



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
1505/ 334-6178

April 28, 1980

Shell Oil Company  
P. O. Box 831  
Houston, Texas 77001

Gentlemen:

The following wells are approved for temporary abandonment for one year from this date.

Shell Oil Company  
~~Shell Oil Company~~

Carson Unit 201  
Mudge 6 #303

E-13-25N-12W  
B-16-25N-11W

Yours truly,

Frank T. Chavez  
District Supervisor

FTC:no

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE  
(Other Instructions on Reverse Side)

Form approved  
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

036253

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Mudge 6

9. WELL NO.

303

10. FIELD AND POOL, OR WILDCAT

Bisti-Basin Dakota

11. SECTION, RANGE, TOWNSHIP, AND SURVEY OR AREA

NW/4 NE/4 Section 16,  
T25N, R11W, NMPM

12. COUNTY OR PARISH 13. STATE

San Juan N.M.

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

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

970' FNL and 1735' FEL of Section 16, T25N  
R11W, N.M.P.M., San Juan County, New Mexico

14. PERMIT NO.

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

6420' 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

☐  
☐  
☒  
☐

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.)

See attached abandonment prognosis



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

SIGNED

*R. Planty*

TITLE Division Operations Engineer

DATE

5/7/79

(This space for Federal or State Office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

cc: WMO-GCO attach for info

Approved Subject

BLM Stipulations

\*See Instructions on Reverse Side

MAY 10 1979

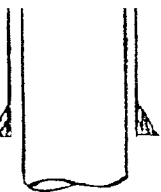
P. T. McGRATH

OPERATOR

*P.T. McGrath*

APPROVED

8 5/8"  
610'



4 1/2"  
6049'  
11.6\*

PROGNOSIS  
PLUG AND ABANDONMENT  
SHELL MUDGE 6 #303  
BASIN DAKOTA GAS POOL BISTI FIELD  
SECTION 16, T25N, R11W  
SAN JUAN COUNTY, NEW MEXICO

Pertinent Data:

AFE: 521061

Elev: 6420' KB  
KB-GL: 13'  
TD: 6050' PBD: 5964'  
8-5/8" casing @ 610' cement to surface  
4-1/2" casing @ 6049' cement w/810 cu. ft.  
Cement top @ 4180'

Past and Current Status: Well presently SI after failing to produce.

Proposed Work: Plug and Abandon

1. Pull tubing and Model "R" dbl. grip packer @ 5782'.
2. Run tubing open-ended to PBD, spot 25 sack Class "G" cement plug from PBD to 5630' (Theoretical top). Minimum requirements - 100' plug above perforations. Pull tubing to 2000'+. Close well in overnight.
3. Tag plug, load hole with mud. (Add 20 sacks aquagel + 1 sack Benex per 100 bbls. mud or 20 sax salt gel per 100 bbls. of mud).
4. Pull tubing.
5. Rig up casing pullers. Determine casing free point.
6. Attempt to shoot and pull casing. Cement top from CBL-4180'. Collars at 4176-1/2', 4144', 4112', 4080', 4047-1/2', 4014', 3982', 3898'.
7. If able to pull casing, go to Step 11.
8. If casing cannot be pulled, perforate 4-1/2" casing with 4 JSPF from 1325'-1326'.
9. Run tubing open ended, spot 40 sacks Class "G" cement from 1325' to 790'. Pull tubing to 550'+. displace 20 sacks of cement through perforations 1325-26'.
10. Spot 10 sack cement plug at surface. Set marker in accordance with Step 12.

11. If casing is recoverable, place cement plugs by cementing through casing or running tubing inside of casing as it is pulled. Spot Class "G" cement plugs as follows:

- a. 150' plug across stub of 4-1/2" casing.  
(50' in casing, 100' in open hole).
- b. 200' plug from 1300-1500'.
- c. 100' plug across 8-5/8" casing shoe.  
(30' in casing, 70' in open hole).
- d. 10 sack plug at surface.

12. Install permanent abandonment marker as follows:

Steel marker at least 4 inches in diameter set in concrete and extending at least 4' above mean ground level. The name and number of the well and its location (unit letter, section, township and range) shall be welded, stamped, or otherwise permanently engraved into the metal marker.

Approved \_\_\_\_\_

COC:JL

*COC*

Date \_\_\_\_\_

NEW MEXICO  
BASIN DAKOTA

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
EL 6430' GR  
8-5/8" csg @ 610'

2/24: "FR" 615/12/1/615. Run'g csg. Located 970' FNL & 1735' FEL, NW/4 NE/4 Section 16-T25N-R11W, San Juan County, New Mexico.

Shell's Working Interest: 43.8958%

Spudded 7 p.m. 2/23/76.

2/25: 1040/12/2/425. Drlg. Ran 15 jts 8-5/8 K55, 24#, ST&C (596.76'). Shoe @ 610 & float @ 567'. Preflushed w/30 BW & cmt'd w/400 sx Class "B" w/3% CaCl<sub>2</sub>. Good returns thruout. CIP @ 10:30 a.m. NU BOP & chk lines; press test ok.

Mud: Water

FEB 25 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
EL 6430' GR  
8-5/8" csg @ 610'

2430/12/3/1390. Drlg. Dev: 1 deg @ 1134' & 1665' and 3/4 deg @ 1875' & 2412'.

FEB 26 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
EL 6412' GR  
8-5/8" csg @ 610'

3503/12/4/1073. Drlg. Dev: 1 deg @ 2675' & 3283'.  
Mud: Water

FEB 27 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
EL 6412' GR  
8-5/8" csg @ 610'

2/28: 4330/12/5/827. Drilling. Dev: 1 deg @ 3740' & 4218'.

Mud: Water

2/29: 4780/12/6/450. Tripping. Dev: 1-1/2 deg @ 4366' and 1/2 deg @ 4730'.

Mud: water.

3/1: 5158/12/7/378. Drilling. Lost 70 bbl mud @ 4927'.  
Dev: 1 deg @ 5053'.

Mud: (.468) 9.0 x 35 x 16

MAR 1 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
KB 6420'  
8-5/8" csg @ 610'

5575/12/8/417. Drlg. Dev: 1-1/2 deg @ 5397'.  
Mud: (.478) 9.2 x 35 x 8

MAR 02 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
KB 6420'  
8-5/8" csg @ 610'

5821 (corrected depth)/12/9/236. Coring. Dev: 1-1/4 deg  
@ 5780'.  
Mud: (.483) 9.3 x 35 x 8

MAR 03 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'

5926/12/10/105. Drlg. Core #1 - cut & rec'd 60'. Core  
#2 - cut 46' & rec'd 40'.  
Mud: (.478) 9.2 x 40 x 8.2

MAR 04 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D) Four Corners #3  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'

6042/12/11/116. Log'g. Dev: 1-1/4 deg @ 6025'.  
Mud: (.483) 9.3 x 53 x 6.4

MAR 05 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

3/6: 6050/12/12/8. Prep to run csg. Ran DIL-SP, CNL-FDC-  
GR Cal.

Mud: (.483) 9.3 x 53 x 6.4

3/7: 6050/12/13/0. ~~MORT: Ran 185 jts 4-1/2 K55 11-6# ST&C~~  
csg to 6049- & cmt'd w/810 cu ft 50:50 poz, 18% salt, 2%  
Bentonite & disp w/91 BW @ 1 B/M. Shoe @ 6049, FC @ 5964.

Bumped plug w/2000 psi. CIP 1:10 p.m. 3/6/76. Released  
rig 6 p.m. 3/6/76/  
(Report discontinued until further activity)  
Cost \$99,144

MAR 06 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. (RRD 3/8/76) 3/26 Ran 3-5/8 gauge ring to 5946.  
Ran CBL GR & csg collar locator from 5944-3950. Found top  
of cmt @ 4180. Log indicated good bonding. MI&RU  
Farmington Well Service. Installed 10" 2000 x 10" 3000 db1  
studded adapter & 10" 3000 x 6" 5000 tbg spool. Tested to  
2000#, held ok. 3/27 Ran tbg to 5874. Spt'd 10 bbls con-  
densate. Landed tbg w/donut. Had 180 jts 2-3/8 tbg & one  
20' jt w/tbg tail @ 5704. Instal'd 5000# Cameron tree.  
Tested tbg & csg to 4000#, held ok. Circ'd wtr out of hole  
w/condensate. Swabbed tbg & csg down to 3000. Prep to  
perf. 3/28 SI on Sunday.

MAR 29 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. MI&RU McC & instal. 1 lubricator. Perf'd  
Dakota "B" from 5828-5858 (depths refer to Schl CNL log  
dated 3/5/76) w/2 jet shots/ft using magnetically  
decentralized 1-9/16" thru-tbg carrier gun. RD McC. Left  
well SI; no TP after perf'g.

MAR 30 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. Prep to frac well.

MAR 31 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. Prep to clean up well. Est injectivity into  
perfs w/condensate. Dropped 72 7/8" RCN ball sealers (sp  
gr 1.1) spaced evenly in 36 bbls condensate. SD & allowed  
balls to drop off perfs. Frac'd Dakota "B" down tbg & tbg-  
csg annulus w/YFGO as follows: Pmp'd 3000 gals YFGO pad,  
3000 gals YFGO w/3000# FLA-100, 5000 gals YFGO w/10,000#  
FLA-100, 2000 gals YFGO spacer, 5000 gals YFGO w/5000#  
20-40 sd, 15,000 gals YFGO w/30,000# 20-40 sd, 5000 gals  
YFGO w/15,000# 20-40 sd, 2000 gals YFGO spacer, 10,000 gals  
YFGO w/30,000# 20-40 sd & 2000 gals YFGO w/8000# 20-40 sd.  
Flushed to perfs w/condensate containing friction reducer @  
a reduced rate. Avg rate 18 B/M @ 3100#. ISIP 2700#, 30  
mins 2200, 2 hrs 1900. Left well SI.

APR 01 1976

Shell-Skelly-Mobil-  
Mudge #303  
(D)  
6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. Prep to inj N2 down 4-1/2 csg. Fin'd install'g  
test'g facilities. Opened well 12 noon; 1200 psi SIP.  
Flwd well to pit on 1" chk for 45 mins; got straight gel  
condensate. Tried switching well to test'g facilities,  
but not enough gas to operate controls. Switched well  
back to pit; bled off to 0 psi TP. Flw'g in heads, but  
still get'g gelled condensate. SI well 1/2 hr; CP 300 &  
TP 175. Opened well & bled to 0. Left well SI. Had no  
signs of sd & slight trace of wtr; condensate still in  
gel form.

APR 02 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. 4/2 Well had 640# C<sup>-</sup> & 250# TP. Blew tbg down to 0. Inj'd N2 down csg. Csg press'd up to 1400# before tbg unloaded. SD N2 injection & tbg bled to 0# - csg 1050#; trace of gas & wtr. Inj'd N2 down csg; csg went to 1400# before tbg unloaded. SD injection & tbg bled off to 0 w/some gas; csg 950#. Repeated several times. Tbg would always bleed to 0 w/csg press gradually decr'g each time. Rec'd condensate w/sml amts of wtr. Last time bled tbg off; csg 750#. Inj'd 150,000 SCF N2. Left well SI. 4/3 Well SITP 250#; CP 1250#. Opened well & tbg bled off to 0# & csg dropped to 1200# in 5 mins. Started getting condensate. SI well. 4/4 SICP 1300#; TP 250#. Bled tbg; 2-3 bbls condensate. Tbg went to 0. Ran CT to 5928 (fill) while inj'g N2 @ 300 SCF. Jetted wtr from 5928 for 2 hrs until tbg loaded up. Pulled CT to 4300 & incr'd rate to 500 SCF. Started unloading continuous stream of wtr. Ran CT back to 5800 @ 500 SCF while unloading wtr & sml concentration of condensate. Well was making gas as long as tbg was kept unloaded. Inj'd total of 100,750 SCF N2. Left well SI; would not flow by itself.

APR 05 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. CP 750 psi; TP 125 psi. Bled 2 bbls condensate to pit; no wtr. In the afternoon CP 750 psi & TP 75 psi. Bled nothing to pit except gas.

APR 06 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. CP 825 psi; TP 225 psi. Bled 3 bbls condensate to pit & TP went to 0. SI well.

APR 07 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. CP 875 psi; TP 175 psi. Bled tbg down to pit. Bled 2 bbls condensate & TP went to 0. Left well SI. Pulled tbg & ran pkr.

APR 08 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. Prep to swab. MI&RU Farmington Well Service. Bled tbg & csg to pit. Removed 5000# Cameron tree & installed BOP's. Pulled tbg & Ran Bkr Model R dbl-grip pkr on 2-3/8 tbg to 5813. Set pkr w/18,000# set down & removed BOP's. Installed 5000# Cameron tree. RD Farmington & left well SI.

APR 09 1976



Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. 4/9 CP 250#, TP 30' Bled tbg & csg to pit. MI&RU Farmington & unseated pkr. LD 1 jt tbg & resealed pkr. Press tested csg & pkr to 1000# w/N2, ok. Bled N2 press off csg. Installed 5000# Cameron tree & left well SI overnight. Pkr @ 5782. 4/10 Swabbed from 2000 & rec'd wtr w/slight tr of condensate. Well would not flow, therefore, swabbed from 2500' & rec'd wtr. Well started flw'g to pit in surges making approx 10 BW/H. Left well flw'g to pit overnight. 4/11 Well cont'd to flow to pit on 1" chk; flw'g wtr & slight tr of condensate @ rate of 8 B/H. Left well flw'g overnight to pit.

APR 12 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. Ran swab to 2500' & started unloading wtr. Tight spt in tbg @ 2500, therefore, swabbed to 4000'. Swabbed fluid to 3000' w/sml trace of gas. Well would not continue to flow. SI well.

APR 13 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. TP 800#. Bled down in 15 mins; got 2 bbls condensate. Well cont'd to blow wtr @ 3 B/H for 3 hrs on 46/64" chk. Well was heading. Press bled off in 4 hrs. SI well. MI&RU Farmington; prep to swab.

APR 14 1976

Shell-Skelly-Mobil-  
Mudge #303

(D)

6050' Dakota "B" Sdstn  
KB 6420', GL 6407'  
8-5/8" csg @ 610'  
4-1/2" csg @ 6049'

TD 6050. TP 450#. Opened to 44/64" chk; well bled down in 6 mins. Flwd 2-3 bbls condensate. First swab run found fluid @ approx 500'. Made 1 run & well unloaded for 1-1/4 hrs approx 10 BW. Made several runs after this & fluid std'g @ approx 2000' on each run. Unable to swab well down. Rec'd approx 50-60 BW. RD Farmington. Left well SI.

(Report discontinued until further activity)

APR 15 1976