

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SF 078067

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Carson

8. FARM OR LEASE NAME

Unit

9. WELL NO.

41-14

10. FIELD AND POOL, OR WILDCAT

Bisti - Pictured Cliffs

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

Section 14-T25N-R12W

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR  
Shell Oil Company

3. ADDRESS OF OPERATOR  
1700 Broadway, Denver, Colorado 80202

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

660' FNL & 660' FEL Section 14

14. PERMIT NO.

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

6383 KB

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANS

(Other) Recomplete as gas producer

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

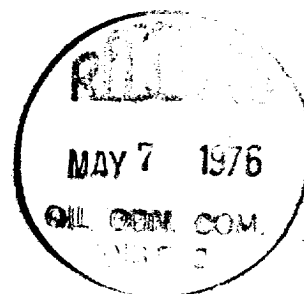
ABANDONMENT\*

(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.)\*

See attached Recompletion Prognosis



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

SIGNED

*J. W. Zimmell*

TITLE Div. Opers. Engr.

DATE 5/5/76

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

cc: O&G Conservation Commission w/attachment

\*See Instructions on Reverse Side

RECOMPLETION PROGNOSIS  
 CARSON UNIT 41-14  
 660' FNL & 660' FEL  
 SECTION 14, T25N, R12W, NMPM  
 BISTI FIELD  
 SAN JUAN CO., NEW MEXICO

EXISTING

PROPOSED

PERTINENT DATA:

ELEV: 6383' KB  
 KB-GL: 9'  
 TD: 5090'  
 PBTD: 5044'

Completion date: 7-30-57

AFE (P&A Gallup):  
 EST. Cost (P&A Gallup): \$10,500  
 AFE (Recompl. in pictured Cliffs):  
 Shell's Share: 100%

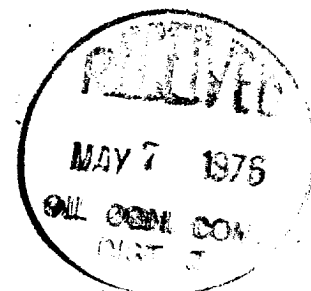
Note: All depths refer to Schlumberger  
 Electric Log Dated 6-1-57.

CURRENT STATUS:

Producing 2 BDO + 22 BDW.

PROPOSED WORK:

P&A the Gallup prod. interval. Perforate,  
 frac. treat and test the Pictured Cliffs  
 gas interval for productivity.



8 5/8" 24" @ 210'  
 CMT'D w/ 130 SX.

PICTURED 1210'  
 CLIFFS 1230'

CICR @ 1280'  
 PERFS  
 @ 1290'  
 FOR SQZ.

PERFS @  
 1340' FOR  
 SQZ.

ESTIMATED PRIMARY  
 CMT. TOP @ 4100'

CICR @  
 4790'

SQZ'D  
 GALLUP  
 PERFS

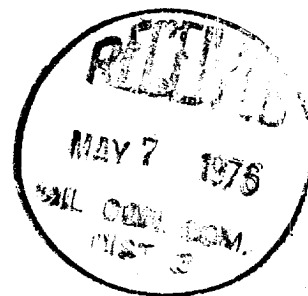
4 1/2" 9.5" J-55  
 @ 5085' CMT'D w/ 150 SX.

TD 5090'

4872'  
 97'  
 4902'  
 08'  
 4948'  
 61'  
 4965'  
 75'

CARSON UNIT 41-14  
P&A GALLUP, RECOMPLETE AS PICTURED  
CLIFFS GAS WELL

PROCEDURE



1. Move in and RU WOR.
2. Install and test BOP and safety equipment.
3. Pull production equipment.
4. Run casing scraper on tubing to +4950'.
5. Run CICR on tubing. Set at +4790'. Pressure test casing to 1400 psi. Pressure test tubing to 2000 psi.
6. Pump 150 sx. Class A cement with 4% gel below retainer to squeeze Gallup perfs. Pump cement at minimum pumping pressure and rate required, preferably 1-1 1/2 BPM not exceed 1200 psi with tubing full of cement or 1500 psi while displacing cement.
7. Unsting from retainer, <sup>reverse circulate one tubing volume with water,</sup> circulate hole clean and pull tubing.
8. Run GR-Neutron PDC logs from 1500' to surface (run log on 2"-100' Scale).
9. Run BP on wireline and set at 1360'. Fill casing with water.
10. Run 3 3/8" Hollow Carrier Hyper Jet II gun and perforate at 1340' w/4 holes (1 foot). Check fluid level before and after perforating.
11. Run tubing open ended to 1350'. Fill casing with water while going in hole. Establish pump-in rate with water. <sup>I + unable to pump in spot 200 gal 15% HCl and break down per</sup> If able to pump in with water spot 35 cubic feet class A cement (cement containing 2% CaCl). Pump cement at low rate (1-1 1/2 BPM). Do not exceed 200 psi while pumping cement, pumping time for cement is 1 hour and 59 minutes. Pull tubing to 700 feet and reverse circulate clean. Shut tubing in and bradenhead sqz. down csg.-tbg. annulus with 100 psi for 1 hour. Pull tubing.
12. Run 3 3/8" Hollow Carrier Hyper-Jet II gun and perforate at 1290'+ w/4 holes.
13. Run CICR on tubing and set at 1280'. Attempt to circulate to surface outside 4 1/2" casing. Start with a flush slug of KCl & CaCl water follow with 500 gals 7 1/2% HCl follow by KCl & CaCl water (inhibit acid as required).
14. Follow water with 200 sx. reg. Class A cement containing 1% CaCl. Cement at minimum pumping pressure required. Displace cement to tubing tail and unsting from retainer. <sup>reverse over</sup> Circulate hole clean and pull tubing. WOC 12 hours.

15. Run CBL from PBTD to 8 5/8" csg. shoe at 210' with 0 psi surface pressure. If bonding across recompletion interval (Pictured Cliffs 1210'-1230') appears questionable, re-run CBL with 1000 psi surface pressure. Contact Houston Engineering if bonding appears doubtful.
16. Bail fluid level to 1000'+. Run a 3 3/8" hollow carrier Hyper Jet gun loaded with 27 charges. (Diagram of perf gun is attached) Perforate Pictured Cliffs Interval from 1210' to 1230'. (Depths refer to Schlumberger Electric Log dated 6-1-57)
17. Run pkr on tubing and set at 1200'. Swab test well until gas flow is established (if any). Obtain natural flow test if possible, not to exceed 3 hours.
18. Pull pkr. and tubing. Run tubing open-ended to 1180'. Use blast joint at top of string. ~~if tubing is old.~~
19. Rig up Dowell and Foam-Frac.<sup>R</sup> the pictured Cliff down tubing and csg. simultaneously as follows:
  - 1) Pump 2,200 gal. of foam pad
  - 2) Pump 1,470 gal. of foam with .57 PPG 20-40 sd. (2 lb/gal. @ blender)
  - 3) Pump 1,470 gal. of foam with 1.14 PPG 20-40 sd. (4 lb/gal. @ blender)
  - 4) Pump 16,170 gal. of foam with 1.57 PPG 20-40 sd. (5.5 lb/gal. @ blender)
  - 5) Pump 1,470 gal. of foam with .57 PPG 10-20 sd. (2 lb/gal. @ blender)
  - 6) Pump 1,470 gal. of foam with 1.14 PPG 10-20 sd. (4 lb/gal. @ blender)
  - 7) Pump 16,170 gal. of foam with 1.57 PPG 10-20 sd. (5.5 lb/gal. @ blender)
  - 8) Flush to perms with 600 gals. of foam.

70% quality foam.

Total calc. water for frac. treatment is 293 bbls.

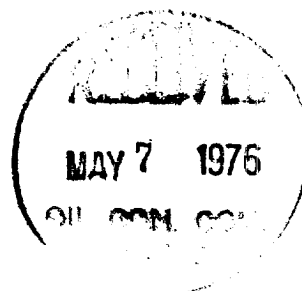
Total frac. treatment is 41,000 gal. foam with 27,950# 20-40 sd. and 27,950# 10-20 sd.

Est. pumping rate: 17.5 BPM.

Est. wellhead treating pressure: 1250 psi.

20. Pull tubing. Rerun packer on tubing and set at 1200'+.
21. Swab and/or flow test to clean up to pit and establish flowing rate and FP at various choke sizes. Obtain gas sample for analysis.
22. Dependent on productivity either hook up to gas line or shut-in pending further work.

Contact C. O. Collins at the Houston Office (Ph. 713-220-1309) or J. T. Brown (Ph. 713-220-2711) for changes which may be required in the Recompletion procedure.



Frac. treatment arrangements have been arranged with Dowell (Farmington, N. M.), Nowasco and Minerals Management Inc. (Ph. 303-571-1111 in Denver ... Mr. Bill Abbott, Mr. Roland Blauner or Mr. Herschel Vaughn). Notify Dowell (Farmington) and Minerals Managements Inc. (Denver) one week in advance of recompletion as to date, timing, etc. An Engineer from Minerals Management Inc. will go on job location.

The approval of the District Engineer, State of New Mexico is required prior to plugging back, recompleting, etc. Approval from the State is also required to test to pit and flare prod. gas.

JTB:MG  
cc  
Attachments

Div. O. E.

4/29/76

APPROVED:

Production Superintendent

