Form 9–331
Dec. 1973

Form Approved.
Budget Bureau No. 42–R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Tenneco Oil Company

3. ADDRESS OF OPERATOR
P.O. Box 3249, Englewood, CO 80155

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 120' FSL, 1240' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH: Same

5. LEASE
NM-04202

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Jackson

9. WELL NO.
3E

10. FIELD OR WILDCAT NAME
Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10, T28N, R9W

12. COUNTY OR PARISH
San Juan

13. STATE
NM

14. API NO.
30-045-25537

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6248' GR

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

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) Plan Change			

RECEIVED
FEB 13 1984
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

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

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

Tenneco respectfully request permission to change intermediate casing depth from 5560' to 3230' per item 5 on attached revised drilling procedure. Also please note item 8; change plan from gas drill to air drill. Verbal approval from Errol Beacher 2/10/84. APD approved 10/5/83. Anticipated spud date is 2/17/84.

RECEIVED
FEB 15 1984
OIL CON. DIV.
DIST. 3

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Scott McKinney TITLE Sr. Prod. Analyst DATE 2/10/84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
FEB 13 1984
AREA MANAGER
FARMINGTON RESOURCE AREA

ok L

*See Instructions on Reverse Side

Doc 1654

REVISION

TENNECO OIL COMPANY
WESTERN ROCKY MOUNTAIN DIVISION
6162 SOUTH WILLOW DRIVE
ENGLEWOOD, COLORADO 80155

DRILLING PROCEDURE

DATE: February 9, 1984

LEASE: Jackson WELL NO: #3E

LOCATION: 120' FSL, 1,240' FWL
Section 10, T28N, R9W
San Juan County, NM

FIELD: Basin Dakota

ELEVATION 6,366'

TOTAL DEPTH: 7,335'

PROJECTED HORIZON: Dakota

SUBMITTED BY: Mark Kangas DATE: Feb 9, 1984

APPROVED BY: Charles L. Jenkins DATE: 2/14/84

CC: Administration
CRJ Well File
Field File

ESTIMATED FORMATION TOPS

Ojo	1554'	
Kirtland	1694'	
Fruitland	2379'	
Pictured Cliffs	2654'	
Lewis	2734'	
Cliff House	4360'	Wet
Menefee	4380'	
Point Lookout	4968'	Potential lost circulation zone
Mancos	5363'	
Gallup	6194'	Potential lost circulation zone
Greenhorn	6931'	
Dakota	7061'	Gas
TD	7335'	

DRILLING, CASING AND CEMENT PROGRAM

1. MIRURT. Notify MMS of spud.

2. Drill a 12-1/4" hole to ± 300 ft. with a gel water mud.

3. Rig up and run 9-5/8" 36# K-55 ST&C casing to bottom. Cement with Class B + 2% $CaCl_2$ in sufficient quantity (200-250sx) to circulate cement to surface. If conditions warrant the use of loss circulation agents, 1/4 #/sx celloflake may be added. Wait on cement a minimum of 12 hours prior to drilling out.

4. While waiting on cement, screw on a 9-5/8" -8rd X 11-3M casinghead. NU BOP's. Pressure test casing, blinds, manifold and lines to 1000 psi for 30 minutes. GIH with drill pipe and test the pipe rams in the same manner. Record all tests on the IADC report sheet.

5. Drill out with an 8-3/4" bit and clear water. Drill to ± 3230' or 500' into the Lewis Shale. Mud up prior to reaching intermediate T.D. Circulate at casing point a sufficient time to clean the hole to run casing. GE's may decide to log intermediate hole.

6. Install casing rams, run 7" 23# K-55 casing equipped with a guide shoe on bottom, float collar one joint up and a stage collar 200' below the Ojo Alamo. Bakerlock from the shoe to the top of the float collar and run casing to bottom. Centralize casing with one centralizer in the middle of shoe joint and then on every other collar for total of 6 centralizers. Place one centralizer above and below the stage tool. Cementing baskets may be used if lost circulation has been encountered.

INTERMEDIATE CEMENTING PROGRAM

FIRST STAGE	LEAD	TAIL
Type		Cl B + 1/4 #/sx flocele + 2% $CaCl_2$.
Sacks		150-200 sx
Slurry yield		1.18 cuft/sx
Mix weight		15.6 ppg
Water req's.		5.20 gal/sx

SECOND STAGE	LEAD	TAIL
Type	Lite + 1/4 #/sx flocele + 2% $CaCl_2$	Cl B + 2% $CaCl_2$
Sacks	Calculated annular volume	50-75
Slurry yield	1.84 cuft/sx	1.18 cuft/sx
Mix weight	12.7 ppg	15.6 ppg
Water req's.	9.9 gal/sx	5.2 gal/sx

Precede the first stage with 20 bbls chemical wash and circulate four hours after opening the stage tool. Precede the second stage with 10 bbls "flow-check" or equivalent. If cement is not circulated to surface run a temperature survey after 8 hours to determine actual TOC as MMS requires. Wait on cement a total of 18 hours (from first plug down) before drilling is resumed.

7. Set slips with casing in full tension and cut-off. NU BOE and test as in procedure 4 above. Record tests on IADC report.

8. Drill out, dry up hole and drill a 6-1/4" hole , <u>with air</u>, to T.D. surveying as required. Lay down square drill collar before cutting the Dakota. Should dusting operations cease due to Gallup oil flow, be prepared to start injection of stable foam as the circulating medium. If this technique fails, prepare for an aerated mud system.

9. Log open hole as directed by GE department.

10. If productive, run 4-1/2" 11.6# and 10.5# K-55 casing as a liner. Equip the casing with a float shoe and latch down collar on the top of the first joint. No threadlock or centralizers are to be used on this arrangement. Hang liner with a 150' lap in the intermediate casing.

11. Cement with a filler slurry as used for the intermediate string. Start with a 20 barrel mud flush, followed by the lead slurry with a fluid loss control additive and tail with 100 sx Cl B. Use sufficient quantity (70-75% excess) to circulate cement to the liner top.

12. Circulate out the excess cement, LDDP and MORT.

13. In non-productive, P & A as required by USGS.

14. Install tree and fence remainder of reserve pit.

CASING PROGRAM

INTERVAL	LENGTH	SIZE	WEIGHT	GRADE	OPTIMUM MAKE-UP TORQUE
0-300	300	9-5/8	36. #	K-55	STC 4230
0-3230	3230	7	23. #	K-55	STC 3090 LTC 3410
3080-7000	3920	4-1/2	10.5#	K-55	STC 1460
7000-7335	335	4-1/2	11.6#	K-55	STC 1700 LTC 1800

MUD PROGRAM

0-300' Spud mud.

300-3230' Low solid, fresh water mud. (Water and Rapid Mud.) Mud up prior to running casing.

3230'-T D Air and/or Stable Foam. Initial stable foam criteria at 6200' ± includes injection rate of 500 scfm at 400 psig with 10.5 gal/minute of fluid. Projected criteria at TD includes 1250 scfm at 600 psig with 11.2 gal/minute of fluid.

EVALUATION

Cores and DST's:

NONE.

Deviation Surveys

1. Survey surface hole at 100' intervals. Maximum allowable deviation at 500' is 1-1/2°
2. From surface to the Mancos formation, deviation surveys must be taken every 500'. In the Mancos/Gallup zones, surveys to be each 250'. Record all surveys in IADC Report book. Maximum allowable change in deviation is 1° per 100'. Maximum deviation allowable is 5°.

Samples: As requested by Wellsite Geological Engineer

Logs:
1. GR/INDUCTION T D to Intermediate
2. CDL/GR/CALIPER T.D. 2000' Minimum

BLOWOUT EQUIPMENT

11" - 3000 BOP with rotating head to comply with TOC requirements as shown in BOE arrangement, Figure C. Preventers must be checked for operation every 24 hours with each check recorded on the IADC Drilling Report Sheet.

REPORTS

Drilling Reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, types of logs and depths ran, daily and cumulative mud cost, deviation surveys, and other pertinent information to be called into Division Office by 7:30 AM Monday thru Friday.

TENNECO OIL COMPANY
P.O. Box 3249
ENGLEWOOD, COLORADO 80155
PHONE: 303-740-4800

OFFICE DIRECTORY

Charles R. Jenkins	740-2575
Ted McAdam	740-2576
Tom Dunning	740-4813
Mark Kangas	740-4810

In case of emergency or after hours call the following in the preferred order.

(1)	Mark Kangas Senior Drilling Engineer	740-4810 973-8846	Office Home
(2)	Ted McAdam Drilling Engineering Supervisor	740-2576 978-0724	Office Home
(3)	Charles R. Jenkins Division Drilling Engineer	740-2575 987-2290	Office Home
(4)	Harry Hufft Division Production Manager	771-5257	Home