

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form Approved.
Budget Bureau No. 42-R1424

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 ☐ gas ☐ other ☐ Drilling Well

2. NAME OF OPERATOR
Marathon Oil Company

3. ADDRESS OF OPERATOR
P. O. Box 2659, Casper, WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 825' FNL & 955' FEL Unit A
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

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

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☐

ABANDON* ☐

(other) Please See Below

SUBSEQUENT REPORT OF:

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☐

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☐

5. LEASE Tract 251
Contract 000154

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Jicarilla Apache

9. WELL NO.
16-E

10. FIELD OR WILDCAT NAME
Basin Dakota

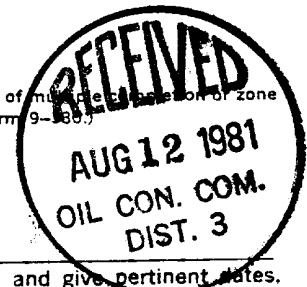
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 34, T26N, R5W

12. COUNTY OR PARISH 13. STATE
Rio Arriba New Mexico

14. API NO.
30-039-22434

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6,650' GL, 6,662' KB

(NOTE: Report results of multiple completion or zone change on Form 9-331-C.)



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.)*

PROGRESS REPORT
See Attachments

From 10-10-80 To 5-3-81

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

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

SIGNED M E Krueger / J. E. T. TITLE Drilling Superintendent DATE 7/27/81

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

NMOCC

*See Instructions on Reverse Side

ACCEPTED FOR RECORD
AUG 11 1981
BY 60219
FARMINGTON DISTRICT

RECEIVED
OIL CON. COM.
DIST. 3

RECEIVED
AUG 12 1981
OIL CON. COM.
DIST. 3

10-10-80 345⁺ MADE 345⁺ IN SAND & SHALE FORMATION. MW 8.4, VIS 30. PUMP PRESS 1,400, GPM 305, 55 ANNULAR VELOCITY. BIT #1, 13-3/4", STC, DTS, JETS 12/12, 345 FT, 10-3/4 HRS, 32.1 FT/HR. OPER DRLG. RPM 100, WT ON BIT 30,000#. DEV DEPTH 200 INC 1/2°.

COMPONENT	LENGTH	O.D.	I.D.
BIT	1.40 ⁺	13-3/4"	
BIT SUB	4.40 ⁺	8-1/2"	2-1/2"
11 DC ⁺ S	311.40	6-1/2"	2-1/4"

TOTAL BHA 316.84. BEGAN MOVING INERGY SEARCH #1 FROM JA #11E 10-9-80. R/U DRLD RAT HOLE & MOUSE HOLE. SPUDED WELL W/8:00 PM 10-9-80. DRLG AHEAD @ 345⁺. 9-5/8" CSG ON LOCATION. CONNECTION ON LOCATION.

10-11-80 698⁺ MADE 353⁺ IN SAND & SHALE FORMATION. MW 8.4, VIS 32. PUMP PRESS 1,500, GPM 289, ANNULAR VELOCITY 206/NDP. BIT NO 1, 13-3/4", STC, J45, JETS 12/12, DEPTH OUT 498⁺, 498 FT, 14-3/4 HRS, 33.7 FT/HR. OPER PULLED. BIT NO 2, 8-3/4", REED, S11, JETS 11/12/BLK, DEPTH IN 492⁺, 206 FT, 2 HRS, 103.0 FT/HR. OPER DRLG. RPM 80, WT ON BIT 40,000#. DEV DEPTH 500⁺ INC MISRUN.

COMPONENT	LENGTH	O.D.	I.D.
BIT	1.00 ⁺	8-3/4"	
BIT SUB	4.04 ⁺	6-1/2"	2-1/2"
21 DC ⁺ S	655.21 ⁺	6-1/2"	2-1/4"

TOTAL BHA 660.25⁺. DRLD TO 498⁺, WORKED PIPE, POH, RIG UP CSG CREW. CUT OFF & WELD ON 9-5/8Z⁺ X 10Z⁺. 3,000 PSI GULFCO HEAD, NIPPLE UP BIP TEST PIPE, BLIND RAMS & CHOKES TO 1,200 PSI, 15 MIN-OK, DRILL 5⁺ NEW HOLE, TEST SHOE TO 150 PSI (14 PPG EQUIVALENT), DRLG AHEAD. RIG UP CSG CREW. CSG RAN AS FOLLOWS.

NO.	SIZE	OVERALL LENGTH	EFFECTIVE LENGTH	SETTING FROM	DEPTH TO
JTS.					
1	GUIDE SHOE	1.00	1.00	492.17	491.17
1	9-3/8" 36# 8RD	36.16	35.86	491.17	455.31
	K-55 STC R-3 C-1				
1	INSERT FLAPPER FLOAT				
12	9-5/8" 36# 8RD	458.91	455.31	455.31	0.00
	K-55 STC R-3 C-1				
13		495.07	491.17		

NO CENTRALIZERS: 13; DEPTHS OR JTS: MIDDLE OF JT #1 & #3. LANDED SHOE AT 492⁺ KB. 1ST STAGE: CMTD CSG W/450 CKS OF CLASS "B" W/2% CACLS, 1/4# SK CELLOFLAKE. USED 100% EXCESS VOLUME, PMPD 20 BBLs WTR AHEAD, 0 BEHIND. MIXING TIME 20 MIN, PMPG TIME 12 MIN, TOTAL TIME 32 MIN. CIRC PRESS 100, DISPLACEMENT PRESS 300, MAX PRESS 600. DISPLACED CMT W/35 BBLs WTR W/NATIONAL PUMP. BUMPED PLUG W/ 300 PSI. PLUG DOWN @ 2:55 PM 10/10/80. FULL RETURNS WHILE CMTG. CIRC 20 BBLs CMT TO SURFACE. FLOAT EQUIPMENT CHECKED OK. NO SHUT IN. WOC HRS. EST⁺D CMT TOP IN ANNULUS SURFACE. NATIONAL PUMP TRUCK PLUGGED W/25 SKS TO PUMP, STARTED DISPLACING EARLY.

10-12-80 1,788⁺ MADE 1,090⁺ IN SAND & SHALE FORMATION. MW 8.7, VIS 34, WL 8, PH 8.5, PV 7, YP 3, 0/1 GELS, 4 SOLIDS, 200 CHLORIDE, 20 CALCIUM. PUMP PRESS 1,400, GPM 277, ANNULAR VELOCITY 121/198. BIT NO 2, 8-3/4", REED, S-11, JETS 11/12/DLK, DEPTH IN 492⁺, DEPTH OUT 1,625⁺, 1,133 FT, 19-3/4 HRS. 57.4 FT/HR. OPER DULL. BIT NO 3, 8-3/4", REED, V-11, JETS 11/12/BLK, DEPTH IN 1,635⁺, 163 FT, 2-1/4 HRS, 72.4 FT/HR. OPER DRLG. RPM 80, WT ON BIT 50,000#. DEV DEPTH 1,033⁺ INC 1/2°, DEV DEPTH 1,625⁺ INC 1-1/2°.

COMPONENT	LENGTH	O.D.
BIT	1.00 ⁺	8-3/4"
BIT SUB	4.04 ⁺	6-1/2"
20 DC ⁺ S	633.11 ⁺	6-1/2"

RECEIVED
JUL 11 1981
I.D.
2-1/2"
2-1/4"
GEOTECHNICAL SURVEY
ASTORIA, ORE.

TOTAL BHA 638.15⁺. DRLD TO 1,625⁺, POH FOR BIT #2, 5-8,000# DRAG @ 1,200⁺, RIH, DRLG AHEAD.

10-13-80 2,817⁺ MADE 1,029⁺ IN KIRKLAND FORMATION. MW 9, VIS 32, WL 6, PH 8.5, PV 7, YP 3, 0/1 GELS, 4.6 SOLIDS, 200 CHLORIDE, 20 CALCIUM. PUMP PRESS 1,500, GPM 283, ANNULAR VELOCITY 128/205. BIT NO 3, 8-3/4", REED, Y-11, JETS 11/12, DEPTH IN 1,625⁺, DEPTH OUT 2,618⁺, 993 FT, 14-1/4 HRS, 69.7 FT/HR. OPER LOCKED. BIT NO 4, 8-3/4", STC, F-2, JETS 12/12, DEPTH IN 2,618, 199 FT, 5-1/4 HRS, 37.9 FT/HR. OPER DRLG. RPM 60, WT ON BIT 40. DEV DEPTH 2,172⁺ INC 1-1/2°, DEV DEPTH 2,618⁺ INC 1-1/2°. TOTAL BHA 638.15⁺. DRDL TO 2,618⁺, POOH FOR BIT, RIH, WASH 15⁺ TO BTM, DRLG AHEAD ADDING SALTEX TO 2 LBS/BBL.

10-14-80 3,600⁺ MADE 783⁺ IN PICTURED CLIFFS FORMATION. MW 8.9, VIS 41, WL 4.8, PH 8.5, PV 6, YP 3, 1/2 GELS, 3.6 SOLIDS, 800 CHLORIDE, 80 CALCIUM. PUMP PRESS 1,750, GPM 290, ANNULAR VELOCITY 132/215. BIT NO 4, 8-3/4", STC, F-2, JETS 12/12, DEPTH IN 2,618⁺, 982 FT, 28-1/4 HRS, 39.3 FT/HR. OPER DRLG. RPM 65, WT ON BIT 35,000#. DEV DEPTH 3,432⁺ INC 1-1/2°. TOTAL BHA 638.15⁺. DRLG AHEAD @ 3,600⁺, 10-15,000# DRAG ON CONNECTIONS, RUNNING GEL SWEEPS TO CLEAN HOLE, REDUCED BIT WEIGHT TO 35,000# FOR FRUITLAND & PICTURED CLIFFS.

10-15-80 4,153⁺ MADE 553⁺ IN CHACRA FORMATION. MW 8.9, VIS 36, WL 6, PH 9, PV 11, YP 7, 1/3 GELS, 5 SOLIDS, 40 CHLORIDE 400 CALCIUM. PUMP PRESS 1,800, GPM 290, 132/215. BIT 4, 8-3/4", STC, F-2, JETS 12/12, DEPTH 2,618⁺, 1,535 FT, 51 HRS, 30.1 FT/HR. OPER DRLG. RPM 60, WT ON BIT 40,000#. DEV DEPTH 4,015⁺ INC 1-3/4°. TOTAL BHA 638.15⁺. DRLG AHEAD 4,513⁺ OK.

10-16-80 4,508⁺ MADE 355⁺ IN CHACRA FORMATION. MW 9.0, VIS 36, WL 6.4, PH 9, PV 20, YP 9, 2/4 GELS, 5 SOLIDS, 400 CHLORIDE, 40 CALCIUM. PUMP PRESS 1,800, PM 290, ANNULAR VELOCITY 132/215. BIT NO 4, 8-3/4", STC, F-2, JETS 12/12, DEPTH IN 2,618⁺, 1,890 FT, 74-1/4 HRS, 26.5 FT/HR. OPER DRLG. RPM 60, WT ON BIT 40-45,000#. BHA 638.15⁺. DRLG @ 4,508⁺ W/2-3,000# 16 DRAG ON CONNECTION, HOLE IN GOOD SHAPE, DUMPED SHALE PIT TO LOWER SOLIDS.

10-17-80 4,757⁺ MADE 249⁺ IN CLIFFHOUSE FORMATION. MW 9.0, VIS 38, WL 6.8, PH 8.5, PV 9, YP 5, 1/2 GELS, 5 SOLIDS, 400 CHLORIDE, 40 CALCIUM. PUMP PRESS 1,850, GPM 290, ANNULAR VELOCITY 132/215. BIT NO 4, DEPTH OUT 4,757⁺, 2,139⁺, 89-1/4 HRS, 240 FT/HR. OPER PULLED. BIT NO 5, 8-3/4", HTC, J33, JETS 12/12/13, DEPTH IN 4,757. OPER TIH. RPM 60, WT ON BIT 40,000#. DEV DEPTH 4,530⁺ INC 1-3/4°.

COMPONENT	LENGTH	O.D.	I.D.
BIT	1.00 ⁺	8-3/4"	
BIT SUB	4.04 ⁺	6-1/2"	2-1/2"
JUNK SUB	5.09 ⁺	6"	2-1/2"
20 DC ⁺ S	633.11 ⁺	6-1/2"	2-1/4"

TOTAL BHA 643.24⁺. DRILL TO 4,757⁺, CIRC & RUN CSG SWEEP, POH FOR BIT #5, TIGHT @ 2,400⁺ (20,000# DRAG), PICK UP JT SUB FOR BROKEN BUTTONS, TIH (15,000# DRAG @ 2,400⁺). RIG REPAIR-WORK ON PUMPS.

10-18-80 5,130⁺ MADE 373⁺ IN CLIFF HOUSE FORMATION. MW 9.0, VIS 37, WL 6.8, PH 8.5, PV 11, YP 7, 2/4 GELS, 5 SOLIDS, 400 CHLORIDE, 40 CALCIUM. PUMP PRESS 1,850, GPM 290, ANNULAR VELOCITY 132/215. BIT NO 5, 8-3/4", HTC, J33, JETS 12/12/13, DEPTH IN 4,757⁺, 373 FT, 22-3/4 HRS, 16.4 FT/HR. OPER DRLG. RPM 60, WT ON BIT 45,000#. TOTAL BHA 643.24⁺. FINISHED TIH W/BIT #5, NO FILL, ATTEMPTED TO WORK ANY BUTTONS INTO JUNK SUB, DRLG AHEAD @ 5,130⁺, NO MUD LOSSES, HOLE IN GOOD SHAPE.

10-19-80 5,525⁺ MADE 390⁺ IN MANCOS FORMATION. .W 9.0, VIS 48, WL 6.0, PH 9, PV 14, YP 8, 3/6 GELS, 5 SOLIDS, 400 CHLORIDE, 40 CALCIUM. PUMP PRESS 1,350, 290 GPM, ANNULAR VELOCITY 132/215. BIT NO 5, 8-3/4", HTC, J33, JETS 12/12/13, DEPTH IN 4,757⁺, 768 FT, 46 HRS, 16.7 FT/HR. OPER DRLG. RPM 60, WT ON BIT 45,000#. DEV DEPTH 5,245⁺ INC 1-1/4°. TOTAL BHA 643.24⁺. RAISING VIS TO 55 TO LOG @ 5,600⁺, RABBITED ALL 7" CSG TO 6.26", DRLG AHEAD @ 5,525⁺ NO PROBLEMS.

10-20-80 5,601⁺ MADE 76⁺ IN MANCOS FORMATION. MW 9.0, VIS 52, WL 6.0, PH 9, PV 16, YP 9, 3/6 GELS, 5 SOLIDS, 400 CHLORIDE, 40 CALCIUM. PUMP PRESS 1,850, GPM 290, ANNULAR VELOCITY 132/216. BIT NO 5, 8-3/4", HTC, J33, JETS 12/12/13, DEPTH IN 4,757⁺, DEPTH OUT 5,601⁺, 844 FT, 52 HRS, 16.2 FT/HR. OPER PULLED. RPM 60, WT ON BIT 45,000#. DEV DEPTH 5,601⁺ INC 1-1/4°.

COMPONENT	LENGTH	O.D.	I.D.
BIT	1.00 ⁺	8-3/4"	
BIT SUB	4.04 ⁺	6-1/2"	2-1/2"
20 DC ⁺ S	633.11 ⁺	6-1/2"	2-1/4"

TOTAL BHA 638.15⁺. DRILL TO 5,601⁺, CIRC 1-3/4 HRS, POH SLOWLY, NO DRAG, 2 BUTTONS IN JUNK SUB, SLM ON TRIP 5,602.00⁺, RIG UP DRESSER ATLAS, RUN #1 SP, GR, DIL, RUN #2-CNL/FDC, GR,CAL LOGGER TD 5,601⁺, CSG SHOE @ 494⁺, NO TIGHT SPOTS, RIG DOWN LOGGERS, RIH TO CONDITION FOR CSG.

10-21-80 5,601⁺ MADE 0⁺ IN MANCOS FORMATION. MW 9.0, VIS 48, WL 18.5, PH 8, PV 10, YP 26, 11/30 GELS, 5 SOLIDS, 400 CHLORIDE, 250 CALCIUM. FINISHED TIH, COULD NOT BREAK CIRC, MUD KLABBERING UP, PULL 8 STDS BREAK CIRC, CONDITION MUD, TRIP IN TO BTM, CIRC & COND MUD (RUNNING TEST ON MUD, HAVE UP WTR & CHEMICALS TO DETERMINE WHAT FLOCCULATED MUD), LAY DOWN DP & DC⁺S CHANGE RAMS, RIG UP CSG CREW, PRESENTLY RUNNING 7" INTERMEDIATE CSG-BROKE CIRC OK @ 2,700⁺.