

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.

SP-078062

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Mudge 2

9. WELL NO.

#300

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

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

NW/4 NE/4 Section 8-
T 25N-R 11E

12. COUNTY OR PARISH 13. STATE

San Juan

New Mexico

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 (Rocky Mountain Division Production)

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 950' FNL and 1500' FBL Sec 8

14. PERMIT NO.

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

6330 GL

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* ☐

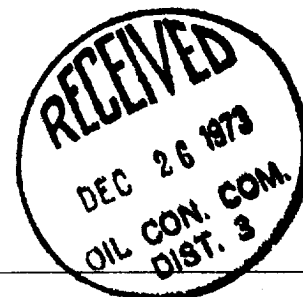
Shut In ☒

(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.)*

(Please refer to attached letter)

✓ 2 cc: Oil and Gas Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico 87410
Attention Mr. E. C. Arnold, Supvr. & Oil and Gas Inspector



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

SIGNED

J. S. Mize

TITLE Division Operations Engr.

DATE Dec. 13, 1973

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not severed by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of putting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

NEW MEXICO

BISTI FIELD

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test

"FR" RU; prep to spud.
Located 950' FNL and 1500' FEL (NW/4, NE/4) Section 8--
T25N-R11W, San Juan County, New Mexico.

Elev: 6330 GL

MAY 18 1973

Shell Working Interest: 100%

This well continues development of the Basin Dakota
Gas Pool in our Bisti Field properties. It is a
320-acre southwest offset to the Tenneco-Shell-
Gallegos Canyon-Federal No. 1 completed in July 1972
for 3.5 MCFG/D from Dakota sandstone.

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8 5/8" csg at 518'

5/19: 518/10/1/518 WOC. Dev: 0° at 160, 1/2° at
518. Drld rat and mouse holes. Drld 12 1/4" hole to
518'. Spudded 4 PM 5-18-73. RU to run csg. Ran
and cemented 16 jts (521.97') 8 5/8" 24# K-55 ST&C
csg at 518' w/350 sx Class "G" cem, 2% CaCl₂. Plug
down 5 AM 5-19-73. Bkr guide shoe at 518, Bkr insert
float at 450.64, three centralizers at 510.83, 484.24,
and 351.40.

Mud: Spud mud

5/20: 518/10/2/0 Fixing leaks in POP stack. WOC.
Cut off csg and welded on head. Press tested weld
to 1,000 psi for 10 min, held ok. Nippled up and
fixing leaks.

Mud: Wtr

5/21: 1833/10/3/1315 Tripping. Fixed leaks in BOP
stack. Press tested BOP stack, chk manifold, all
lines and valves, upper kelly cock to 1,000 psi for
10 min, all held ok. Drld 100' cement, float and shoe.
Repaired kelly bushing. Dev: 3/4° at 1015, 1/2° at
1521.

MAY 21 1973

Mud: Wtr

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8 5/8" csg at 518'

2510/10/4/677 Drilling. Pulled into sfc csg.
Installed 2nd rig engine. Ran to btm. Dev: 1/4° at
1830.

MAY 21 1973

Mud: Clear water



Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8 5/8" csg at 518'

3417/10/5/907 Drilling. Dev: 3/4° at 2696.
Mud: Water MAY 23 1973

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8 5/8" csg at 518'

4170/10/6/753 Drilling. Dev: 1° at 3736.
Mud: Water MAY 24 1973

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8 5/8" csg at 518'

4625/10/7/455 Drilling. Repaired pump. Checked
BOP's. Dev: 3/4° at 4391. MAY 25 1973
Mud: Water

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8-5/8" csg @ 518'

5/26: 4928/10/8/303. Drilling. Dev: 1/2° @ 4856.
Mudded up @ 4700'. Tripped for new bit @ 4856.
Mud: (.468) 9.0 x 35 x 8.0
5/27: 5181/10/9/253. Tripping for new bit.
Mud: (.473) 9.1 x 38 x 6
5/28: 5525/10/10/344. Tripping. Dev: 1 1/4° @ 5181.
Mud: (.473) 9.1 x 37 x 7.0
5/29: 5842/10/11/317. Tripping for new bit. Washed
to btm. MAY 29 1973
Mud: (.473) 9.1 x 40 x 9.2

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8-5/8" csg @ 518'

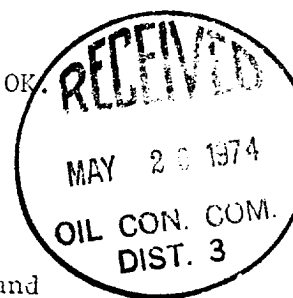
5992/10/12/150. Circ for logs. Checked BOP's, OK.
Mud: (.488) 9.4 x 60 x 8.2 MAY 30 1973

Shell-Mudge "2" #300
(D) Coleman-Andes
6010' Dakota "B" Test
8-5/8" csg @ 518'

5993/10/13/0. (Depth corrected). Circ. Circ and
short tripped - no fill. Ran DIL, Acoustilog and
Densilog. Tripped in and started circ.
Mud: (.488) 9.4 x 65 x 8 MAY 31 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4 1/2" csg @ 5981'

TD 5993. MORT. Circ 3 hrs. Laid down DP and DC's.
RU and ran 51 jts (2160.45') 4 1/2", 11.60#, K-55, ST&C
and 91 jts (3819.93') 4 1/2", 11.60#, K-55, ABC modified
ST&C csg w/shoe @ 5981 and FC @ 5894. Circ csg 2 1/2 hrs.
With 20 BW preflush, cmt'd w/770 sx 50:50 Pozmix "A"
w/10% salt, 2% gel and 1% CFR-2. Tailed in w/100 sx
Class "G" Neat. Displaced @ 6 B/M w/2% KCl wtr. Full
returns and reciprocation while cmtg. Plug down @
8:35 PM, 5/31. Float held OK. Installed and press
tested tlg spool to 3000 psi for 15 min, OK. Released
rig @ 2 AM, 6/1/73.



Shell-Mudger "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993.
6/2: MORT. (RDUFA) JUN 4 1973

Shell-Mudger "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5839. (RRD 6/1/73)
6/30: Perforating. Installed BOP and tested csg and WH eqmt to 3500 psi. RU Dresser-Atlas and ran CBL, VDL and PDC logs from 5839-3000. Top of cmt @ 3350. Generally poor bonding w/good bonding from 5780-5839. Logger's PBTD @ 5839.
7/1: Moving in pulling unit. Perf'd interval 5811-5831 w/2 jets/ft using 3-1/8" csg carrier gun. RU Dowell and frac trtd w/YF6C fluid w/1% KCl. Each 1000# sd contained 1 millicurie Iridium 192. Flushed w/3800 gal FW containing 1% KCl. Pmpd frac fluid as follows: 2000 gal pad, 2500 gal w/1#/gal 20-40 sd, 2500 gal w/2#/gal 20-40 sd, 15,000 gal w/3#/gal 20-40 sd, 3000 gal w/3#/gal 10-20 sd and 7000 gal w/4#/gal 10-20 sd. Max press 2150 psi, avg 1800 psi, min 1500 psi. Max and min rate 10 B/M. ISIP 2000 psi decr to 1950 psi in 5 min to 1800 psi in 10 min to 1800 psi in 15 min to 1700 psi in 20 min. JUL 2 1973
7/2: SI, WO pulling unit. CP 500 psi.

Shell-Mudger "2" #300.
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

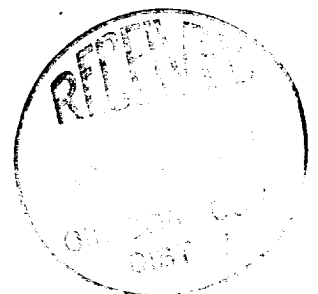
TD 5993. PB 5839. SI, WO pulling unit. JUL 3 1973

Shell-Mudger "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847.
7/4: SI.
7/5: SI, RU pulling unit. RU WL and checked PBTD @ 5847 (slick line measurement). JUL 5 1973

Shell-Mudger "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847. Flowing to pit. RU pulling unit. Ran 181 jts 2-3/8" EUE 8rd tbg w/Baker "F" nipple on btm w/tail @ 5677'. Removed BOP, installed Xmas tree and pmpd out pump-out plug in btm of tbg. Opened well to pit, flwg est 150 BW w/tr oil and gas in 16 hrs. TP zero. JUL 6 1973



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847.

7/7: Flowing. RU and ran wax cutter in 2" tbg while
pmpg 75 bbls prod wtr heated to 250°F down csg. Ran
cutter to 5677'. Moved rig to Mudge 8 (#301). No TP
or CP.

7/8: Flowing. Well flwd approx 100 bbls last 24 hrs -
no TP or CP. Gelled frac fluid not broken down.

7/9: Flowing. Well flwg very weakly - approx 10 bbls
last 24 hrs. Frac fluid not broken down. JUL 9 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847. Flowing by heads. Well dead @ 7 AM,
7/9 - choked w/wax. Ran piano wire w/1½" bailer to 5860
(perfs 5811-5831). Well started flowing @ 1:30 PM on 1"
chk while pulling bailer. Well flowing by heads at 7 AM,
7/10 w/800 psi CP. JUL 10 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847. SI; well dead. Well died @ 7:30 AM,
7/10. SI. CP 900 psi. JUL 11 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847. Well dead. MI rig. Swbd well in.
Flwd 3 hrs and died. Swbd from 5000'. CP 900 psi.
JUL 12 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. Swbd well in @ 9 AM, died
@ 11 AM. Swbd well in @ 12 noon. Well flwg w/50 psi
FTP and 350 psi CP at 6 AM, 7/13. JUL 13 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
4½" csg @ 5981'

TD 5993. PB 5847.
7/14: Flowing. Moved rig off location. Well flwg
w/20-60 psi FTP and 300 psi CP, making 8-10 BW/H.
7/15: Flowing by heads. TP 15-50, CP 300 psi.
7/16: Flowing by weak heads. Flwg very weakly. TP
15-50 psi, CP 300 psi. JUL 16 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Swabbing from 4000'. CP 450 psi.
Making sli heads after swab runs. JUL 17 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead, prep to log. Swbd well
7 hrs. CP 450 psi. JUL 18 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead. RU Schl and ran GR
tool. Tagged fill @ 5820 (WL). Ran GR log from 5820-
5360. RD Schl.

JUL 19 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead. JUL 20 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.

7/21: Well dead. Washed sd from 5820-5874.

7/22: Well dead. Ran 1-3/8" Schl tracer tool to 5864.

7/23: Well dead. JUL 20 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead, prep to acidz. JUL 24 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead. Acidz w/25,000 gal 5%
HCl w/2 gal A-170, 20# L-41 and 1 gal F-63/1000 gal.
Pmpd in at 3 B/M rate @ 2100 psi. Acid in place @
2 PM, 7/24.

JUL 25 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead. JUL 26 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Well dead and SI. JUL 27 1973

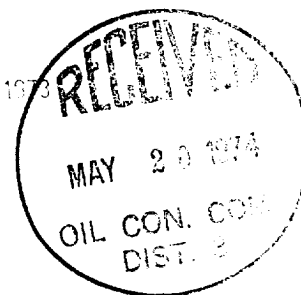
Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.

7/28: SI, WO rig.

7/29: Swabbing. MI&RU swbg unit. Rec'd 450 BAW. FL
500'. CP 100-300 psi. JUL 30 1973

7/30: Swabbing from 5600'. Subd approx 800 bbls total
fluid since acid job. FL 2300'. CP 100 psi.



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Swabbing. At 7 AM, 7/30 - TP zero, CP 200 psi and FL 2000'. At 5 PM - TP zero, CP 125 psi and FL 3500'. Swbd from btm, swbg approx 250 bbls (total of 1050 bbls fluid). Fluid breakdown: Cl 20,000 ppm, NaCl 33,000 ppm. JUL 31 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Swabbing. At 8 AM, 7/31, CP 250 psi, TP zero, FL 2800'. At 5 PM, CP 300 psi, FL 3500'. Swbd approx 200 bbls fluid (total of 1250 bbls since acid job). AUG 1 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Swabbing. At 8 AM, 8/1, CP 350 psi, FL 2000'. At 5 PM, CP 350 psi, FL 4000'. Swbd approx 150 bbls fluid (1400 bbls total since acid job).
AUG 2 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Swabbing. At 8 AM, 8/2, CP 510 psi, FL 2500'. At 5 PM, CP 475 psi, FL 3600'. Swbd approx 70 bbls from btm (1470 bbls total since acid job). Fluid breakdown for 8/1: Cl 19,500 ppm, NaCl 32,175 ppm, pH 5.7. AUG 3 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
8/4: Swabbing. Well flowed on its own from 12:30 to 1:15 PM. CP 475 psi. Getting followup w/every swab load. Swbd 70 bbls. (Swbd total of 1540 bbls since acid job.)
8/5: Swabbing. TP 500 psi. CP 650 psi. FL 3000'. Swbd 70 bbls in 44 runs, swbg FL to 1700'. (Swbd total of 1610 bbls since acid job.)
8/6: SI for press build-up. TP 700 psi. CP 725 psi. FL 2800'. Swbd 60 bbls, swbg FL to 1500'. Had good follow-up after swbg. (Swbd total of 1670 bbls since acid job.)
AUG 6 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. At 8 AM, 8/6/73, TP 650 psi, CP 825 psi. Opened well at 2 PM on 32/64" chk - TP 700 psi, CP 900 psi. CP dropped to 800 psi and built to 950 psi by 6 PM. Well unloaded approx 20 bbls from 2 to 6 PM. (Total of 1690 bbls rec'd since acid job). AUG 7 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI for press build-up. At 8 AM,
TP 25 psi, CP 725 psi - well unloading smt amt of fluid
every 5-10 min. Unloaded total of 25 bbls w/1715 bbls
fluid rec'd since acid job. SI well at 3 PM. AUG 9 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing. At 8 AM 8-8, TP 750,
CP 900. Op'd and flowed on 32/64" chk. Flowed
satisfactorily through day and, at 5 PM, still flowing
by heads. Approx 20 BW. (Total water
produced 1735 bbls) CP at 5 PM 8-8 800.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing. At 8 AM 8-9, TP 20, CP
825. Still flowing by heads and unloading water.
at 12 noon, CP 850. By evening, CP 800. Had unloaded
approx 25 BW (total of 1760 BW). AUG 10 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
8/11: Flowing. At 8 AM, 8/10, TP 20 psi, CP 900 psi.
Well unloaded approx 25 BW (total of 1785 bbls).
8/12: SI for press buildup. At 8 AM, 8/11, TP 30 psi,
CP 950 psi. No wtr unloaded. At 4 PM, TP built to 400
psi and CP to 975 psi. AUG 13 1973
8/13: Flowing. At 8 AM, 8/12, TP 700 psi, CP 1000 psi.
Well unloaded 25 BW (total of 1810 bbls).

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to run WL. At 8 AM, 8/13,
TP 600 psi, CP 750 psi. Opened well at 8 AM, unloading
approx 20 BW (total of 1830 bbls). SI at 5 PM. AUG 14 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI for press buildup. TP 750 psi,
CP 850 psi. FL at 1500'. Ran WL to 5869. AUG 15 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to open well. At 8 AM, 8/15,
TP 900 psi, CP 925 psi. At 5 PM, TP 950 psi, CP 1000
psi. Results of water analyses:

Sample Date	pH	NaCl	Chloride
8/13	5.9	32,505 ppm	19,700 ppm
8/14	6.4	34,650 ppm	21,000 ppm

AUG 16 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. Opened well at 8 AM
w/1050 psi TP and 1100 psi CP. Unloaded 25 BW (total
of 1855 BW). At 5 PM, well gassing and heading up
wtr. CP 1000 psi. AUG 17 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
8/18: Flowing. TP 30 psi, CP 900 psi. Unloaded 15
BW (total of 1870 bbls). CP at 4 PM 850 psi. AUG 18 1973
8/19: SI for buildup. TP 20 psi, CP 900 psi. SI at
5 PM.
8/20: Prep to open well. TP 700 psi. CP 950 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 950 psi, CP 900 psi.
Opened well at 8 AM. Flwd 8 hrs, unloading approx
10 BW (total of 1880 bbls). AUG 21 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI, prep to hook up separator unit.
TP 1000 psi, CP 1050 psi. At 5 PM, TP 1050 psi, CP
1100 psi. AUG 22 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Blowing down well. TP 1150 psi,
CP 1200 psi. Hooked up separator unit and opened at
2 PM on 16/64" chk w/1/2" orifice plate. Flwd at
rate of 375 MCF gas/day. At 10 PM, no fluid rec'd -
well starting to blow down. CP 1000 psi. AUG 23 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 20 psi, CP 950 psi.
Unloaded 2400 gal wtr and 150 gal oil w/gas ratio
varying from 150 MCF/D to 414 MCF/D (avg 215 MCF/D).
(Reported at 2 PM, 8/23) AUG 24 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
8/25: Flowing. TP 20 psi, CP 950 psi. Unloaded 79
gal wtr and 7 gal oil w/92.6 MCF gas/day.
8/26: SI. TP zero, CP 1000 psi. Gas rate 39.9 MCF/day.
SI well at 8 AM. AUG 27 1973
8/27: SI, prep to open. TP 750 psi, CP 1100 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 1000 psi, CP 1100 psi.
Opened well at 8 AM on 20/64" chk w/1/2" orifice. Well
started unloading at 5 PM, unloading 90 gal wtr and 10
gal oil w/gas rate of 342 MCF/D. AUG 18 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 20 psi, CP 1000 psi.
Well started unloading at noon, unloading 200 gal wtr
and 73 gal oil on 10/64" chk w/1/4" orifice. Avg gas
rate 200 MCF/D. At 5 PM, TP 40 psi, CP 1000 psi. AUG 29 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 45 psi, CP 1000 psi.
Well unloaded 44 gal wtr and 43 gal oil on 10/64" chk
w/1/4" orifice. Avg gas rate 42.9 MCF/D. AUG 30 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 50 psi, CP 950 psi.
Well unloaded 44 gal wtr and 21 gal oil w/avg gas rate
of 48.5 MCF/D. SEP 01 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847.
9-1: TP 50, CP 900. Produced 46.7 MCF, 30 gal wtr,
no oil, on 10/64" chk w/1/4" orifice plate.
9-2: TP 50, CP 900. Produced 43.9 MCF, no water or
oil on same chk and orifice plate. SEP 4 1973
9-3: TP 45, CP 950. Produced 41.7 MCF, 15 gal wtr,
15 gal oil, on same chk and orifice plate.
9-4: TP 50, CP 1000. Produced 43.9 MCF, no wtr or oil
on same orifice and chk.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing. TP 50, CP 950. Produced
41.5 MCF, no oil, and 30 gal wtr on 10/64" chk. SEP 5 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing. TP 50, CP 850. Produced
34.9 MCF, no water or oil. SEP 6 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing. TP 50, CP 850. Produced 34.9
MCF, no water or oil. SEP 7 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Flowing.
9-8: TP 50, CP 850, produced 34.5 MCF, no wtr or oil.
9-9: TP 50, CP 850, produced 34.8 MCF, no wtr or oil.
9-10: TP 50, CP 850, produced 34.8 MCF, no wtr or oil. SEP 10 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 50 psi, CP 850 psi.
Flwd 34.6 MCF gas w/no wtr or oil. SEP 11 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 50 psi, CP 860 psi. Flwd
34.6 MCF gas w/no wtr or oil. SEP 12 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

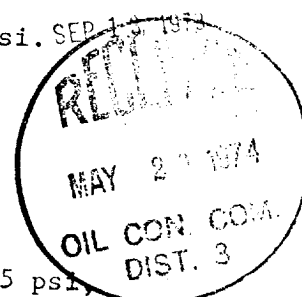
TD 5993. PB 5847. SI. TP 50 psi, CP 750 psi. SEP 13 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI. At 8 AM, 9/13, TP 525 psi,
CP 700 psi. At 5 PM, TP 550 psi, CP 750 psi. SEP 14 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
9/15: SI. Ran paraffin scraper to CO tbg. Ran gas
stop on WL to 5652. TP 700 spi, CP 700 psi. SEP 17 1973
9/16: SI. TP 725 psi, CP 750 psi.
9/17: SI. TP 800 psi, CP 875 psi.



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI, prep to RU for gas plunger.
TP 850 psi, CP 875 psi. SEP 18 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. RU gas plunger. TP 900 psi, CP 900
psi. SEP 19 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to swab. MI Allen Construction
Co. pulling unit on 9/19/73. SITP 950 psi, SICP 950 psi.
Blew well down and ran swab. FL @ approx 1200'. Ran
swab to 3500'. Made one run, rec'g approx 9 BF. At
3:30 PM, well started kicking to pit through 1" chk,
rec'g large amt of wtr w/gas. Press's as follows:

<u>Time</u>	<u>FTP</u>	<u>Chk</u>	<u>CP</u>
15 min	100	64/64"	900
30 min	75	64/64"	850
45 min	50	64/64"	860
60 min	25-50	64/64"	850 (flwg by heads)
75 min	25-50	64/64"	840
2 hrs	25-50	17/64"	850

SEP 20 1973

Well dead in 5 hrs. TP zero, CP 975 psi. SI @ 8:30 PM.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. Prep to swab well down. 11-hr
SITP 700 psi, CP 1050 psi. Blew well down. Checked
FL at 2600'. From 8 AM to 3 PM, swabbed well down
to 4500' and well kicked off and flowed one hr and
died. Could not sustain sufficient flow rate to
install Camco plunger. Total fluid swabbed and flowed
for 9-19 and 9-20 - approx 160 bbls. SEP 21 1973

DIST. 3

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.
9/22: SI. SITP after 14 hrs 800 psi, CP 800 psi.
Blew well down. Ran swab. Found gassy FL @ 2000'.
Swbd well down - well would not kick. Swbd from tbg
stop @ 5652. FL approx 4500'. Made 4 runs/hr w/swab
for 4 hrs after reaching tbg stop. Rec'd approx 16 BW/H
w/sml amt gas. CP 650 psi. Swbd total of approx 150 bbls
9/21. SI well. Released rig @ 5 PM, 9/21. SEP 24 1973
9/23: SI. SITP 700 psi, CP 700 psi.
9/24: SI. SITP 900 psi, CP 750 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg at 5981'

TD 5993. PB 5847. SI. TP 1050, CP 1000. SEP 25 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 1000 psi, CP 1075 psi.
SEP 26 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to inj gas down csg annulus in attempt to circ. TP 1200 psi, CP 1160 psi. Installed gas line. SEP 27 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to unplug gas line. Started inj gas from 113-17 down annulus @ 12:45 PM, 9/27, w/ static TP 1250 psi, CP 1200 psi. Inj press's as follows:

<u>Time</u>	<u>TP</u>	<u>CP</u>
15 min	1300	1400
30 min	1350	1550

Opened tbg to pit @ 1:15 PM on 1/2" chk w/TP dropping to 700 psi, CP to 1450 psi in 5 min. Started rec'g wtr and TP incr to 1100 psi. Well started unloading wtr and TP dropped to 650 psi in 10 min, CP 1400 psi w/1100 psi CP and 600 psi TP after 30 min. Rec'd continuous spray of wtr w/gas. Press's as follows:

<u>Time</u>	<u>TP</u>	<u>CP</u>	<u>Remarks</u>	SEP 28 1973
45 min	450	950		
60 min	375	925	Rec'd wtr in heads	
120 min	325	825		

Well cont'd to flow total of 6 hrs - TP zero, CP 600 psi. Gas line plugged @ 113-17. SI both wells @ 7:30 PM.



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847.

9/29: Prep to run plunger. SITP after 13 hrs 400 psi, SICP 825 psi. Unplugged gas line from 113-17. Started inj gas down annulus at 12 noon. After 1 hr, press built as follows: 1300 psi TP, 1400 psi CP. Opened well through separator @ 1 PM. Inj down annulus at est 750 MCFG/D rate. Rec'd est 850 MCFG/D through separator w/avg 450 psi FTP and 950 psi CP through 1½" chk. Well flwd 6 hrs and gas line from 113-17 froze off and well died. Rec'd 83 BW and no condensate in 6 hrs.

Addition to 9/28 report: Rec'd est 75 BW.

9/30: Plunger frozen off. Ran plunger on 9/29. Inj gas from 113-17 every 1½ hrs for 2-3 min. Unloaded approx 40 BW. Plunger froze off in evening.

10/1: Prep to hook up methanol pump to eliminate plunger freezing off. Opened well and inj gas to build up press - plunger started working. Unloaded 40 BW. OCT 1 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Installing methanol pump. Opened well, inj gas and built press to operate plunger. Unloaded approx 30 BW. Started installing methanol pump. Blew gas line down @ 6:30 PM. OCT 2 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via plunger. SI well to complete installation of methanol pump. Installed chk to control gas from 113-17. Pmpd approx 10 gal methanol down well. Gas presently being pmpd down well on 14/64" chk. Unloaded 25 BW and 5 bbls condensate. Plunger working good. OCT 3 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344'
4½" csg @ 5981'

TD 5993. PB 5847. Prep to obtain additional bbl of methanol. Pump apparently malfunctioned - remaining 35 gal methanol pmpd down well but line still froze off. Thawed and cleaned out line, blew down well and well started unloading approx 20 BW and 2 bbl cond. OCT 4 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6352'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Pmpd 7 gal methanol down well during night, but well still froze off. Thawed and cleaned lines. Well unloaded 25 BW and 5 bbls cond. Opened chk to 64/64".

OCT 5 1973



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847.
10/6: Flowing via gas plunger. Well froze off.
Unloaded 30 BW and 3 bbls condensate.
10/7: Flowing via gas plunger. Well froze off.
Unloaded 33 BW and 5 bbls condensate.
10/8: Flowing via gas plunger. Supply gas line from
113-17 froze off but well continued flowing via gas
plunger, unloading 149 BW, 8 bbls condensate and gas
at rate of 188 MCF/D. TP 100-150 psi, CP 500-600 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Unloaded
73 BW, 3 bbls cond and gas at rate of 166 MCF/D. TP
150 psi, CP 450 psi. OCT 9 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Unloaded
50 BW, no condensate and gas at rate of 168 MCF/D. TP
175 psi, CP 475 psi. SI 3 hrs to hook up tank dumps.
Inj gas for 30 min, press incr and plunger started
operating. Turned to tank @ 2:30 PM to obtain accurate
water measurement. OCT 10 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Well
unloaded 10 BW and 1 bbl condensate (tank measurements)
and died. TP 50 psi, CP 500 psi. Inj gas from 113-17
and plunger started operating again. TP 100 psi and
CP 600 psi at 5 PM. OCT 11 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Unloaded
40 BW, 3 bbls cond and gas at rate of 168 MCF/D. TP
200 psi, CP 550 psi. Inj gas for 45 min to improve
plunger operation. OCT 12 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847.
10/13: Flowing via gas plunger. Flwd 39 BW, 3 bbls
condensate and gas at rate of 168 MCF/D. TP 75 psi,
CP 500 psi. Inj gas for 15 min.
10/14: Flowing via gas plunger. Flwd 31 BW, 2 bbls
condensate and gas at rate of 160 MCF/D. TP 125 psi,
CP 500 psi.
10/15: Flowing via gas plunger. Flwd 20 BW, 1 bbl
condensate and gas at rate of 155 MCF/D. TP 100 psi,
CP 450 psi. Inj gas for 5 min. Wtr flwg to pit and
condensate flwg to tank. OCT 15 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. TP 100
psi, CP 450 psi. Flwd 21 BW, 1 bbl condensate and gas
at rate of 150 MCF/D. Inj gas for 15 min. OCT 16 1973

SI. 3

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. TP 100 psi, CP 450 psi. Flwd 32 BW, 2½ bbls condensate and gas at rate of 155 MCF/D. Inj gas for 15 min. OCT 17 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. TP 100 psi, CP 400 psi. Flwd 20 BW, 2 bbls cond and gas at rate of 140 MCF/D. Inj gas for 15 min in morning. At 5 PM, started inj gas for remainder of night. OCT 18 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Well froze off. Flwd 38 BW, 6 bbls cond and gas at rate of 278 MCF/D. TP 50 psi, CP 400 psi. Blew out line, inj gas and plunger started operating. OCT 19 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger as follows:

Report Date	TP	CP	BW	Bbls Cond	Gas Rate
10/20	125	500	31	2	139 MCF/D
10/21	125	500	35	3	148 MCF/D
10/22	150	500	29	2	138 MCF/D

Inj gas for approx 30 min each day. OCT 20 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. TP 75 psi, CP 500 psi. Flwd 23 BW, 3 bbls cond and gas at rate of 130 MCF/D. (Plunger making approx 24 trips per day.) Shot FL after plunger made trip - no fluid. SI 30 min and checked FL 176 jts down (5386'). Inj gas 20-30 min. OCT 23 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. TP 90 psi, CP 500 psi. Flwd 21 BW, 2 bbls cond and gas at rate of 132 MCF/D. Inj gas for 20 min. OCT 24 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing via gas plunger. Well froze off. Four inches of ice accumulated on 2" line at separator unit. TP 700 psi, CP 800 psi. Well unloaded 1 BW and no cond before freezing off. Thawed and hooked up line and in 9 hrs flwd 11 BW, 2 bbls cond and gas at rate of 156 MCF. TP 400 psi, CP 600 psi. OCT 25 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. Flowing. TP 100, CP 500. On 24-hr
test, flowed 3 BO, 32 BW, and 148 MCF.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847.
10/27: Flowing via gas plunger. TP 125 psi, CP 500
psi. Flwd 28 BW, 2 bbls cond and gas at rate of 138
MCF/D.

10/28: SI. TP 75 psi, CP 500 psi. Flwd 18 BW, 1
bbl cond and gas at rate of 130 MCF/D. Well died.

10/29: SI. TP 800 psi, CP 900 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 950 psi, CP 950 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 1000 psi, CP 1000 psi.

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 1050 psi, CP 1050 psi.

NOV 1 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 1075 psi, CP 1075 psi.

NOV 2 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI.
11/3: TP 1100 psi, CP 1100 psi.
11/4: TP 1125 psi, CP 1150 psi.
11/5: TP 1200 psi, CP 1200 psi.

NOV 5 1973



Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. TP 1225 psi, CP 1225 psi. NOV 6 1973

Shell-Mudge "2" #300
(D)
5993' Dakota "B" Test
KB 6344', GL 6330'
4½" csg @ 5981'

TD 5993. PB 5847. SI. (RDUFA) NOV 7 1973



CASING AND CEMENTING

Field BISTI (BASIN DAKOTA) Well MUDGE 2 #300
Job: 8-5/8" " O.D. Casing ~~XXXX~~ Ran to 518 feet (KB) on 5/19, 1973

Jts.	Wt	Grade	Thread	New	Feet	From	To
					<u>14</u>	<u>KB</u>	<u>CHF</u>
<u>14</u>	<u>24#</u>	<u>K-55</u>	<u>ST&C</u>	<u>Yes</u>	<u>437.81</u>	<u>CHF</u>	<u>451.81</u>
Baker Insert Float Valve							<u>451.81</u>
<u>2</u>	<u>24#</u>	<u>K-55</u>	<u>ST&C</u>	<u>Yes</u>	<u>65.19</u>	<u>451.81</u>	<u>517.00</u>
Baker Guide Shoe					<u>.85</u>	<u>517.00</u>	<u>517.85</u>

Casing Hardware:

Float shoe and collar type Baker Guide Shoe and Ball Type Insert Float

Centralizer type and product number Baker Hinged Type

Centralizers installed on the following joints Shoe, #2, #4

Other equipment (liner hanger, D.V. collar, etc.)

Cement Volume:

Caliper type None Caliper volume ft³ + excess over caliper

ft³ + float collar to shoe volume ft³ + liner lap ft³

+ cement above liner ft³ = 415 ft³ (Total Volume). Gauge Hole plus 100% excess

Cement:

Preflush—Water 20 bbls, other Volume bbls

First stage, type and additives Class "A" w/2% CaCl₂

Weight 15 lbs/gal, yield 1.18

ft³/sk, volume 350 sx. Pumpability 1:17 hours at 91 °F.

Second stage, type and additives

Weight lbs/gal, yield

ft³/sk, volume sx. Pumpability hours at °F.

Cementing Procedure:

Rotate/reciprocate No

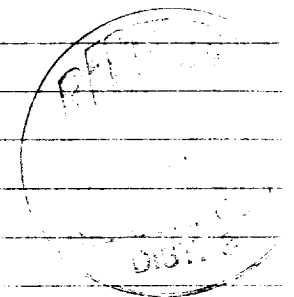
Displacement rate 6 B/M, displaced w/35 BW

Percent returns during job 100%, circ out approx 100 sx

Bumped plug at 5:00 AM/PM with 500 psi. Bled back 1/4 bbls. Hung csg with N.A. lbs on slips.

Remarks:

Float held OK



Drilling Foreman J. N. Carlson
Date 5/19/73

CASING AND CEMENTING

Field BISTI (BASIN DAKOTA) Well MUDGE 2 #300
Job: 4 1/2 " O.D. Casing ~~XXXX~~ Ran to 5891 feet (KB) on 5/31, 197 3

Jts.	Wt.	Grade	Thread	New	Feet	From	To
					<u>14.00</u>	<u>KB</u>	<u>CHF</u>
<u>91</u>	<u>11.60</u>	<u>K-55</u>	<u>ST&C (ABC Mod.)</u>	<u>Yes</u>	<u>3804.13</u>	<u>CHF</u>	<u>3818.13</u>
<u>49</u>	<u>11.60</u>	<u>K-55</u>	<u>ST&C</u>	<u>Yes</u>	<u>2075.69</u>	<u>3818.13</u>	<u>5893.82</u>
<u>Halliburton Differential Fill FC</u>					<u>1.59</u>	<u>5893.82</u>	<u>5895.41</u>
<u>2</u>	<u>11.60</u>	<u>K-55</u>	<u>ST&C</u>	<u>Yes</u>	<u>84.76</u>	<u>5895.41</u>	<u>5980.17</u>
<u>Halliburton Guide Shoe</u>					<u>0.75</u>	<u>5980.17</u>	<u>5980.92</u>

(Casing set 12' off bottom)

Casing Hardware:

Float shoe and collar type Halliburton Guide Shoe and Differential Fill Float Collar
Centralizer type and product number Halliburton #807.702
Centralizers installed on the following joints Shoe, #2, #4, #6, #8
Other equipment (liner hanger, D.V. collar, etc.) Upper and Lower Wiper Plugs

Cement Volume:

Caliper type Schl-Sonic. Caliper volume 950 ft³ + excess over caliper
(tail) 118 ft³ + float collar to shoe volume 7 ft³ + liner lap - ft³
+ cement above liner - ft³ = 1075 ft³ (Total Volume).

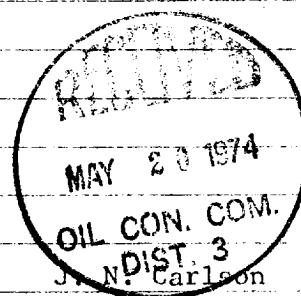
Cement:

Preflush-Water 20 bbls, other - Volume - bbls
First stage, type and additives 50:50 Pozmix "A" w/2% gel, 10% salt and 1% CFR-2
Weight 14.2 lbs/gal, yield 1.23
ft³/sk, volume 770 sx. Pumpability 3+ hours at 152 °F.
Tail ~~second stage~~ type and additives Class "A" Neat
Weight 15.6 lbs/gal, yield 1.18
ft³/sk, volume 100 sx. Pumpability 3 hours at 152 °F.

Cementing Procedure:

Rotate/reciprocate Reciprocate through entire cementing operation
Displacement rate 6 B/M w/93.5 bbls of 2% KCl wtr
Percent returns during job 100%
Bumped plug at 8:35 AM with 2500 psi. Bled back 1.0 bbls. Hung csg
with 59,000 lbs on slips.

Remarks:



Drilling Foreman
Date 6/1/73