

FILE NOTATIONS

Entered in NID File ✓
Location Map Pinned ✓
Card Indexed ✓

Checked by Chief *RWB*
Approval Letter *1-25-72*
Disapproval Letter

COMPLETION DATA:

Date Well Completed *1-5-73*

W..... WW..... TA.....
GW..... OS..... PA..... ✓

Location Inspected
Bond released
State or Fee Land

LOGS FILED

Driller's Log..... ✓
Electric Logs (No.)

S..... I..... Dual I Lat..... GR-N..... Micro.....

WNC Sonic GR..... Lat..... MI-L..... Sonic.....

CBLog..... CCLog..... Others.....

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
OIL WELL GAS WELL OTHER
SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Continental Oil Company

3. ADDRESS OF OPERATOR
152 North Durbin, Casper, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface 1980' FSL, 660' FWL (NW SW)
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Moab, Utah - 35 miles southeast

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)

16. NO. OF ACRES IN LEASE
30,200

17. NO. OF ACRES ASSIGNED TO THIS WELL

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH
15,500'

20. ROTARY OR CABLE TOOLS
Rotary

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

22. APPROX. DATE WORK WILL START*
August 1, 1972

5. LEASE DESIGNATION AND SERIAL NO.
Utah - 0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Crescent Unit

8. FARM OR LEASE NAME

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 17, T22S, R20E

12. COUNTY OR PARISH
Grand

13. STATE
Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	1100'	1350 sacks
12 1/4"	9 5/8"	40#-43.5#-47#	10,700'	1015 sacks
8 1/2"	To be designed	if necessary	15,500'	

It is proposed to drill and test the Redwall (Madison) formation in the subject well. The well will not be cored, but DST's will be made. All appropriate logs will be run. If commercial production is encountered, the well will be selectively perforated, stimulated, if necessary, and producing equipment installed. The drilling rig will be equipped with a blowout preventor, which will be tested daily.

DC

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. Original Signed By: J. A. UEBEN TITLE Administrative Supervisor DATE July 18, 1972

(This space for Federal or State office use)

PERMIT NO. 43-019-30110 APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

USGS (4) UOGCC (2) File (2)
Salt Lake

*See Instructions On Reverse Side

PLD

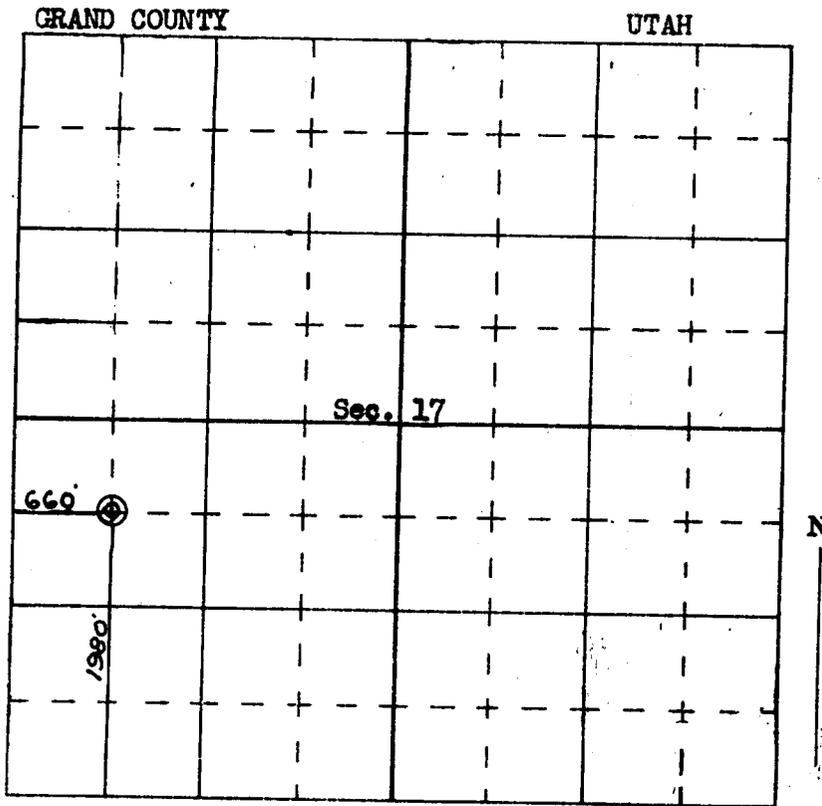
COMPANY CONTINENTAL OIL COMPANY

LEASE CRESCENT UNIT WELL NO. 1

SEC. 17 T. 22 SOUTH R. 20 EAST, S.L.M.

LOCATION 1980 Feet from the South line and
660 Feet from the West line

ELEVATION 4757.0



SCALE—4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-
VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

James P. L'ese
Registered Land Surveyor.

JAMES P. L'ESE
UTAH REG. NO. 1473



SURVEYED 3 July, 1972

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

July 25, 1972

Continental Oil Company
152 North Durbin
Casper, Wyoming

Re: Crescent Unit #1
Sec. 17, T. 22 S, R. 20 E,
Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted.

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

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

This approval terminates within 90 days if the well has not been plugged-in within said period.

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation with regard to the above will be greatly appreciated.

The API number assigned to this well is 43-019-30110.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:4d
cc: U.S. Geological Survey

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

SUBMIT IN TR. DATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

Utah - 0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER

7. UNIT AGREEMENT NAME

Crescent Unit

2. NAME OF OPERATOR

Continental Oil Company

8. FARM OR LEASE NAME

3. ADDRESS OF OPERATOR

152 North Durbin St., Casper, Wyo. 82601

9. WELL NO.

1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface

1980' FSL, 660' FWL (NW SW)

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 17, T22S, R20E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4757' GR. - 4780' KB

12. COUNTY OR PARISH 13. STATE

Grand

Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON*

SHOOTING OR ACIDIZING

ABANDONMENT*

REPAIR WELL

CHANGE PLANS

(Other)

Well Progress

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)*

Spudded 9-13-72, drilled 12½" hole to 1080', and reamed to 17½". Ran 13 3/8" 54.5# casing, landed at 1080', and cemented with 1350 sax Class "G" with ½#/sack "Clinton-Flake" and 3% CaCl₂. Preceded cement with 25 bbl. water and displaced with 10 bbl. water and 152 bbl. drilling fluid.

Drilled 12½" hole ahead to 3610' on 10-1-72. Drilling will continue toward objective TD 15,500'.

RECEIVED
 GEOLOGICAL SURVEY
 WASHINGTON, D.C.
 OCT 10 1972
 10/10/72

USGS(4) UOGCC(2) File(2)

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

SIGNED

Elmer L. Phillips

TITLE Acting Admin. Supervisor

DATE

10/4/72

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:



W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-30: Drilling in Wingate at 3027'. (Prog. 287') 12½" hole. Top of Wingate 2718'. Dev.: ¾ deg. at 2770'; 1 deg. at 2920'. Gel-Chem - Wt. 8.8#.

10-1: Drilling sand at 3275'. (prog. 248') 12½" hole. Dev.: 1½ deg. at 3051'; ¾ deg. at 3256'. Bit #3 - Smith 4JS - 1553' to 3051'. Gel-Chem - Wt. 8.9#.

10-2: Drilling siltstone at 3610'. (Prog. 335') 12½" hole. Top of Chinle 3070'; Shinarump 3520'. 9 9" and 6 8" drill collars; WOB 35,000-40,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1650#; ann. vel. 110; jet vel. 438; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 5 9" and 6 8" drill collars. Dev.: 1½ deg. at 3460'. Gel-Chem - Wt. 8.8#; Vis. 39; WL 12.0 cc; FC 2/32; pH 10.0; gel strength ini./10 min. 1 / 3; 4% solids; trace of sand; 450 ppm salinity; PV 10; Yp 6. Cum. mud costs: \$4312. Brinkerhoff 0/18½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-3:
Drilling shale and siltstone at 3787'. (Prog. 177') 12½" hole. Bit #5 - HTC X-44 - 3051-3667'. 9 9" and 6 8" drill collars; WOB 40,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1750#; ann. vel. 110; jet vel. 428; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 6 9" and 6 8" drill collars. Dev.: 1½ deg. at 3620'. Gel-Chem - Wt. 8.7#; Vis. 36; WL 12.4 cc; FC 2/32; pH 10.0; gel strength ini./10 min. 1 / 5; 4% solids; trace of sand; salinity 1000 ppm; PV 8; Yp 6. Cum. mud costs: \$4932. Brinkerhoff 0/19½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-4:
Drilling siltstone and limestone at 4027'. (Prog. 240') 12½" hole. Top of Moenkopi 3560'. 9 9" and 6 8" drill collars; WOB 45,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1750#; ann. vel. 110; jet vel. 438; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 6 9" and 6 8" drill collars. Dev.: 1½ deg. at 3840'. Gel-Chem - Wt. 8.7#; Vis. 38; WL 12.8 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 5; 4% solids; trace of sand; salinity 900 ppm; PV 9; Yp 6. Cum. mud costs: \$5270. Brinkerhoff 0/20½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-5:

Drilling shale and siltstone at 4304'. (Prog. 277') 12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 510 GPM; PP 1750#; ann. vel. 110; jet vel. 438; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 6 9" and 6 8" drill collars. Dev.: 1 $\frac{1}{2}$ deg. at 4025' and 4215'. Gel-Chem - Wt. 8.8#; Vis. 37; WL 12.0; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 7; 4% solids; trace of sand; salinity 1100 ppm; PV 10; Yp 10. Cum. mud costs: \$5570. Raining all night - roads bad. Brinkerhoff 0/21 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-6:

Drilling siltstone at 4528'. (Prog. 224') 12 $\frac{1}{4}$ " hole. Dev.: 1 deg. at 4375'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; GPM 510; PP 1800#; ann. vel. 110; jet vel. 438; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 6 9" and 6 8" drill collars. Dev.: 1 deg. at 4374'. Gel-Chem - Wt. 8.9#; Vis. 34; WL 14.8 cc; FC 2/32; pH 10.5; gel strength ini./10 min. 1 / 7; 4% solids; trace of sand; salinity 900 ppm; PV 10; Yp 4. Cum. mud costs: \$5953. Brinkerhoff 0/22 $\frac{1}{2}$ /0.

FORM OGC-8-X
FILE IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah.
S W

Water Sands: None.

1.	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-23: Installing BOP. Ran 36 jts. 13 3/8", 54.5#, K-55, 8 rd. casing with Larkin guide shoe. Total 1085.11'. Cemented at 1080' with 1350 sax Class "G" with 1/2#/sack "Clinton-Flake" and 3% CaCl₂. Preceded cement with 25 BW. Displaced with 10 BW and 152 bbls. drilling fluid. Cement in place at 10:45 a.m. 9-22-72 with good returns to surface. Dowell Cementers. WOC 5 hrs. Cut off casing. Welded on Rector slipon 3000# casing head. Installing BOP and Swaco equipment. 12 1/2" hole.

9-24: Cleaning mud. Depth 1085' - Morrison. (Prog. 5') 12 1/2" hole. Found top of cement at 1039'. 1 1/2 hrs. drilling cement and plug. Gel-Chem - Wt. 9.2#.

9-25: Drilling sand and shale at 1460'. (Prog. 375') 12 1/2" hole. 9 9" and 6 8" drill collars; WOB 30,000#; 110 RPM; 6 1/2" x 18" pump; 60 SPM; 510 GPM; PP 200#; ann. vel. 135; jet vel. 530; BHA: hole opener, two 9" drill collars, shock sub, one 9" drill collar, and 17 1/2" rubber stabilizer. Dev.: 1 deg. at 1160'; 1/2 at 1253'; 3/4 at 1345'; 1 at 1442'. Gel-Chem - Wt. 8.7#; Vis. 30; WL 10.0 cc; FC 1/32; pH 9.5; gel strength ini./10 min. 0 / 3; 3% solids; trace of sand; salinity 400 ppm; PV 7; Yp 3. Cum. mud costs: \$2410. Brinkerhoff 0/11 1/2/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-26:

Drilling in limestone and sandy shale at 1648'. (Prog. 188') 12 1/2" hole. Bit #4 - Sec. M4NG - 1080-1553'. 9 9" and 6 8" drill collars; WOB 30,000-35,000#; 45 RPM; 6 1/2" x 18" pump; 60 SPM: 510 GPM; PP 1800#; ann. vel. 105; jet vel. 437; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 5 9" and 6 8" drill collars. Dev.: 1 1/2 deg. at 1534'; 1 deg. at 1648'. Gel-Chem - Wt. 8.9#; Vis. 35; WL 8.8#; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 4; 3% solids; trace of sand; salinity 400 ppm; PV 10; Yp 2. Cum. mud costs: \$2600. Brinkerhoff 0/12 1/2/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-27:

Drilling sand and shale at 1902'. (Prog. 254') 12 1/2" hole. Bit #3 - Smith 4JS - 1553' to 1902'. Top of Summerville 1743'; Entrada 1790'. Lost 50 bbls. mud at 1744' to 1847'. 9 9" and 6 8" drill collars; WOB 35,000-45,000#; 45 RPM; 6 1/2" x 18" pump; 60 SPM: 510 GPM; PP 1900#; ann. vel. 100; jet vel. 510; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 5 9" and 6 8" drill collars. Dev.: 1 deg. at 1640'; 1 1/2 deg. at 1730' and 1825'. Gel-Chem - Wt. 8.8#; Vis. 34; WL 12.0 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 2; 3% solids; trace of sand; salinity 400 ppm; PV 10; Yp 5. Cum. mud costs: \$2886 Brinkerhoff 0/13 1/2/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-28:

Drilling in Navajo sand at 2283'. --(Prog. 381') 12½" hole. Tops: Carmel 2080'; Navajo 2220'. 9 9" and 6 8" drill collars; WOB 35,000-40,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1900#; ann. vel. 110; jet vel. 510; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 5 9" and 6 8" drill collars. Dev.: ¾ deg. at 2045'; 1 deg. at 2200'. Gel-Chem - Wt. 9.0#; Vis. 37; WL 9.6 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 2 / 4; 4% solids; 1% sand; 350 ppm salinity; PV 37; Yp 11. Cum. mud costs: \$3228. Brinkerhoff 0/14½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-29:

Drilling sand at 2740'. (Prog. 457') 12½" hole. Top of Kayenta 2490'. Dev. 1 deg. at 2331'; ¾ deg. at 2455'; 1 ¼ deg. at 2620'. Bit #3 - RR Smith 4JS - 1553' to 2740'. 9 9" and 6 8" drill collars; WOB 35,000-45,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1900#; ann. vel. 110; jet vel. 510; BHA: bit, two 9" drill collars, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, 5 9" and 6 8" drill collars. Gel-Chem - Wt. 8.9#; Vis. 37; WL 10.8 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 2; 4% solids; 1% sand; salinity 350 ppm; PV 8; Yp 2. Cum. mud costs: \$3575. Brinkerhoff 0/15½/0.

FORM OGC-8-X
FILE IN QUADRUPPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Address: 600 Denver Club Bldg. - Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 ~~X~~ S, R. 20 E, ~~X~~ Grand County,
Utah.

Water Sands: None

1.	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall
(Madison) - 15,500'

9-16: Drilling in Mancos at 520'. (Prog. 171') 12½" hole. Bit #1 - Reed Y13 - 56' to 520'. Worked stuck pipe out of hole and laid down steel stabilizer. Dev.: ¼ deg. at 370'; ½ deg. at 436 and 493'. Gel-Chem - Wt. 8.8#.

9-17: Drilling sandy shale at 765'. (Prog. 245') 12½" hole. Bit #1 - Reed Y13 - 56' to 715'. Bit #2 in hole. Dev.: ½ deg. at 493'; ¾ deg. at 540'; ¼ at 605; ¾ deg. at 684' and 715'. Gel-Chem - Wt. 9.0#.

9-18: Drilling sand, shale, lime and chert at 950'. (Prog. 185') 12½" hole. Bit #2 - Reed Y1 - 715' to 839'. 9 9" drill collars; WOB 16,000-18,000#; 42 RPM; 6" x 18" pump; 60 SPM; 510 GPM; PP 1900#; ann. vel. 100; BHA: bit, 2 9" drill collars, Drilco shock sub, one 9: drill collar, rubber stabilizer, and six 9: drill collars. Dev.: 1 deg. at 780'; ¼ deg. at 835' and 878'; ½ deg. at 935'. Gel-Chem - Wt. 9.0#; Vis. 55; WL 7.2 cc; FC 2/32; pH 8.5; Gel strength ini./10 min. 6 / 20; 3% solids; trace of sand; salinity 150; PV 25; Yp 28. Cum. mud costs: \$1523. Dakota top 812'. (80 units gas - background running 11 units.) Brinkerhoff 0/4½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall
(Madison) - 15,500'

9-19: Opening 12½" hole to 17½" at 180'. Depth 1080' - Morrison. (Prog. 130') 17½" hole. Bit #3 - Smith 4JS - 839-1080'. 9 9" drill collars; WOB 10,000-30,000#; 42 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; BHA: hole opener, two 9" drill collars, shock sub, one 9" drill collar, and 17½" rubber stabilizer. Dev.: ¼ deg. at 984'; ¾ deg. at 1046'. Morrison top - 1055'. Gel-Chem - wt. 9.1#; Vis. 55; WL 7.8 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 3 / 27; 2% solids; trace of sand; salinity 300 ppm; PV 17; Yp 7. Cum. mud costs: \$1005. Brinkerhoff 0/5½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-20: Open hole to 17½" at 715'. Depth 1080' - Mancos shale. (Prog. 535') 17½" hole. 9 9" drill collars; WOB 10,000-25,000#; 110 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 600#; BHA: hole opener, two 9" drill collars, shock sub, one 9" drill collar, and 17½" rubber stabilizer. Gel-Chem - 9.3#; Vis. 57; WL 7.3 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 3 / 25; 4% solids; ½ of 1% sand; salinity 300 ppm; PV 17; Yp 7. Cum. mud costs: \$1724. Brinkerhoff 0/6½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-21: Opening 12 $\frac{1}{4}$ " hole to 17 $\frac{1}{2}$ " at 984'. Depth 1080' - Dakota sand, chert, and dolomite. (Prog. 269') 17 $\frac{1}{2}$ " hole. Hole opener #1 - Reed OSC - 853' to 797'. 9 9" drill collars; WOB 25,000-30,000#; 90 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 510 GPM; PP 500#; BHA: hole opener, two 9" drill collars, shock sub, one 9" drill collar, and 17 $\frac{1}{2}$ " rubber stabilizer. Gel-Chem - Wt. 9.2#; Vis. 55; WL 7.2 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 3 / 25; 4% solids; 3/4 of 1% sand; salinity 300 ppm; PV 18; Yp 7. Cum. mud costs: \$1874. Brinkerhoff 0/7 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

9-22: Running 13 3/8" casing. Depth 1080' - Morrison. (Prog. 96') 17 $\frac{1}{2}$ " hole. Hole opener #2 - 853' to 1080'. 9 9" drill collars; WOB 30,000#; 90 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 510 GPM; PP 500#; BHA: hole opener, two 9" drill collars, shock sub, one 9" drill collar, and 17 $\frac{1}{2}$ " rubber stabilizer. Gel-Chem - Wt. 9.3#; Vis. 62; WL 7.2 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 3 / 24; 5% solids; 1% sand; salinity 300 ppm; PV 18; Yp 9. Cum. mud costs: \$1874. Brinkerhoff 0/8 $\frac{1}{2}$ /0.

FORM OGC-8-X
 FILE IN QUADRUPLICATE

STATE OF UTAH
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL & GAS CONSERVATION
 1588 West North Temple
 Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING
 * * * * *

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Address: 600 Denver Club Bldg - Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
 S WK
 Utah.

Water Sands: None

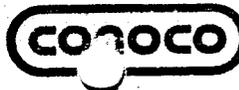
	<u>Depth:</u>		<u>Volume:</u>	<u>Quality:</u>
	From-	To-	Flow Rate or Head-	Fresh or Salty-
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
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 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Location: 1980' FSL, 660' FWL, Sec. 17, T22S, R20E, Grand Co., Utah. AFE
12-20-2132. API Well No.: 43-019-30110. Contractor: Brinkerhoff. Mud supplier:
Magcobar. Elevations: GL 4757', KB 4780'.

Spudded at 8 p.m. 9-13-72. Drilling shale at 170'. 12½" hole. Bit #1 - Reed
YT3 - in hole. 4 9" drill collars; WOB 5,000-10,000#; 90 RPM; 6½" x 18" pump;
PP 2000#; BHA: one 9" drill collar, Grant button stabilizer, two 9" drill collars,
button stabilizer, and one 9" drill collar. Dev.: 1/8 deg. at 90'. Drilling
with gel-water - Wt. 8.7#; Vis. 48; WL 9.0 cc; FC 2/32. Brinkerhoff 0/½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall
(Madison) - 15,500'

Working stuck string. Depth 349' - shale. (Prog. 179') 12½" hole. Made
free connection at 319'. Drilled kelly down and made connection at 349'.
Could not move string. Hole apparently fell in. Cannot circulate. Worked
stuck pipe for 10 3/4 hrs. Have moved string up 35', putting bottom of fish
at 273'. String will move up slowly. Will install surface bumper sub to aid
in pulling string. 8 9" drill collars; WOB 15,000#; 110 RPM; 6½" x 18" pump;
60 SPM; 510 GPM; PP 2000#; ann. vel. 190; BHA: bit, one 9" drill collar, button
stabilizer, two 9" drill collars, stabilizer, and five 9" drill collars. Dev.:
½ deg. at 210' and 276'. Gel-Chem - Wt. 8.7#; Vis. 48; WL 8.4 cc; FC 2/32;
pH 8.5; gel strength ini./10 min. 3 / 16; 3% solids; salinity 150 ppm; PV 14;
Yp 12. Cum. mud costs: \$1123. Brinkerhoff 0/1½/0.

Cmfj

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Crescent Unit #1
Operator Continental Oil Co. Address 152 N. Durbin, Casper Phone 307-234-7311
Contractor Brinkerhoff Address 600 Denver Club Bldg., Denver Phone 303-222-9733
Location NW 1/4 SW 1/4 Sec. 17 T. 22 N. R. 20 E Grand County, Utah.
S W

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

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Cmf RB

STATE OF UTAH
DIVISION OF OIL & GAS CONSERVATION
DEPARTMENT OF NATURAL RESOURCES

PLUGGING PROGRAM

NAME OF COMPANY Crescent Oil Co.

WELL NAME Crescent Unit #1 API NO: _____

Sec. 17 Township 12S Range 20E County Grand

Verbal Approval Given to Plug the Above Referred to Well in the Following Manner:
No fresh water, oil or gas
blows

Total Depth: 14,994'

Casing Program:

8 1/2" hole
13 3/8" @ 1080'
9 5/8" @ 12,124'; will
pull 4500' - 10,000'

Formation Tops:

Cutlada - 1805
Carmel - 2094
Nadajo - 2360
Lagunita - 2850
Whigate - 3042
Chinle - 3535
Shinarump - 3950
Muskogee - 4012
Stribed - 5270
White Kim - 5978
Cutler - 6143
Garaday - 11958'
Sack - ~~12,690~~ 12,690
Base of Sack - 14,110
Mississippian - 14,518
Red Wall

Plugs Set as Follows:

100' plug spanning top
of Formation
100' - Red Wall
100' - Base of Sack
100' - Top of Sack
100' - Top of Casing Stub
200' - Crossing Cutler & White Kim
100' - Top of Chinle
100' - Top of Nadajo
100' - Bottom of Casing (surface)
Surface Plug & Marker

Date: USGS 1-8-23 Signed: Seheru

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

Utah-0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Crescent Unit

8. FARM OR LEASE NAME

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., B., M., OR BLEK. AND SURVEY OR AREA

Sec. 17, T22S, R20E

12. COUNTY OR PARISH | 13. STATE

Grand

Utah

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Continental Oil Company

3. ADDRESS OF OPERATOR

152 North Durbin, Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface

1980' FSL, 660' FWL (NW SW)

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4757' GR, 4780' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF
 FRACTURE TREAT
 SHOOT OR ACIDIZE
 REPAIR WELL
 (Other)

PULL OR ALTER CASING
 MULTIPLE COMPLETE
 ABANDON*
 CHANGE PLANS

WATER SHUT-OFF
 FRACTURE TREATMENT
 SHOOTING OR ACIDIZING
 (Other) Well Progress

REPAIRING WELL
 ALTERING CASING
 ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)*

Drilled 12 1/4" hole 3,610-12,124'. Ran 9 5/8", 40#, 43.5# and 47# casing, landed at 12,124'. Pumped in 5 bbls. water, 500 gal. "Mud Flush", 5 bbls. water and 1,015 sacks Class "G" cement containing 10% salt, 0.6 of 1% D-60 Flax, 1/2#/sack "Clinton Flake", and 0.3 of 1% D-13 retarder. Displaced with 10 BW and 892 bbls. drilling fluid. Bumped plug at 11:10 PM on 12-3-72 with 2500 psi.

Drilling will continue toward objective T.D. 15,500'.

USGS(4) UOGCC(2) File(2)

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

SIGNED

J. A. Urban

TITLE Administrative Supervisor

DATE 12-5-72

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:



W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-23: Rig repairs. Depth 12,064'. 12½" hole. Jarred on fish 3½ hrs. Pipe parted. Circulated out. Pulled out. Laid down 23 jts. crooked pipe. Top of fish 1285'. Made 5 trips with 8 1/8" x 5" overshot. Took hold of fish. Ran free point. 100% free at 1460', 100% stuck at 1480'. Backed off at 1407'. Left 2 jts. drill pipe and drill collar assembly in hole. Gel-Chem - Wt. 8.7#.

11-24: Fishing. Depth 12,064'. 12½" hole. Picked up wash pipe and tools with Lebus spear. Ran in hole. Tagged fish at 1407'. Unable to get over. Pulled out. Cut notch in shoe. Reran wash pipe. Could not get over fish. Pulled. Picked up jet sub. Going in hole to try and screw into fish. Bit #19 - Reed SCM5 - 11,881' to 12,064'. Gel-Chem - Wt. 8.8#.

11-25: Washing to bottom at 1800'. Depth 12,064'. 12½" hole. Screwed into fish with jet sub. Backed off at 1370'. Ran wash pipe. Washed over fish to 1481', 11' over drill collars. Fish came loose. Slips failed to set on Lebus spear. Pulled wash pipe. Picked up bit. Reamed from 1438' to 1660'. Gel-Chem - Wt. 8.9#.

11-26: Cutting drilling line. Depth 12,064'. 12½" hole. Washed and reamed intervals 2370-2433', 3891-3955', and 4144-4928'. Extremely hard. Plugged bit at 57 93'. Pulling out to unplug bit. Gel-Chem - Wt. 8.9#.

11-27: Circ. and cond. hole. Depth 12,064'. 12½" hole. Fish is 9 9" and 6 8" drill collars, blade stabilizer and button stabilizer, 3 jts. drill pipe, 2 subs, jet sub, and Lebus tool (570'). Washed and reamed to top of fish at 11,482'. Picked up 8'. RR Bit #18 - Sec. H75G. Gel-Chem - Wt. 9.0#; Vis. 42; WL 15.2 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 5; 5% solids; trace of sand; salinity 1800 ppm; PV 15; Yp 5. Cum. mud costs: \$39,573. Brinkerhoff 0/74½/0.

NOV 28 19

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Chaining out of hole with fish. Depth 12,064' - sandstone, shale, and limestone. 12½" hole. Circ. and cond. mud on top of fish at 11,482' for 3/4 hr. Made short trip. No fill. 6½ hrs. conditioning hole. Pulled out of hole. Ran in hole with fishing assembly (including key seat wiper). Screwed into fish. Pulled off bottom. Jars tripped only once. Very minimal drag. Hole in good shape. Bit #18 - RR Sec. H75G. BHA: 2 subs, bumper sub, jars, 6 drill collars, 2 subs, key seat wiper, hvy. wt. drill pipe - length 754'. Gel-Chem - Wt. 9.2#; Vis. 47; WL 17.2 cc; FC 2/32; pH 10.5; gel strength ini./10 min. 1 / 12; 7% solids; ½ of 1% sand; salinity 1600 ppm; PV 15; Yp 4. Cum. mud costs: \$40,285. Brinkerhoff 0/75½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

NOV 29 1972

Washing to bottom with 11½" magnet. Depth 12,046'. 12½" hole. Recovered fish. Left in hole: 1 cone and 1 pin from 12½" button bit, 3 slips off Lebus spear (3" x 5" x 1½"), 1 piece of washover shoe, and rubber from stabilizer. (Appears all 9" drill collars bent, possibly 8" also. Shock sub damaged.) Bit #19 - Reed SCM-5 - 11,881' to 12,064'. 6 8" drill collars; 19 jts. 5" hvy. wt. drill pipe; 6" x 18" pump; 61 SPM; 430 GPM; PP 1000#; ann. vel. 83; BHA: 11½" magnet, Bowen jars, 6 8" drill collars, 19 jts. 5" hvy. wt. drill pipe. Gel-Chem - Wt. 8.9#; Vis. 43; WL 15.8 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 111; trace of oil; 5% solids; 3% sand; salinity 1800 ppm; PV 18; Yp 7. Cum. mud costs: \$40,362. Brinkerhoff 0/76½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

NOV 30 1972

Running in hole with magnet. Depth 12,064'. 12½" hole. Made two runs with Bowen 11½" magnet. First run recovered 2 slips from Lebus spear (5" x 3" x 2"), 25 bit bearings and assorted pieces of washover shoe. Second run, recovered cone, hub, 9 bearings from bit (1 slip from Lebus remaining). 6 8" drill collars; 19 jts. 5" hvy. wt. drill pipe; pump size - 6" x 18"; 61 SPM; 430 GPM; PP 1000#; ann. vel. 83. Gel-Chem - Wt. 9.0#; Vis. 55; WL 16.4 cc; FC 2/32; pH 10.5; gel strength ini./10 min. 1 / 19; trace of oil; 5% solids; 2% sand; salinity 2000 ppm; PV 19; Yp 6. Cum. mud costs: \$40,511. Brinkerhoff 0/77½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

DEC 1 1972

Drilling sand and shale at 12,095'. (Prog. 31') 12½" hole. Run #3 with magnet - no recovery. Ran bit and junk sub in hole. Worked pipe and circulated to pick up junk in sub. Drilled on junk for 2 to 3 hrs. Broke thru and began drilling. Dev.: 11+° at 12,064'. Bit #20 in hole. 3 9" and 6 8" drill collars; 19 jts. 5" hvy. wt. drill pipe; WOB 30,000-35,000#; 50 RPM; 6" x 18" pump; 61 SPM; 430 GPM; PP 1790#; ann. vel. 83; BHA: bit, junk sub, bit sub, Drilco shock sub, 2 9" drill collars, button stabilizer, 1 9" drill collar, Bowen jars, 6 8" drill collars, key seat wiper, and 19 jts. 5" hvy. wt. drill pipe. Gel-Chem - Wt. 9.0#; Vis. 51; WL 16.4 cc; FC 2/32; pH 10.5; gel strength ini./10 min. 1 / 17; trace of oil; 5.0% solids; 3% sand; salinity 1900 ppm; PV 22; Yp 12. Cum. mud costs: \$40,578. Brinkerhoff 0/78½/0.

Dec. 1, 1972

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S W

Water Sands: None.

1.	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

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W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-18: Drilling silt and quartz at 11,890'. (Prog. 9') 12½" hole. Bit #18 - Sec. H75G - 11,877' to 11,881'. Pressure fell off. Made trip. Checked for hole in drill string. Found jet gone from bit. 1 hr. reaming last 35' going in with Bit #19. Gel-Chem - Wt. 8.9#.

11-19: Drilling siltstone and sandstone at 11,943'. (Prog. 53') 12½" hole. Dev.: 8 deg. at 11,922'. Gel-Chem - Wt. 8.9#.

11-20: Drilling sandstone and siltstone at 11,998'. (Prog. 55') 12½" hole. Bit #19 - Reed SCM5 in hole. 9 9" and 6 8" drill collars; WOB 35,000-40,000#; 47 RPM; 6" x 18" pump; 61 SPM; 430 GPM; PP 2100#; ann. vel. 83; jet vel. 465; BHA: bit, shock sub, 2 9" drill collars, blade stabilizer, 3 9" drill collars, 1 rubber stabilizer, 1 9" and 6 8" drill collars. Dev.: 8 deg. at 11,966'. Gel-Chem - Wt. 8.9#; Vis. 40; WL 23 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 5; 4% solids; ½ of 1% sand; salinity 1600 ppm; PV 10; Yp 4. Cum. mud costs: \$36,766.

NOV 21 1972

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Tripping in sandstone, shale and lime at 12,064'. (Prog. 66') 12½" hole. Two drilling breaks: 12,013-12,017' (90% limestone), 4 units background gas, increased to 27 units; 12,042-12,050' (60% limestone), 2 units background gas, increased to 120 units (7.5% methane). Revised top of Penn. Detrital 12,005'. 9 9" and 6 8" drill collars; WOB 35,000-40,000#; 47 RPM; 6" x 18" pump; 61 SPM; 430 GPM; PP 2100#; ann. vel. 83; jet vel. 465; BHA: bit, shock sub, 2 9" drill collars, blade stabilizer, 3 9" drill collars, 1 rubber stabilizer, 1 9" and 6 8" drill collars. Gel-Chem - Wt. 8.7#; Vis. 38; WL 25.2 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 9; 4% solids; ½ of 1% sand; salinity 1500 ppm; PV 10; Yp 4. Cum. mud costs: \$37,461. Brinkerhoff 0/68½/0.

NOV 21 1972

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Jarring on fish. Depth 12,064' - sandstone, shale, and lime. 12½" hole. Trip out of hole. Pipe hung up at 1941' (bit depth). Worked pipe for 1 3/4 hrs. Max. pull 380,000#. No movement. Backed off double. Installed kelly. Broke circulation and worked pipe with 1250 psi. While backing off double, top joint below crimped. Rigged up Dia-Log. Backed off top joint with string shot. Screwed in new joint. Ran Dia-Log free point (100% free at 1463' - 100% stuck at 1480' - top collars at 1470'). Installed surface jars. Spotted 62 bbls. diesel pill. Displaced 39 bbls. around collars with 23 bbls. around pipe. Waiting on 9" wash pipe with Lebus tool. Will back off and wash over drill collars. Bit #19 - Reed SCM-5 - 11,881' to 12,064'. 9 9" and 6 8" drill collars; 6" x 18" pump. Gel-Chem - Wt. 8.7#; Vis. 32; WL 22.4 cc; FC 2/32; pH 10.0; gel strength ini./10 min. 14 / 7; 4% solids; ½ of 1% sand; salinity 1100 ppm; PV 12; Yp 2. Cum. mud costs: \$37,782. Brinkerhoff 0/69½/0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S N

Water Sands: None.

1.	2.	3.	4.	5.	<u>Depth:</u>		<u>Volume:</u>	<u>Quality:</u>
					From-	To-	Flow Rate or Head-	Fresh or Salty-
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

(Continue on reverse side if necessary)

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W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-11: Drilling siltstone with sandstone, limestone and shale at 11,393'. (Prog. 162') 12½" hole. 12' of fill on bottom on trip in with Bit #16. Gel-Chem - Wt. 8.9#.

11-12: Drilling siltstone with sandstone, and traces of dolomite and limestone at 11,574'. (Prog. 181') 12½" hole. Gel-Chem - Wt. 8.9#.

11-13: Drilling sandstone with lime and siltstone at 11,631'. (Prog. 57') 12½" hole. Bit #16 - HTC - X-44 - 11,231' to 11,627'. Top of Penn. Detrital 11,576'. 9 9" and 6 8" drill collars; WOB 50,000# - 35,000# on Bit #17; 45 RPM; 6" x 18" pump; 60 SPM; GPM 430; PP 1780#; ann. vel. 84; jet vel. 392; BHA: bit, shock sub, 3 9" drill collars, button stabilizer - 2 9" drill collars, rubber stabilizer, 1 9" drill collar and 6 8" drill collars. Dev.: 5 ¾ deg. at 11,570'. Gel-Chem - Wt. 8.9#; Vis. 33; WL 28.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 15; 4% solids; ½ of 1% sand; salinity 1600 ppm; PV 9; Yp 3. Cum. mud costs: \$34,114. Brinkerhoff 0/60½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

NOV 14 1972
Drilling sandstone with siltstone and shale at 11,709'. (Prog. 78') 12½" hole. 9 9" and 6 8" drill collars; WOB 30,000#; 47 RPM; 6" x 18" pump; 63 SPM; 462 GPM; PP 1870#; ann. vel. 90; jet vel. 410; BHA: bit, shock sub, 3 9" drill collars, button stabilizer, 2 9" drill collars, rubber stabilizer, 1 9" drill collar and 6 8" drill collars. Dev.: 6½ deg. at 11,627' and 11,675'. Gel-Chem - Wt. 8.7#; Vis. 33; WL 30.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 23; 4% solids; ½ of 1% sand; salinity 1700 ppm; PV 10; Yp 2. Cum. mud costs: \$33,165. Brinkerhoff 0/61½/0.

NOV 15 1972
Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Drilling sand and quartz at 11,794'. (Prog. 85') 12½" hole. Encountered drilling break 11,754' to 11,769'. Avg. penetration rate 7.2 min./ft. Max. rate 3 min./ft. at 11,756'. Penetration rate before and after drilling break was 18-20 min./ft. Circ. samples 2½ hrs. No increase in chlorides. Had 10-unit gas show while circ. containing 1% methane. Background gas 1 unit. Dev.: (correction - 6½ deg. at 11,675') 7 deg. at 11,715'. 9 9" and 6 8" drill collars; WOB 30,000#; 47 RPM; 6" x 18" pump; 61 SPM; 448 GPM; PP 1920#; ann. vel. 87; jet vel. 398; BHA: bit, shock sub, 3 9" drill collars, button stabilizer. 2 9" drill collars, rubber stabilizer, 1 9" drill collar and 6 8" drill collars. Gel-Chem - Wt. 8.8#; Vis. 35; WL 28; FC 2/32; pH 11; gel strength ini./10 min. 1 / 7; 4% solids; ½ of 1% sand; salinity 1700 ppm; PV 6; Yp 4. Cum. mud costs: \$33,879. Brinkerhoff 0/62½/0.

NOV 16 1972 Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Drilling siltstone with sand at 11,864'. (Prog. 70') 12½" hole. 9 9" and 6 8" drill collars; WOB 25,000-30,000#; 47 RPM; 6" x 18" pump; 62 SPM; 454 GPM; PP 1810#; ann. vel. 90; jet vel. 400; BHA: bit, shock sub, 3 9" drill collars, button stabilizer, 2 9" drill collars, rubber stabilizer, 1 9" drill collar and 6 8" drill collars. Dev.: 7 deg. at 11,774'; 7 3/4 deg. at 11,834'.
Gel-Chem - Wt. 8.8#; Vis. 36; WL 24.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 9; 4% solids; ¼ of 1% sand; salinity 1600 ppm; PV 10; Yp 3. Cum. mud costs: \$34,564. Brinkerhoff 0/63½/0.

NOV 17 1972 Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

Drilling siltstone at 11,881'. (Prog. 17') 12½" hole. Bit #17 - Smith SJS - 11,627' to 11,877'. 9 9" and 6 8" drill collars; WOB 20,000-25,000#; 100 RPM; 6" x 18" pump; 62 SPM; 454 GPM; PP 1800#; ann. vel. 90; jet vel. 400; BHA: bit, shock sub, 2 9" drill collars, blade stabilizer, 3 9" drill collars, 1 rubber stabilizer, 1 9" and 6 8" drill collars. Dev.: 7 3/4 deg. at 11,877'.
Gel-Chem - Wt. 8.9#; Vis. 36; WL 25.5 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 9; 4% solids; ¼ of 1% sand; salinity 1600 ppm; PV 11; Yp 3. Cum. mud costs: \$34,839. Brinkerhoff 0/64½/0.

Nov. 17, 1972

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N., R. 20 E., Grand County,
Utah.

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u>	<u>Quality:</u>
	<u>From-</u>	<u>To-</u>	<u>Flow Rate or Head-</u>	<u>Fresh or Salty-</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

STO 1025

Remarks:

- NOTE:
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W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-4: Drilling sand at 10,045'. (Prog. 270') 12 $\frac{1}{4}$ " hole. Gel-Chem - Wt. 8.9#.

11-5: Drilling sand and siltstone at 10,152'. (Prog. 107') 12 $\frac{1}{4}$ " hole.
Bit #14 - Smith 3JS - 9172-10,130'. Dev.: 1 $\frac{1}{2}$ deg. at 10,125'. Gel-Chem -
Wt. 8.9#.

11-6: Drilling sand at 10,390'. (Prog. 238') 12 $\frac{1}{4}$ " hole. Bit #15 - Smith
3JS - 10,130' to 10,390'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM;
6 $\frac{1}{2}$ " x 18" pump; 58 SPM; GPM 499; PP 2300#; ann. vel. 98; jet vel. 412; BHA: bit,
3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill
collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis.
36; WL 24 cc; FC 3/32; pH 11.0; gel strength ini./10 min. 1 / 20; 4% solids;
 $\frac{1}{2}$ of 1% sand; salinity 1800 ppm; PV 12; Yp 4. Cum. mud costs: \$26,713.
Brinkerhoff 0/53 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-7: Drilling sand with streaks of siltstone and anhydrite at 10,640'. (Prog. 250')
12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 49,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18 and
6" x 18" pumps; SPM 61; GPM 465; PP 1980#; ann. vel. 95; jet vel. 383; BHA:
bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9"
drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#;
Vis. 36; WL 26 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 22; 4% solids;
 $\frac{1}{2}$ of 1% sand; salinity 1500 ppm; PV 9; Yp 5. Cum. mud costs: \$27,315. Brinkerhoff
0/54 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-8: Drilling sand with siltstone and streaks of anhydrite at 10,864'. (Prog. 224')
12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6" x 18" pump;
64 SPM; GPM 394; PP 1750#; ann. vel. 78; jet vel. 345; BHA: bit, 3-pt. reamer,
one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber
stabilizer, and 5 9" drill collars. Gel-Chem. - Wt. 8.9#; Vis. 37; WL 27 cc;
FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 23; 4% solids; $\frac{1}{2}$ of 1% sand;
salinity 1450 ppm; PV 10; Yp 4. Cum. mud costs: \$28,144. Brinkerhoff 0/55 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-9: Drilling siltstone with sandstone at 11,073'. (Prog. 209') 12 $\frac{1}{4}$ " hole. Bit #15 Smith 3JS - drilled 10,130' to 11,073'. 9 9" and 6 8" drill collars; WOB 50,000#; RPM 45; 6" x 18" pump; 64 SPM; 394 GPM; PP 1800#; ann. vel. 78; jet vel. 345; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 37; WL 28 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 20; 4.5% solids; $\frac{1}{4}$ of 1% sand; salinity 1500 ppm; PV 8; Yp 4. Cum. mud costs: \$28,803. Brinkerhoff 0/56 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-10: Trip in with bit #16. Depth 11,231' - sandstone with siltstone and dolomite. (Prog. 158') 12 $\frac{1}{4}$ " hole. Bit #15 - Smith 3JS - 10,130' to 11,231'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6" x 18" pump; 64 SPM; GPM 442; PP 1800#; ann. vel. 85; jet vel. 364; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: 2 $\frac{1}{2}$ deg. at 11,231'. Gel-Chem - Wt. 8.9#; Vis. 37; WL 30.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 24; 4% solids; $\frac{1}{2}$ of 1% sand; salinity 1850 ppm; PV 11; Yp 4. Cum. mud costs: \$30,276. Brinkerhoff 0/57 $\frac{1}{2}$ /0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
S E

Utah.

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

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W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-28: Drilling sand and siltstone at 8543'. (Prog. 139') 12 $\frac{1}{4}$ " hole. Bit #12 - Sec. S-88 - 7709-8457'. Dev.: 1 deg. at 8457'. Gel-Chem - Wt. 8.9#. Rain in last 24 hrs. created muddy conditions.

10-29: Drilling sand and sandstone at 8814'. (Prog. 271') 12 $\frac{1}{4}$ " hole. Drilling break at 8750'. Gel-Chem - Wt. 9.0#.

10-30: Drilling sandstone and sand at 9036'. (Prog. 222') 12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6" x 18" pump; 63 SPM: 388 GPM; PP 1760#; ann. vel. 76; jet vel. 338; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 9.0#; Vis. 39; WL 20.0 cc; FC 2/32; pH 12.0; gel strength ini./10 min. 1 / 21; 4% solids; $\frac{1}{2}$ of 1% sand; salinity 2000 ppm; PV 10; Yp 7. Cum. mud costs: \$21,177. $\frac{1}{2}$ " snow - melted and froze. Roads bad. Brinkerhoff 0/46 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-31: Tripping in sandstone and sand at 9172'. (Prog. 136') 12 $\frac{1}{4}$ " hole. Bit #13 - Reed SCM-5 - 8457-9172'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6" x 18" pump; 63 SPM; 388 GPM; PP 1750#; ann. vel. 76; jet vel. 338; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: $\frac{1}{2}$ deg. at 9170'. Gel-Chem - Wt. 8.9#; Vis. 35; WL 20.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 11; 4% solids; $\frac{1}{2}$ of 1% sand; salinity 1700 ppm; PV 9; Yp 2. Cum. mud costs: \$22,008. Temp. below freezing. Brinkerhoff 0/47 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-1: Drilling sand and sandstone at 9370'. (Prog. 198') 12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6" x 18" pump; 63 SPM; 388 GPM; PP 1850#; ann. vel. 76; jet vel. 338; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer and 5 9" drill collars. Gel-Chem - Wt. 9.0#; vis. 34; WL 21.8 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 15; 4% solids; 2/5 of 1% sand; salinity 1900 ppm; PV 10; Yp 3. Cum. mud costs: \$22,702. Brinkerhoff 0/48 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-2: Drilling sandstone and siltstone at 9575'. (Prog. 205') 12½" hole. 9 9" and 6 8" drill collars; WOB 50,000#; 43-45 RPM; 6½" x 18" pump; 58 SPM; 499 GPM; PP 2200#; ann. vel. 98; jet vel. 434; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 33; WL 24.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 1 / 8; 4% solids; 2/5 of 1% sand; salinity 1800 ppm; PV 8; Yp 2. Cum. mud costs: \$23,297. Brinkerhoff 0/49½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

11-3: Drilling sandstone and siltstone at 9775'. (Prog. 200') 12½" hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 58 SPM; GPM 499; PP 2200#; ann. vel. 98; jet vel. 434; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 34; WL 24.8 cc; FC 2/32; gel strength ini./10 min. 1 / 6; 4% solids; ½ of 1% sand; salinity 1800 ppm; PV 9; Yp 3. Cum. mud costs: \$24,080. Brinkerhoff 0/50½/0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S X

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

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W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-21: Drilling sand and sandstone at 7080'. (Prog. 157') 12 $\frac{1}{4}$ " hole. Bit #10
HTC X-55R - 6300-6970'. Dev.: 1 $\frac{1}{2}$ deg. at 6970'. Gel-Chem - Wt. 8.9#.

10-22: Drilling sand and sandstone at 7323'. (Prog. 243') 12 $\frac{1}{4}$ " hole. Gel-Chem -
Wt. 8.9#.

10-23: Drilling sand and sandstone at 7586'. (Prog. 263') 12 $\frac{1}{4}$ " hole. Bit #11
in hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump;
60 SPM; 517 GPM; PP 2000-2400#; ann. vel. 102; jet vel. 475; BHA: bit, 3-pt.
reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button
stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill
collars. Gel-Chem - Wt. 8.9#; Vis. 34; WL 18.4 cc; FC 2/32; pH 12.0; gel strength
ini./10 min. 1 / 9; 4% solids; $\frac{1}{2}$ of 1% sand; salinity 1400 ppm; PV 8; Yp 6.
Cum. mud costs: \$15,928. Brinkerhoff 0/39 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-24: Drilling sand, sandstone, and trace of shale at 7725'. (Prog. 139') 12 $\frac{1}{4}$ " hole.
Bit #11 - Smith 5JS - 6970' to 7709'. Trip gas - 7 units at 7709'. 9 9" and
6 8" drill collars; WOB 50,000-52,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 517
GPM; PP 2400#; ann. vel. 102; jet vel. 475; BHA: bit, 3-pt. reamer, one 9" drill
collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub,
two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: $\frac{1}{2}$ deg.
at 7700'. Gel-Chem - Wt. 8.9#; Vis. 36; WL 18.8 cc; FC 2/32; pH 11.5; gel strength
ini./10 min. 2 / 13 4% solids; .6 of 1% sand; salinity 1600 ppm; PV 9; Yp 7. Cum.
mud costs: \$16,558. Brinkerhoff 0/40 $\frac{1}{2}$ /0. Raining again.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-25: Drilling sand, sandstone, and trace of shale at 7954'. (Prog. 229') 12 $\frac{1}{4}$ " hole.
9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 517
GPM; PP 2100#; ann. vel. 102; jet vel. 450; BHA: bit, 3-pt. reamer, one 9" drill
collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub,
two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem -
Wt. 8.9#; Vis. 35; WL 18.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 12;
4.5% solids; $\frac{3}{4}$ of 1% sand; salinity 1500 ppm; PV 9; Yp 6. Cum. mud costs:
\$17,077. Brinkerhoff 0/41 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-26: Drilling sand and sandstone with trace of shale at 8187'. (Prog. 233') 12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 58 SPM; GPM 480; PP 1980#; ann. vel. 97; jet vel. 415; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 38; WL 19.2 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 15; 4% solids; $\frac{1}{4}$ of 1% sand; salinity 1600 ppm; PV 9; Yp 5. Cum. mud costs: \$17,887. Brinkerhoff 0/42 $\frac{1}{2}$ /0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-27: Drilling sandstone, sand, limestone, and trace of shale at 8404'. (Prog. 217') 12 $\frac{1}{4}$ " hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6 $\frac{1}{2}$ " x 18" pump; 60 SPM; 517 GPM; PP 2200#; ann. vel. 102; jet vel. 450; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 40; WL 14.4 cc; FC 2/32; pH 12.0; gel strength ini./10 min. 2 / 16; 4% solids; $\frac{1}{4}$ of 1% sand; salinity 1500 ppm; PV 11; Yp 8. Cum. mud costs: \$18,644. Brinkerhoff 0/43 $\frac{1}{2}$ /0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S N

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

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Production Department

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Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
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OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-14: Drilling sand and shale at 5700'. (Prog. 128') 12½" hole. Trip out for loss of pump pressure. Found Drilco shock sub washed out. Dev.: 1 3/4 deg. at 5575'. Bit #7 - Sec. S-88 - drilled 5067' to 5575'. Gel-Chem - Wt. 8.9#.

10-15: Drilling shale at 5896'. (Prog. 196') 12½" hole. Bit #9 - Reed SCM-5 drilled 5575-5896'. Gel-Chem - Wt. 8.8#.

10-16: Drilling Coconino sand at 6104'. (Prog. 208') 12½" hole. Coconino top 5963'. Rained last 24 hrs. Roads extremely bad. 9 9" and 6 8" drill collars; WOB 50,000-55,000#; 45 RPM; 6½" x 18" pump; 58 SPM; 490 GPM; PP 2080#; ann. vel. 100; jet vel. 475; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: 2 deg. at 5885'. Gel-Chem - Wt. 8.9#; Vis. 36; WL 20 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 4 / 12; 3% solids; trace of sand; salinity 1000 ppm; PV 10; Yp 8. Cum. mud costs: \$11,061. Brinkerhoff 0/31½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-17: Tripping in shale and sand at 6300'. (Prog. 196') 12½" hole. Bit #9 - Reed SCM-5 - 5575-6300'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 58 SPM; GPM 490; PP 2080#; ann. vel. 100; jet vel. 475; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 37; WL 20.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 3 / 15; 4% solids; trace of sand; salinity 850 ppm; PV 9; Yp 7. Cum. mud costs: \$11,779. Brinkerhoff 0/32½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-18: Drilling sand, shale, and anhydrite at 6450'. (Prog. 150') 12½" hole. Top of Cutler 6270'. Bit #9 - Reed SCM - 5575-6300'. 9 9" and 6 8" drill collars; WOB 65,000#; 45 RPM; 6½" x 18" pump; 58 SPM; 490 GPM; PP 2100#; ann. vel. 100; jet vel. 475; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: 2 deg. at 6300'. Gel-Chem - Wt. 8.9#; Vis. 35; WL 20 cc; FC 2/32; pH 10.5; gel strength ini./10 min. 3 / 15; 4% solids; trace of sand; salinity 900 ppm; PV 8; Yp 5. Cum. mud costs: \$12,321. Brinkerhoff 0/33½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-19: Drilling sand, shale, and lime at 6615'. (Prog. 165') 12½" hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 58 SPM; 490 GPM; PP 2080#; ann. vel. 100; jet vel. 475; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 36; WL 22 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 3 / 12; 4% solids; trace of sand; salinity 800 ppm; PV 10; Yp 8. Cum. mud costs: \$13,254. Brinkerhoff 0/34½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) Redwall (Madison)
15,500'

10-20: Drilling sand and sandstone at 6923'. (Prog. 308') 12½" hole. 9 9" and 6 8" drill collars; WOB 47,000#; 45 RPM; 6½" x 18" pump; 64 SPM; 555 GPM; PP 1750#; ann. vel. 110; jet vel. 535; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 35; WL 19.2 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 9; 4% solids; ½ of 1% sand; salinity 1200 ppm; PV 8; Yp 7. Cum. mud costs: \$14,095. Brinkerhoff 0/35½/0 Raining hard. Roads getting bad.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S W

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



JMB

W. C. Blackburn
Division Manager
Production Department

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN - NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-7: Drilling siltstone and shale at 4737'. (Prog. 209') 12½" hole. Raining very hard - roads bad. Dev. 1½ deg. at 4575'. Gel-Chem - Wt. 8.7#.

10-8: Tripping in siltstone at 4867'. (Prog. 130') 12½" hole. Bit #6 - Smith 4JS - 3667-4867'. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 60 SPM; GPM 510; PP 1800#; ann. vel. 110; jet vel. 438; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: 1½ deg. at 4850'. Gel-Chem - Wt. 8.8#. Raining - roads bad.

10-9: Drilling red shale at 4948'. (Prog. 81') 12½" hole. Ran in hole with reamer and button bit. Tight hole at 2600'. Unable to ream with button bit. Pulled out and picked up tooth bit. Reamed tight spots from 2600' to 4309'. Reamed continuously from 4309' to 4867'. Extremely bad storm for 4 hrs. from 8 p.m. until midnight. Wind, rain and lightning. Bit #7 - Sec. S-88 - 4867' - would not ream. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 60 SPM; PP 1500#; BHA - same. Gel-Chem - Wt. 8.9#; Vis. 34; WL 22 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 3 / 8; 3% solids; trace of sand; salinity 1400 ppm; PV 8; Yp 6. Cum. mud costs: \$7184. Brinkerhoff 0/25½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-10: Repairing rig. Depth 5067' - sand and shale. Shut down rig at 2:15 a.m. 10-10-72 to repair motors. Waiting on mechanic. (Prog. 119') 12½" hole. Bit #8 - Reed YHG - 4867-5067". 9 9" and 6 8" drill collars; WOB 50,000-55,000#; 45 RPM; 6½" x 18" pump; 53 SPM; 455 GPM; PP 1500#; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer, and 5 9" drill collars. Dev.: 1 3/4 deg. at 5067'. Gel-Chem - Wt. 8.9#; Vis. 35; WL 19.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 4 / 10; 3% solids; trace of sand; salinity 1000 ppm; PV 9; Yp 8. Cum. mud costs: \$8025. Brinkerhoff 0/26½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-11: Drilling sand and shale at 5150'. (Prog. 83') 12½" hole. 9 9" and 6 8" drill collars; WOB 45,000#; 45 RPM; 6½" x 18" pump; 60 SPM; GPM 510; PP 1800#; ann. vel. 110; jet vel. 510; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 35; WL 20.0 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 2 / 5; 4% solids; trace of sand; salinity 1100 ppm; PV 8; Yp 7. Cum. mud costs: \$8025. Brinkerhoff 0/26½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-12: Drilling sand and shale at 5378'. (Prog. 228') 12½" hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1800#; ann. vel. 110; jet vel. 510; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer and 5 9" drill collars. Dev.: 1 3/4 deg. at 5362'. Gel-Chem - Wt. 8.9#; Vis. 34; WL 23 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 3 / 6; 3% solids; trace of sand; salinity 1050 ppm; PV 8; Yp 7. Cum. mud costs: \$8807. Brinkerhoff 0/27½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

10-13: Drilling sand, shale and soapstone at 5572'. (Prog. 194') 12½" hole. 9 9" and 6 8" drill collars; WOB 50,000#; 45 RPM; 6½" x 18" pump; 60 SPM; 510 GPM; PP 1800#; ann. vel. 110; jet vel. 510; BHA: bit, 3-pt. reamer, one 9" drill collar, button stabilizer, one 9" drill collar, button stabilizer, shock sub, two 9" drill collars, rubber stabilizer and 5 9" drill collars. Gel-Chem - Wt. 8.9#; Vis. 34; WL 11.2 cc; FC 2/32; pH 11.0; gel strength ini./10 min. 4 / 6; 3% solids; trace of sand; salinity 1200 ppm; PV 9; Yp 7. Cum. mud costs: \$9456. Brinkerhoff 0/28½/0.

Oct. 13, 1972

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 K, R. 20 E, Grand County,
Utah. S K

Water Sands: None.

1.	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE: (a) Upon diminishing supply of forms, please inform this office.
 (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

UNITED STATES -
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRI
(Other instruction
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

Utah - 0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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 "APPLICATION FOR PERMIT—" for such proposals.)

7. UNIT AGREEMENT NAME

Crescent Unit

8. FARM OR LEASE NAME

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 17, T22S-R20E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Continental Oil Company

3. ADDRESS OF OPERATOR

152 North Durbin St., Casper, Wyo. 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)

At surface

1980' FSL, 660' FWL (NW SW)

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4757' GR - 4780' KB

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)*

Drilled 8 1/2" hole 12,124-14,989', with DST No. 1 14,850-14,989'. Ran logs and evaluated - no commercial production encountered.

Verbal approval requested and received to P&A the well from Mr. G. R. Daniels on 12-8-72.

USGS(4) UOGCC(2) File(2)

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

SIGNED

J. A. Whelan

TITLE Administrative Supervisor

DATE

1/9/73

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilling Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N R. 20 E, Grand County,
Utah. S W

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

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**Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'**

1-5: Drilling limestone and dolomite at 14,972'. (Prog. 107') 8½" hole. Bit #30 -
HTC J-55 - 14,832' to 14,972'. 21 6½" drill collars; 12 jts. 5" hvy. wt.
drill pipe; WOB 40,000#; 40 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#;
ann. vel. 190; jet vel. 300; BHA: bit, 6-pt. reamer, shock sub, button
stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars,
4 jts. 5" hvy. wt. drill pipe and daily jars. Salt sat. mud - Wt. 11.0#;
Vis. 47; WL 3.2 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 2; 10%
solids; trace of sand; salinity 298,000 ppm; PV 22; Yp 6. Cum. mud costs:
\$86,896. Brinkerhoff 0/113½/0.



W. C. Blackburn
Manager
Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

12-23: Drilling dolomite and limestone at 14,203'. (Prog. 42') 8½" hole. Salt sat. mud - Wt. 11#.

12-24: Drilling lime and shale at 14,282'. (Prog. 79') 8½" hole. Salt sat. mud - Wt. 11.1#.

12-25: Drilling lime at 14,317'. (Prog. 35') 8½" hole. Bit #26 - Smith 3JS - 14,161' to 14,309'. Dev.: 15½ deg. at 14,300'. Salt sat. mud - Wt. 11.1#.

12-26: Drilling conglomerate at 14,382'. (Prog. 65') 8½" hole. Salt sat. mud - Wt. 11.1#. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 40,000-55,000#; 42 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#; ann. vel. 190' jet vel. 300; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and daily jars. Salt sat. mud - Wt. 11.1#; Vis. 44; WL 8.2 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 10; 9.5% solids; trace of sand; salinity 320,000 ppm; PV 22; Yp 4. Cum. mud costs: \$78,212. Brinkerhoff 0/103½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

12-27: Drilling limestone, siltstone, and sand at 14,402'. (Prog. 20') 8½" hole. Pipe stuck at 14,099' going in hole with bit #28. Worked stuck pipe free. Pulled up to 14,068'. Washed and reamed from 14,068' to 14,162'. Continued in hole. Washed last 30' to bottom. Bit #27 - Sec. (rebuilt) S88 - 14,309' to 14,384'. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 40,000-45,000#; 42 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#; ann. vel. 190; jet vel. 300; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and daily jars. Salt sat. mud - Wt. 11.1#; Vis. 42; WL 8.4-cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 9; 9.0% solids; trace of sand; salinity 320,000 ppm; PV 20; Yp 4. Cum. mud costs: \$78,744. Brinkerhoff 0/104½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

12-28: Drilling siltstone and limestone at 14,439'. (Prog. 37') 8½" hole. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 45,000#; 42 RPM; 6" x 18" pump; 50 SPM; GPM 353; PP 2100#; ann. vel. 183; jet vel. 287; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and daily jars. Salt sat. mud - Wt. 11.1#; Vis. 46; WL 6.4 cc; FC 2/32; pH 9; gel strength ini./10 min. 1 / 7; 9% solids; trace of sand; salinity 320,000 ppm; PV 21 Yp 5. Cum. mud costs: \$80,309. 4 to 5" new snow. Brinkerhoff 0/105½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

12-29: Tripping out of hole. Depth 14,488' - pink salt and siltstone. (Prog. 49')
8½" hole. Began encountering stringers of pink salt at approx. 14,450'.
Bit #28 - Smith 3JS - 14,384' to 14,488'. 21 6½" drill collars; 12 jts.
5" hvy. wt. drill pipe; WOB 40,000-45,000; 42 RPM; 6" x 18" pump; 50 SPM;
353 GPM; PP 2100#; ann. vel. 183; jet vel. 287; BHA: bit, 6-pt. reamer,
shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17
6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and daily jars. Salt sat.
mud - Wt. 11.1#; Vis. 46; WL 4.5 cc; FC 2/32; pH 9.0; gel strength ini./10
min. 1 / 12; 9% solids; trace of sand; salinity 315,000 ppm; PV 27; Yp 10.
Cum. mud costs: \$81,424. Brinkerhoff 0/106½/0.

FORM OGC-8-X
FILE IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilling Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
S W

Utah.

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Manager
Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.-00000 - Confidential - Redwall
(Madison) 15,500'

12-16: Drilling salt at 13,380'. (Prog. 465') 8½" hole. Salt sat. mud - wt. 10.2#.

12-17: Drilling salt, gyp. and trace of lime at 13,560'. (Prog. 180') 8½" hole. Went out of massive salt section at 13,455'. Salt sat. mud - Wt. 10.2#.

12-18: Drilling salt with shale and limestone stringers at 13,721'. (Prog. 161') 8½" hole. Bit #24 - Smith 4JS - 12,828' to 13,701'. 10 units trip gas. 18 6½" drill collars; 12 jts. 5½" hvy. wt. drill pipe; WOB 35,000-45,000#; 35 RPM; 6" x 18" pump; 45 SPM; 320 GPM; PP 1500#; ann. vel. 170; jet vel. 265; BHA: bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6½"), rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe, daily jars, and 8 jts. 5" hvy. wt. drill pipe. Dev.: 16 or 19 deg. at 13,701'. Salt. sat. mud - Wt. 10.2#; Vis. 39; WL 10.0 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 5; 4% solids; trace of sand; salinity 330,000+ ppm; PV 10; Yp 4. Cum. mud costs: \$56,555 Brinkerhoff 0/95½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall (Madison)
15,500'

12-19: Drilling salt and stringers of shale at 13,845'. (Prog. 124') 8½" hole.

Background gas - 8 units. 13,778-13,787' - 160 units gas. 18 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 40,000-45,000#; 45 RPM; 6" x 18" pump; 53 SPM; 371 GPM; PP 2100#; ann. vel. 192; jet vel. 305; BHA: bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6½"), rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe, daily jars, and 8 jts. 5" hvy. wt. drill pipe. Salt sat. mud - Wt. 10.4#; Vis. 44; WL 9.0 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 4; 4% solids; trace of sand; salinity 330,000+ ppm; PV 16; Yp 5. Cum. mud costs: \$57,241. Brinkerhoff 0/96½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

12-20: Stuck drill pipe. Depth 14,091' - salt and stringers of shale. (Prog. 246') 8½" hole. Drilling ahead. Kicked out rotary table. Pipe stuck immediately at 14,091'. Jarred with 400,000#. String weight 345,000#. Pulled to 450,000#. Continued to jar. Pulled at 420,000#. Circulating freely with full returns. 18 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 35,000-40,000#; 35 RPM; 6" x 18" pump; 45 SPM; 320 GPM; PP 1600#; ann. vel. 170; jet vel. 265; BHA: bit, 6 pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe, and daily jars. Salt sat. mud - Wt. 10.4#; Vis. 60; WL 9.2 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 6 / 20; 4% solids; trace of sand; salinity 330,000 ppm with free salt; PV 22; Yp 18. Cum. mud costs: \$58,585. Brinkerhoff 0/97½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-21:

Drilling salt with shale stringers at 14,120'. (Prog. 29') 8½" hole. Circ. and jarred on fish every 10 min. for 9 hrs. while waiting on pump truck. Spotted 25 bbls. fresh water around drill collars. Worked pipe 5 min. Came free. Circ. fresh water into 9 5/8" casing. Pulled 21 stands. Raised mud wt. to 11 ppg. Ran in 10 stands. Circ. 40 min. Ran in 5 stands. Circ. 5 min. Ran on to bottom. Washing last 90'. 18 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 40,000#; 35 RPM; 6" x 18" pump; 45 SPM; 320 GPM; PP 2100#; ann. vel. 170; jet vel. 265; BHA: bit, 6 pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe, and daily jars. Salt sat. mud - Wt. 11.1#; Vis. 46; WL 12.4 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 6 / 18; 5% solids; trace of sand; salinity 320,000 ppm plus free salt; PV 20; Yp 4. Cum. mud costs: \$63,477. Brinkerhoff 0/98½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-22:

Tripping in shale and lime at 14,161'. (Prog. 41') 8½" hole. Bit #25 - HTC J-44 - 13,701' to 14,161'. 18 6½" drill collars; WOB 45,000#; 45 RPM; 12 jts. 5" hvy. wt. drill pipe; 6" x 18" pump; 58 SPM; 410 GPM; PP 2100#; ann. vel. 240'; jet vel. 340; BHA: bit, 6 pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and daily jars. Dev.: 17 deg. at 14,161'. Salt sat. mud - Wt. 11.0#; Vis. 100; WL 12.0 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 12 / 49; 8% solids; trace of sand; salinity 318,000 ppm plus free salt; PV 38; Yp 34. Cum. mud costs: \$68,370. Brinkerhoff 0/99½/0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilling Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S W

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Manager
Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500

12-9: Drilling limestone and sand at 12,225' (prog. 75'). 8 1/2" hole. Dev: 11 deg. at 12,173'. Gel Chem. Wt. 8.9#. Brinkerhoff 0/86 1/2/0.
12-10: Drilling lime, anhydrite and sand at 12,359' (prog. 134'). 8 1/2" hole. Gel Chem. Wt. 8.9#. Brinkerhoff 0/87 1/2/0.
12-11: Tripping in limestone and anhydrite at 12,464' (prog. 105'). 8 1/2" hole. Bit #22 Smith 4JS from 12,173' to 12,464'. 16 6 1/2" drill collars. 19 jts. 5" heavy wt. drill pipe. WOB 35,000-40,000#. RPM 45. 6" x 18" pump; SPM 58; GPM 410; PP 2050#; ann. vel. 210; jet vel. 340; BHA: Bit, shock sub, 2 drill collars, rubber stabilizer, 2 drill collars, rubber stabilizer, 12 drill collars, 19 jts. 5" heavy wt. drill pipe. Gel Chem. Wt. 9.0#; vis. 40; W.L. 21; F.C. 2/32; pH 11.0; gel strength ini./10 min. 2 / 2 1/2; % solids 5; % sand tr.; salinity 1700; PV 12; Yp 6. Cum. mud cost \$43,852. Brinkerhoff 0/88 1/2/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-12
Drilling sand and limestone at 12,549' (prog. 85'). 8 1/2" hole. Dev: 17 deg. at 12,464'. Bit #22 Smith 4JS from 12,173' to 12,464'. Bit #23 Sec. S-88T from 12,464' to 12,549'. 18 6 1/2" drill collars. WOB 35,000 to 40,000#. RPM 45. 12 jts. 5" heavy wt. drill pipe. 6" x 18" pump; 58 SPM; 410 GPM; PP 2050#; ann. vel. 210; jet vel. 340; BHA: Bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6 1/2"), rubber stabilizer, 17 6 1/2" drill collars, 4 jts. 5" heavy wt. drill pipe, daily jars, and 8 jts. 5" heavy wt. drill pipe. Gel Chem. Wt. 9.0#; vis. 47; W.L. 15.6; F.C. 2/32; pH; 11.0; gel strength ini./10 min. 1 / 5; % solids 5; % sand tr.; salinity 1550; PV 12; Yp 4. Cum. mud cost \$44,768. Brinkerhoff 0/89 1/2/0.

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-13
Drilling in shale, limestone and gypsum at 12,685' (prog. 136'). 8 1/2" hole. Bit #23 Sec. S-88T from 12,464' to 12,685'. 18 6 1/2" drill collars. 12 jts. 5" heavy wt. drill pipe. WOB 40,000#; RPM 45; 6" x 18" pump; 58 SPM; 410 GPM; PP 2100#; ann. vel. 210; jet vel. 340; BHA: Bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6 1/2"), rubber stabilizer, 17 6 1/2" drill collars, 4 jts. 5" heavy wt. drill pipe, daily jars, and 8 jts. 5" heavy wt. drill pipe. Gel. Chem. Wt. 9.0#; vis. 37; W.L. 16.0; F.C. 2/32; pH 11.0; gel strength ini./10 min. 1 / 20; % solids 5; % sand 1/2 of 1; salinity 1500; PV 11 Yp 5. Cum. mud cost \$45,480. Brinkerhoff 0/90 1/2/0.

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-14
Tripping in hole, salt and limestone at 12,705' (prog. 20'). 8 1/2" hole. Drilled to 12,695'. Penetration rate increased from 6 to 7 min./ft. to 1 min./ft. Drilled 10' to 12,705'. Chloride increased from 1500 to 5500 ppm. Circulated up samples. Paradox Salt top at 12,695'. Pulled bit up into 9 5/8" casing. Cleaned all mud pits. Pumped salt water into active system. Began mudding up and displacing mud with salt saturated system. Converted in 20 1/2 hours. Tripped back to bottom. Bit #23 Sec. S-88-T from 12,464' to 12,705'. 18 6 1/2" drill collars. 12 joints 5" heavy wt. drill pipe. WOB 35,000 to 40,000#; RPM 45. 6" x 18" pump; 58 SPM; 410 GPM; PP 2050#; ann. vel. 210; jet vel. 340; BHA: Bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6 1/2"), rubber stabilizer, 17 6 1/2" drill collars, 4 jts. 5" heavy wt. drill pipe, daily jars, and 8 jts. 5" heavy wt. drill pipe. Salt Sat. Wt. 10.1#; vis. 55; W.L. 8.2; F.C. 2/32; pH 8.5; % solids 2 1/2; % sand tr.; salinity 290,000; PV 17; Yp 20. Cum. mud cost \$48,760. Brinkerhoff 0/91 1/2/0.

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

12-15
Drilling salt and limestone stringers at 12,915' (prog. 210'). 8 1/2" hole. Dev: 16 deg. at 12,828. Bit #23 Sec. S-88T from 12,464' to 12,828'. Bit #24 Smith 4JS from 12,828' to 12,915'. 18 6 1/2" drill collars. 15 jts. 5" heavy wt. drill pipe. WOB 35,000-40,000#; RPM 35. 6" x 18" pump; SPM 45; GPM 320; PP 1500#; ann. vel. 170; jet vel. 265; BHA: Bit, 6 pt. reamer, shock sub, butt. stabilizer, 1 drill collar (6 1/2"), rubber stabilizer, 17 6 1/2" drill collars, 4 jts. 5" heavy wt. drill pipe, daily jars, and 8 jts. 5" heavy wt. drill pipe. Salt Sat. Wt. 10.2#; vis. 42; W.L. 8.4; F.C. 2/32; pH 8.5; gel strength ini./10 min. 1 / 9; % solids 3; % sand tr.; salinity 330,000; PV 14; Yp 10. Cum. mud cost \$52,349. Brinkerhoff 0/92 1/2/0.

FORM OGC-8-X
FILE IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilling Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah. S W

Water Sands: None.

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
- (a) Upon diminishing supply of forms, please inform this office.
 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



W. C. Blackburn
Manager
Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Pacific Western Life Building
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 (Confidential) - Redwall (Madison)
15,500'

12-2: Logging. Depth 12,124' - sand, lime and junk. (Prog. 9') 12½" hole. Made 12 stand short trip. Trip free. Strapped out of hole. Found 20' correction. Total depth 12,124'. Bit showed evidence of running on iron. Recovered 2 large pieces of washover shoe plus several small pieces from junk sub. Ran Schlumberger Ind. Log 12,124' to 1070'. Running Sonic Log. Bit #20 - HTC WZR 12,064' to 12,104'. Dev.: 11 deg. at 12,124'. Gel-Chem - Wt. 9.0#.

12-3: Prep. to run casing. TD 12,124'. 12½" hole. Reran magnet to cond. hole for casing. Rec. several small pieces washover shoe. Gel-Chem - Wt. 9.0#.

12-4: Landing 9 5/8" casing. TD 12,124'. Ran 294 jts. 9 5/8", N-80, 40, 43.5 and 47#, 8 rd. and buttress long thread casing with Larkin Filrite auto. collar and guide shoe. Total 12,138'. Circ. 1½ hrs. on bottom before cementing at 12,124'. Pumped 5 bbls. water, 500 gals. "Mud Flush", 5 bbls. water, and 1015 sax Class "G" cement containing 10% salt, .6 of 1% D-60 Flax, ¼#/sack "Clinton Flake", and .3 of 1% D-13 retarder. Displaced with 10 BW and 892 bbls. drlg. fluid. Bumped plug at 11:10 p.m. 12-3-72 with 2500 psi. Held for 5 min. Bled off pressure. Float held okay. Dowell Cementers. Cleaned cellar. Unnipped BOP. Raised and now setting slips. Good returns throughout cement job. Cum. mud costs: \$41,809. Brinkerhoff 0/81½/0.

DEC 5 1971 Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall (Madison)
15,500'

Installing BOP. Depth 12,124'. 12½" hole. Set slips and cut off 9 5/8" casing. Removed 3000 psi BOP stack. Installing 5000 psi BOP stack and completing nipping up. Cum. mud costs: \$41,809. Brinkerhoff 0/82½/0.

DEC 6 1972 Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall (Madison)
15,500'

Nipping up BOP. Depth 12,124'. Completed setting in BOP. Flanged up. Revised flow and kill lines. Changed pipe rams. Started to test BOP. Spacer spool not API - ID. Require changing out spacer spool. Cum. mud costs: \$41,809. Brinkerhoff 0/83½/0.

DEC 7 1972 Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall (Madison)
15,500'

Testing manifold. Depth 12,124'. Waited on replacement spool and installed same. Began testing BOP. Blind rams and flanges leaking. (Stack torn down, cleaned up, inspected by Acme before moving onto location.) Dismantled BOP and installed one new ring and new rubbers on blind rams. Tested to 5000# and held for 15 min. Now testing manifold. Cum. mud costs: \$41,809. Brinkerhoff 0/84½/0.

Nov 8, 1972 **Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall**
(Madison) 15,500'

Drilling in limestone at 12,150' (prog. 26'). 8 1/2" hole. Bit #21 RR Sec. M4C from 12,124' to 12,150'. 16 6 1/2" drill collars; 19 jts. 5" hvy wt. drill pipe. WOB 30,000#; RPM 45. 6" x 18" pump; 65 SPM; 475 GPM; PP 1400#. BHA: Bit, junk sub, 2 6 1/2" drill collars, rubber stabilizer, 2 6 1/2" drill collars, rubber stabilizer, 12 6 1/2" drill collars, and 19 jts. 5" hvy wt. drill pipe. Gel Chem. Wt. 8.8#; Vis. 32; W.L. 17.0; F.C. 2/32; pH 10.0; Gel Strength Ini./10 min. 1 / 4; % Oil 0; % Solids 5; % Sand tr.; % LCM 0; Salinity 1800; PV 6; Yp 1. Tested manifold to 5000#. Picked up drill collars and BHA. Ran in hole installing drill pipe rubbers. Broke circulation at 6500', 9000', and 10,800'. Drilled plug at 12,076' and automatic fillup collar at 12,078' and cement to 12,124'. No indication of junk on bottom out from under shoe. 1 1/2 inch snow - snowing. Cum. mud costs \$41,889. Brinkerhoff 0/85 1/2/0.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drlg. Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 N, R. 20 E, Grand County,
Utah.

Water Sands: None.

1.	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head-	<u>Quality:</u> Fresh or Salty-
	From-	To-		
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
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 - (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure (see back of this form)
 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRI-TE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

Utah - 0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Crescent Unit

8. FARM OR LEASE NAME

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 17, T22S, R20E

12. COUNTY OR PARISH 13. STATE

Grand

Utah

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER Dry

2. NAME OF OPERATOR
Continental Oil Company

3. ADDRESS OF OPERATOR
152 No. Durbin St., Casper, Wyoming 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface

1980' FSL, 660' FWL (NW SW)

14. PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4757' GR - 4780' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)*

Well plugged and abandoned as follows:

- 14,570 to 14,470' - 50 sax Class "G" and 0.2% D-8 across Redwall
- 13,160 to 14,060' - 50 sax Class "G" and 0.2% D-8 across base of Salt
- 12,740 to 12,640' - 50 sax Class "G" and 0.2% D-8 across top of Salt
- 2,500 to 2,300' - 200 sax Class "G"
- 1,080 to 980' - 50 sax Class "G"
- 25 to 0' - 25 sax Class "G"

Work completed and dry hole marker set January 12, 1973.

USGS(4) UOGCC(2) File(2)

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

SIGNED J. A. Uhlen TITLE Administrative Supervisor DATE 1/19/73

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

Jan. 12, 1973

PMB

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Crescent Unit #1

Operator: Continental Oil Company Address: 152 N. Durbin - Casper, Wyo.

Contractor: Brinkerhoff Drilling Co. Address: 600 Denver Club Bldg., Denver

Location: NW 1/4 SW 1/4 Sec. 17 T. 22 ~~N~~_S, R. 20 ~~E~~_W, Grand County,
Utah.

Water Sands:

	<u>Depth:</u>		<u>Volume:</u>	<u>Quality:</u>
	From-	To-	Flow Rate or Head-	Fresh or Salty-
1.	<u>14,850-14,989'</u>		<u>5424'</u>	<u>Salty</u>
2.				
3.				
4.				
5.				

*144,000 T,PPM
Rw = .007 @ 67°*

(Continue on reverse side if necessary)

Formation Tops:

Remarks:

- NOTE:
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 - (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

**Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'**

12-30: Drilling siltstone and salt at 14,508'. (Prog. 20') 8½" hole. Dev.: 15 deg. at 14,488'. Salt sat. mud - Wt. 11.1#. Temp. 0° F., 18" snow.

12-31: Drilling limestone with trace of salt at 14,598'. (Prog. 90') 8½" hole. Salt sat. mud - Wt. 11.0#. Temp. 0° F., 12-15" snow.

1-1: Drilling limestone with trace of salt at 14,694'. (prog. 96') 8½" hole. Salt sat. mud - Wt. 11.0#.

1-2: Drilling limestone at 14,778'. (Prog. 84') 8½" hole. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 45,000#; 42 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#; ann. vel. 189; jet vel. 299; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and dally jars. Salt sat. mud - Wt. 11.0; Vis. 50; WL 4.0 cc; FC 2/32; pH 8.5; gel strength ini./10 min. 1 / 5; 9.0% solids; trace of sand; salinity 300,000 ppm; PV 31; Yp 14. Cum. mud costs: \$85,113. Brinkerhoff 0/110½/0.

**Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'**

1-3: Tripping in limestone at 14,832'. (Prog. 54') 8½" hole. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 45,000#; 40 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#; ann. vel. 190; jet vel. 300; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and dally jars. Salt sat. mud - Wt. 10.9#; Vis. 49; WL 4.2 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 2; 10.0% solids; trace of sand; salinity 302,000 ppm; PV 26; Yp 9. Cum. mud costs: \$85,816. Brinkerhoff 0/111½/0.

**Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'**

1-4: Drilling limestone at 14,865'. (Prog. 33') 8½" hole. Bit #29 - HTC J-44 - 14,488' to 14,832'. No trouble on trip. Completely tested BOP stack. 21 6½" drill collars; 12 jts. 5" hvy. wt. drill pipe; WOB 40,000#; 40 RPM; 6" x 18" pump; 52 SPM; 365 GPM; PP 2100#; Ann. vel. 190; jet vel. 300; BHA: bit, 6-pt. reamer, shock sub, button stabilizer, 1 6½" drill collar, rubber stabilizer, 17 6½" drill collars, 4 jts. 5" hvy. wt. drill pipe and dally jars. Dev.: 14 deg. at 14,832'. Salt sat. mud - Wt. 11.0#; Vis. 48; WL 3.4 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 2; 10% solids; trace of sand; salinity 302,000 ppm; PV 26; Yp 10. Cum. mud costs: \$85,997. 2 to 3" snow and snowing hard. Brinkerhoff 0/112½/0.



Handwritten initials

Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

1-13: Tearing down rotary. Well P&A. Completed cleaning tanks and tearing out lines. Loaded out casing tools and other rental equipment. Installed dry hole marker. Rig released at 4 p.m. 1-12-73. Amt. of acreage condemned to follow. Brinkerhoff 0/117 $\frac{1}{2}$ /3 $\frac{1}{4}$.

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

Well P&A. Amt. of acreage condemned to follow.

1-18-73

FINALS ON COMPLETED DRILLING WELLS

OLAN NORTH FIELD

Crescent Unit #1 - CONOILLTD - Confidential - Conoco 1.0000000

Location: 1980' FSL, 660' FWL, Sec. 17, T22S, R20E, Grand Co., Utah. AFE 12-20-2132. API Well No.: 43-019-30110. TD 14,989', PBD 12,640'. Elevations: GL 4757', KB 4780', RBM 23'. Spudded 9-13-72. Rig released 1-12-73. P&A 1-12-73. Ran LL-7 and BHA with Gamma. DST #1 - 14,850-14,989'. Reversed out 1600' water cushion, 400' rat hole mud, and 5424' brackish formation water. Casing record: 13 3/8" set at 1080'; 9 5/8" set at 12,124'. Plugged as follows:

- 14,570-14,470' - 50 sax Class "G" and 0.2% D-8 across Redwall
- 14,160-14,060' - 50 sax Class "G" and 0.2% D-8 across base of Salt.
- 12,740-12,640' - 50 sax Class "G" and 0.2% D-8 across top of Salt.
- 2,500 2,300' - 200 sax Class "G"
- 1,080' 980' - 50 sax Class "G"
- 25 0' - 25 sax Class "G"

FINAL REPORT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5

5. LEASE DESIGNATION AND SERIAL NO.

Utah - 0140941

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Crescent Unit

8. FARM OR LEASE NAME

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 17, T22S, R20E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

19. ELEV. CASINGHEAD

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other _____

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

2. NAME OF OPERATOR
Continental Oil Company

3. ADDRESS OF OPERATOR

152 North Durbin St., Casper, Wyoming 82601

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

At surface 1980' FSL, 660' FWL. (NW SW)

At top prod. interval reported below

At total depth

14. PERMIT NO. DATE ISSUED

15. DATE SPUNDED 9-13-72 16. DATE T.D. REACHED 1-5-73 17. DATE COMPL. (Ready to prod.) P&A 18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 4757' GR., 4780' KB 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 14,984' 21. PLUG, BACK T.D., MD & TVD 12,640' 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS 0-14,989'

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN LL-7 and BHA w/Gamma 27. WAS WELL CORED No

28. 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"	54.5#	1080'	17 1/2"	1350 sax Class "G"	
9 5/8"	40#-43.5#-47#	12,124'	12 1/4"	1015 sax Class "G" w/additives	2521'

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval; size and number)					32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH	INTERVAL	SIZE	NO.	REMARKS	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33. PRODUCTION
DATE FIRST PRODUCTION None PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) WELL STATUS (Producing or shut-in)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
P&A							
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

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED J. A. Ubben TITLE Administrative Supervisor DATE 1-26-73

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Entrada	1805	2094	Water?
Navajo	2360	2850	Water?
Coconino	5978	6143	Water?
Madison	14,518	14,994 TD	(See DST #1)
			DST 14,850-14,994' - Open 7" w/weak blow. Shut in 60 min. Open 4 hrs. 15 min. w/good blow. Recovered 1500' water cushion plus 5900' salt water (140,000 ppm chlorides)
			ISIP 6476# - IFP 757# - FFP 3501# Hydro 8394-8394 No FSIP Temp. 252 degrees

38. GEOLOGIC MARKERS

NAME	MEAS. DEPTH	TOP	TRUE VERT. DEPTH
Ferron sd.	410		
Dakota sd.	810		
Jurassic	910		
Entrada sd.	1,805		
Navajo sd.	2,360		
Chinle sh.	3,535		
Moenkopi sh.	4,012		
Coconino sd.	5,978		
Cutler	6,143		
Paradox	11,957		
Salt	12,690		
Base Salt	14,108		
Molas	14,407		
Madison	14,518		
TD	14,994		

JAN 30 1973



JMB

Production Department
Casper Division

Western Hemisphere Petroleum Division
Continental Oil Company
152 North Durbin
Casper, Wyoming 82601
(307) 234-7311

OLAN NORTH FIELD - Grand Co., Utah

Crescent Unit #1 - CONOILLTD - Conoco 1.0000000 - Confidential - Redwall
(Madison) 15,500'

1-6: Running DST #1. Depth 14,989' - limestone and dolomite. (Prog. 17')
8½" hole. Drilled to 14,989'. Circ. 1 hr. Made 15-stand short trip. Circ.
1 3/4 hrs. Trip out. Ran DST #1 - 14,850' to 14,989'. IF 6 min., very weak
blow. ISI 60 min. Salt sat. mud - Wt. 10.9#.

1-7: Trip in to condition to log. Depth 14,989' - limestone and dolomite.
8½" hole. DST #1 - 14,850-14,989'. IF 7 min., weak blow, increasing slightly;
ISI 1 hr., FF 251 min., weak blow, increasing to 1 3/4 psi during flow; FSI
none. SI tool. Pulled 79 stands. Reversed out 1600' water cushion, 400'
rat hole mud, and 5424' brackish formation water.

	<u>Top Chart</u>	<u>Middle Chart</u>	<u>Bottom Chart</u>
IHHHP	8394#	8409#	8504#
IFP	757 to 919#	603 to 1040#	615 to 1069#
ISIP	6476#	6494#	6587#
FFP	1081#	1148#	1229#
	60' - 1995#		
	120' - 2588#	2653#	2716#
	180' - 3019#		
	220' - 3394#		
FFP	3501#	3542#	3620#
FHHP	8394#	8409#	8504#

BHT - 252° F. Sampler - 60 psi. Rec. 2100 cc water - Rw .007 at 67° F.,
144,000 ppm. Mud pit sample - Rw - .050 at 120° F. Salt sat. mud - Wt. 10.9#.

1-8: Prep. to lay down drill collars. Depth 14,989'. Ran in hole. Cond.
mud. Pulled. Ran Schlumberger LL-7 from 12,124' to 14,989', BHA with Gamma
over same interval. Schlumberger TD 12,994'. Temp. -8° F., 11" new snow.
Salt Sat. mud - Wt. 11.0#; Vis. 46; WL 3.6 cc; FC 2/32; pH 9.5; gel strength
ini./10 min. 1 / 2; 10% solids ½ of 1% sand; salinity 310,000 ppm; PV 21; Yp 4.
Cum. mud costs: \$87,923. Brinkerhoff 0/116½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

Pulling out of hole open ended. TD 14,989', PBTD 12,640'. Completed laying down drill collars. Picked up drill pipe and tripped in hole open ended, removing drill pipe rubber protectors and measured in. No correction. Hooked up Dowell to set cement plugs. Plugs are as follows:

14,570-14,470' - 50 sax Class "G" and 0.2% D-8 across Redwall;
14,160-14,060' - 50 sax Class "G" and 0.2% D-8 across Base of Salt;
12,740-12,640' - 50 sax Class "G" and 0.2% D-8 across Top of Salt.

Trip out of hole. Salt saturated mud - Wt. 10.9%; Vis. 46; WL 4 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 2; 10% solids; ½ of 1% sand; salinity 309,000 ppm; PV 20; Yp 5. Cum. mud costs: \$87,923. Brinkerhoff 0/117½/0.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

Laying down 9 5/8" casing. TD 14,989', PBTD 12,640'. Ran McCullough spear on 25.6#, 5" drill pipe. Took hold of 9 5/8" casing. Pulled slips. Found casing free at 2300', partially free at 2500', 100% stuck at 2600'. Worked pipe 1½ hrs. at 400,000 to 450,000# pull. Would not free up. Jet cut at 2500'. Worked pipe free. Now pulling and laying down casing. Cum. mud costs: \$87,923. Brinkerhoff 0/117½/1.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) - 15,500'

TD 14,989', PBTD 12,640'. Laying down 5½" drill pipe. Finished laying down 9 5/8" casing. Recovered 60 jts. 9 5/8" casing - total of 2521.29'. Rigged down casing tools. Rigged up and now laying down 5½" drill pipe. Brinkerhoff 0/117½/2.

Crescent Unit #1 - CONOILLTD - Conoco 1.000000 - Confidential - Redwall
(Madison) 15,500'

Cleaning tanks and tearing out lines. TD 14,989', PBTD 12,640'. Cement plugs as follows: 200 sax Class "G" from 2500' to 2300'; 50 sax Class "G" from 1080' to 980'; 25 sax Class "G" from 25' to 0'. Brinkerhoff 0/117½/0.

**APPLICATION FOR TRANSPORTATION AND
 UTILITY SYSTEMS AND FACILITIES
 ON FEDERAL LANDS**

FORM APPROVED
 OMB Control Number: 0596-0082
 Expiration Date: 10/31/2012

FOR AGENCY USE ONLY

Application Number

Date Filed

3. Telephone (area code)

512-628-2835

Applicant

Dahl Black

Authorized Agent

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

1. Name and address of applicant (include zip code)

Pinnacle Potash International, Ltd.
 111 Congress Ave, Suite 2020
 Austin, Texas 78701

2. Name, title, and address of authorized agent if different from item 1 (include zip code)

4. As applicant are you? (check one)

- a. Individual
- b. Corporation*
- c. Partnership/Association*
- d. State Government/State Agency
- e. Local Government
- f. Federal Agency

* If checked, complete supplemental page

5. Specify what application is for: (check one)

- a. New authorization
- b. Renewing existing authorization No.
- c. Amend existing authorization No.
- d. Assign existing authorization No.
- e. Existing use for which no authorization has been received *
- f. Other*

* If checked, provide details under item 7

43 019 30110
 Crescent Unit 1
 22S 20E 17

6. If an individual, or partnership are you a citizen(s) of the United States? Yes No

7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (Length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)

See Exhibits A & B

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY**

8. Attach a map covering area and show location of project proposal

9. State or Local government approval: Attached Applied for Not Required

10. Nonreturnable application fee: Attached Not required

11. Does project cross international boundary or affect international waterways? Yes No (if "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

PPI has internal and external consultants expert in their fields to conduct and complete the requested work. Well drillers will be highly qualified and have Utah well drilling permits.

PPI has been in operation since December of 2008 and has since acquired over 66,000 acres of prospecting permit applications on BLM land and greater than 20,000 acres of SITLA leases. In 2011, PPI drilled the Crescent State #32-22 exploratory well at a cost of over \$3 million and has recently raised capital from investors in an amount sufficient to drill eleven additional exploratory wells in 2014. Therefore, PPI has demonstrated its ability to raise funds sufficient to sustain project development.

13a. Describe other reasonable alternative routes and modes considered.

As the well is an existing well, there are no other reasonable alternatives available.

b. Why were these alternatives not selected?

no alternatives are available

c. Give explanation as to why it is necessary to cross Federal Lands.

The well is located on Federal Lands

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)

n/a

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

See Exhibit A

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

None

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

See Exhibits A & B

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

The only impact is anticipated to be to vegetation of the graded site. The site will be restored and re-vegetated upon project completion.

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

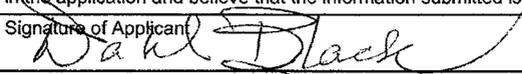
Materials used by drilling operations are anticipated to be water and, if necessary, bentonite drilling muds, and will be hauled off-site at the time of abandonment.

20. Name all the Department(s)/Agency(ies) where this application is being filed.

Bureau of Land Management - Moab, Utah

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant



Date

02/14/2014

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.



Exhibit A

PPI – Continental Well #1
Page 1 of 4

Summary

This document accompanies the Standard Form 299 Application for Transportation and Utility Systems and Facilities on Federal Lands for Pinnacle Potash International, Ltd (PPI). The application is for the reopening of abandoned Continental Well #1 to further investigate geo-hydrologic conditions and geologic stratigraphy near Crescent Junction, Utah.

7. Project Description

(a) Type of System or Facility

Continental well #1 is an abandoned cased well that is proposed to be re-opened to an estimated depth of up to 3,500'.

(b) Related Structures and Facilities

No structures or facilities would be built during the re-opening and testing process. Temporary equipment used during the re-opening will include the drill rig, drill pipe trailers, mud/water holding tanks, work trailer, water truck, backhoe tractor, generator, and other ancillary equipment required during drilling.

(c) Physical Specifications

The existing Continental Well (API number 43-019-30110) is reported to have a 25' surface grout seal, and a 40', 13 3/8" casing seat plug. The hole is then open to depth of 2,300'. A 200' grout seal then extends from 2,300 to 2,500', followed by 9 5/8" open casing which extends from 2,500 to 10,700'. A temporary drill pad and staging area 200' by 200' would be required. The site is relatively flat and little, if any, grading will be required.

(d) Term of Years Needed

The work is anticipated to be completed over a 3 to 6 month period following approval. After exploration and test production, the well will be resealed and abandoned, or a modified permit will be filed requesting ongoing use. If ongoing use is denied the well will be resealed and abandoned.



Exhibit A

PPI – Continental Well #1
Page 2 of 4

(e) Time of Year of Use or Operation

Testing and exploration of the re-opened well can be completed at any time throughout the year. It is the desire and intent however to proceed as soon after issuance of the permit as possible.

(f) Volume or Amount of Product to be Transported

Not Applicable.

(g) Duration and Timing of Construction

The well re-opening is anticipated to be completed within 6 months of approval by all required agencies. Site access on existing unimproved roads leading to the site from Thompson, Utah, or from SR-191 and Valley City Road will be needed 24 hours per day during drilling operations, which are expected to span a maximum 60 day period.

(h) Temporary Work Areas Needed for Construction

All drilling operations will be confined to existing roads and the 200 foot by 200 foot boundaries defined by the right-of-way. Equipment will be stored within the designated disturbance area or off site.

9. Attach a map covering the area and show location of project proposal

A map showing the location of the map based on a Google Earth image is provided in Exhibit B.

9. State or Local Government Approval

An exploratory well drilling permit for this work has been discussed with the Utah State Division of Water Rights, and will be filed and approved prior to any well drilling activities. Exploratory or Provisional well permits issued by the State of Utah allow exploratory well drilling without a water right. Water from the well can be pumped for testing and evaluation purposes without a water right.

15. Provide Statement of Need

PPI intends to mine potash from the reserves on SITLA land in and around Crescent Junction, Utah. The mining operation will involve solution mining of the ore body and water is critical to the process. Re-opening an existing well to test hydro-geologic conditions will be more cost effective, and less environmentally disruptive, than the drilling of a new well. Costs for



Exhibit A

PPI – Continental Well #1
Page 3 of 4

completion of the work, are anticipated to be on the order of \$250,000. Costs to drill a new hole are anticipated to be in excess of \$350,000. Public benefits from the project will include economic stimulus to the area including the drilling contractor, labor, and supporting services including food and lodging, etc.

17. Describe Likely Environmental Effects

Conflicts with existing hazards are believed to be minimal due to the small size of the disturbance and the remote location of the site. The site is not visible from either I-70 or Highway 191 and can only be viewed from the local remote dirt access roads. Drilling will be short term and impacts to air, noise, soils, vegetation, wildlife, visual resources, recreation activities will be temporary. No impact is anticipated on geology, mineral and energy resources, paleontological resources; water threatened and endangered species, cultural resources, BLM projects or the wilderness.

(a) Air Quality

The well reopening would only affect air quality during the drilling and initial construction. This would consist of vehicle emissions for personnel and equipment transportation to the site and equipment emissions during drilling and reopening of the well. There would be between 5 and 10 vehicles visiting the site every day during construction and testing.

(b) Visual Impact

The visual impact of the reopened well would be minimal. During the construction phase, a drilling rig and construction equipment will be visible within the local area. The site however is not visible from either I-70 or Highway 191.

(c) Surface and Ground Water Quality and Quantity

Surface Water – Development of the well will require discharges of encountered ground water above ground. Flows will be controlled using Best Management Practices (BMP's) involving settling facilities, and sedimentation fencing, straw bales, or other appropriate means of energy dissipation, erosion control, and sediment containment.

Groundwater – No materials or substances will be used which would contaminate or alter the current groundwater quality. Any future potential production well would require a new permit from BLM and an approved water right from the state of Utah before water could be continuously withdrawn.



Exhibit A

PPI – Continental Well #1

Page 4 of 4

(d) Control or Structural Change on any Stream or Other Body of Water

Temporary flows resulting from aquifer testing will be controlled using BMP's involving settling facilities, sedimentation fencing, straw bales, or other appropriate means of energy dissipation, erosion control, and sediment containment.

(e) Existing Noise Levels

The site is remote and therefore impacts from noise will be minimal. In addition, noise resulting from Drilling Operations will be temporary.

(f) Surface of the Land

The site has already been disturbed and is relatively flat, requiring minimal if any grading. The site will be restored and re-vegetated upon the completion of the project.

EXPLORATORY WELL PLAN OF DEVELOPMENT PINNACLE POTASH INTERNATIONAL, Ltd (PPI)

Page 1 of 5

1) Purpose and Need of the Facilities

- a) **What will be built** - An existing API well (#4301930110) is to be re-opened to investigate geo-hydrologic conditions and further evaluate geologic stratigraphy.
- b) **What is the intended use** – Exploration of geo-hydrologic conditions.
- c) **What is anticipated size** – The existing Continental Well (API number 43-019-30110) is reported to have a 25' surface grout seal, and a 40' casing seat plug, with 13 3/8" open casing extending to a depth of 1,100'. The hole is then open without casing or grout to depth of 2,300'. A 200' grout seal then extends from 2,300 to 2,500', followed by un-grouted 9 5/8" casing to 10,700'. Exploration would terminate at ≤3,500'.
- d) **Can it be constructed to allow for future expansion?** – If exploration into the existing well proves positive, there is a possibility of rehabilitating the existing well into a production well, or drilling a new well adjacent to the existing well for use as a water source. If a new well is constructed, the casing diameter would likely be 12 to 18 inches, and to a depth up to 3,500'. However, at this time a request is only being made to explore and evaluate local hydrogeologic conditions.
- e) **List alternative routes or locations** – No other locations are identified at this time.

2) Right-of-way Location, Maps, and Drawings -

- a) **Location** – The well is located in the NW¼, SW¼, Sec 17, T22S, R20E, SLBM
- b) **Maps** – The location of the well is shown in Figure 1 from a Google Earth image.



Figure 1. Location Map

The historic API well site shown in Figure 2, an expanded view from Google Earth. The figure shows disturbed API well pad and the 200' by 200' highlighted area of projected disturbance for re-entering the well. The four corners of the well pad will be staked in the field prior to site access by the drilling contractor.

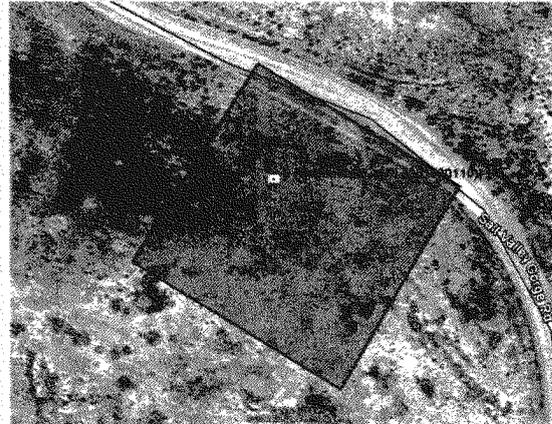


Figure 2. Expanded View of Well Site

- c) **Legal description of the facility** – The well is reported to be located at N 38° 53' 46.14". W -109° 44' 24.34". It is requested that the disturbed area be flexible to meet the needs of the drilling operation, but that it be staked in the field in conjunction with BLM prior to any drilling activities.
- 3) **Facility Design Factors**
- List temporary use areas that are needed** – All drilling operations will be confined to the boundaries defined by the Right of Way.
 - Required associated rights-of-way, including access roads, power lines, material sites** – Road access will be required using existing roads from either Highway 191 or from Thompson, Utah as shown in Figure 1.
- 4) **Additional Components**
- List existing components on and off public land** - None
 - List possible future components on and off public land** – Future components include the potential construction of a water source well, pumping facilities, and future pipeline and power ROW's from the site westward to the PPI project site.
 - Location of equipment storage areas** – Equipment will be stored within the designated disturbance area or off-site.
- 5) **Government Agencies Involved**
- State and local agencies** – Utah Division of Water Rights for Provisional Exploratory Well permit.



Exhibit B

EXPLORATORY WELL PLAN OF DEVELOPMENT PINNACLE POTASH INTERNATIONAL, Ltd (PPI) Page 3 of 5

6) Construction of the Facilities

- a) **Will temporary access be required?** – Access under this ROW is temporary.
- b) **Will the site be fenced after construction?** - No
- c) **Construction** - Construction will consist of the drilling of the concrete plugs placed within the well at the time of abandonment, the perforation of casing and concrete at projected water bearing intervals, and the development and pump testing of the targeted aquifer zones.
 - i) **Facilities** – Equipment required for the re-opening of the well will include the drill rig, drill pipe trailers, mud/water holding tanks, work trailer, water truck, Backhoe Tractor, Generator, and other ancillary drilling and equipment.
- d) **Work force (number of people and vehicles)** – It is anticipated that there will be two shifts per day involving approximately 3 to 4 people and 2 vehicles per shift, plus engineering and management oversight which will involve another 3 to 5 people and 3 to 5 vehicles per day.
- e) **Flagging or staking the right-of-way** – Prior to construction, the property corners will be staked, identifying the limits and boundaries of the ROW. Flagging will not be necessary for this site.
- f) **Clearing and grading** – The land is relatively flat and it is anticipated that only minor grading will be required.
- g) **Facility construction data** -
 - i) **Description of construction process** – The drill rig will be positioned over the existing API well and operations will commence to drill out existing concrete plugs placed at the time of abandonment. The well will be cleaned out, the existing concrete and casing potentially perforated, and developed by air lift and pump methods, then pumped to determine flow rates, water quality and evaluate hydro-geologic conditions. Upon completion of these tests the well will be sealed and abandoned, meeting State Division of Water Rights and BLM requirements. Should the tests indicate that there is a potential that the well could be used successfully as a production well, a request for delay of abandonment, followed by and a new permit allowing the use of the well will be submitted.
- h) **Access to, and along, right-of-way during construction** – Access to the well site will be needed from the existing unimproved road from Thompson, Utah, or from SR-191, Valley City Road, and local unimproved roads 24 hours per day during drilling operations.



Exhibit B

EXPLORATORY WELL PLAN OF DEVELOPMENT PINNACLE POTASH INTERNATIONAL, Ltd (PPI) Page 4 of 5

i) **Contingency planning**

i) **Holder contacts**

(1) Dahl Black

Pinnacle Potash International, Ltd.
111 Congress Ave, Suite 2020
Austin, Texas 78701
(512) 628-2835

(2) David Hansen – Consulting Engineer

Hansen, Allen & Luce, Inc.
6771 South 900 East
Midvale, Utah 84047
801-633-1095

ii) BLM contacts

(1) To Be Determined

j) **Safety requirements** – The driller will be responsible for all on-site safety requirements per the State of Utah.

k) **Industrial wastes and toxic substances** – Not applicable. No industrial waste or toxic substances will be used. All material used will be hauled off site.

l) **Concrete volume and specifications** – Concrete used during abandonment shall be Neat Cement conforming to ASTM C150 of sufficient weight (not less than 15 lbs/gallon) to prevent the flow of any water into the hole from any aquifer penetrated, or cement grout consisting of equal parts of cement conforming to ASTM C150 and sand/aggregate with no more than 6 gallons of water per sack of cement. It is estimated that approximately 4cy of concrete will be required to abandon the well from 5' below the surface to a depth of 100', and that approximately 23cy of cement will be needed to abandon the well to isolate the Navajo, Kayenta, and Wingate formations from 2,300' to 3,500'. The well will remain open between 100' and 2,300' consistent with existing conditions.

7) **Resource Values and Environmental Concerns**

a) **Address at level commensurate with anticipated impacts -**

(1) **Location with regard to existing corridors** – ArcGIS information provided by BLM shows the well site is located within the following corridors.

- (a) Ferruginous Hawk Habitat
- (b) Burrowing Owl Habitat
- (c) Moderate to High Saline Soils



Exhibit B

**EXPLORATORY WELL PLAN OF DEVELOPMENT
PINNACLE POTASH INTERNATIONAL, Ltd (PPI)
Page 5 of 5**

b) Anticipated conflicts with resources or public health and safety

- (1) **Air, noise, geologic hazards, mineral and energy resources, paleontological resources, soils, water, vegetation, wildlife, threatened and endangered species, cultural resources, visual resources, BLM projects, recreation activities, wilderness, etc.** – Conflicts with existing hazards is believed to be minimal due to the small size of the disturbance and the remote location of the site. The site is not visible from either I-70 or Highway 191 and can only be viewed from the local remote dirt access roads. Drilling will be short term and impacts to air, noise, soils, vegetation, wildlife, visual resources, recreation activities will be temporary. No impact is anticipated on geology, mineral and energy resources, paleontological resources, water threatened and endangered species, cultural resources, BLM projects or the wilderness.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5a. Type of work: <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> REENTER		5. Lease Serial No.
5b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Pinnacle Potash International, Ltd.		7. If Unit or CA Agreement, Name and No.
3a. Address 111 Congress Ave, Suite 2020 Austin, Texas 78701		8. Lease Name and Well No. <i>Crescent Unit 1</i>
3b. Phone No. (include area code) 512-628-2835		9. API Well No. 4301930110
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface N 38deg 53' 46.14" W -109deg 44' 24.34" At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office* 5.3 mi Southeast of Crescent Junction, Utah		11. Sec., T. R. M. or Blk. and Survey or Area 17, T 22S, R 20E, SLBM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) n/a	16. No. of acres in lease 0.9	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. n/a	19. Proposed Depth 3,500 ft	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4,757' GL	22. Approximate date work will start* 10/01/2014	23. Estimated duration 60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Dahl Black</i>	Name (Printed/Typed) Dahl Black	Date <i>Feb 12, 2014</i>
Title Chief Business Development Officer		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

**Accepted by the
Utah Division of
Oil, Gas and Mining**

FOR RECORD ONLY



Well Plat

PPI proposes to re-enter well API 4301930110. The original well plat associated with this well is included hereafter.

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**HARSEN
ALLEN
& LUCE_{inc}**
ENGINEERS

2110

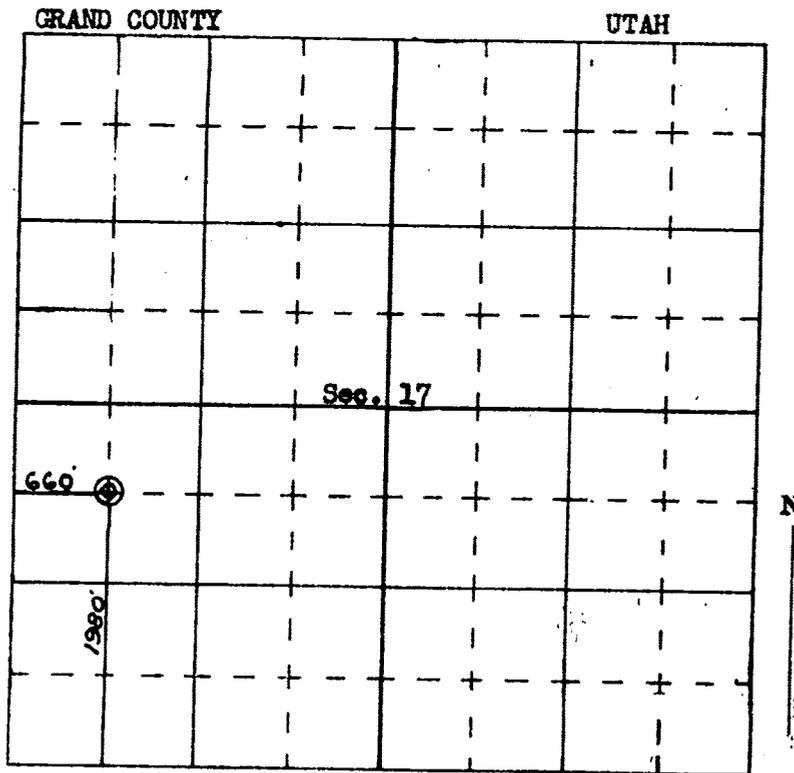
COMPANY CONTINENTAL OIL COMPANY

LEASE CRESCENT UNIT WELL NO. 1

SEC. 17 T. 22 SOUTH R. 20 EAST, S.L.M.

LOCATION 1980 Feet from the South line and
660 Feet from the West line

ELEVATION 4757.0



SCALE—4 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-
VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

James P. Luese
Registered Land Surveyor.

JAMES P. LUESE
UTAH REG. NO. 1478



3 July

1972



Drilling Plan

Information as requested in the drilling plan is provided below.

- a. Information contained within Sundry Notices for API 4301930110 provides the following information.

Formation	Top	Thickness	Target Water Bearing Zone
Morrison	1,080'	650'	No
Curtis	1,730'	60'	Potential
Entrada	1,790'	290'	Yes
Carmel	2,080'	140'	No
Navajo	2,220'	270'	Yes
Kayenta	2,490'	228'	Potential
Wingate	2,718'	817'	Potential

- b. Estimated depth and thickness of formations, members or zones potentially containing usable water, oil, gas, etc. The intent of this evaluation is to determine general hydrogeologic conditions encountered with in the well to depths up to 3,500 feet. The well is partially cased with grouted zones between the surface and 65', and between 2,300 and 2,500 feet, and therefore based on available well log data, water is potentially available in varying degrees from the zones listed in the prior section.
- c. Blowout prevention. Because this well has been previously grouted and abandoned to a depth 7,200 feet greater than the reopening depth, blowout prevention will not be required.
- d. No new casing will be required for this project as this is a well re-opening with existing 13 3/8" casing to a depth of 1,100', open hole from 1,100' to 2,300', grout from 2,300' to 2,500', and 9 5/8" casing from 2,500' to a depth of 10,700'.
- e. Cement to be used upon abandonment and estimated volumes are described in Form 299, Exhibit B, Part 6 l.
- f. Since the well is a grouted and abandoned well, the fluid circulating medium will be water. Although not expected to be needed, bentonite mud will be used if needed to help carry concrete cuttings to the surface.
- g. No logging or coring is involved with this project. The well casing will be perforated within the Navajo, Kayenta, and Wingate zones identified above in part "a" as water bearing, and water quality and quantity testing performed as generally outlined in Form 299, Exhibit B, Part g.
- h. Bottom hole pressures are anticipated to equal the maximum potentiometric surface for the aquifers encountered. Based on published ground water contour mapping, the potentiometric surface is expected to be at about 4350 feet, 407 feet below the land surface elevation of 4,757 feet. The depth to the Navajo formation is 2,260 feet (2,497' msl). Therefore the anticipated pressures are 1,853 feet (4,350' - 2,260') or 802 psi. It



Drilling Plan

would require ~2,260' (~980 psi) to bring any water to the surface therefore down hole pressures are expected to be contained within the reopened casing. No other abnormal conditions including pressures, temperatures, or other potential hazards are expected.

- i. No other issues are expected or presented at this time.

Drill Plan Detail for Re-Opening API 4301930110

1. Uncover abandoned casing.
2. Extend existing 13 3/8" casing to an approximate height of 2' above ground surface.
3. Drill out grout from existing 13 3/8" casing using air and water (with mud if required) to an approximate reported depth of 65'.
4. Clean out open 13 3/8" casing to a depth of 1,100' using air and water (with mud if required).
5. Clean out open bore hole to 2,300' using air and water (with mud if required).
6. Drill out grout from 2,300' to 2,500' using air and water (with mud if required).
7. Clean out existing open 9 5/8" casing using air and water (with mud if required) from 2,500' to an approximate depth of 3,500'.
8. Perforate 9 5/8" casing at locations shown below, 4-rows of perf's, row every 90° around pipe, 5 perf's., in each row every 12 inches, 20 perfs. per row, perfs 1" x 1/4"s. Perforate Navajo, and potentially within the Kayenta and Wingate formations to evaluate hydrogeologic conditions within the formations at the following general locations. The lower portions of the Morrison and the Entrada formations do not require perforation as the log shows an open, uncemented bore.

Formation	Formation Zone	Thickness of Zone	Total Projected Perforation Length
Morrison	1,080'-1790'	710'	n/a (no casing)
Entrada	1,790'-2,080'	290'	n/a (no casing)
Navajo	2,220'-2,490'	270'	30' (concrete, no casing)
Kayenta	2,490'-2,718'	228'	30'
Wingate	2,718'-3,535'	817'	80'

9. Air lift or pump develop part or all of each zone to clean out debris.
10. Air lift or pump test each selected zone using a dual swab with perforated intake pipe, or using a pump and packer system.
11. Monitor flow and water level during pump testing.
12. Well production capacity will be evaluated upon completion of testing. If there appears to be a potential for the long term use of the well as a water source, the well will be welded shut, but remain open until a permit can be submitted to BLM and acted upon requesting the long term use of the well. At the time of permit submittal, the site will also be graded to approximate natural contour preparatory to either ongoing site use, or well abandonment.

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Surface Use Plan

13. If the long term use the well is denied by BLM, the well will be abandoned using Neat Cement conforming to ASTM C150 of sufficient weight (not less than 15 lbs/gallon) to prevent the flow of any water into the hole from any aquifer penetrated, or cement grout consisting of equal parts of cement conforming to ASTM C150 and sand/aggregate with no more than 6 gallons of water per sack of cement. It is estimated that approximately 4cy of concrete will be required to abandon the well from 5' below the surface to a depth of 100 feet, and that approximately 23cy of cement will be needed to abandon the well to isolate the Navajo, Kayenta, and Wingate formations from 2,300 feet to 3,500 feet. The well will remain open between 100' and 2,300' consistent with existing conditions.
14. Upon abandonment, cut off and remove casing and cement to a depth of 5' below ground surface, cover the abandoned well, and reclaim the site.

Existing Roads – Access to the site will be on existing established roads from Thompson, Utah or from Highway 191 south of Crescent Junction Utah, Valley City Road, and existing unimproved roads.

New or Reconstructed Access – No new or reconstructed access is believed to be required.

Location of Existing Wells – Based on data retrieved from the Utah State Division of Water Rights and the Utah Division of Oil, Gas and Mining, there are no known wells existing within a one-mile radius of API Well 4301930110.

Location of Production Facilities – At this point in time the re-entering of API Well 4301930110 is for exploratory and investigative purposes only.

Location and Types of Water Supply – Water required for well drilling necessary to reopen API Well 4301930110 will be from Thompson Water District. Water will be delivered by tanker truck using the existing, established roads between the well site and Thompson, Utah. No water pipelines will be laid nor will a water supply well be drilled.

Construction Materials – Materials required to reopen API Well 4301930110 will be water and well drilling mud during drilling, and concrete for well abandonment. Concrete proposed to be used for abandonment, including estimated volumes, is specified in Form 299, Exhibit B, Paragraph 6l.

Methods of Handling Waste

Well Drilling Fluids: Drilling fluids including water and/or muds will be fully contained on-site in mud pits and/or in surface containers.

Well Cuttings: Well cuttings will be removed from the site by the Contractor and properly disposed of in an appropriately approved landfill.



Surface Use Plan

Well Discharges - Oil: API Well 4301930110 is fully abandoned with grout to depths far in excess of the target zones < 3,500 feet. Since the reopening process will be fully contained to cased well sections, no oil should be encountered.

Well Discharges – Water: It is not feasible to contain well water discharges during development and testing. However, well discharges will be routed into an on-site pit or tank to help settle suspended solids. Discharges from the pit or tank will be controlled and filtered using best technology available (BTA) including straw bales and silt fencing to further contain the fluids and reduce mud discharges. Water will then be allowed to discharge into an adjacent drainage for adsorption and infiltration.

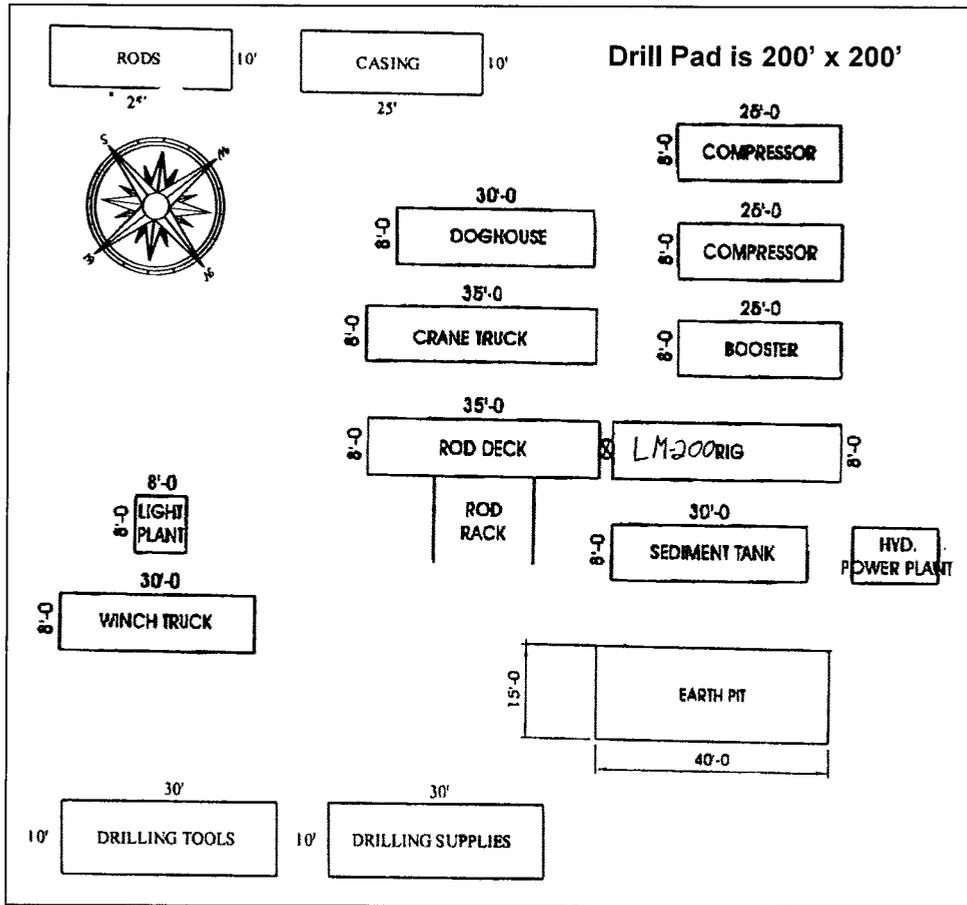
Human Waste: Human waste will be fully contained in a portable toilet maintained and/or serviced by the contractor.

Garbage: All garbage will be contained within an on-site container and removed from the site and properly disposed of by the Contractor upon completion of the project in an approved landfill.

Ancillary Facilities – No ancillary facilities are anticipated for this project.

Surface Use Plan

Well Site Layout – The location of the drill pad in relation to the access road is shown in Exhibit B of Form 299. A typical well drilling operation layout expected to be used for this operation is as shown below.



Plans for Surface Reclamation – The following activities will be performed upon well abandonment.

1. The site will be maintained in a safe, clean and environmentally stable condition.
2. The well will be permanently sealed to prevent unauthorized or accidental entry.
3. The well will be plugged using a neat cement grout to plug all well casing perforations, and to provide a five foot cement surface plug to prevent aquifer contamination, in accordance with R647-2-10B.



Surface Use Plan

4. All waste and/or debris will be removed from the site and properly disposed of, including any trash, scrap metal, wood, or other materials.
5. Any material moved to level the drill pad area will be replaced.
6. The drill pad area will be reshaped to near its original contour, and any topsoil and suitable overburden will be redistributed.
7. A seed bed to a depth of six inches will be prepared by pocking, ripping, discing, or harrowing, Leaving the surface rough to capture moisture and promote re-vegetation.
8. All disturbed areas of the site will be reseeded with adaptable species, including a mixture of species of grass, forb, and browse seed. Vegetation typical of the area include:

SHRUBS

- Greasewood
- Rabbitbrush
- Shadscale
- Snakeweed

FORBS

- Fall aster
- Halogeton
- Poppy mallow
- Poverty weed
- Russian thistle
- Sun flower
- Yellow mustard

GRASSES

- Cheat grass
- Galleta grass
- Indian rice grass
- Needle-and-thread grass
- Tickle grass

9. Plant the seed with a rangeland or farm drill, or broadcast seed. Fall is the preferred time to seed.

Surface Ownership – The site is on BLM land.

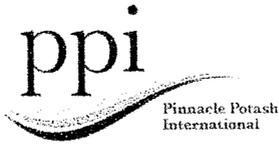


Bond

The amount of the bond is to be determined and will be in force prior to site access any construction activities.

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Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved.

I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 12th day of February, 2014

A handwritten signature in cursive script that reads 'Dahl Black'.

Dahl Black

Chief Business Development Officer
Position / Title

Pinnacle Potash International, Ltd.
111 Congress Ave, Suite 2020
Austin, Texas 78701
512-628-2835