rpt. time: Drlg.  
5257'/423'/ 10 days from spud.  
Drlg. ahead and survey reamed tight hole @ 5100'. Hauling in water to dilute  
drlg. mud and lower solids.  
No gas. Top of Entrada: 4934' (3' high to prognosis.)  
Mud: 9.5  
Vis.: 42  
Water Loss:9.5  
pH: 9.5  
% Solids: 8.5  
Gels: 3/8  
PV: 20  
YP: 10  
% Sand: 1 1/2  
Cake: 2/32  
CL ppm: Trace  
Bit #3: 8/34, Make: Reed, Type: FP53 in @ 672' and drld. 53 hrs.  
Deviation Survey: 3 3/4° @ 5000'  
3 3/4° @ 5245'.  
Day Cost: \$10,466.00  
Total Cost: \$335,879.00

State Crescent #14-36  
Blaze Caynon Prospect  
A.F.E. Cost: \$1,279,800.00

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Sept. 1 At rpt. time: Drlg.  
5502'/245'/ 22½ hrs. drlg. No shows., Top is Navajo SS @ 5388'/  
Mud: 9.4  
Vis.: 42  
Water Loss: 9.2  
pH: 9  
%Solids: 8.1  
Gels: 2/6  
PV: 17  
YP: 8  
% Sand: 3/4  
CL ppm: 30  
Bit #3: 8 3/4", make REED, Type FP53, Serial Number: 935834, in @ 921, drld. for  
for 74 hrs.  
Deviation Survey: 3° @ 5465'.  
Day Cost: \$12,749.00  
Total Cost: \$348,628.00

Sept. 2 At rpt. time: Drlg.  
5776'/274'/  
Mud: 9.3  
Vis.: 34  
Water Loss: 8.8  
% Solids: 7  
Gels: 1/4  
PV: 11  
pH: 9  
% Sand: 1/4  
Cake: 2/32  
CL ppm: 800  
Bit #3: Make: REED, Type: FP53, SN#: 935834, Jets: 12,12,12, in @ 1195' and  
drld. for 13.4 hrs. and was out @ 5776'.  
WOB: 30,000  
RPM: 63  
PSI: 1400  
GPM: 362  
Deviation Survey: ¼° @ 5776'.  
Day Cots: 10,190.00  
Total Cost: \$358,818.00

Sept. 3 At rpt. time: Drlg.  
5960'/184'/ Drlg. in Navajo SS  
Trip @ 5588'. Had 26 units of gas on trip, and 4 units background gas where  
presently drlg.  
When made trip for Bit #4 the hole didn't stand up like it should and hence the  
time spent reaming the same.  
Mud: 9.3  
Vis.: 42  
Water Loss: 7.2  
Solids 7.4  
Gels: 2/9

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pH: 8.5  
Sand:  $\frac{1}{2}$   
Cake: 2  
Chorides: 750  
Bit #4: 8 3/4, Make: REED, Type: PF53,  
RPM: 65  
PSI: 1500#  
Daily Cost: \$15,026.00  
Total Cost: \$363,654.00

Sept. 4 At rpt. time: Drlg. 6190'/240'/  
Mud: 9.3  
Vis.: 46  
Water Loss: 9.4  
pH: 8.5  
%Solids: 7.4  
%Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 700  
CAppm: 80  
PV: 22  
YP: 12  
Bit #4: 8 3/4", Make: REED, Type: FP53, Jets: 11-11-11, was in @ 414 drld. for 30 $\frac{1}{2}$  hrs.  
WOB: 30,000  
RPM: 65  
PSI: 1600  
GPM: 337  
Deviation Survey: 3/4° @6155'.  
Day Cost: \$11,373.00  
Total Cost: \$375,027.00

Sept. 5 At rpt. time: Drlg. 6470'/230'  
Mud: 9.3  
Vis.: 45  
Water Loss: 10  
pH: 9.5  
%Solids: 7  
Gels: 3/8  
PV: 19  
YP: 15  
% Sand: 3/8  
Cake: 2/32  
  
CA ppm: 60  
Bit #4: 8 3/4", Make: REED, Type: FP53, was in @ 694' and drld. for 54hrs.  
WOB: 35,000  
RPM: 65  
PSI: 1600

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Blaze Caynon Prospect  
A.F.E. Cost: \$1,279,800.00

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Deviation Survey:  $\frac{1}{2}^{\circ}$  @ 6439'  
Day Cost: \$11,567.00  
Total Cost: \$386,594.00

Sept. 6 At rpt. time: Drlg. 6642'/172'/  
Top: Chinle FM @6566', No Gas  
Mud: 9.2  
Vis.: 44  
Water Loss: 9.2  
pH: 9.5  
% Solids: 6.3  
Gels: 3/8  
PV: 20  
YP: 13  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CL ppm: 700  
CA ppm: 40  
Bit #4: 8 3/4", - Make: REED, Type: FP53, Jets: 11,11,11, was in @866' and drld.  
for 77 hrs.  
WOB: 30,000  
RPM: 65  
PSI: 1600  
GPM: 337  
Day Cost: \$11,188.00  
Total Cost: \$397,782.00

Sept. 7 At rpt. time: T.I.H. for bit change  
6713'/71'/  
Mud: 9.2  
Vis.: 41  
Water Loss: 9.2  
pH: 9.0  
% Solids: 6.3  
Gels: 3/7  
PV: 14  
YP: 12  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 650  
CAppm: 30  
WOB: 30,000  
RPM: 65  
PSI: 1600  
GPM: 337  
^ Day Cost: \$11,377.00  
x Total Cost: \$409,159.00

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Blaze Caynon Prospect  
A.F.E. Cost: \$1,279,800.00

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Sept. 8 At rpt. time: Drlg. in Chinle FM  
6809'/96'/  
Tripped for bit change. Wash and ream 4500' to T.D.  
Trace background gas  
Trip gas-44 units  
Mud:: 9.2  
Vis.: 44  
Water Loss: 10  
pH: 9.5  
% Solids: 6.2  
Gels: 2/6  
PV: 19  
YP: 10  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CL ppm: 600  
CA ppm: Trace  
Bit #5: 8 3/4", Make: REED, Type: FP52, Jets: 11,11,11, was in @ 96" and drld.  
12 1/2 hrs.  
WOB: 38,000  
RPM: 65  
PSI: 1600  
GPM: 337  
Deviation Survey: 1° @6786'  
Day Cost: \$21,407.00  
Total Cost: \$430,565.00

Sept. 9 6942'/133'/49 days from spud / Phillips Blaze A 6566!  
Mud: 9.1  
Vis.: 50  
Water Loss: 8.8  
%Solids: 5.5  
Gels: 4/9  
PV: 25  
YP: 18  
pH: 9.2  
% Sand: 1/8  
Cake: 2/32  
CLppm: 600  
Bit #5: 8 3/4", Type: FP52, Jets:11,11,11, drld. 229' in 36 hrs.  
WOB: 38,000  
RPM: 65  
PSI: 1600  
GPM: 337  
Day Cost: \$11,794.00  
Total Cost: \$444,359.00

State Crescent #14-36  
Blaze Canyon Prospect  
A.F.E. Cost: \$1,279,800.00

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Sept. 10 6983'/41'/T.O.H. w/bit & junk basket  
Mud: 9.2  
Viscosity: 40  
Water loss: 8.4  
%Solids: 6.2  
Gels: 3/7  
PV: 15  
YP: 8  
% Sand: 1/4  
PH: 9  
Cake: 2  
CLPPM: 600  
CAPP: Trace  
Bit #5, 8 3/4", Type: F452, Jets: 11-11-11, made 270' in 48½ hrs, depth out 6983'.  
WOB: 38,000  
RPM: 85  
PSI: 1600  
GPM: 337  
SPM: 110  
Deviation Survey: 1 3/4° @ 6983'  
Comments: Drilled to 6983'  
          Surveyed  
          T.O.H. - Lost 2 cones on Bit #5, PU Bit & junk basket  
          T.I.H.  
          Unable to get below 548' - begin T.O.H.  
Day Cost: \$ 9,984.00  
Total Cost: \$452,343.00

Sept. 11 At rpt. time: Chasing 13 3/8" shoe to btm.  
6983' /0'/ 51 days from spud.  
Waited on McCullough. RU and ran collar locator. Found 13 jts. of 13 3/8" together. Tool set dwn. @ 554' on 13 3/8" csg. shoe. T.O.H.- wait on Mill.  
T.I.H. w/ 8 3/4" flat btm. mill and junk basket. Tag shoe @554' and mill thru in 2 hrs. Pushed shoe from 554'-5180'.  
Mud: 9.2  
Vis.: 41  
Water Loss: 8.4  
pH: 9.0  
%Solids: 6.2  
Gels: 3/6  
PV: 17  
YP: 8  
% Sand: ¼  
Cake: 2/32  
Day Cost: \$10,285.00  
Total Cost: \$462,628.00

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Blaze Canyon Prospect  
A.F.E. Cost: \$1,279.800

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Sept. 12 6983'/0'/ 52 days from spud  
Mud: 9.2  
Vis.: 40  
Water Loss: 8.4  
% Solids: 6.2  
% Sands: TR  
Gels: 3/7  
PV: 15  
YP: 8  
pH: 9  
Cake: 2/32  
CLppm: 600  
CAppm: TRACE  
TIH w/ mill and chase 13 3/8" shoe to btm. Mill on junk- TOH-TIH w/ mill  
tooth bit and junk basket. Begin washing and reaming @ 4500'.  
Wash and ream @ 6900' at rpt. time.  
Day Cost: \$13,026.00  
Total Cost: \$475,652.00

Sept. 13 At rpt. time: Reaming to btm.  
6983'/0'/ 53 days from spud  
Mud: 9.2  
Vis.: 48  
Water Loss: 9  
pH: 9  
% Solids: 6  
Gels: 3/6  
PV: 17  
YP: 12  
% Sand: TR  
Cake: 2/32  
CLppm: 500  
CAppm: TRACE  
Day Cost: \$16,074.00  
Total Cost: \$491,726.00

Sept. 14 At rpt. time: Drlg.  
7079'/119'/54 days from spud  
Reamed to btm. Drlg. in Chinle FM. 4 units of background gas.  
Mud: 9.4  
Vis.: 59  
Water Loss: 8.4  
pH: 8.5  
% Solids: 7.8  
% Sand: TRACE  
Cake: 2/32  
CLppm: 450  
CAppm: TRACE  
Bit #7: 8 3/4" , Make: REED, Type: FP53A, Jets: 11,11,11 , drld. 119' in  
22½ hrs.  
WOB: 30,000  
PRM: 65  
PSI: 1500

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A.F.E. Cost: \$1,279,800.00

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GPM: 337  
Day Cost: \$11,162.00  
Total Cost: \$502,888.00

Sept. 15 At rpt. time: Drlg.  
7233'/154'/  
Mud: 9.3  
Vis.: 58  
Water Loss: 7.2  
pH: 9.5  
% Solids: 6.9  
% Sand: TRACE  
Gels: 4/13  
Cake: 2/32  
PV: 13  
YP: 24  
CLppm: 450  
CAppm: TRACE  
Bit #7: Type: FP53A, drld. 273' in 46½ hrs.  
WOB: 30,000  
RPM: 65  
PSI: 1500  
GPM: 237  
Total Cost: \$514,956.00

Sept. 16 At rpt. time: Drlg.  
7359'/126'/ Top of Moenkopi @ 7300'.  
Mud: 9.3  
Vis.: 68  
Water Loss: 9.2  
% Solids: 7.2  
% Sand: TRACE  
Gels: 6/30  
PV: 21  
YP: 24  
pH : 9.5  
Cake: 2/32  
CLppm: 450  
CAppm: TRACE  
Bit # 7: 8 3/4", Type: FP53A, Jets: 11,11,11: drld. 399' in 70 hrs.  
WOB: 36,000  
RPM: 65  
PSI: 1500  
GPM : 337  
Day Cost: \$25,532.00  
Total Cost: \$540,488.00

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Blaze Canyon Prospect  
A.F.E. Cost: \$1,279,800.00

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Sept. 17 At rpt. time: Drlg.  
7464'/105'/ 57 days from spud.  
Mud: 9.1  
Vis.: 47  
Water Loss: 11  
pH: 9.0  
% Solids: 5.9  
Gels: 5/15  
PV: 17  
YP: 12  
% Sand: 1/8  
CLppm: 500  
CAppm: 80  
Bit #7: 8 3/4", Type: FP53A, Jets:11,11,11, drld. 420' in 74 hrs.  
Bit #8: 8 3/4", Type: FP53, Jets:12,12,12, drld. 84' in 10½ hrs.  
Deviation Survey: 3/4° @ 7380'  
WOB: 32,000  
RPM: 65'  
PSI: 1500  
GPM: 337  
Tripped for bit change. Drlg. in Moenkopi. 4 units background gas. 14 units trip gas.  
Day Cost: \$14,700.00  
Total Cost: \$555,188.00

Sept. 18 At rpt. time: Drlg. in Moenkopi 7679'/215'  
Mud: 9.2  
Vis.: 56  
Water Loss: 12.2  
pH: 8.5  
%Solids: 6.7  
%Sand: 1/8  
PV: 14  
YP: 18  
Bit # 8: 8 3/4", Type: FP53, Jets: 12,12,12, drld. 299' in 34 hrs.  
WOB: 32,000  
RPM: 65  
PSI: 1400  
GPM: 337  
Day Cost: \$11,083.00  
Total Cost: \$566,274.00

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Blaze Canyon Prospect  
A.F.E. Cost: \$1,279, 800.00

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Sept. 19 At rpt. time: Drlg. 59 days from spud  
7893'/214'/  
Mud: 9.2  
Vis.: 51  
Water Loss: 11.8  
pH: 8.5  
% Solids: 6.2  
Gels: 11/58  
PV: 17  
YP: 11  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 500  
CAppm: 250  
Bit #8: 8 3/4", Type: FP53 , Jets: 12,12,12, drld. 513' in 57 $\frac{1}{2}$  hrs.'  
WOB: 32,000  
RPM: 65  
PSI: 1400  
GPM: 337  
Day Cost: \$11,438.00  
Total Cost: \$577,712.00

Sept. 20 At rpt. time: Drlg. 60 days from spud 8107/214'  
Mud: 9.1  
Vis.: 40  
Water Loss: 9.8  
pH: 9  
%Solids: 5.6  
Gels: 6/17  
PV: 13  
YP: 7  
% Sand: 1/8  
Cake: 2/32  
CLppm: 450  
CAppm: 240  
WOB: 32,000  
RPM: 65  
PSI: 1400  
GPM: 337  
Bit# 8: Type: FP53, Jtes: 12,12,12, Dr;d. 727' in 81 hrs.  
Day Cost: \$18,981.00  
Total Cost: \$596,693.00

Sept. 21 8272'/165/  
Formation Tops: Kaibab: 8084'  
White Rim: 8134'  
2 units of background gas. No shows.  
Mud: 9.3  
Vis.: 45  
Water Loss: 9.6  
pH: 9  
% Solids: 7

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Balze Canyon Prospect  
A.F.E. Cost: 1,279,800.00

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Gels: 5/21  
PV: 20  
YP: 16  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 450  
CApmm: 160  
Bit #8: 8 3/4", Type: FP53, Jets: 12,12,12, drld. 892'. in 104½ hrs.  
WOB: 32,000  
RPM: 65  
PSI: 1400  
GPM: 337  
Day Cost: \$14,503.00  
Total Cost: \$611,196,00

Sept. 22 Atrpt. time: Drlg.  
8287'/15'/ 62 Days from spud  
Mud: 9.3  
Vis.: 73  
Water Loss: 10  
pH: 8.7  
% Solids: 7  
Gels: 14/43  
PV: 31  
YP: 11  
%Sand: 3/8  
CLppm: 450  
CApmm: 200  
Bit #8:Type: FP53, Jets: 12,12,12, drld. 894' in 106 hrs.  
Bit #9:Type: FP53, Jets: 11,11,11, drld. 12' in 1 hr.  
WOB: 38,000  
RPM: 60  
PSI: 1600  
GPM: 307  
Deviation Survey: 1° @8275'  
Drop survey- TOH- found jars loose in top. Wait on new jars. TIH to bridge @  
4492'. Ream 4492'-4582'- TIH to 8180'- Ream to btm. Drlg. 8 3/4" hole at rpt.  
time. Background gas: 1 unit  
Trip gas: 14 units.  
Day Cost: \$9,660.00  
Total Cost: \$620,856.00

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Blaze Canyon Prospect  
A.F.E. Cost: \$1,279,800.00

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Sept. 23 Rpt. time: Condition hole to log.  
8478 '/203'/ 63 days from spud  
Mud: 9.2  
Vis.: 59  
Water Loss: 9.6  
pH: 9.0  
Bit #9, 8 3/4", Type: FP53, Jets: 11,11,11, drld. 203' in 18 3/4 hrs.  
WOB: 38,000  
RPM: 60  
PSI: 1600  
GPM: 307  
Drld. to 8447'. Had 104 units of C gas. Quickly dissipated to 2 units. Drld. to  
T.D. of 8478'. Begin TOH- circ. @ 4500',  
Day Cost: \$17,556.00  
Total Cost: \$638,412.00

Sept. 24 At rpt. time: 8478'/0'/  
TOH- stuck drill string w/ bit @ 4293' w/ top of D.C.'s @ 3677'. WO McCullough  
Freepoint tool would not work. Worked pipe and pulled up hole 150'. Pipe  
parted and drlg. line jumped off crown sheave. Slip drlg. line @ rpt. time.  
Mud: 9.3  
Vis.: 72  
Water Loss: 8.8  
pH: 9.0  
% Solids: 7  
Gels: 8/30  
PV: 39  
YP: 15  
% Sand: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 80  
Day Cost: \$10,873.00  
Total Cost: \$631,729.00

Sept. 25 8478'/0'/66 Days from spud.  
Mud: 9.2  
Vis.: 67  
Water Loss: 8.4  
pH: 9.0  
%Solids: 6.7  
Gels: 7/27  
PV: 24  
YP: 9  
%Sand: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 140  
Slipped drlg. line. TOH w/ 1 stand and 23' piece of D.P. WO overshot.  
TIH w./ overshot and catch fish. Worked pipe w./ no movement. RU McCullough

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Blaze Canyon Prospect  
A.F.E. Cost: \$1,279,800.00

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Ran freepoint- D.P. stuck @ 3563'. First back<sup>off</sup> attempt @ 3531', unsuccessful.  
Attempt 2nd back off at rpt. time.  
Day Cost: \$8,750.00  
Total Cost: \$640,479.00

Sept. 26

At rpt. time: TIH w./ bit  
8478'/0'/ 66 days from spud  
Mud: 9.4  
Vis.: 61  
Water Loss: 8.4  
pH: 9.0  
% Solids: 7.8  
Gels: 8.27  
PV: 29  
YP: 8  
% Sands: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 190

Backed off 3rd attempt @ 3531'. TOH w/ 36 Stands D.P. - 18 jts. D.P. badly stretched. PU screw in subs, bumper jars, accelerator jars, 6 D.C.'s and string mill. TIH unable to tag fish. TOH-PU bit and TIH to find top of fish.  
Day Cost: \$13,465.00  
Total Cost: \$652,944.00

Sept. 27

At rpt. time: TIH w/ overshot  
8478'/0'/ 67 days from spud  
Mud: 9.5  
Vis.: 72  
Water Loss: 8.2  
pH: 9  
% Solids: 8.6  
Gels: 10/31  
PV: 37  
YP: 7  
% Sand: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 200

TIH/ Tagged fish @ 3759'/ TOH, TIH w/screw sub. and jars unable to SI fish.  
Ran DIL and found top of fish @ 3534' and laid over to side.  
Day Cost: \$11,977.00  
Total Cost: \$665,921.00

Sept. 28

At rpt. time: Strap in hole w./ D.P.  
8478'/0'/ 68 days from spud  
Mud: 9.4  
Vis.: 53  
Water Loss: 8.2  
pH: 9  
% Solids: 8.2  
Gels: 6/22

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Cake: 2/32  
CAppm: 500  
CLppm: 200  
Day Cost: \$8,819.00  
Total Cost: \$674,840.00

- Sept. 29 At rpt. time: Repair rig  
8478'0'/  
Strap in hole w/ D.P. and overshot. Unable to tag top of fish. Kelly jumped off swivel hook. Damaged swivel. TOH and W0 replacement swivel.  
Day Cost: \$8,450.00  
Total Cost: \$683,290.00
- Sept. 30 At rpt. time: Reaming out hole above fish  
8478'0'  
Ran DIL to relocate top of fish. Unable to get below 3095'. TOH. TIH w/ bit, string mill, and jars to 3059'. Ream to 3128' by report time.  
Mud: 9.3  
Vis.: 56  
Water Loss: 8  
pH: 9  
% Solids: 7  
Gels: 6/22  
PV: 28  
YP: 15  
% Sand:  $\frac{1}{4}$   
Cake 2/32  
CLppm: 450  
CAppm: 80  
Day Cost: \$17,494.00  
Total Cost: \$700,784.00
- Oct. 01 At rpt. time: Reaming to top of fish.  
8478'0'/  
Ream hole from 3128' - 3480' in 23  $\frac{1}{2}$  hrs.  
Plan: Ream to top of fish. TOH and TIH w/ wash pipe and attempt to wash over fish.  
Mud: 9.3  
Vis.: 63  
Water Loss: 8.2  
%Solids: 7  
Gels: 7/27  
PV: 29  
YP: 12  
pH: 9  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 500  
CAppm: 120  
Bit #11: 8  $\frac{3}{4}$ ", Type: S23GJ, Jets: 15,15,15, Reaming 421' in 37 $\frac{1}{2}$  hrs.  
Day Cost: \$10,451.00  
Total Cost: \$711,235.00

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Oct. 02 At rpt. time: Work pipe and wait on string shot for back off.  
8478'/0'/  
Reamed to 3543'  
POH to 3279'  
Reamed to 3543'  
TOH  
PU overhsot, bumper, and oil jars, and knuckle jt.  
TIH and latched onto fish.  
Mud: 9.3  
Vis.: 64  
Water Loss: 8.2  
pH: 9  
% Solids: 7  
Gels: 7/27  
PV: 29  
YP: 12  
% Sand: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 120  
Day Cost: \$8,941.00  
Total Cost: \$720,176.00

Oct. 03 At rpt. time: Fishing 8478'  
Work drl. pipe- No movement of fish. RU and run string shot, unable to back off  
in several attempts.  
Mud: 9.3  
Vis.: 64  
Water Loss: 6.5  
pH: 9  
Day Cost: \$9,040.00  
Total Cost: \$729,216.00

Oct. 04 At rpt. time: Fishing 8478'  
Grapple in overshot failed. TOH w/ overshot. TIH w/ wash pipe. Wash over  
33' of fish. TOH. TIH w/ overshot- unable to get over fish.  
Mud: 9.2  
Vis.: 67  
Water Loss: 8  
pH: 9.5  
% Solids: 6.3  
Gels: 5/19  
PV: 28  
YP: 11  
% Sand: 1/4  
Cake: 2/32  
CLppm: 500  
CAppm: 80  
Day Cost: \$14,154.00  
Total Cost: 743,370.00

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A.F.E. Cost: \$1,279,800.00

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- Oct. 05 At rpt. time: Fishing 8478'  
TIH w/ bent jt. and D.P. and overshot. Unable to locate top of fish. TIH w/ bit.  
Clean out @ 3522'-3600'. TOH. TIH w/ overshot and knuckle jt. Unable to locate  
top of fish. TOH. TOH w/ overshot, 30' extension and knuckle jt. Unable to  
locate top of fish. TIH w/ bit at rpt. time.  
Mud: 9.2  
Vis.: 67  
Water Loss: 8  
pH: 9.5  
% Solids: 6.3  
Gels: 5/19  
PV: 28  
YP: 11  
% Sand:  $\frac{1}{4}$   
Cake: 2/32  
CLppm: 500  
CAppm: 80  
Day Cost: \$42,585.00  
Total Cost: \$785,953.00
- Oct. 06 At rpt. time: Circ. and condition hole  
8478'/0'/  
TIH w/ bit and clean out to 3648'. TOH. RU Wellex ran DIL. Found top of fish  
@ 3541'. TOH- TIH w/ bent jt. and overshot, stuck in hole @ 3330'- pulled free.  
TOH. TIH w/ bit - wash and ream to 3648'. Circ. and condition mud.  
Mud: 9.1  
Vis.: 60  
Water Loss: 7.6  
pH: 9.0  
% Solids: 5.6  
Gels: 4/16  
PV: 30  
YP: 10  
% Sand:  $\frac{1}{8}$   
CLppm: 450  
CAppm : 60  
Day Cost: \$13,821.00  
Total Cost: \$799,774.00
- Oct. 07 At rpt time: Circ. and wait on orders.  
8478'/0'/  
Circ. @ 3600'. TOH- lay dwn fishing tools. Ran CNL-FDC and DIL logs. Wait on  
orders.  
Mud: 9.2  
Vis.: 49  
Water Loss: 7.2  
pH: 9.5  
% Solids: 6.3  
Gels: 4/17  
PV: 27  
YP: 7  
CLppm: 450

State Crescent Unit #14-36  
Blaze Canyon Prospect  
A.F.E. Cost: \$1,279,800.00

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CAppm: 60  
Day Cost: \$15,497.00  
Total Cost: \$815,271.00

Oct. 08 8478'/0'/WOC  
Circ. hole - T.O.H., run BHC Sonic Log, T.I.H. w/open ended DP to 3628'  
Spot 100 sack calseal plug, cmt. in place @ 6:34 A.M. 10/08/81.  
T.O.H. to 3250' - WOC.

Mud: 9.2  
Viscosity: 63  
Water loss: 7.3  
Gels: 5/18  
PV: 30  
YP: 10  
PH: 9.5  
Sand: 1/8  
CL PPM: 450  
CA PPM: 60  
Day Cost: \$ 11,381.00  
Total Cost: \$826,652.00

Oct. 09 At rpt. time: RDRT/  
8478'/0'/ 3486' PBTD./ 79 Days from spud  
Tagged cmt. @ 3486'. TOH, ran 83 jts. of 5½" 15.50 # LT&C csg.- set @  
3486'. Cmt. w/ 1050 sxs 50/50 pozmix w/ 8% Gel and 1075 sxs RFC CMT. Circ.  
125 sxs cmt. to surface. PD @ 3:15am on the 10/09/81. RDRT.

Day Cost: \$242,628.00  
Total Cost: \$1,169,280.00  
Note: Updated costs include \$100,000.00 rig move costs and an estimated  
cost of \$65,000.00 for fish left in hole.

Oct. 10 At rpt. time: MORT : 82 Days from spud  
Week-end report: Released rig @ 6:00 pm. on the 10/09/81. Rig down and move  
out rotary tools. Raining.

Day Cost: (for three days): \$24,450.00  
Total Cost: \$1,193,730.00

Oct. 13 At rpt. time: MORT  
Day Cost: \$10,000.00  
Total Cost: \$1,203,730.00

Oct. 14 At rpt. time: Cont. to MORT  
Day Cost: \$10,800.00  
Total Cost: \$1,214,530.00

Oct. 15 At rpt. time: Wait on service unit.  
Finished MORT. No further report until status changes.  
Day Cost: \$29,534.00  
Total Cost: \$1,244,064.00

Nov. 23 At rpt. time: Move in service unit.

State Crescent Unit #14-36  
Blaze Canyon Prospect

COMPLETION REPORT

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- Nov. 24 At rpt. time: MI and RUSU. Install wellhead. Pick up and run 78 jts. of 2 3/8" tbg. SDON.  
Day Cost: \$4,084.00  
Total Cost: \$4,084.00
- Nov. 25 At rpt.time: Repair well head and prep. to perforate.  
T.I.H. with 2 3/8" tbg. to PBD of 3408'.  
Circ. hole with 4% KCL water. T.O.H. Ran cement bond log.  
Good bond from 3400'-1700. Prs. tested wellhead- weld on bell nipple, would not test.  
SDON.  
Day Cost: \$2,800.00  
Total Cost: \$6,884.00
- Nov. 26 At rpt. time: Shut down for Holiday  
Welded bell nipple, tested wellhead, perforated from 3062' to 3092' w/ 1 shot per 2'. Ran tbg to 3010', swabbed down to 2000' w/no fluid or gas entry.  
SDON  
Daily Cost: \$ 9,373.00  
Total Cost: \$16,257.00
- Nov. 27 At. rpt. time: Shut down for holiday
- Nov. 28 Acidized well w/500 gal. 7½% MSR acid @ 3 BPM rate & 1800 PSI prs.  
Breakdown prs. 2100 PSI - good ball action.  
ISI - 850 PSI  
15 min. SI - 750 PSI  
swab well down to 2000'  
Total BLW - 80 BBL  
Recovered: 63 BLW & no gas  
SDON
- Nov. 29 No prs. on well  
Swabbed well down to 2970'. Recovered: 3 BLW & no gas, 14 BLW yet to recover  
SDON
- Nov. 30 At rpt. time: Shut down on Sunday  
Swabbing at report time, prep. to frac well Tuesday A.M.  
Daily Cost: \$ 7,953.00  
Total Cost: \$24,210.00
- Dec.01 At rpt.time: Present operation: Set up to do fracing. Will have update on frac job on the 12-02-81.

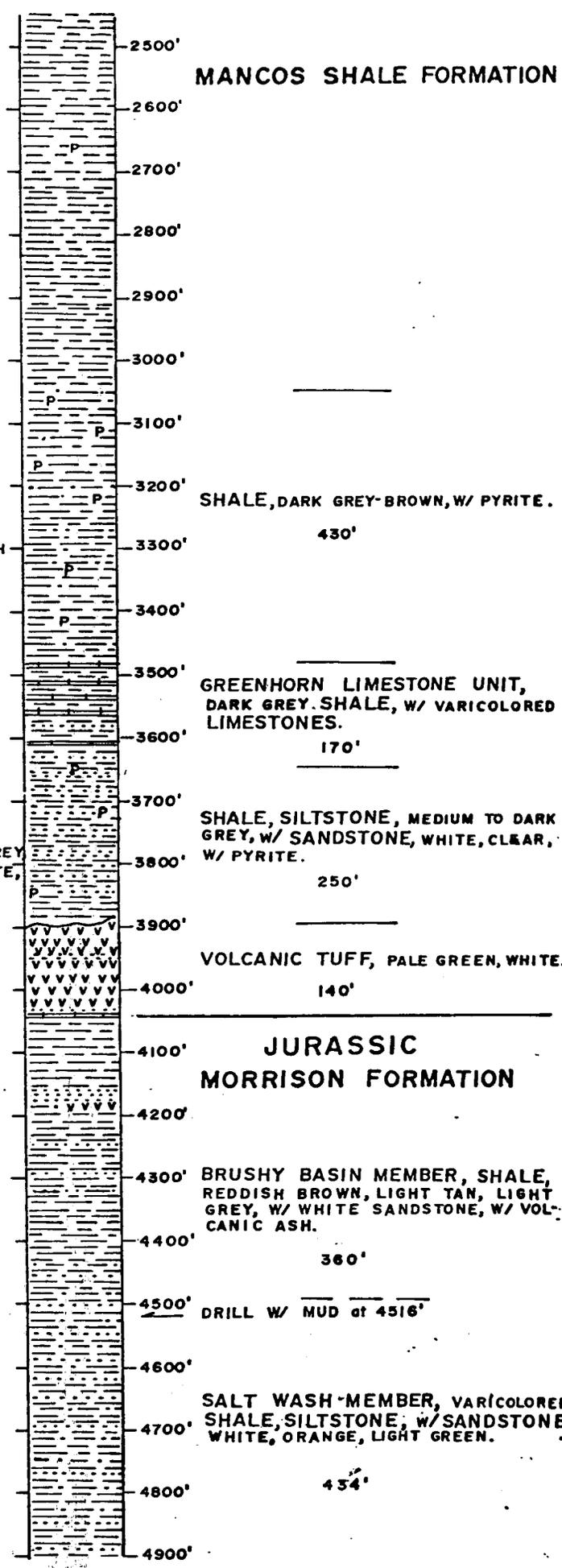
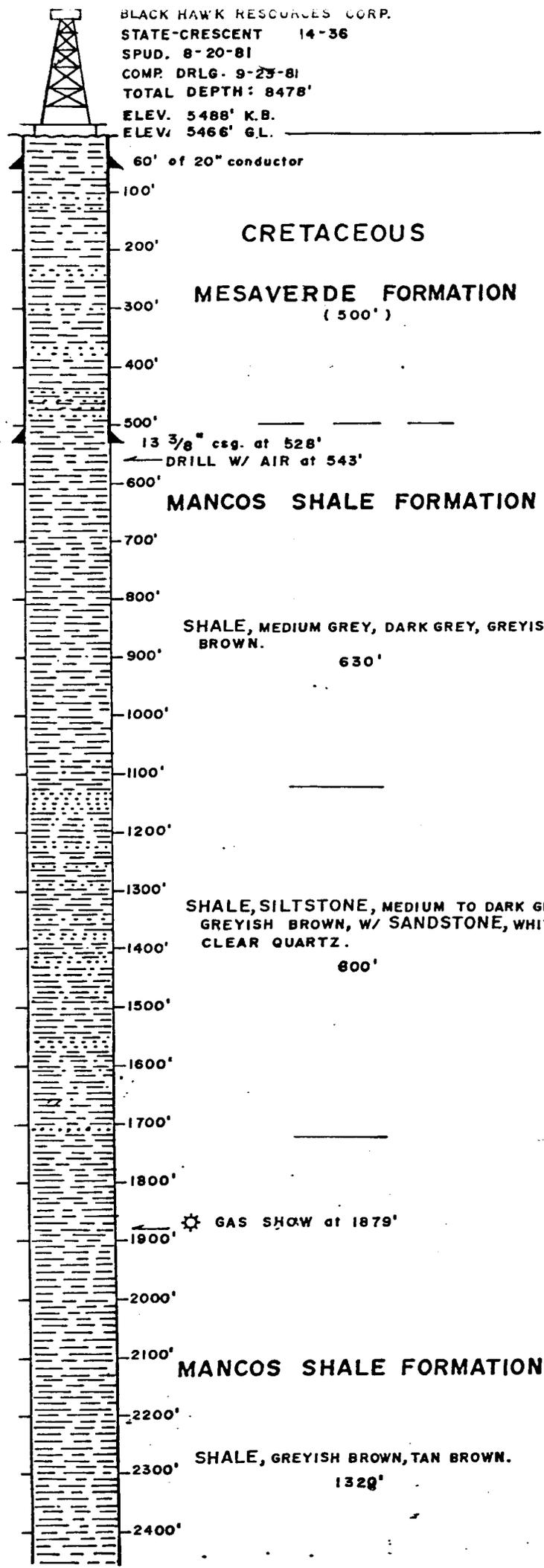
State Crescent Unit #14-36  
Blaze Canyon Prospect

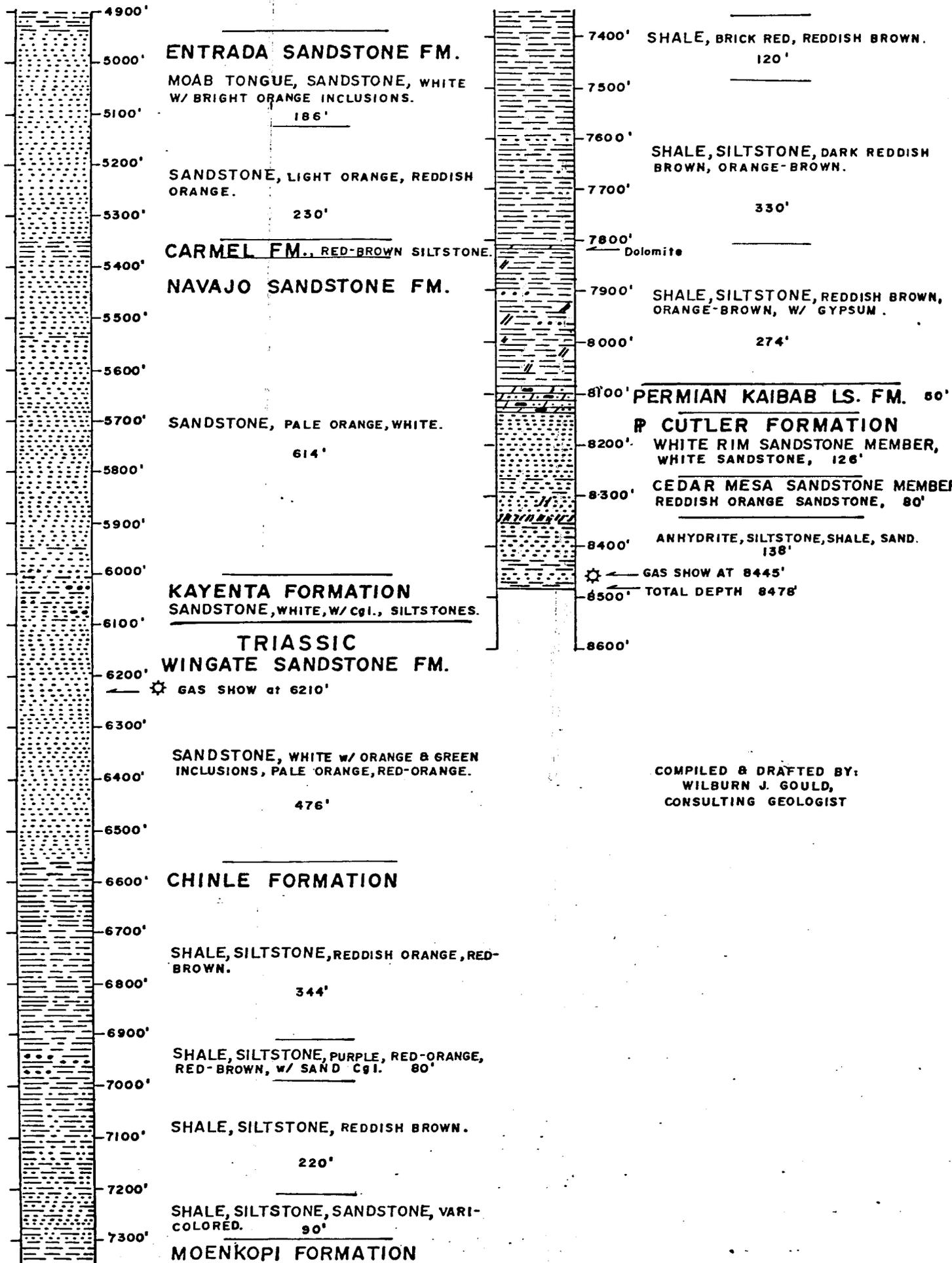
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- Dec. 02 At rpt.time: Flow well back.  
RU Dowell. Frac well per/prognosis with 30,000 gals. WF-40 gel, 88,000 lbs. of sand, and 35 ton of carbon dioxide.  
Avg. Rate: 20 BPM  
Avg. prs.: 2650 PSI  
ISI: 1600 PSI  
15 min SI: 1500 PSI. Total BLW : 880 BBLs.  
Attempted immediate flow back and flow back in 1 hr. and found gel had not broken. Secured well and shut down over night.  
Day Cost: \$41,967.00  
Total Cost: \$66,177.00
- Dec. 03 At rpt.time: Flowing well  
SICP: 775 PSI  
SITP: 700 PSI  
Flow well on 10/64" choke.  
7:00 a.m. on the 12-03-81: FTP: 175 PSI  
SICP: 400 PSI  
Recovered: 163 BLW in 23 hrs. with no gas.  
717 BLW yet to recover.  
Day Cost: \$2,100.00  
Total Cost: \$68,277.00
- Dec. 04 At rpt.time: Swabbing well  
Flowed back 14 BLW  
Well Died. Lowered tbg., to 3080', no sand in well bore. Swabbed-- no gas or fluid entry. Recovery to date: 177 BLW, 703 BLW yet to recover.  
7:00 a.m. on the 12-04-81: SITP: 0 PSI; SICP: 250 PSI; ONFU: 500'; Swabbed dry. No gas.  
Plan: Check fluid entry over the week-end. If low: P&A or temp. abandon.  
Day Cost: \$2,450.00  
Total Cost: \$70,727.00
- Dec. 08 UPDATE REPORT FOR THE WEEK-END  
No fluid or gas entry over the week-end. 703 BLW yet to recover.  
Plug and abandon the well as follows:  
3150' to 3000': 20 sxs  
1850' to 1700': 20 sxs  
600' to 450': 20 sxs  
50' to 0': 10 sxs  
Laid down tbg. Rig down and Move out service unit. FINAL REPORT  
Please note: Supplemental AFE for drlg. cost overrun is being mailed soon.  
Day Cost: \$3,500.00  
Total Cost: \$74,227.00  
FINAL REPORT

BLACK HAWK RESOURCES CORP.  
 STATE-CRESCENT 14-36  
 SPUD. 8-20-81  
 COMP. DRLG. 9-23-81  
 TOTAL DEPTH: 8478'  
 ELEV. 5488' K.B.  
 ELEV. 5466' G.L.

LITHOLOGIC LOG  
 STATE-CRESCENT UNIT No. 14-36  
 GRAND COUNTY, UTAH





COMPILED & DRAFTED BY:  
WILBURN J. GOULD,  
CONSULTING GEOLOGIST

## SAMPLE FORMATION TOPS

<u>Depth</u>	<u>Thickness</u>	<u>Formation</u>
0' - 500'	500'	Cretaceous Mesaverde-Mancos Shale (no samples)
500'-3900'	3400'	Cretaceous Mancos Shale Formation
3480'-3650'	170'	Greenhorn Limestone Unit
3900'-4040'	140'	Cretaceous-Jurassic Volcanic Tuff
4140'-4934'	794'	Jurassic Morrison Formation (SLM Correction)
4140'-4500'	360'	Brushy Basin Member
4500'-4934'	434'	Salt Wash Member
4934'-5350'	416'	Jurassic Entrada Sandstone Formation
5350'-5388'	38'	Jurassic Carmel Formation
5388'-6002'	614'	Jurassic Navajo Sandstone Formation
6002'-6090'	88'	Jurassic Keyenta Formation
6090'-6566'	476'	Triassic Wingate Sandstone Formation
6566'-7300'	734'	Triassic Chinle Formation
7300'-8084'	784'	Triassic Moenkopi Formation
8084'-8134'	50'	Permian Kaibab Limestone Formation
8134'-8478'	344'	Permian Cutler Formation
8134'-8260'	126'	White Rim Sandstone Member
8260'-8340'	80'	Cedar Mesa Sandstone Member
8340'-8478'	138'	Evaporite Facies
8478'	TOTAL DEPTH	

## OIL-GAS SHOWS

<u>Depth</u>	<u>Description</u>
1879'	448 Total Units on the hot wire, 656 units of C <sub>1</sub> on the chromatograph. Decreased to 60 units while air drilling. Trip gas at 2042', 9600 units of C <sub>1</sub> . The show was in the Mancos Shale Formation, no apparent sand or resevoir was noted in samples.
6210'-6250'	54 Total Units on the hot wire, chromatograph breakdown as follows: 8 units of C <sub>1</sub> , 1 unit of C <sub>2</sub> , 9 units of C <sub>3</sub> , 10 units of iC <sub>4</sub> , 17 units of nC <sub>4</sub> . The show was in the Wingate Sandstone, v. fine to fine grained quartz sand, w/ 2-3% dull yellow fluor., v. poor cut. The show quickly dissapated.
8445'-8452'	104 Total Units of C <sub>1</sub> , decreased to 2 units rapidly. The show was in sand, medium to coarse, angular, free quartz, no fluor. , no stain, no cut.

## DEVIATION RECORD

<u>Survey No.</u>	<u>Depth</u>	<u>Deviation</u>
1.	500'	0° 45'
2.	600'	0° 45'
3.	1350'	2° 00'
4.	1791'	1° 30'
5.	2250'	1° 15'
6.	3000'	2° 30'
7.	3650'	4° 30'
8.	3850'	6° 15'
9.	3890'	6° 00'
10.	4017'	6° 00'
11.	4170'	4° 00'
12.	4350'	5° 00'
13.	4504'	6° 00'
14.	4650'	5° 00'
15.	4804'	4° 00'
16.	5000'	3° 45'
17.	5245'	3° 45'
18.	5465'	3° 00'
19.	5776'	0° 45'
20.	6156'	0° 45'
21.	6439'	0° 30'
22.	6786'	1° 00'
23.	6983'	1° 45'
24.	7380'	0° 45'
25.	8275'	1° 00'