



**Marathon  
Oil Company**

P.O. Box 2659  
Casper, Wyoming 82602  
Telephone 307/577-1555

August 25, 1982

MMS

Attn: Mr. Ed Guynn  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, UT 84104

Dear Mr. Guynn:

At the request of Mr. Bob Turri, BLM, Monticello, Utah, office, the presite and staking, as well as the predrill of this proposed well, was accomplished at the same time.

BLM and MMS recommendations and stipulations are incorporated in the 13-Point Program.

The purpose was to save time and better utilize personnel in both agencies. Marathon agrees that this purpose was accomplished.

The following representatives were present:

Brian Wood, BLM, Monticello, Utah  
Carl Bassett, Landman (MOC), Casper, Wyoming  
Gary Alsobrook, Landman (MOC), Casper, Wyoming  
Fred Thomas, Surveyor, Cortez, Colorado  
Asa Nielson, Head Archeologist, BYU, Provo, Utah  
Mark Nidiffer, Surveyor, Thomas Engineering, Cortez, Colorado  
Art Guthrie, Asst. Drilling Superintendent (MOC), Casper, Wyoming  
Walt West, Government Compliance (MOC), Casper, Wyoming  
Don Englishman, MMS, Durango, Colorado  
Suzy Kopriva, Geologist (MOC), Casper, Wyoming  
Jesse O'Neal, District Engineer (MOC), Casper, Wyoming

Yours very truly,

MARATHON OIL COMPANY

Walt West  
Government Compliance

WEW:jmb

**RECEIVED**  
AUG 26 1982

**DIVISION OF  
OIL, GAS & MINING**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

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 and in accordance with any State requirements.\*)  
 At surface 586.52' FSL & 3,171.39' FEL *SE SW*  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 8-3/4 miles northwest of Hatch's Trading Post, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 587'

16. NO. OF ACRES IN LEASE 760

17. NO. OF ACRES ASSIGNED TO THIS WELL 80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None

19. PROPOSED DEPTH 5,708' *Est*

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5,091.59' Ungraded

22. APPROX. DATE WORK WILL START\*  
 September 20, 1982

5. LEASE DESIGNATION AND SERIAL NO.  
 U 13928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Tin Cup Mesa Unit

8. FARM OR LEASE NAME  
 Tin Cup Mesa

9. WELL NO.  
 2-23

10. FIELD AND POOL, OR WILDCAT  
 Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 23, T38S, R25E

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 Utah

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
Please see Item 4 of 10-Point for complete casing and cementing record.				

1. Surveyor's plat and rig laydown
2. Ten-Point Drilling Program
3. BOP Schematic
4. Thirteen-Point Surface Plan
5. Maps and Diagrams

**RECEIVED**  
AUG 26 1982

**DIVISION OF OIL, GAS & MINING**

The person responsible for the NTL-6 is: Walt West  
 Government Compliance  
 Marathon Oil Company  
 OFFICE: (307) 577-1555  
 HOME: (307) 235-1420

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED Dale T. Caddy TITLE District Operations Manager DATE August 24, 1982

(This space for Federal or State office use)

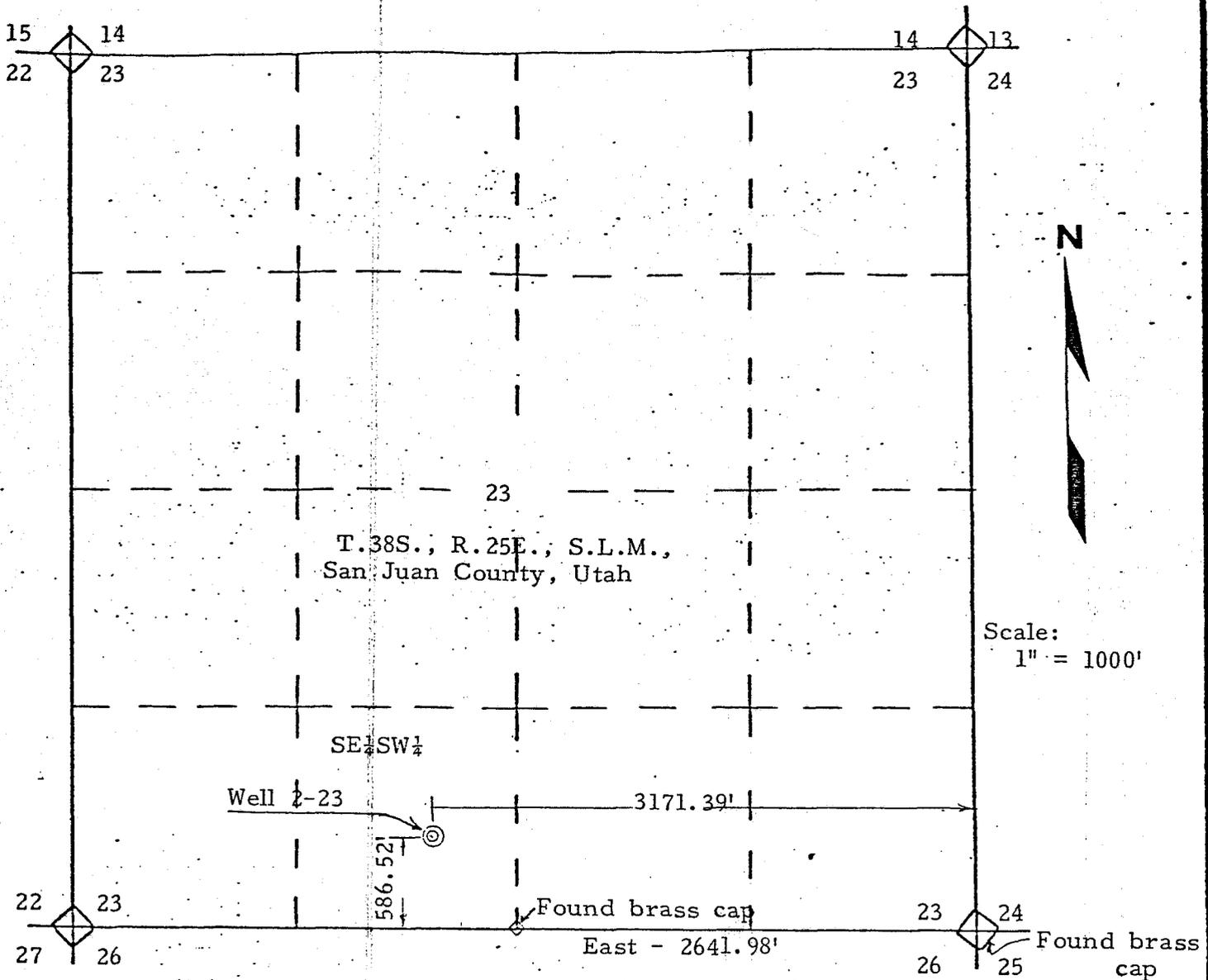
PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**

DATE: 8-27-82  
 BY: Garmon Estab



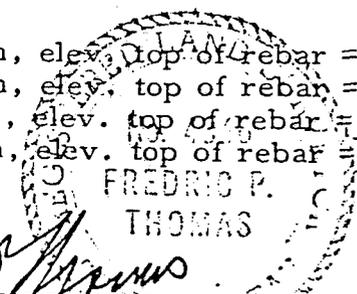
Basis of bearing is the East-West bearing between the USGLO brass caps on the S 1/4 Corner and the SE Corner of Section 23.

I, Fredric P. Thomas, of Cortez, Colorado, do hereby certify that in accordance with a request from Walt West, of Casper, Wyoming, for Marathon Oil Company, I made a survey on the 30th day of June, 1982, for location and elevation of the Tincup Mesa Unit Well No. 2-23. As shown on the above map, the wellsite is in the SE 1/4 SW 1/4 of Section 23, Township 38 South, Range 25 East of the Salt Lake Meridian, San Juan County, Utah. The elevation is 5091.59 feet, ungraded ground, elevation datum is the ungraded ground elevation on Well No. 1-26, which is elev. 5112.

REFERENCE POINT, N. 50°E. - 300'	, Rebar and lath, elev. top of rebar =	5095.33	feet.
REFERENCE POINT, S. 50°W. - 303'	, Rebar and lath, elev. top of rebar =	5135.62	feet.
REFERENCE POINT, N. 40°W. - 299'	, Rebar and lath, elev. top of rebar =	5106.87	feet.
REFERENCE POINT, S. 40°E. - 300'	, Rebar and lath, elev. top of rebar =	5088.35	feet.

Thomas Engineering, Inc.  
215 No. Linden  
Cortez, Colorado 81321  
303-565-4400

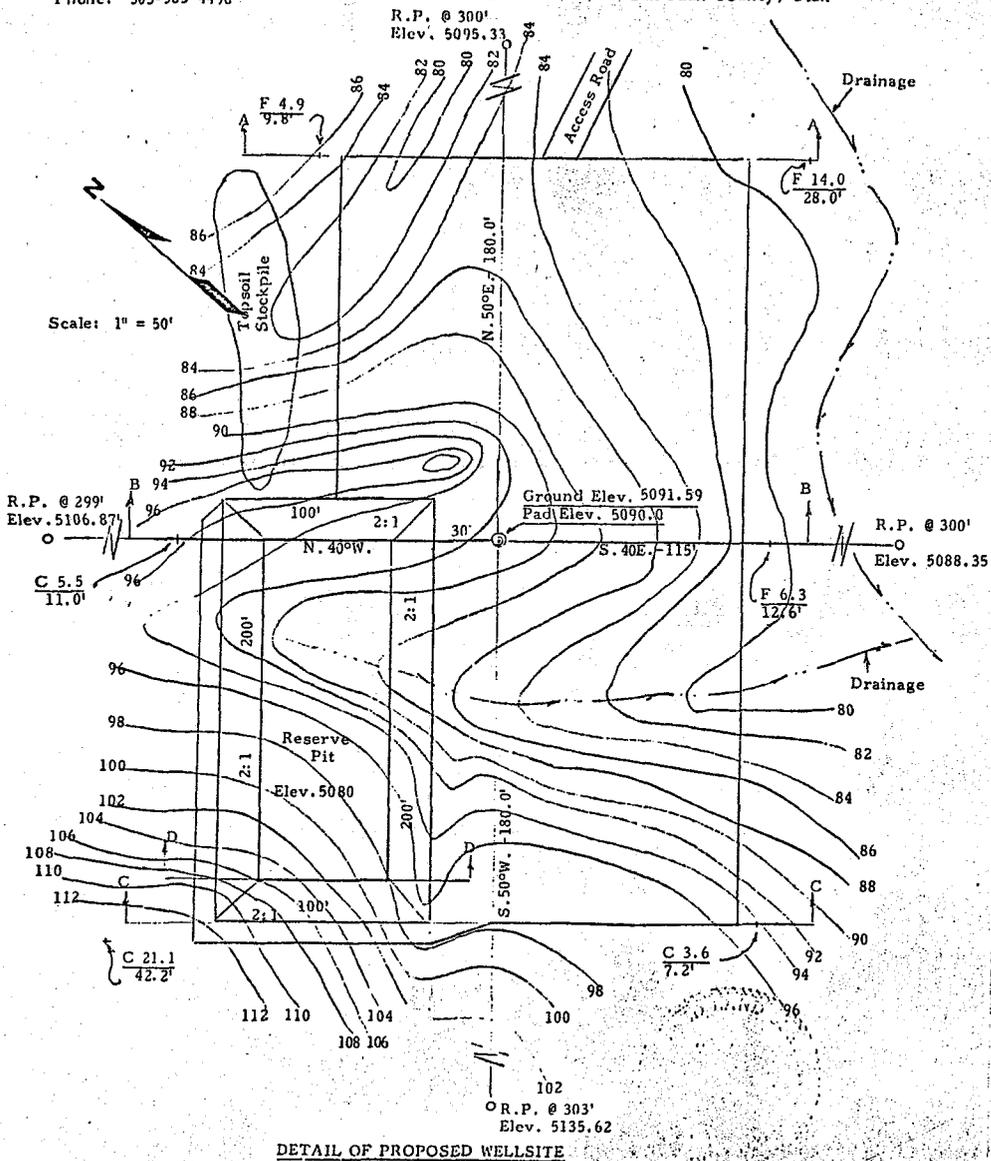
*Fredric P. Thomas*  
Fredric P. Thomas, PE-LS



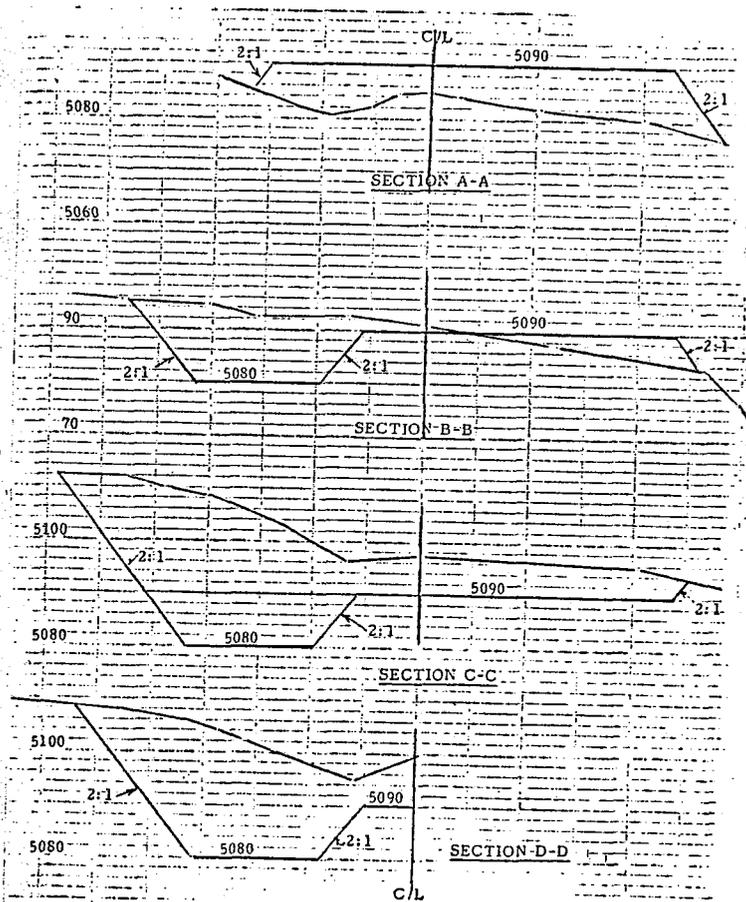
Prepared by: Thomas Engineering, Inc.  
 215 No. Linden St.  
 Cortez, Colorado 81321  
 Phone: 303-565-4496

**MARATHON OIL COMPANY, TINCUP MESA UNIT, WELL NO. 2-23**  
 Located in the SE1SW1 of Section 23, T. 38N., R. 25E. S.L.M.,  
 San Juan County, Utah

**MAP TO ACCOMPANY PERMIT TO DRILL**  
 Applicant: Marathon Oil Company  
 Date of preparation: July 9, 1982.



**CROSS-SECTION OF LAYDOWN DIRECTION AND RESERVE PIT**  
 Horizontal scale: 1" = 50' Vertical scale: 1" = 20'



**TOTAL YARDAGE**  
 Cut = 18,023 C.Y.    Fill = 6,956 C.Y.    Topsoil = 1,500 C.Y.  
 Spoil pile = 7,828 C.Y.    Reserve pit capacity = 25,650 barrels  
 Shrinkage factor: 1.25

C

MARATHON OIL COMPANY  
DRILLING OPERATIONS PLAN

DATE: August 24, 1982

WELL NAME: Tin Cup Mesa #2-23

LOCATION: SE SW Section 23, T38S, R25E, San Juan County, Utah

1. Geologic name of the surface formation:

Jurassic Morrison Formation

2. Estimated tops of important geological markers:

All depths referred to in this 10-point program will be K.B. measurements.

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>	<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Carmel	741'	+4,353'	Paradox	5,204'	- 110'
Navajo	767'	+4,327'	U. Ismay	5,359'	- 265'
Kayenta	986'	+4,108'	Hovenweep	5,508'	- 414'
Wingate	1,150'	+3,944'	L. Ismay	5,546'	- 452'
Chinle	1,505'	+3,589'	Gothic Shale	5,593'	- 499'
Shinarump	2,304'	+2,790'	Desert Creek	5,612'	- 518'
Moenkopi	2,358'	+2,736'	Chimney Rock	5,687'	- 593'
Cutler	2,424'	+2,670'	Akah	5,708'	- 614'
Honaker Trail	4,264'	+ 830'	P.T.D.*	5,720'	- 626'

\*If significant hydrocarbon shows are encountered, the well will be T.D.'d at about 5,708 feet to avoid entering the Akah Salt.

3. Estimated depths at which oil, water, gas or other mineral bearing formations are expected to be encountered:

<u>Formation</u>	<u>Depth (K.B.)</u>	<u>Content</u>
Carmel	741'	Water
Navajo	767'	Water
Wingate	1,150'	Water
DeChelly**	2,424'	Brine
Honaker Trail	4,264'	Oil***
Paradox	5,204'	Brine
Upper Ismay	5,359'	Oil***
Lower Ismay	5,546'	Oil***
Desert Creek	5,612'	Oil***

\*\*The Cutler Formation may contain the DeChelly member.  
\*\*\*Primary Objectives.

4. The Proposed Casing Program:

Casing Design

CASING STRING	HOLE SIZE	INTERVAL	SECTION LENGTH	SIZE (OD)	WEIGHT, GRADE AND JOINT	NEW OR USED	MUD WEIGHT	1,000# TENSION				
								LOAD	SF <sub>t</sub>	SF <sub>c</sub>	SF <sub>b</sub>	
Conductor	20"	0-80'	80'	16"	Thinwall Steel	New	8.5-9.0					
Surface	12-1/4"	0-1,300'	1,300'	9-5/8"	36#, K-55	New	8.5-9.0	40.6	10.4	3.15	1.27	
Intermediate	8-3/4"	1,300'-5,720'	4,420'	5-1/2"*	15.5#, K-55	New	10.8-11.2	74	3.35	1.16	1.72	

\*If more than one productive zone is found, 7" production casing will be set.

If only the Desert Creek is productive, 5-1/2", N-80, 20#/ft., STC will be set, so as to accomodate fracture stimulation of the formation.

Cement Program:

9-5/8" Casing

Cement Volume: 1,300' x .3132 cu.ft/ft. x 2.0 excess = 815 cu.ft.

Lead Slurry: 900' calculated plus 100% excess - 307 sacks of high yield cement (BJ Lite, Halliburton Lite, etc.) containing 1/4# sack cellophane flakes and 2% CaCl<sub>2</sub>.

Slurry Yield: 1.84 cu.ft/sack

Slurry Density: 12.7#/gal.

Water Requirement: 9.9 gal/sack

Tail Slurry: 400' calculated plus 100% excess - 213 sacks of Class "B" cement containing 1/4# sack cellophane flakes and 2% CaCl<sub>2</sub>.

Slurry Yield: 1.18 cu.ft/sack

Slurry Density: 15.6#/gal.

Water Requirement: 5.2 gal/sack

Casing Equipment: Float shoe, float collar, 3 centralizers

WOC time will be a minimum of 6 hours. If float equipment holds, closed-in pressure after cementing is not recommended.

4. Cement Program: (Continued)

5-1/2" Casing

1st Stage:

Cement Volume: 2,200' x .2526 cu.ft/ft. x 1.35 excess = 750 cu.ft.

Slurry: 2,200' calculated plus 35% excess from logs - 610 sacks of Class "B" cement containing 1.0% fluid loss additive (D-19, Halad-9, etc.).

2nd Stage:

Cement Volume: 2,920' x .2812 cu.ft/ft. x 1.35 excess = 1,054 cu.ft.

Slurry: 2,920' calculated (500' into 9-5/8" casing) plus 35% excess from logs 573 sacks of high yield cement (BJ Lite, Halliburton Lite, etc.)

Casing Equipment: Locate stage collar at 3,520'. A float shoe, flapper type float collar, 1 cement basket, and 10 centralizers spaced over the bottom 800' of hole will be used. If float holds, closed-in pressure after completion of cement job is not recommended. Set casing on slips as soon as possible following cement job.

Slurry Preflush: 1st and 2nd Stage 20 bbls.

5. Pressure Control Equipment:

BOP equipment will include a double ram type preventer with pipe and blind rams and a rotating head (API arrangement SRdG). All equipment will have a 3,000 psi or greater working pressure. Rams, valves, lines, choke manifold and casing will be tested to 200 psi for 5 minutes and 1,500 psi for 15 minutes prior to drilling out from under 9-5/8" surface casing. After drilling casing shoe and 5 feet of additional hole, a shoe test will be performed to 13.5 ppg equivalent mud weight or leakoff, whichever occurs first. The accumulator should be of sufficient capacity to meet the following requirements:

1. Ability of immediate closure to all members of the stack without recharging.
2. A total of 50% of the original fluid should remain as a reserve after accumulator activation.
3. A minimum pressure of 1,200 psi is required to insure that the preventers remain closed.

Visual checks of the equipment will be made tourly. Function pipe rams daily and blind rams on trips.

6. Drilling Mud Program:

<u>From</u>	<u>To</u>	<u>Type Mud</u>	<u>Weight</u>	<u>% Oil</u>	<u>Water Loss</u>
0'	1,300'	Spud	8.5-9.0	0	No Control
1,300'	Cutler 2,424'	Gel/Water	8.5-9.0	0	No Control
Cutler 2,424'	U. Ismay 5,359'	Gel/Chemical	9.4-10.8	0	10.0-12.0 cc's
U. Ismay 5,359'	T.D.	Gel/Chemical	10.8-11.2	0	8.0-9.0 cc's

6. Drilling Mud Program: (Continued)

Mud weights should be kept to a minimum to maximize ROP and minimize lost circulation. However, the existence of water flows may necessitate a increase in mud weight while drilling. Sufficient barite should be on location prior to spud in order to increase mud weight to 11.7 ppg, if required. Lost circulation is expected in the upper hole before setting surface casing.

7. Auxillary Equipment Required:

A drilling rate recorder, calibrated to record drilling time for each one foot drilled will be used.

A Kelly cock will be used and a full opening safety valve will be available on the rig floor.

The mud system will include a desander/desilter, gas buster or degasser.

A manual adjustable choke will be used.

Deviation Control:

<u>From</u>	<u>To</u>	<u>Maximum Distance Between Surveys</u>	<u>Maximum Deviation From Vertical</u>	<u>Maximum Change Per 100' of Depth</u>
0'	1,300'	250'	1°	1°
1,300'	T.D.	500'	5°	1°

8. Testing, Logging, Coring and Fracing Program:

Samples: 10' intervals from 1,300' to T.D. with a two-man mud logging unit.

- Logging:
1. DI-SFL/GR from surface casing to T.D.
  2. BHC Sonic/GR from surface casing to T.D.
  3. FDC/CNL-GR from surface casing to T.D.
  4. Dipmeter from surface casing to T.D.
  5. Coriband (Cyber look) from top of Honaker Trail formation to T.D.

- Testing:
1. Honaker Trail
  2. Upper Ismay
  3. Desert Creek

Coring: Approximately 300 feet of core in intervals to be determined from formation tops while drilling.

Fracing Program:

If necessary, acid stimulation.

9. Abnormal Conditions:

The DeChelly Member of the Cutler Formation, if penetrated, may contain overpressured saltwater requiring 10.5 to 11.5 ppg mud weight to control.

Maximum anticipated bottom-hole pressure is approximately 3,450 psi.

Maximum anticipated bottom-hole temperature is approximately 175°F.

10. Anticipated Starting Date and Duration:

Starting Date: September 20, 1982

Duration: 33 Days

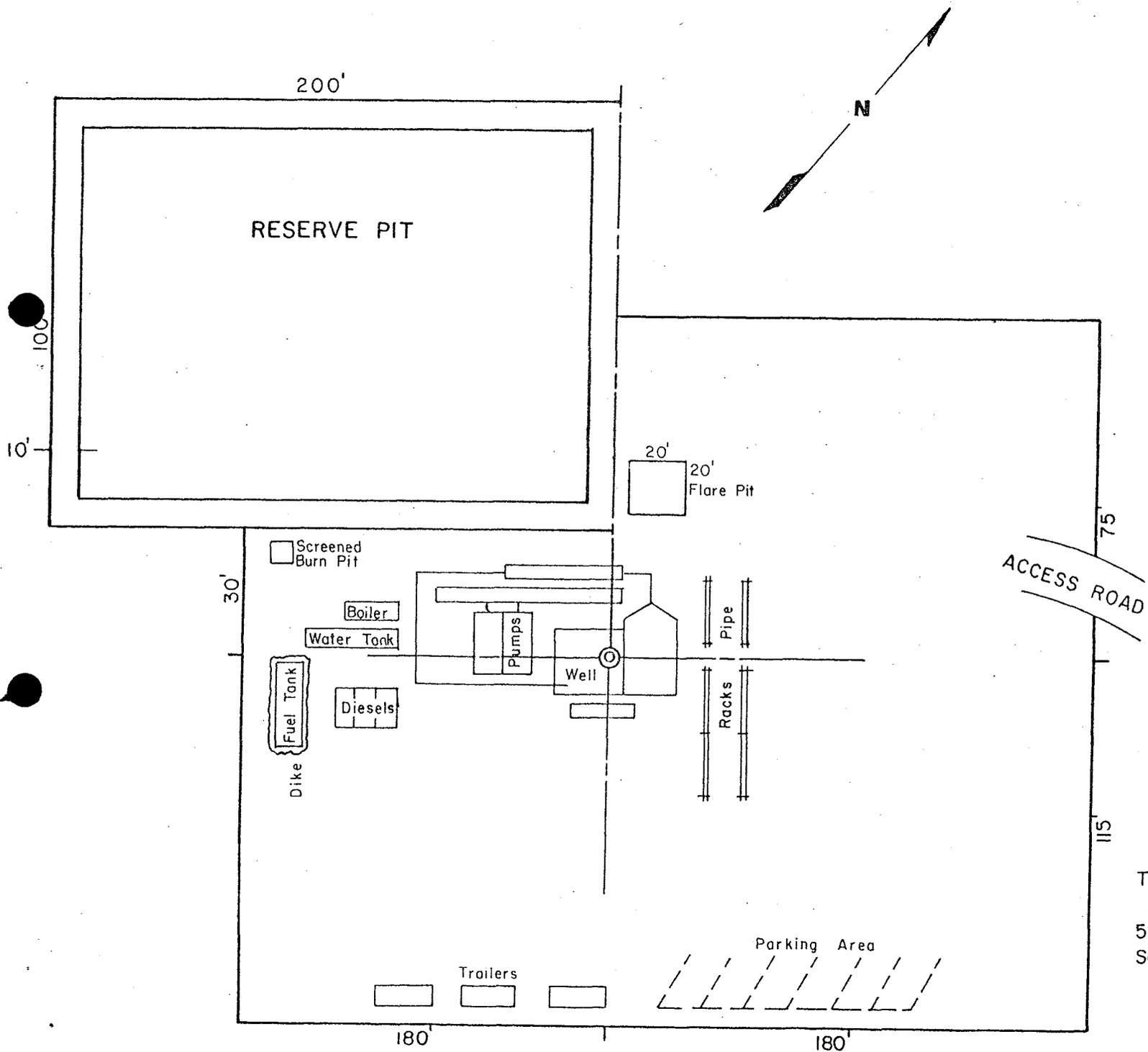
-Name M.E. Krugh by G.R. Tawberry

Title Drilling Superintendent

Date August 24, 1982

**SCHEMATIC  
of  
RIG LAYOUT**  
Scale 1"=50'  
PROPOSED

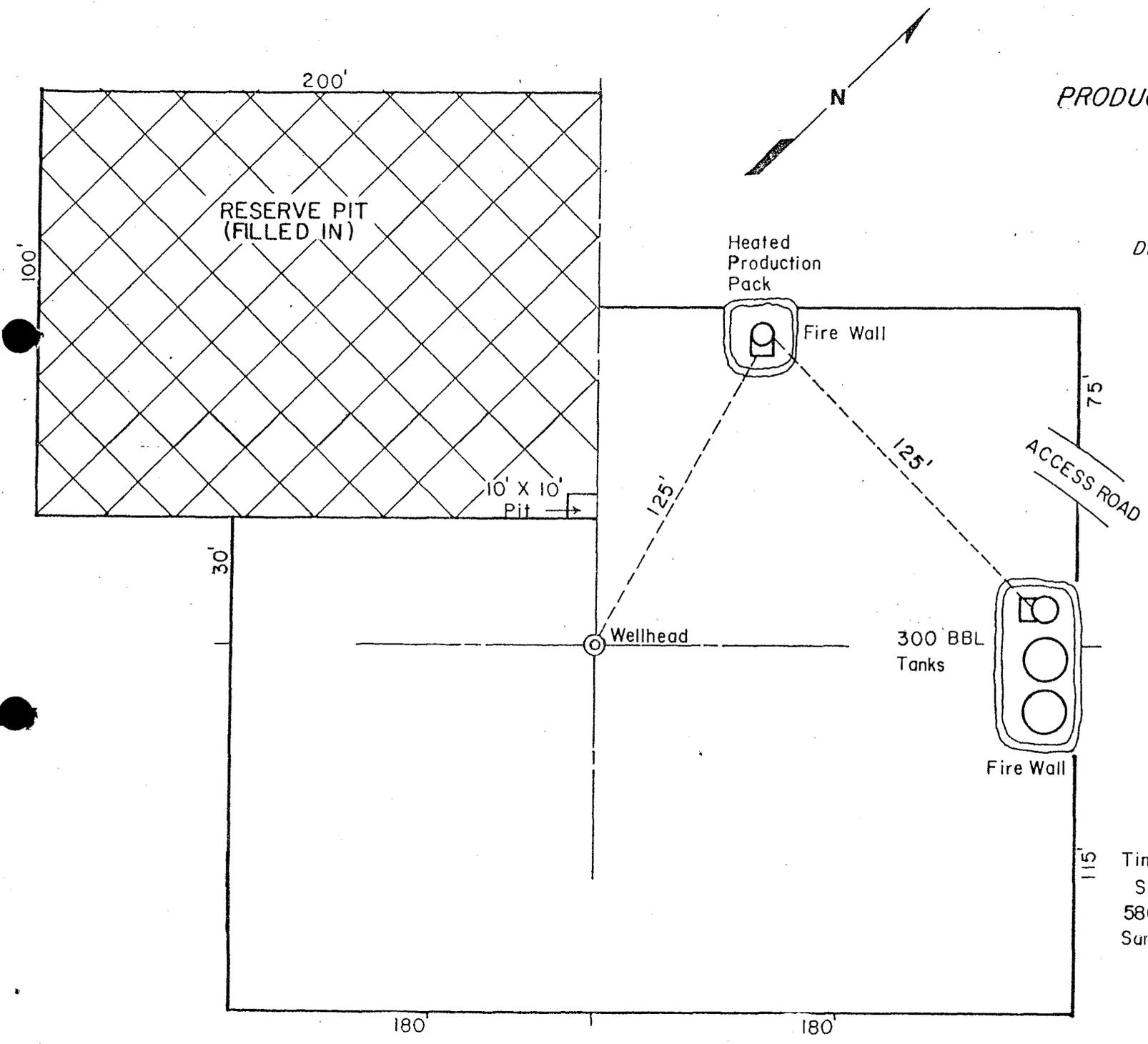
DIAGRAM D



Tin Cup Mesa #2-23  
SESW Sec. 23, T 38S R 25E  
586.52' FSL & 3171.39' FEL  
San Juan Co., Utah

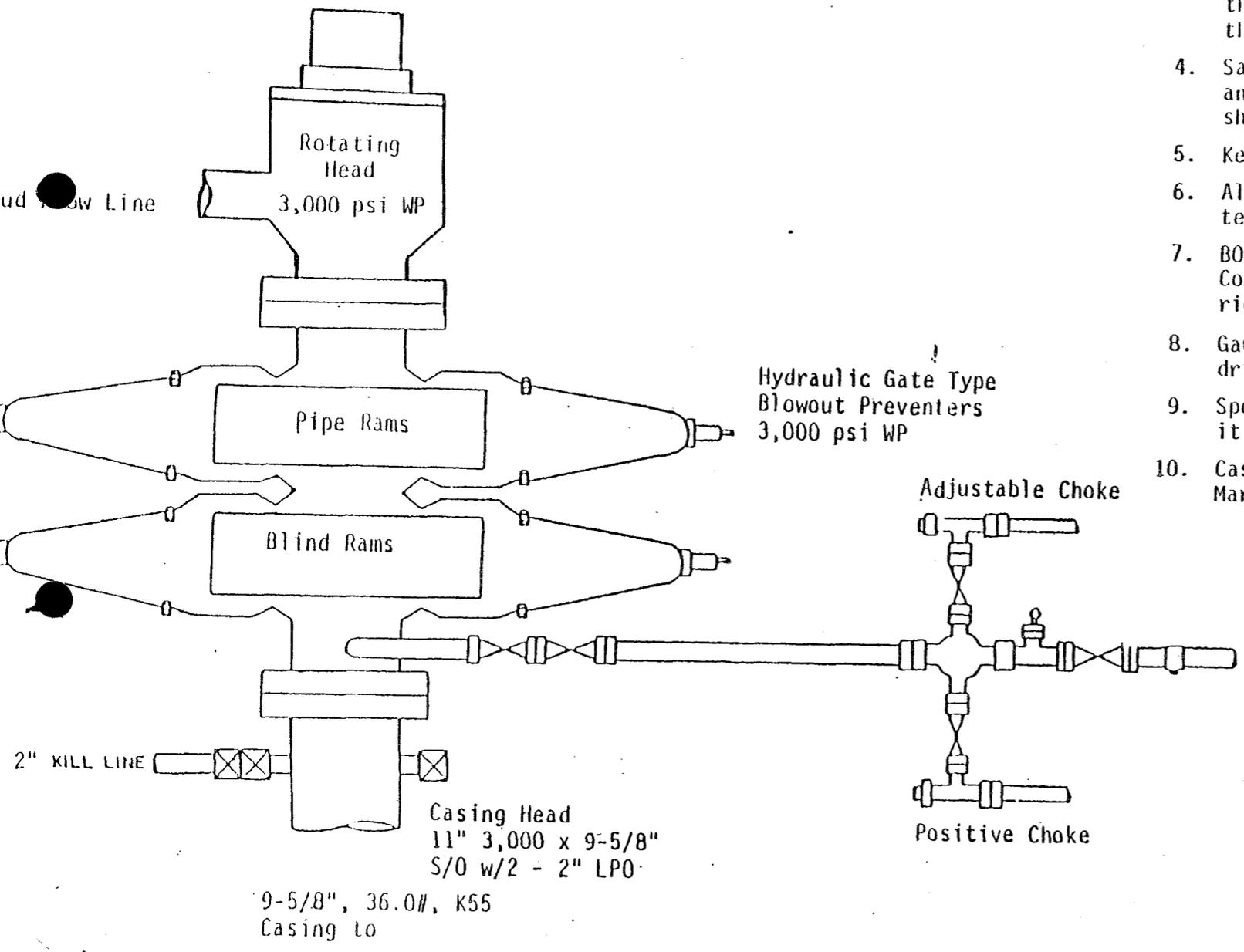
**SCHEMATIC  
of  
PRODUCTION FACILITIES**  
Scale 1"=50'  
PROPOSED

DIAGRAM 'B'



Tin Cup Mesa #2-23  
SESW Sec. 23, T38S R25E  
586.52' FSL & 3171.39 FEL  
San Juan Co., Utah

Tin Cup Mesa #2-23  
 SE, SW, Sec. 23, T38S, R25E  
 San Juan Co., Utah



1. Blowout preventers, master valve, plug valve and all fittings must be in good condition. Use new API Seal Rings.
2. All fittings (gates, valves, etc.) to be of equivalent pressure rating as preventers. Valves to be flanged and at least 2" unless otherwise specified. Valves next to BOP to be plug type and nominal 3".
3. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
4. Safety valve must be available on rig floor at all times and with proper connections. The I.D. of safety valves should be as great as I.D. of tool joints on drill pipe.
5. Kelly safety valve installed, same working pressure as BOP's.
6. All lines and controls to preventers must be connected and tested before drilling out of surface pipe.
7. BOP's must be fluid operated, complete with accumulator. Controls may be either on floor or ground near steps from rig floor.
8. Gauge will be installed for testing but removed while drilling.
9. Spool not required, but when side outlet on BOP's is used, it must be below bottom ram.
10. Casinghead and casinghead fittings to be furnished by Marathon Oil Company.

DATE: August 24, 1982

WELL NAME: Tin Cup Mesa #2-23

LOCATION: 586.52' FSL & 3,171.39' FEL, Section 23, T38S, R25E, San Juan Co., Utah

#1 Existing Roads:

- A. Proposed well site as staked. (Actual staking should include two each 200-foot directional reference stakes).

See survey plat

- B. Route and distance from nearest town and locatable reference point to where well access route leaves main road.

8-3/4 miles northwest of Hatch's Trading Post, Utah.  
See Diagram "A".

- C. Access road(s) to location color-coded or labeled.

See map Diagram "A", color-coded green

- D. If exploratory well, all existing roads within a 3-mile radius (including type of surface, conditions, etc.).

See map Diagram "A"

- E. If development well, all existing roads within a 1-mile radius of well site.

See map Diagram "A"

- F. Plans for improvement and/or maintenance of existing roads.

Blade work on county roads will be in conjunction with San Juan County Road Department, Monticello, Utah; also, any roads tying into county roads will be to BLM stipulations.

#2 Planned Access Roads:

Map showing all necessary access roads to be constructed or reconstructed, showing:

- |   |  |
|---|--|
| (1) Width   | 18'  |
| (2) Maximum grades  | 0-5 <sup>0</sup>                                   |
| (3) Turnouts  | None   |
| (4) Drainage design   | Ditched and crowned, trailer ditches where needed. |
| (5) Location and size of culverts and brief description of any major cuts and fills.        |  |
|   | None   |
| (6) Surfacing material  |  |
|   | Gravel   |
| (7) Necessary gates, cattleguards, or fence cuts.   |  |
|   | No cattleguards or fence cuts                      |
| (8) (New or reconstructed roads are to be center-line flagged at time of location staking). |  |

Flagged with hot orange and blue flagging material. Entire area was walked by archeologist from BYU.

#3 Location of Existing Wells:

Two-mile radius map if exploratory, or 1-mile radius map if development well, showing and identifying existing:

- (1) Water wells                      None
- (2) Abandoned wells                None
  
- (3) Temporary abandoned wells  
    Tin Cup Mesa #1-25
  
- (4) Disposal wells                    None
- (5) Drilling wells                    None
- (6) Producing wells                  Tin Cup Mesa #3-26 (Testing)
- (7) Shut-in wells                    None
- (8) Injection wells                  None
- (9) Monitoring or observation wells for other resources.

#4 Location of Existing and/or Proposed Facilities:

A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:

- (1) Tank Batteries                    Tin Cup Mesa #1-25
- (2) Production Facilities            (MOC) #1-25
- (3) Gathering Lines                    None
- (4) Gas Gathering Lines              None
- (5) Injection Lines (Indicate if any of the above lines are buried).  
    None
- (6) Disposal Lines                    None

B. If new facilities are contemplated, in the event of production, show:

- (1) Proposed location and attendant lines by flagging if off of well pad.

Adjacent to the access road and as close to the proposed drill site as possible, without setting on any fill.

- (2) Dimensions of Facilities  
    See proposed Diagram "B"

- (3) Construction methods and materials:

Good engineering practices will be used in construction. Materials will be obtained through local vendors and contractors.

B. If new facilities are contemplated, in the event of production, show:  
(cont'd)

(4) Protective measures and devices to protect livestock and wildlife.

Woven wire fences of the pit area.

C. Plans for rehabilitation of disturbed areas no longer needed for operations after construction completed.  
Drill site and tank battery area will be reshaped to conform with the topography. Top soil will be distributed at the proper time. Disturbed areas scarified with contours to a depth of 12". Seeds will be broadcast, as per BLM recommendations.

#5 Location and Type of Water Supply:

A. Show location and type of water supply either on map or by written description.

See map Diagram "A"  
Section 28, T38S, R26E (Artesian water wells)  
Section 35, T38S, R25E

B. State method of transporting water, and show any roads or pipelines needed.

Existing roads and access road will be used to haul water to the location.

C. If water well is to be drilled on lease, so state. (No APD for water well necessary, however, unless it will penetrate potential hydrocarbon horizons).

No water well will be drilled.

#6 Source of Construction Materials:

A. Show information either on map or by written description.

Construction materials will be native soils.

B. Identify if from Federal or Indian Land.

None

C. Describe where materials, such as sand, gravel, stone and soil material, are to be obtained and used.

Any needed materials will be discussed with Mr. Bob Turri or Mr. Brian Wood of BLM, Monticello, Utah.

D. Show any needed access roads crossing Federal or Indian Lands under Item 2.

None

#7 Methods of handling Waste Disposal:

Describe methods and location of proposed containment and disposal of waste material, including:

- |                                  |             |
|----------------------------------|-------------|
| (1) Cuttings                     | Reserve Pit |
| (2) Drilling fluids              | Reserve Pit |
| (3) Produced fluids (oil, water) | Swab Tanks  |

#7 Methods of Handling Waste Disposal: (cont'd)

- (4) Sewage Porta Pot
- (5) Garbage and other waste material (Trash pits will be completely contained with small mesh wire to prevent wind scattering trash before being burned or buried).  
  
There will be a 10' x 10' burn pit and it will be woven wire fenced.
- (6) Statement regarding proper cleanup of well site area when rig moves out.  
  
Area will be cleaned up and all burnable material will be put in the burn pit and burned. Non-burnable debris will be buried under 2' of compacted earth. Burn permit will be obtained from State Fire Warden, John Baker. (May 1 - October 31)

#8 Ancillary Facilities:

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods. (Camp center and airstrip center lines to be staked on the ground).

None

#9 Wellsite Layout:

A plat (not less than 1" = 50') showing:

- (1) Cross sections of drill pad with cuts and fills.  
  
See Diagram "C"
- (2) Location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities and soil material stockpiles.  
  
See Diagram "D"
- (3) Rig orientation, parking areas and access roads.  
  
See Diagram "D"
- (4) Statement as to whether pits are to be lined or unlined. (Approval as used in this section means field approval of location. All necessary staking of facilities may be done at time of field inspection). A registered surveyor is not mandatory for such operations.

Pit will not be lined. Dirt contractor will notify Mr. Bob Turri of BLM when the pit is made.

#10 Plans for Restoration of Surface:

State restoration program upon completion of operations, including:

- (1) Backfilling, leveling, contouring and waste disposal; segregation of spoils materials as needed.  
Site will be cleaned and waste materials put in trash burn pit, which will be covered with 2' of compacted earth at the finish of drilling operation. Reserve pit will be backfilled as soon as dry.
- (2) Revegetation and rehabilitation - including access roads (normally per BLM recommendations).  
2#/acre Indian Rice grass; 1#/acre Alkali Sacaton; 1#/acre Fourwing Saltbrush; 2#/acre shade scale. Trees will be scattered evenly over the disturbed areas and walked down with a dozer.

#10 Plans for Restoration of Surface: (cont'd)

- (3) Prior to rig release, pits will be fenced and so maintained until cleanup.  
Reserve pit will be fenced on 3 sides during drilling. At completion of drilling, all pits will be fenced on the remaining side.
- (4) If oil on pit, remove oil or install overhead flagging.  
If there is any oil on the reserve pit, it will be removed or flagged with overhead flagging.
- (5) Timetable for commencement and completion of rehabilitation operations.  
Depending upon climatic conditions, restoration should be completed from six months to one year after abandoning well.

#11 Other Information:

General Description of:

- (1) Topography, soil characteristics, geologic features, flora and fauna. Sagebrush, scrub cedars, rock formations, occasionally dissected by light to heavy drainage features. Deer, rabbits, fox, small rodents, cattle, and sheep.
- (2) Other surface use activities and surface ownership of all involved lands.  
Access road and drill site are owned by U.S. Government. Surface facilities will be painted Federal Std. #30318, Badlands Brown.
- (3) Proximity of water, occupied dwellings, archeological, historical or cultural sites.  
There is no water or occupied dwelling in the area. Archeological work was performed by BYU, Provo, Utah.

#12 Lessee's or Operator's Representative:

Mike E. Krugh - Marathon Oil Company      Office: (307) 577-1555, ext. 408  
P.O. Box 2659      Home: (307) 577-1664  
Casper, WY 82602

#13 Certification: The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in item No. 12 of the plan:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Marathon Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

August 24, 1982  
Date

M.E. Krugh by G.A. Newberry  
Name

Drilling Superintendent  
Title

\*\* FILE NOTATIONS \*\*

DATE: 8-26-82  
OPERATOR: Marathon Oil Co.  
WELL NO: Sin Corp Mesa # 2-23  
Location: Sec. SESW 23T. 38S R. 25E County: San Juan

File Prepared:  Entered on N.I.D:   
Card Indexed:  Completion Sheet:

API Number 43-037-30808

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_  
\_\_\_\_\_

Director: \_\_\_\_\_  
\_\_\_\_\_

Administrative Aide: Sin Corp Mesa Unit.  
\_\_\_\_\_  
\_\_\_\_\_

APPROVAL LETTER:

Bond Required:  Survey Plat Required:

Order No. \_\_\_\_\_ O.K. Rule C-3  Unit

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

Lease Designation  Plotted on Map

Approval Letter Written

Hot Line  P.I.

August 27, 1982

Marathon Oil Company  
P. O. Box 2659  
Casper, Wyoming 82602

RE: Well No. Tin Cup mesa 2-23  
SESW Sec. 23, T. 38S, R. 25E  
San Juan County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to oil well is hereby granted in accordance with Section 40-6-11, Utah Code Annotated 1953; and predicated on Rule A-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

RONALD J. FIRTH - Engineer  
Office: 533-5771  
Home: 571-6068

OR

CLEON B. FEIGHT - Director  
Office: 533-5771  
Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30808.

Sincerely,

  
Norman C. Stout  
Administrative Assistant

NCS/as  
cc: Minerals Management Service  
Enclosure

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY OIL & GAS OPERATIONS

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK  AUG 26 1982

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SALT LAKE CITY UTAH

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 and in accordance with applicable requirements.)  
 At surface 586.52' FSL & 3,171.39' FEL  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 8-3/4 miles northwest of Hatch's Trading Post, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 587'

16. NO. OF ACRES IN LEASE 760

17. NO. OF ACRES ASSIGNED TO THIS WELL 80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. None

19. PROPOSED DEPTH 5,708' Est.

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5,091.59' Ungraded

22. APPROX. DATE WORK WILL START\*  
 September 20, 1982

5. LEASE DESIGNATION AND SERIAL NO.  
 U 13928 U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Tin Cup Mesa Unit

8. FARM OR LEASE NAME  
 Tin Cup Mesa

9. WELL NO.  
 2-23

10. FIELD AND POOL, OR WILDCAT  
 Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 23, T38S, R25E

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 Utah

RECEIVED  
SEP 09 1982  
DIVISION OF OIL, GAS & MINING

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
Please see Item 4 of 10-Point for complete casing and cementing record				

1. Surveyor's plat and rig laydown
2. Ten-Point Drilling Program
3. BOP Schematic
4. Thirteen-Point Surface Plan
5. Maps and Diagrams

The person responsible for the NTL-6 is: Walt West  
 Government Compliance  
 Marathon Oil Company  
 OFFICE: (307) 577-1555  
 HOME: (307) 235-1420

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Dale T Caddy TITLE District Operations Manager DATE August 24, 1982  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY W. W. GUYNN FOR E. W. GUYNN  
 CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_ TITLE DISTRICT OIL & GAS SUPERVISOR DATE SEP 07 1982

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

NOTICE OF APPROVAL

\*See Instructions On Reverse Side

FLARING OR VENTING OF GAS IS SUBJECT TO NTL-4A DATED 1/1/80

*State of W*

MINERAL MANAGEMENT  
SERVICE  
OIL & GAS OPERATIONS  
RECEIVED

Identification No. 479-82

United States Department of the Interior  
SEP 7 1982 Geological Survey MMS  
2000 Administration Building  
SALT LAKE CITY, UTAH 1745 West 1700 South  
Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Marathon Oil Company

Project Type single zone oil explorational well

Project Location <sup>SE 34</sup> 586.52 FSL / ~~317.29~~ FEL, sec. 23, T. 38 S, R. 25 E.

San Juan  
County, UT

Well No. 2-23 Lease No. U-31928

Date Project Submitted \_\_\_\_\_

FIELD INSPECTION

Date June 30, 1982

Field Inspection  
Participants

- Walt West / Jess Oneal / Art Guthrie - Marathon Oil
- Suzy Kopriva - geophysicist, Marathon
- Asa Nielson / Ken Wintch - W.U.U. arches
- Brian Wood - Bureau of Land Management
- Carl Bassett / Gary Alsobrook - Marathon Oil
- Fred Thomas / Mark Nidiffer - Thomas Engineering
- Don Englishman - MMS

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

June 30, 1982  
Date Prepared

Don Englishman  
Environmental Scientist

I concur

SEP 07 1982  
Date

W. M. Gwynn  
FOR E. W. GYNN  
DISTRICT OIL & GAS SUPERVISOR  
District Supervisor

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency			Local and private corre- spondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
1. Public health and safety						✓ 4	✓		
2. Unique charac- teristics							✓		
3. Environmentally controversial							✓		
4. Uncertain and unknown risks							✓		
5. Establishes precedents							✓		
6. Cumulatively significant							✓		
7. National Register historic places	✓ 1								
8. Endangered/ threatened species	✓ 1								
9. Violate Federal, State, local, tribal law						✓ 4	✓		

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey (Conservation Division, Geological Division, Water Resource Division, Topographic Division)
3. Lease Stipulations/Terms
4. Application for Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement

Remarks:

1. Water from BLM wells
2. Laydown to N50°E



IN REPLY  
REFER TO:

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Moab District  
San Juan Resource Area  
P.O. Box 7  
Monticello, Utah 84535

MINERALS MANAGEMENT  
SUBJECT 38SR25E  
OIL & GAS CONTROL DIVISION  
RECEIVED SEP 7 1982  
(U-069)

SEP 7 1982

SALT LAKE CITY, UTAH

September 2, 1982

## Memorandum

To: Minerals Management Service, Salt Lake City, Utah  
From: Area Manager, San Juan  
Subject: Marathon's Tin Cut 2-23 Well (U-31928)

We concur with approval of the Application for Permit to Drill, provided the enclosed amendments to the Surface Use Plan are included in the approval.

The archaeological requirement has been fulfilled. No threatened or endangered species are indicated.

*Robert Jurre*

ACTING

Enclosure  
Amendments

cc:  
Minerals Management Service, Durango, Colorado

Amendments to Surface Use Plan  
and  
Reclamation Procedures

Construction:

1. The operator or his contractor will contact the San Juan Resource Area Office in Monticello, Utah, (801) 587-2201, 48 hours before beginning any work on public land.
2. The operator will give the dirt contractor a copy of the Surface Use Plan and any additional BLM stipulations prior to any work.
3. Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer (801) 637-1303 and by receiving permission from the land owner or surface managing agency to use the land containing the water source.
4. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they will be subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.
5. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Surfacing material will not be placed on the access road or location without prior BLM approval.

6. The top six inches of soil material will be removed from the location and stockpiled separate from the trees on the south side. Topsoil along the access will be reserved in place.

Rehabilitation:

1. The operator or his contractor will contact the San Juan Resource Area BLM office in Monticello, Utah (801) 587-2201, 48 hours before starting rehabilitation work that involves earthmoving equipment and upon completion of restoration measures.
2. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
3. The stockpiled topsoil will be evenly distributed over the disturbed area.
4. Seed will be broadcast at a time to be specified by the BLM with the following seed prescription. When broadcast seeding, a harrow or similar implement will be dragged over the seeded area to assure seed cover.

5. The access will be blocked to prevent vehicular access.
6. Water bars will be constructed as follows to control erosion.

<u>Grade</u>	<u>Spacing</u>
2%	Every 200 feet
2-4%	Every 100 feet
4-5%	Every 75 feet
5+%	Every 50 feet

Production:

1. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the rehabilitation section. Enough topsoil will be retained to reclaim the remainder of the location at a future date. The remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.
2. The access shall be upgraded to BLM Class III Road specifications.

CORE LABORATORIES, INC.  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

MARATHON OIL COMPANY

TIN CUP MESA #2-23  
WILDCAT  
SAN JUAN, UTAH

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

PAGE 1

MARATHON OIL COMPANY  
 TIN CUP MESA #2-23  
 WILDCAT  
 SAN JUAN, UTAH

DATE : 10-6-82  
 FORMATION : AS NOTED  
 DRLG. FLUID: WATER BASE MUD  
 LOCATION : SE SW SEC.23-38S-25E

FILE NO : RP-3-003235  
 ANALYSTS : GG/DS  
 ELEVATION: 5067 KB

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM	90 DEG	POR. He	FLUID SATS. OIL	WTR	GRAIN DEN	DESCRIPTION
ISMAY FORMATION								
	5450.0-54.0							ANHYDRITE--NO ANALYSIS
1	5454.0-55.0	1.20	*	12.6	7.8	40.7	2.82	DOL, BRN RTHY SL/ANHY
2	5455.0-56.0	0.78	0.78	10.1	4.5	19.9	2.85	DOL, BRN RTHY SL/ANHY
3	5456.0-57.0	0.10	0.05	5.3	3.6	35.7	2.85	DOL, BRN RTHY SL/ANHY
4	5457.0-58.0	4.30	4.10	12.8	0.7	16.3	2.85	DOL, BRN RTHY SL/ANHY
5	5458.0-59.0	22.	21.	21.6	2.6	30.9	2.83	DOL, BRN RTHY
6	5459.0-60.0	45.	38.	27.4	2.2	32.7	2.82	DOL, BRN RTHY
7	5460.0-61.0	47.	47.	26.5	2.2	26.5	2.82	DOL, BRN RTHY
8	5461.0-62.0	5.20	*	17.4	4.2	17.9	2.81	DOL, BRN RTHY STY
9	5462.0-63.0	4.60	3.60	12.2	3.7	29.3	2.87	DOL, BRN FXLN VUG SL/ANHY
10	5463.0-64.0	0.41	0.37	10.5	13.9	23.9	2.82	DOL, BRN FXLN
11	5464.0-65.0	1.20	1.10	12.6	7.8	35.2	2.79	DOL, BRN FXLN LM SL/VUG
12	5465.0-66.0	1.50	1.30	11.9	10.1	25.8	2.78	DOL, BRN FXLN LM SL/VUG
13	5466.0-67.0	3.10	2.80	12.2	8.7	39.7	2.75	DOL, BRN FXLN SL/VUG
14	5467.0-68.0	1.60	1.40	8.4	11.9	33.8	2.83	DOL, BRN FXLN LM SL/VUG
15	5468.0-69.0	4.40	4.10	13.3	10.4	33.0	2.78	DOL, BRN FXLN LM SL/VUG
16	5469.0-70.0	2.70	2.60	13.1	10.5	36.2	2.76	DOL, BRN FXLN LM SL/VUG
17	5470.0-71.0	1.20	1.20	10.8	8.4	28.1	2.75	DOL, BRN FXLN LM SL/VUG
18	5471.0-72.0	0.43	0.42	7.6	1.5	32.9	2.77	DOL, BRN FXLN LM SL/VUG
19	5472.0-73.0	0.32	0.29	4.2	1.8	24.6	2.75	LM, GY FXLN DOL SL/VUG
20	5473.0-74.0	0.22	0.23	8.5	6.1	31.8	2.77	LM, GY FXLN DOL SL/VUG
21	5474.0-75.0	1.30	1.20	7.4	4.9	34.2	2.80	LM GY FXLN DOL SL/VUG
22	5475.0-76.0	12.	11.	18.4	14.1	33.4	2.87	DOL, BRN/GY FXLN ANHY SL/VUG
23	5476.0-77.0	23.	23.	18.7	14.3	31.5	2.86	DOL, BRN/GY FXLN ANHY SL/VUG
24	5477.0-78.0	32.	9.50	10.7	18.3	36.6	2.89	DOL, BRN/GY FXLN ANHY SL/VUG

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

PAGE 2

MARATHON OIL COMPANY  
 TIN CUP MESA #2-23

DATE : 10-6-82  
 FORMATION : AS NOTED

FILE NO : RP-3-003235  
 ANALYSTS : GG/DS

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
25	5478.0-79.0	9.10	8.90	14.1	16.0	36.9	2.89	DOL, BRN/GY FXLN ANHY SL/VUG
26	5479.0-80.0	11.0	10.0	22.7	11.2	46.5	2.81	DOL, BRN RTHY
27	5480.0-81.0	2.10	1.40	19.5	20.1	38.4	2.81	DOL, BRN RTHY
28	5481.0-82.0	6.40	6.10	21.6	17.8	34.0	2.82	DOL, BRN RTHY
29	5482.0-83.0	8.60	*	24.0	18.1	33.3	2.79	DOL, BRN RTHY
30	5483.0-84.0	0.60	*	17.9	13.1	37.0	2.78	DOL, BRN RTHY SL/ANHY
31	5484.0-85.0	0.58	*	4.3	2.8	22.7	2.77	LM, GY FXLN SL/DOL SL/ANHY SL/VUG STY
32	5485.0-86.0	0.38	0.28	5.4	6.9	21.5	2.79	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
33	5486.0-87.0	1.20	0.74	5.9	9.5	38.1	2.79	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
34	5487.0-88.0	1.00	0.98	6.6	7.8	40.5	2.78	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
35	5488.0-89.0	5.40	4.30	10.0	12.0	24.0	2.77	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
36	5489.0-90.0	6.60	4.60	12.1	9.0	19.9	2.82	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
37	5490.0-91.0	1.40	1.10	6.4	7.3	27.1	2.79	LM, GY FXLN SL/DOL SL/ANHY SL/VUG
38	5491.0-92.0	4.40	3.70	12.5	12.9	38.7	2.74	LM, GY FXLN SL/DOL VUG
39	5492.0-93.0	3.40	3.00	8.7	8.5	24.5	2.74	LM, GY FXLN SL/DOL VUG
40	5493.0-94.0	0.08	*	4.4	7.9	18.0	2.73	LM, GY FXLN SL/DOL VUG
41	5494.0-95.0	2.60	2.00	7.4	7.9	31.4	2.77	LM, GY FXLN SL/DOL VUG
42	5495.0-96.0	2.90	2.90	7.3	6.6	21.1	2.76	LM, GY FXLN SL/DOL VUG
43	5496.0-97.0	4.10	3.30	6.8	8.1	29.2	2.81	LM, GY FXLN SL/DOL VUG
44	5497.0-98.0	0.06	*	9.4	9.7	27.6	2.77	LM, GY FXLN SL/DOL VUG
45	5498.0-99.0	8.50	5.20	9.4	8.1	23.3	2.76	LM, GY FXLN SL/DOL VUG
46	5499.0-00.0	1.20	1.10	6.2	6.1	54.8	2.75	LM, GY FXLN SL/DOL VUG
47	5500.0-01.0	1.30	1.20	5.6	4.3	25.9	2.74	LM, GY FXLN SL/DOL VUG
48	5501.0-02.0	0.83	0.67	5.4	4.5	13.6	2.75	LM, GY FXLN SL/DOL VUG
49	5502.0-03.0	1.30	1.20	6.7	1.1	24.2	2.76	LM, GY FXLN SL/DOL
50	5503.0-04.0	2.60	2.10	7.0	10.3	17.7	2.74	LM, GY FXLN SL/DOL VUG
51	5504.0-05.0	2.90	2.40	8.4	8.6	22.1	2.74	LM, GY FXLN SL/DOL VUG
52	5505.0-06.0	1.60	1.40	7.5	2.2	43.0	2.74	LM, GY FXLN SL/DOL VUG
53	5506.0-07.0	1.60	1.20	6.6	0.9	5.6	2.74	LM, GY FXLN SL/DOL VUG
54	5507.0-08.0	1.60	*	6.3	1.2	11.6	2.74	LM, GY FXLN SL/DOL SL/VUG

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

MARATHON OIL COMPANY  
 TIN CUP MESA #2-23

DATE : 1-10-82  
 FORMATION : AS NOTED

FILE NO : RP-3-003235  
 ANALYSTS : GG/DS

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
55	5508.0-09.0	2.20	1.70	5.4	0.0	33.9	2.76	LM, GY FXLN SL/DOL SL/VUG
56	5509.0-10.0	0.12	*	2.0	0.0	9.2	2.75	LM, GY FXLN SL/DOL SL/VUG
57	5510.0-11.0	0.26	*	18.2	0.6	73.7	2.81	DOL, BRN RTHY STY
58	5511.0-12.0	1.80	1.70	22.6	0.4	70.3	2.81	DOL, BRN RTHY
59	5512.0-13.0	1.70	1.50	15.8	0.3	66.0	2.83	DOL, BRN RTHY
60	5513.0-14.0	5.00	4.10	21.6	0.0	56.6	2.82	DOL, BRN RTHY
61	5514.0-15.0	0.26	0.20	3.0	0.0	42.8	2.74	LM, GY FXLN SL/ANHY
62	5515.0-16.0	0.07	*	5.3	3.4	40.6	2.75	LM, GY FXLN SL/DOL SL/ANHY
63	5516.0-17.0	1.30	0.87	8.0	7.5	39.2	2.78	LM, GY FXLN SL/DOL SL/ANHY
64	5517.0-18.0	5.30	4.10	10.4	9.7	38.7	2.78	LM, GY FXLN SL/DOL SL/ANHY
65	5518.0-19.0	2.30	2.20	6.6	7.2	25.8	2.77	LM, GY FXLN SL/DOL SL/ANHY
66	5519.0-20.0	0.69	0.63	5.0	6.5	23.4	2.76	LM, GY FXLN SL/DOL SL/ANHY
67	5520.0-21.0	0.69	0.59	7.7	0.0	30.2	2.76	LM, GY FXLN SL/DOL SL/ANHY
68	5521.0-22.0	0.03	*	4.5	0.0	8.1	2.75	LM, GY FXLN SL/DOL SL/ANHY
69	5522.0-23.0	0.76	0.75	4.4	0.0	32.8	2.75	LM, GY FXLN SL/DOL SL/ANHY
70	5523.0-24.0	0.45	0.28	2.4	0.0	34.3	2.76	LM, GY FXLN SL/DOL SL/ANHY
71	5524.0-25.0	0.07	*	1.5	0.0	12.0	2.75	LM, GY FXLN SL/DOL SL/ANHY
72	5525.0-26.0	0.78	0.74	9.8	1.3	56.6	2.79	DOL, BRN RTHY
73	5526.0-27.0	0.26	0.24	16.1	1.5	71.2	2.81	DOL, BRN RTHY
74	5527.0-28.0	0.09	0.08	13.7	3.8	63.0	2.78	DOL, BRN RTHY
75	5528.0-29.0	0.33	0.22	12.7	5.6	50.9	2.78	DOL, BRN RTHY
76	5529.0-30.0	0.01	*	1.1	51.1	8.5	2.71	LM, GY FXLN
77	5530.0-31.0	0.18	0.14	6.0	1.5	57.6	2.74	LM, GY FXLN DOL
78	5531.0-32.0	2.30	2.10	10.4	7.6	45.8	2.73	LM, GY FXLN DOL
79	5532.0-33.0	3.10	3.00	11.9	7.3	44.0	2.76	LM, GY FXLN DOL
80	5533.0-34.0	1.40	1.20	9.9	0.0	45.2	2.75	LM, GY FXLN DOL
81	5534.0-35.0	1.30	1.00	9.3	0.0	51.3	2.76	LM, GY FXLN DOL
82	5535.0-36.0	3.60	3.30	9.6	0.0	52.6	2.76	LM, GY FXLN DOL
83	5536.0-37.0	14.	8.90	9.8	0.0	46.5	2.78	LM, GY FXLN DOL
84	5537.0-38.0	1.10	1.10	8.2	0.0	50.4	2.75	LM, GY FXLN DOL

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

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MARATHON OIL COMPANY  
 TIN CUP MESA #2-23

DATE : 10-6-82  
 FORMATION : AS NOTED

FILE NO : RP-3-003235  
 ANALYSTS : GG/DS

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID SATS. OIL	WTR	GRAIN DEN	DESCRIPTION
85	5538.0-39.0	1.10	1.00	8.4	0.0	45.1	2.78	LM, GY FXLN DOL
86	5539.0-40.0	1.00	0.50	7.1	0.0	57.3	2.77	LM, GY FXLN DOL
87	5540.0-41.0	1.30	1.00	22.2	0.0	79.6	2.85	DOL, BRN RTHY
88	5541.0-42.0	1.60	1.50	14.9	0.0	67.5	2.81	DOL, BRN RTHY
89	5542.0-43.0	0.01	*	7.3	0.0	47.3	2.77	DOL, BRN VFXLN LM
90	5543.0-44.0	0.01	*	2.6	0.0	44.2	2.76	LN, GY FXLN SL/ANHY STY
91	5544.0-45.0	0.67	0.48	7.6	0.0	43.2	2.79	LM, GY FXLN SL/ANHY
92	5545.0-46.0	0.41	0.29	7.7	0.0	40.3	2.80	LN, GY FXLN SL/ANHY
93	5546.0-47.0	0.95	*	6.3	0.0	50.5	2.75	LM, GY FXLN SL/ANHY STY
94	5547.0-48.0	0.30	0.20	5.0	0.0	42.5	2.76	LM, GY FXLN SL/ANHY STY
95	5548.0-49.0	0.43	0.34	6.6	0.0	52.0	2.77	LM, GY FXLN SL/ANHY
96	5549.0-50.0	0.22	0.21	4.9	0.0	29.4	2.77	LM, GY FXLN SL/ANHY STY
97	5550.0-51.0	0.08	*	4.6	2.4	43.0	2.75	LM, GY FXLN SL/ANHY
98	5551.0-52.0	0.63	*	2.9	0.0	38.2	2.74	LM, GY FXLN SL/ANHY
99	5552.0-53.0	1.10	0.62	5.5	0.0	34.6	2.77	LM, GY FXLN SL/ANHY
100	5553.0-54.0	0.18	*	4.2	2.7	53.6	2.78	LM, GY FXLN SL/ANHY
101	5554.0-55.0	0.48	*	7.8	0.0	31.8	2.82	LM, GY FXLN SL/ANHY STY
102	5555.0-56.0	0.64	0.61	9.2	0.0	41.2	2.76	LM, GY FXLN SL/ANHY
103	5556.0-57.0	4.10	*	8.2	0.0	59.0	2.75	LM, GY FXLN SL/ANHY
104	5557.0-58.0	0.55	0.48	5.6	0.0	48.3	2.78	LM, GY FXLN SL/ANHY
105	5558.0-59.0	0.49	0.47	4.1	0.0	44.3	2.79	LN, GY FXLN SL/ANHY
106	5559.0-60.0	6.00	5.30	5.0	2.9	40.2	2.76	LM, GY FXLN SL/ANHY
107	5560.0-61.0	0.84	0.51	6.9	0.0	41.0	2.80	LM, GY FXLN SL/ANHY
108	5561.0-62.0	10.	4.30	7.0	1.9	22.6	2.78	LM, GY FXLN SL/ANHY
109	5562.0-63.0	3.40	1.60	4.1	2.5	30.1	2.77	LN, GY FXLN SL/ANHY
110	5563.0-64.0	0.55	0.53	2.1	0.0	20.5	2.79	LM, GY FXLN SL/ANHY
111	5564.0-65.0	0.67	0.64	0.7	0.0	36.3	2.78	LN, GY FXLN SL/ANHY
112	5565.0-66.0	0.04	*	2.2	0.0	37.3	2.76	LM, GY FXLN SL/ANHY
113	5566.0-67.0	3.60	3.40	15.4	1.3	53.8	2.84	DOL, BRN/GY FXLN LM
114	5567.0-68.0	0.02	*	7.2	2.9	56.9	2.81	DOL, BRN/GY FXLN LM

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MARATHON OIL COMPANY  
 TIN CUP MESA #2-23

DATE : 10-6-82  
 FORMATION : AS NOTED

FILE NO : RP-3-003235  
 ANALYSTS : GG/DS

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
115	5568.0-69.0	2.20	2.20	19.2	0.0	71.1	2.81	DOL, BRN/GY FXLN LM
116	5569.0-70.0	0.40	*	22.3	0.0	62.0	2.81	DOL, BRN/GY FXLN LM
	5570.0-26.0							DRILLED INTERVAL
DESERT CREEK FORMATION								
	5726.0-32.0							ANHYDRITE--NO ANALYSIS
117	5732.0-33.0	<0.01	*	4.8	11.5	59.7	2.72	LM, BRN/GY FXLN
118	5733.0-34.0	<0.01	*	4.1	11.1	62.3	2.72	LM, BRN/GY FXLN
119	5734.0-35.0	<0.01	*	3.2	20.0	51.3	2.73	LM, BRN/GY FXLN
120	5735.0-36.0	<0.01	*	2.7	7.3	29.2	2.73	LM, BRN/GY FXLN
121	5736.0-37.0	<0.01	*	1.6	5.7	56.7	2.72	LM, BRN/GY FXLN
122	5737.0-38.0	<0.01	*	1.4	5.0	30.0	2.71	LM, BRN GY FXLN
123	5738.0-39.0	<0.01	*	1.7	4.4	34.9	2.71	LM, BRN/GY FXLN
124	5739.0-40.0	<0.01	*	3.5	17.7	67.0	2.69	LM, DKBRN FXLN SHY
125	5740.0-41.0	<0.01	*	4.5	13.9	55.4	2.66	LM, DKBRN FXLN SHY
126	5741.0-42.0	<0.01	*	1.7	2.9	70.2	2.69	LM, BRN/GY FXLN
127	5742.0-43.0	<0.01	*	2.6	17.9	43.0	2.71	LM, BRN/GY FXLN
128	5743.0-44.0	<0.01	*	2.7	3.5	56.6	2.72	LM, BRN/GY FXLN
129	5744.0-45.0	<0.01	*	1.9	21.2	42.5	2.71	LM, BRN/GY FXLN
130	5745.0-46.0	<0.01	*	1.6	0.0	37.0	2.71	LM, BRN/GY FXLN
131	5746.0-47.0	<0.01	*	1.9	6.5	25.8	2.71	LM, BRN/GY FXLN
132	5747.0-48.0	<0.01	*	2.4	29.8	23.8	2.72	LM, DKBRN FXLN
133	5748.0-49.0	<0.01	*	2.3	11.5	46.0	2.70	LM, DKBRN FXLN
	5749.0-68.0							SHALE--NO ANALYSIS
134	5768.0-69.0	<0.01	*	1.0	7.7	15.4	2.74	LM, DKBRN FXLN SL/PYR
135	5769.0-70.0	<0.01	*	1.8	34.1	9.7	2.69	LM, DKBRN FXLN
136	5770.0-71.0	<0.01	*	2.5	22.2	44.4	2.69	LM, DKBRN FXLN
137	5771.0-72.0	<0.01	*	3.2	31.1	31.1	2.70	LM, DKBRN FXLN
138	5772.0-73.0	0.03	*	5.1	31.1	41.5	2.68	LM, DKBRN FXLN

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MARATHON OIL COMPANY  
 TIN CUP MESA #2-23

DATE : 10-8-82  
 FORMATION : AS NOTED

FILE NO : RF-3-003235  
 ANALYSTS : GG/DS

FULL DIAMETER ANALYSIS--BOYLE'S LAW POROSITY

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
139	5773.0-74.0	<0.01	*	9.3	19.2	59.9	2.71	LM, DKBRN FXLN
140	5774.0-75.0	0.01	*	4.0	0.0	88.0	2.70	LM, DKBRN FXLN
141	5775.0-76.0	<0.01	*	4.7	0.0	59.8	2.75	LM, DKBRN FXLN
142	5776.0-77.0	<0.01	*	2.7	0.0	57.8	2.71	LM, DKBRN FXLN
143	5777.0-78.0	<0.01	*	4.1	2.8	56.4	2.73	LM, DKBRN FXLN
144	5778.0-79.0 5779.0-80.0	<0.01	*	1.0	8.1	16.2	2.81	LM, GY FXLN SL/ANHY LOST RECOVERY

\* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

MARATHON OIL COMPANY  
TIN CUP MESA #2-23

DATE: 10-6-82  
FORMATION : AS NOTED

FILE NO. : RP-3-003235  
ANALYSTS : GG/DS

\*\*\* CORE SUMMARY AVERAGES FOR 1 ZONE \*\*\*

DEPTH INTERVAL: 5454.0 TO 5570.0

FEET OF CORE ANALYZED : 116.0 FEET OF CORE INCLUDED IN AVERAGES: 116.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY MAXIMUM RANGE (MD.)	:	0.00 TO 50.	(UNCORRECTED FOR SLIPPAGE)
HELIUM POROSITY RANGE (%)	:	0.0 TO 100.0	
OIL SATURATION RANGE (%)	:	0.0 TO 100.0	
WATER SATURATION RANGE (%)	:	0.0 TO 100.0	

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 5454.0 TO 5570.0

AVERAGE PERMEABILITY (MILLIDARCIES)		PRODUCTIVE CAPACITY (MILLIDARCY-FEET)	
ARITHMETIC PERMEABILITY	: 3.5	ARITHMETIC CAPACITY	: 406.
GEOMETRIC PERMEABILITY	: 1.1	GEOMETRIC CAPACITY	: 122.
HARMONIC PERMEABILITY	: 0.19	HARMONIC CAPACITY	: 22.
GEOMETRIC MAXIMUM & 90 DEG PERM.	: 0.55	GEOMETRIC MAXIMUM & 90 DEG CAPACITY:	64.
AVERAGE POROSITY (PERCENT)	: 9.7	AVERAGE TOTAL WATER SATURATION	: 40.5
		(PERCENT OF PORE SPACE)	
AVERAGE RESIDUAL OIL SATURATION	: 5.5	AVERAGE CONNATE WATER SATURATION	:
(PERCENT OF PORE SPACE)		(PERCENT OF PORE SPACE)	

CORE LABORATORIES, INC.  
Petroleum Reservoir Engineering  
DALLAS, TEXAS

MARATHON OIL COMPANY DATE : 10-6-82  
TIN CUP MESA #2-23 FORMATION : AS NOTED

FILE NO. : RP-3-003235  
ANALYSTS : GG/DS

\*\*\* CORE SUMMARY AVERAGES FOR 1 ZONE \*\*\*

DEPTH INTERVAL: 5732.0 TO 5779.0

FEET OF CORE ANALYZED : 28.0 FEET OF CORE INCLUDED IN AVERAGES: 28.0

-- SAMPLES FALLING WITHIN THE FOLLOWING RANGES WERE AVERAGED --

PERMEABILITY MAXIMUM RANGE (MD.) : 0.00 TO 0.10 (UNCORRECTED FOR SLIPPAGE)  
HELIUM POROSITY RANGE (%) : 0.0 TO 100.0  
OIL SATURATION RANGE (%) : 0.0 TO 100.0  
WATER SATURATION RANGE (%) : 0.0 TO 100.0

SHALE SAMPLES EXCLUDED FROM AVERAGES.

AVERAGES FOR DEPTH INTERVAL: 5732.0 TO 5779.0

AVERAGE PERMEABILITY (MILLIDARCIES)		PRODUCTIVE CAPACITY (MILLIDARCY-FEET)	
ARITHMETIC PERMEABILITY	: 0.00	ARITHMETIC CAPACITY	: 0.13
GEOMETRIC PERMEABILITY	: 0.00	GEOMETRIC CAPACITY	: 0.10
HARMONIC PERMEABILITY	: 0.00	HARMONIC CAPACITY	: 0.08
GEOMETRIC MAXIMUM & 90 DEG PERM.	: 0.00	GEOMETRIC MAXIMUM & 90 DEG CAPACITY:	0.05
AVERAGE POROSITY (PERCENT)	: 3.0	AVERAGE TOTAL WATER SATURATION	: 50.5
		(PERCENT OF PORE SPACE)	
AVERAGE RESIDUAL OIL SATURATION	: 13.4	AVERAGE CONNATE WATER SATURATION	:
(PERCENT OF PORE SPACE)		(PERCENT OF PORE SPACE)	

PERMEABILITY VS POROSITY

COMPANY: MARATHON OIL COMPANY  
 FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
 COUNTY, STATE: SAN JUAN, UTAH

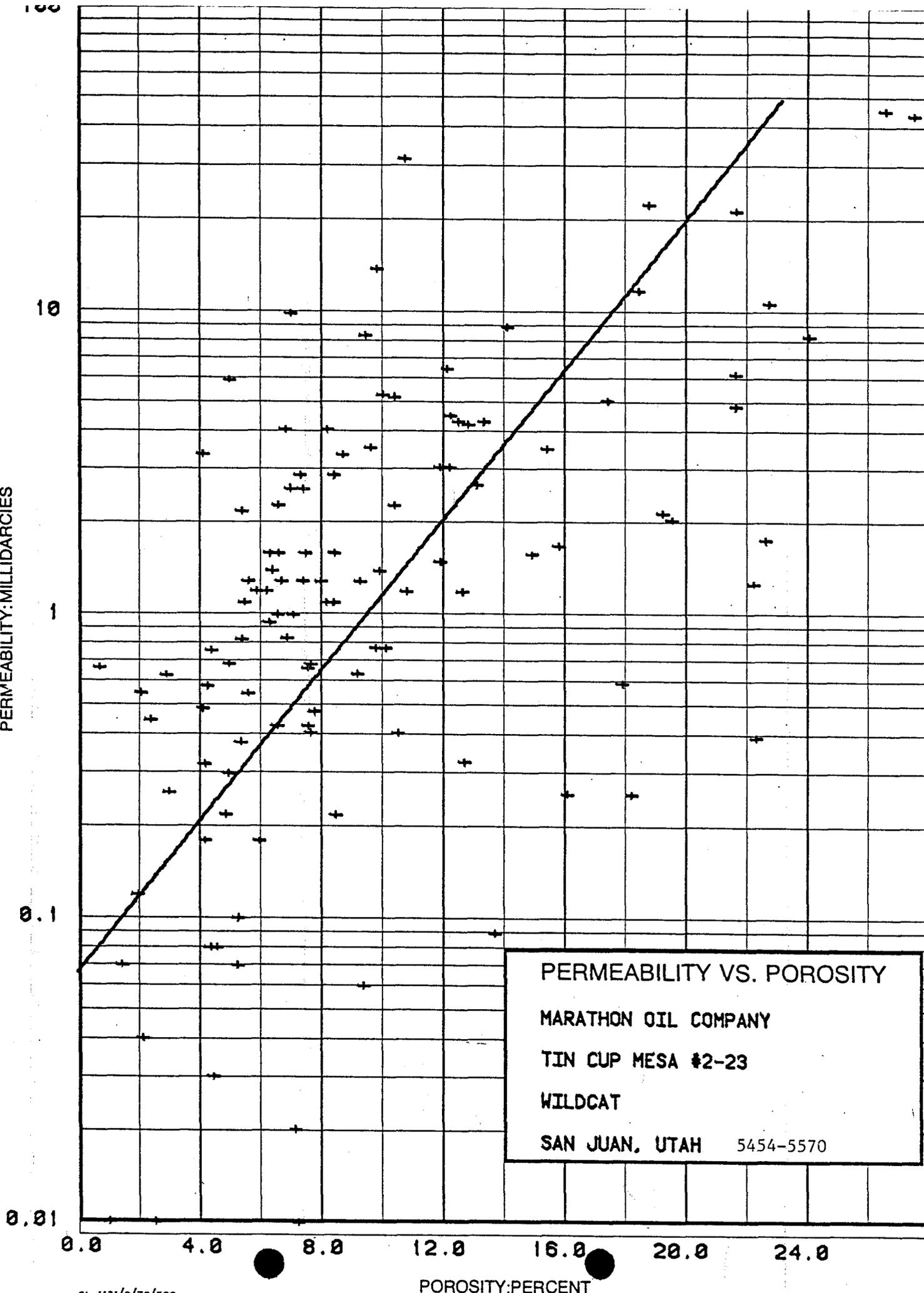
AIR PERMEABILITY : MD - HORIZONTAL ( UNCORRECTED FOR SLIPPAGE )  
 POROSITY : PERCENT ( HELIUM )

DEPTH INTERVAL	RANGE & SYMBOL	PERMEABILITY		POROSITY		POROSITY AVERAGE	PERMEABILITY AVERAGES		
		MINIMUM	MAXIMUM	MIN.	MAX.		ARITHMETIC	HARMONIC	GEOMETRIC
5454.0 - 5570.0	1 (+)	0.001	50.0	0.5	28.0	9.7	3.5	0.19	1.1

EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :  
 $\log(K) = (\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT}$   
 $K = \text{ANTILOG}((\text{SLOPE})(\text{POROSITY}) + \text{LOG OF INTERCEPT})$

RANGE	EQUATION OF THE LINE
1	PERM = ANTILOG(( 0.1253)(POROSITY) + -1.1948)

PERMEABILITY: MILLIDARCIES



PERMEABILITY VS. POROSITY  
MARATHON OIL COMPANY  
TIN CUP MESA #2-23  
WILDCAT  
SAN JUAN, UTAH 5454-5570

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: MARATHON OIL COMPANY  
FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
COUNTY, STATE: SAN JUAN, UTAH

AIR PERMEABILITY : MD. ( HORIZONTAL ) RANGE USED 0.001 TO 50.  
POROSITY : PERCENT ( HELIUM ) RANGE USED 0.0 TO 46.0

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 5454.0 - 5570.0 INTERVAL LENGTH : 116.0  
FEET ANALYZED IN ZONE : 116.0 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY AVERAGE	PERMEABILITY AVERAGES		
	ARITHMETIC	HARMONIC	GEOMETRIC
9.7	3.5	0.19	1.1

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: MARATHON OIL COMPANY  
 FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY POROSITY RANGES

POROSITY RANGE	FEET IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.0 - 2.0	3.0	1.1	0.078	0.250	2.6	2.6
2.0 - 4.0	7.0	2.5	0.153	0.294	6.0	8.6
4.0 - 6.0	22.0	4.9	0.433	0.948	19.0	27.6
6.0 - 8.0	26.0	7.0	0.839	1.6	22.4	50.0
8.0 - 10.0	16.0	9.0	1.5	2.9	13.8	63.8
10.0 - 12.0	9.0	10.7	2.5	5.8	7.8	71.6
12.0 - 14.0	11.0	12.7	1.9	3.0	9.5	81.0
14.0 - 16.0	4.0	15.1	3.1	4.0	3.4	84.5
16.0 - 18.0	3.0	17.1	0.933	2.0	2.6	87.1
18.0 - 20.0	5.0	18.8	3.2	7.9	4.3	91.4
20.0 - 22.0	3.0	21.6	8.9	11.	2.6	94.0
22.0 - 24.0	4.0	22.5	1.8	3.6	3.4	97.4
24.0 - 26.0	1.0	24.0	8.6	8.6	0.9	98.3
26.0 - 28.0	2.0	27.0	46.	46.	1.7	100.0

TOTAL NUMBER OF FEET = 116.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: MARATHON OIL COMPANY  
 FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
 COUNTY, STATE: SAN JUAN, UTAH

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	FEET IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
-----	-----	-----	-----	-----	-----	-----
0.010 - 0.020	3.0	0.010	0.010	3.7	2.6	2.6
0.020 - 0.039	2.0	0.024	0.025	5.8	1.7	4.3
0.039 - 0.078	4.0	0.059	0.060	4.6	3.4	7.8
0.078 - 0.156	5.0	0.093	0.094	6.0	4.3	12.1
0.156 - 0.312	8.0	0.232	0.235	8.2	6.9	19.0
0.312 - 0.625	15.0	0.446	0.454	8.1	12.9	31.9
0.625 - 1.250	22.0	0.895	0.920	7.3	19.0	50.9
1.250 - 2.500	21.0	1.6	1.7	11.0	18.1	69.0
2.500 - 5.000	17.0	3.5	3.5	10.1	14.7	83.6
5.- 10.	10.0	6.5	6.6	14.6	8.6	92.2
10.- 20.	4.0	12.	12.	14.5	3.4	95.7
20.- 40.	3.0	25.	26.	17.0	2.6	98.3
40.- 80.	2.0	46.	46.	27.0	1.7	100.0

TOTAL NUMBER OF FEET = 116.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: MARATHON OIL COMPANY  
 FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
 COUNTY, STATE: SAN JUAN, UTAH

POROSITY-FEET OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
-----	-----	-----	-----	-----	-----	-----
0.0	0.0	0.0	116.0	100.0	9.7	8.0
2.0	3.0	0.3	113.0	99.7	10.0	8.2
4.0	10.0	1.8	106.0	98.2	10.4	8.6
6.0	32.0	11.4	84.0	88.6	11.9	10.0
8.0	58.0	27.5	58.0	72.5	14.1	12.7
10.0	74.0	40.2	42.0	59.8	16.1	14.5
12.0	83.0	48.8	33.0	51.2	17.5	17.0
14.0	94.0	61.2	22.0	38.8	19.9	19.6
16.0	98.0	66.5	18.0	33.5	21.0	20.7
18.0	101.0	71.1	15.0	28.9	21.8	21.7
20.0	106.0	79.4	10.0	20.6	23.3	23.0
22.0	109.0	85.1	7.0	14.9	24.0	
24.0	113.0	93.1	3.0	6.9	26.0	26.5
26.0	114.0	95.2	2.0	4.8	27.0	
28.0	116.0	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-FEET = 1128.0

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

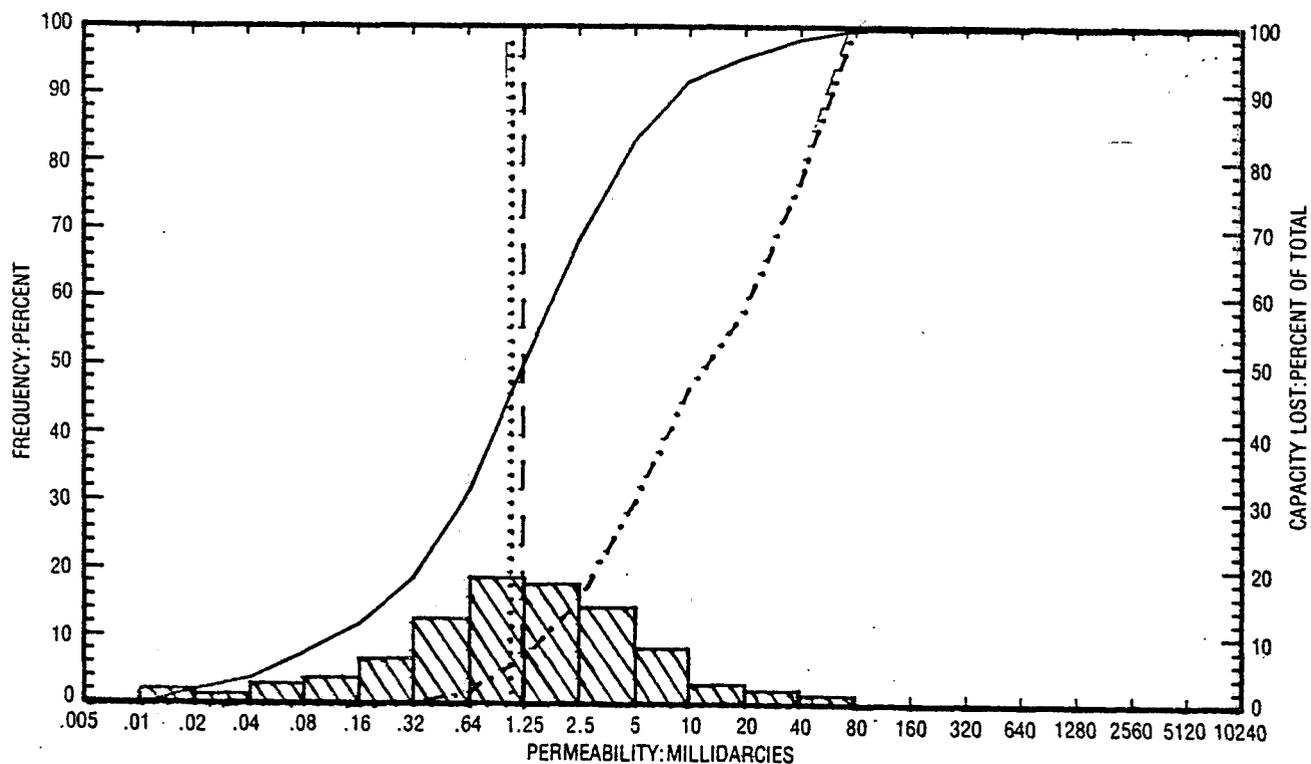
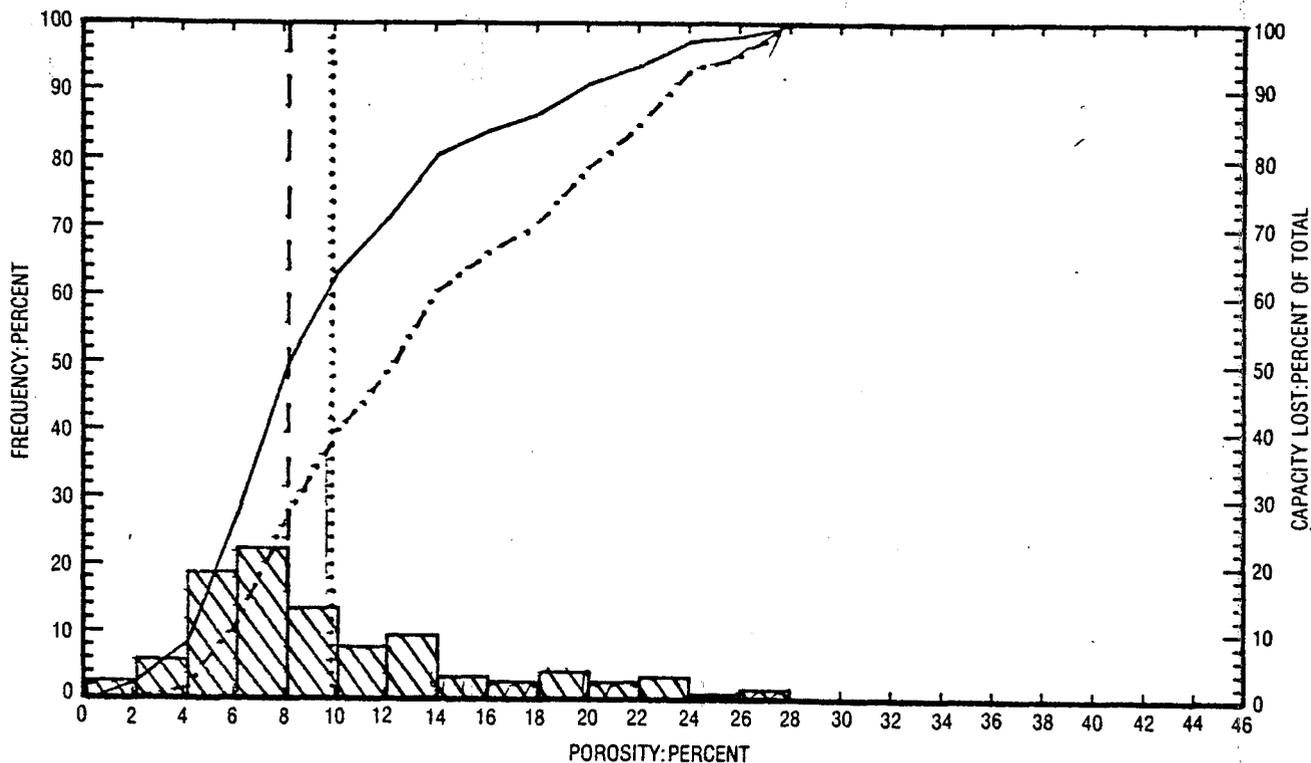
COMPANY: MARATHON OIL COMPANY  
 FIELD : WILDCAT

WELL : TIN CUP MESA #2-23  
 COUNTY, STATE: SAN JUAN, UTAH

MILLIDARCY-FEET OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	FEET LOST	CAPACITY LOST (%)	FEET REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	MEDIAN
0.005	0.0	0.0	116.0	100.0	1.06	1.21
0.010	0.0	0.0	116.0	100.0	1.08	1.21
0.020	3.0	0.0	113.0	100.0	1.19	1.27
0.039	5.0	0.0	111.0	100.0	1.28	1.31
0.078	9.0	0.1	107.0	99.9	1.44	1.40
0.156	14.0	0.2	102.0	99.8	1.64	1.52
0.312	22.0	0.7	94.0	99.3	1.94	1.74
0.625	37.0	2.3	79.0	97.7	2.57	2.23
1.250	59.0	7.3	57.0	92.7	3.86	3.39
2.500	80.0	15.9	36.0	84.1	6.41	5.36
5.	97.0	30.6	19.0	69.4	11.15	
10.	107.0	46.8	9.0	53.2	20.48	22.45
20.	111.0	58.4	5.0	41.6	32.13	
40.	114.0	77.4	2.0	22.6	45.99	
80.	116.0	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-FEET (ARITHMETIC) = 406.31



PERMEABILITY AND POROSITY HISTOGRAMS

MARATHON OIL COMPANY  
 TIN CUP MESA #2-23  
 WILDCAT  
 SAN JUAN, UTAH 5454-5570

**LEGEND**  
 ARITHMETIC MEAN POROSITY .....  
 GEOMETRIC MEAN PERMEABILITY .....  
 MEDIAN VALUE - - - - -  
 CUMULATIVE FREQUENCY ————  
 CUMULATIVE CAPACITY LOST - · - · -



PRELIMINARY REPORT:

**CORE LABORATORIES, INC.**

*Petroleum Reservoir Engineering*

COMPANY MARATHON OIL COMPANY FILE NO. RP-3-003235  
 WELL TIN CUP MESA #2-23 DATE 10-8-82  
 FIELD WILDCAT FORMATION AS NOTED ELEV. 5097 KB  
 COUNTY SAN JUAN STATE UTAH DRLG. FLD. WATER BASE MUD CORES \_\_\_\_\_  
 LOCATION SE SW SEC. 23-38S-25E

## CORRELATION COREGRAPH

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc., (all errors or omissions excepted); but Core Laboratories, Inc., and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

VERTICAL SCALE: 3" = 100'

Total Water \_\_\_\_\_  
 PERCENT PORE SPACE  
 100 80 60 40 20 0

Oil Saturation \_\_\_\_\_  
 PERCENT PORE SPACE  
 0 20 40 60 80 100

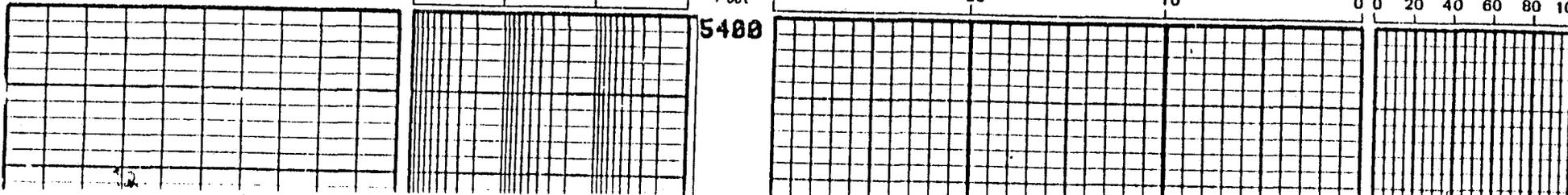
Gamma Ray  
 RADIATION INCREASE →

Permeability \_\_\_\_\_  
 MILLIDARCIES

Porosity \_\_\_\_\_  
 PERCENT

100 10 1.0 .1  
 Depth Feet 30

5488



core  
depth

5450

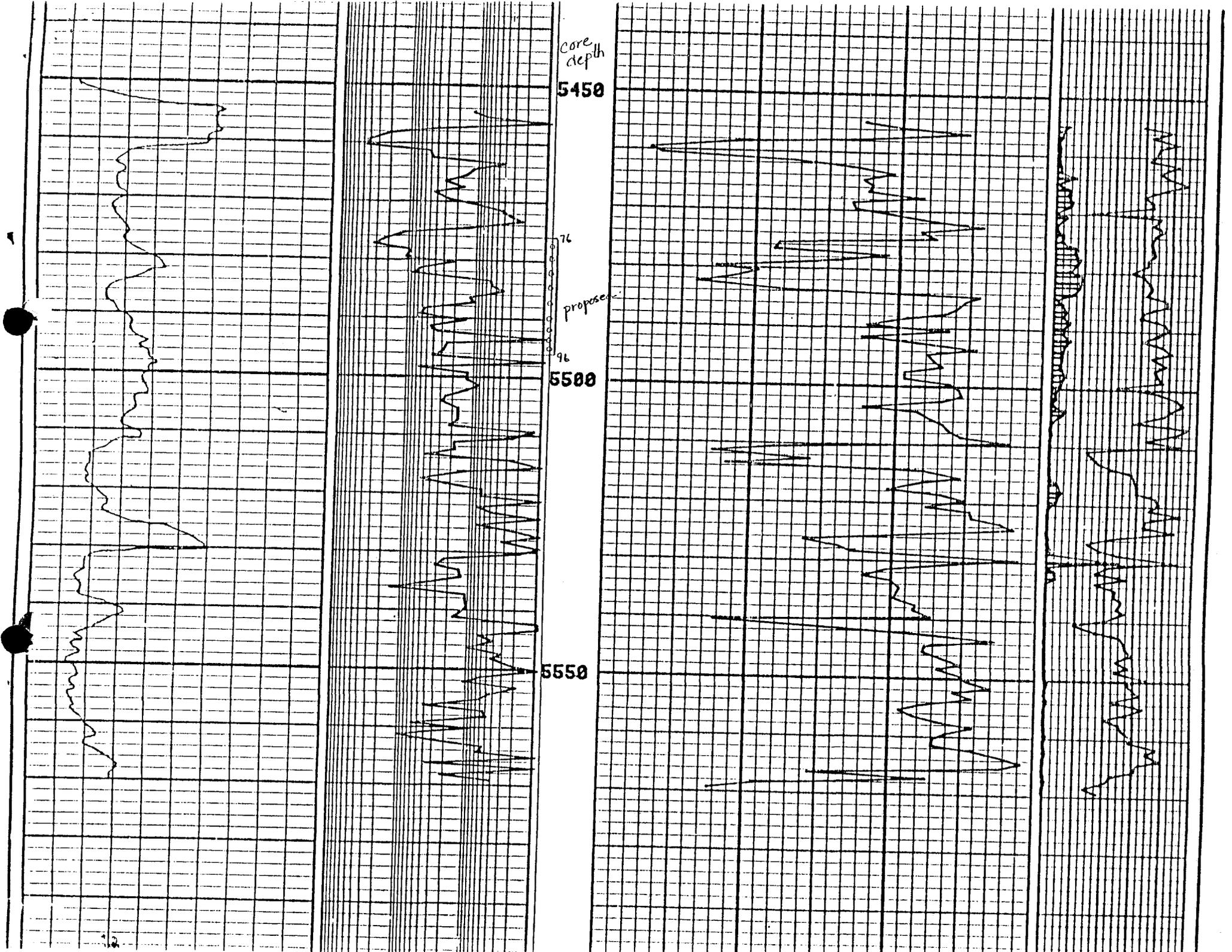
76

proposed

96

5500

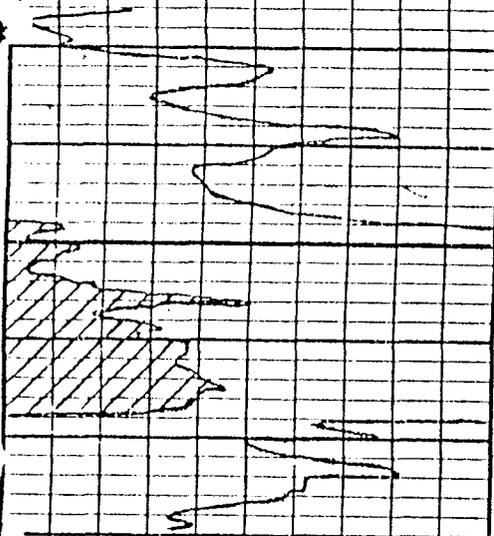
5550



5700

5750

5800



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  
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: 586.52' FSL & 3,171.39' FEL  
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\*

SUBSEQUENT REPORT OF:

- 
- 
- 
- 
- 
- 
- 
- 

(other) See Below

5. LEASE  
U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,084' GL, 5,097' KB

(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.)\*

**RECEIVED**  
OCT 14 1982

PROGRESS REPORT

From: 9-19-82 To: 9-29-82

DIVISION OF  
OIL, GAS & MINING

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED W.E. Bugh TITLE Superintendent DATE 10-11-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 9-19-82 421' MADE 421'. MW 9.0, VIS 38. MOVE IN & RU RIG. SPUD @ 6 P.M., 9-18-82. DRLG, NO PROB.
- 9-20-82 1,326' MADE 905' IN WINGATE FORMATION. MW 9.5, VIS 44. DRLD 12-1/2" HOLE. REAMED TITE HOLE FREE 1,070'-1,100'. DRLD 12-1/4" HOLE TO 1,326'. CIRC.
- 9-21-82 1,326' MADE 0' IN WINGATE FORMATION. BIT NO 1RR, 12-1/4", STC BJ9127, F2, JETS 12/12/12, DEPTH IN 64', DEPTH OUT 1,326', 1,262 FEET, 27-1/4 HRS, 46.3 FT/HR, CONDITION 4/E/I. CIRC TO RUN CSG. POH. RIG & RUN 32 JTS 9-5/8", K-55, ST&C CSG. DOWELL CMT W/550 SX, GOOD RETURNS. 9-20-82 CALLED RONALD FIRTH W/MMS INFORMED FOR TESTING BOPE.
- 9-22-82 1,425' MADE 99' IN WINGATE FORMATION. MW 8.4, VIS 26. NU & TEST BOPE. PU BHA & RIH. TAG TOP PLUG @ 1,275'. TEST FORMATION TO 13.5 PPG. DRLG AHEAD.
- 9-23-82 2,240' MADE 815' IN MONITOR BUTTE FORMATION. MW 8.6, VIS 44. BIT NO 1, 8-3/4", HTC, OSC3A H5165, JETS 12/11/B, DEPTH IN 1,326', DEPTH OUT 2,116', 790 FEET, 14 HRS, 564 FT/HR, CONDITION 4/F/1/2, REMARKS: 3 BEARING LOCKED. DRLD TO 2,116'. CIRC BU. PU IBS & CHRIST BIT. DRLG.
- 9-24-82 2,856' MADE 616' IN CUTLER FORMATION. MW 9.8, VIS 38. DRLD AHEAD TO 2,585' MADE 1" WTR FLOW INC MW 9# TO 9.3 PPG. DRLG AHEAD. SHINARUMP TOP 2,340-2,350'; MOENKOPI 2,395'-2,405'; CUTLER 2,455'-2,465'.
- 9-25-82 3,085' MADE 229' IN CUTLER FORMATION. MW 10.6+, VIS 60. BIT NO 2, 8-3/4", CHRIST 2W7295, R40, TFA .26, DEPTH IN 2,116', DEPTH OUT 3,085', 969 FEET, 39-1/4 HRS, 24.7 FT/HR, CONDITION 4/-/I, REMARKS: 4 INNER INSERT WORK 90%. DRLD TO 3,042'. HAD 1" WTR FLOW, WT MUD TO 10.3 PPG TO KILL FLOW. DRLD TO 3,085', HAD 1-1/2" WTR FLOW, WT MUD TO 10.6 PPG TO KILL FLOW. POH. A 1" WTR FLOW STARTED @ 4:30 A.M.
- 9-26-82 3,255' MADE 170' IN CUTLER FORMATION. MW 10.9, VIS 43. WTR FLOW INCREASED TO 2-1/2". RIH TO 1,324'. WT MUD TO 11.1 PPG. FIN RIH & KILL WTR FLOW. POH, FIN INSPECTING BHA. RIH. DRLD TO 3,125'.
- 9-27-82 3,659' MADE 334' IN CUTLER FORMATION. MW 11.6, VIS 46. DRLG AHEAD.
- 9-28-82 3,938' MADE 299' IN CUTLER FORMATION. MW 11.2, VIS 52. DRLG AHEAD.
- 9-29-80 4,190' MADE 252' IN CUTLER FORMATION. MW 11.3, VIS 50. BIT NO 3, 8-3/4", STC CE8658, F2, JETS 12/13/B, DEPTH IN 3,085', DEPTH OUT 4,156', 1,071 FEET, 68-1/2 HRS, 16 FT/HR, CONDITION 4/F/I, REMARKS: 5 BUTTONS BROKE. DRLD TO 4,156'. POH F/BIT #4. RIH. DRLG.

# CONFIDENTIAL

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  
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: 586.52' FSL & 3,171.39' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa Unit

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,084' GL, 5,097' KB

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) See Below

SUBSEQUENT TO THE DATE OF RECEIVED

OCT 27 1982

DIVISION OF OIL, GAS & MINING

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.)\*

The following procedure is needed to complete and test the above captioned well. Please see attachments.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct District \_\_\_\_\_  
SIGNED Dale Caddy TITLE Operations Manager DATE October 22, 1982

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TIN CUP MESA #2-23  
Section 23, T38S, R25E  
San Juan County, Utah

Form 9-331 Attachment

The battery for Tin Cup Mesa #2-23 will be the same as used for Tin Cup Mesa #3-26. This battery is located at the Tin Cup Mesa #1-25 well location. A 3" steel flowline will be ditched and laid along the existing road from #2-23 to the road junction to #3-26, approximately .6 miles. At this point a manifold will be built to allow diversion of individual well produced fluids down the 3" test line or the 4" production line that run down to the Tank Battery. In the same ditch with the 3" line from Tin Cup Mesa #2-23 to the manifold will be another 3" steel line for a possible nearby well, a 2" fiberglass line for transmitting fresh water to the producing wellheads from the tank battery, and a 2" plastic line to transmit dry gas to the wellhead for possible use as fuel for pumping unit engines.

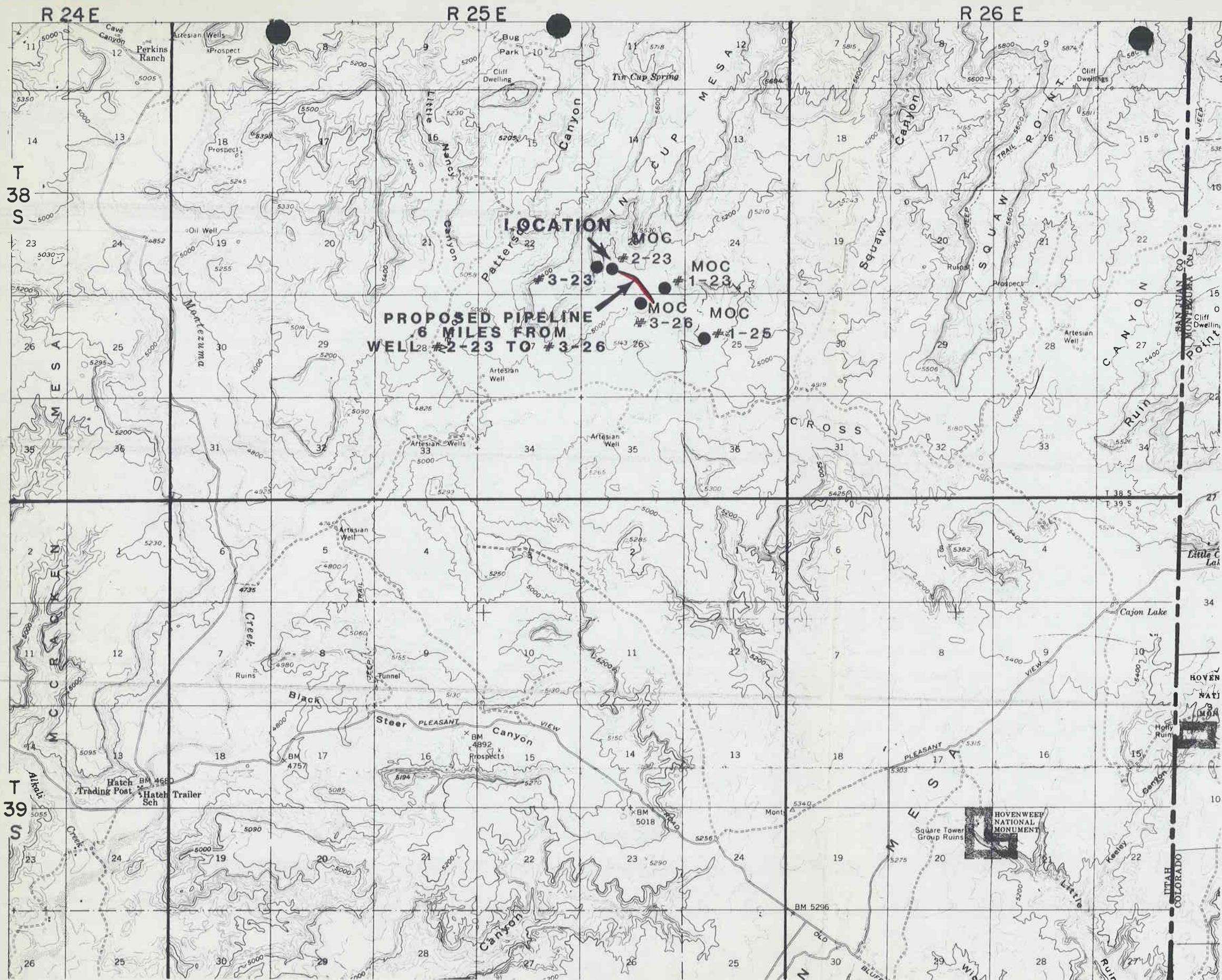
The existing battery will be used to test Tin Cup Mesa #2-23. The only other producer (#3-26) is SI and will remain so during the test period. The interval to be tested in this new well (Ismay) is the same as that producing from Tin Cup Mesa #3-26 and both wells are within the same unit. After determining the capacity of the new well, modifications to the existing tank battery may be necessary.

All test oil sold from #2-23 will be high and low gauged in the calibrated tanks and transporter run tickets will be furnished daily to the MMS office, Salt Lake City, Utah.

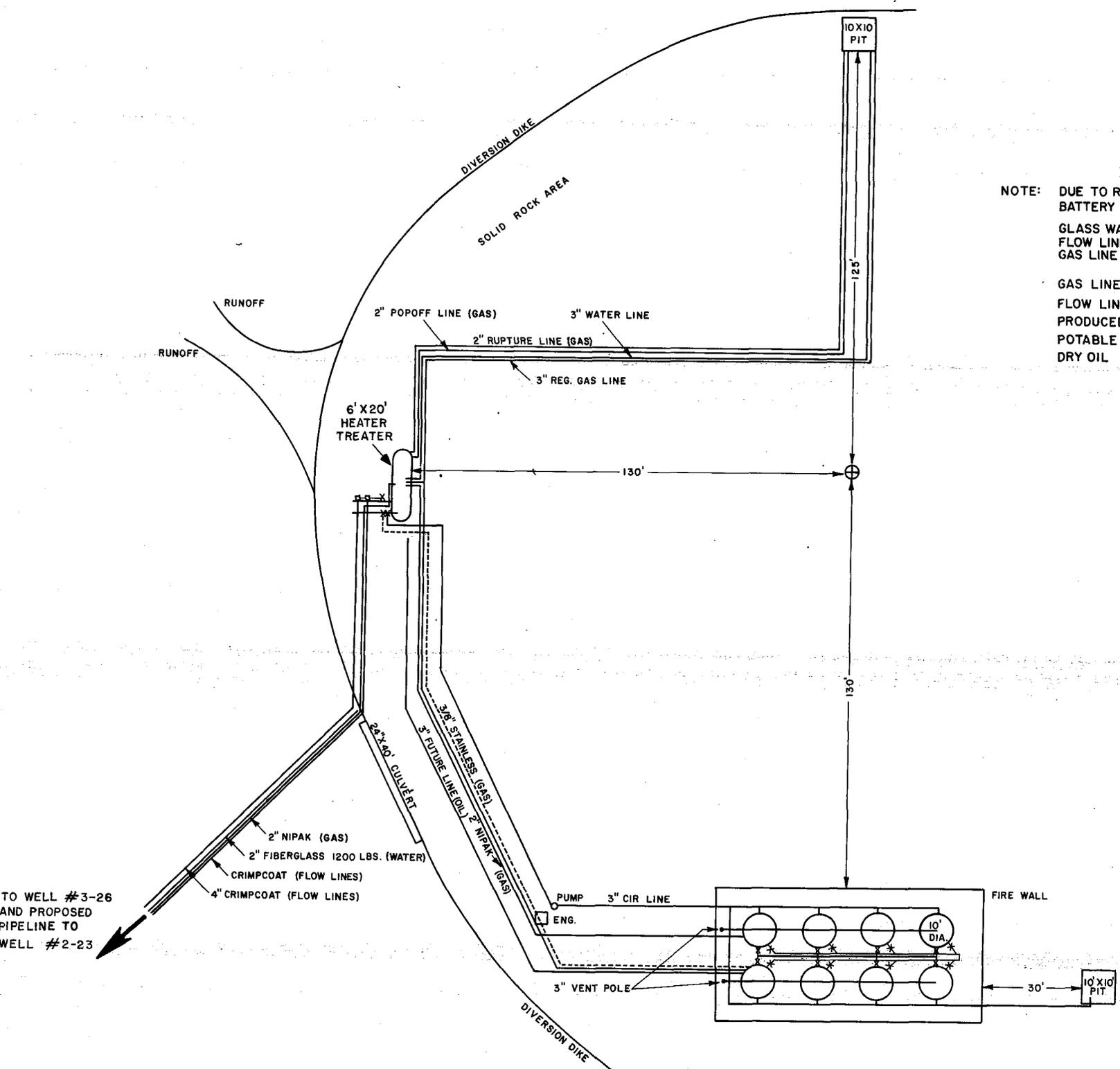
This request for the pipeline and selling of any test oil was discussed between Mr. Ed Guynn, MMS, and Walt West, Marathon Oil Company, October 20, 1982, in the MMS office, Salt Lake City, Utah.

Brian Wood of BLM, Monticello, Utah, office called Walt West, MOC, October 21, 1982, 4:00 p.m., and gave verbal permission for ground disturbance in the laying of flow lines from #2-23 to #3-26.

ESTC  
Walt West  
10/22/82



**VICINITY MAP FOR**  
**MARATHON OIL COMPANY      TIN CUP MESA**  
**PROPOSED PIPELINE FROM #2-23 TO WELL #3-26**  
**SAN JUAN COUNTY, UTAH**



NOTE: DUE TO ROCK CONDITIONS ALL LINES ON BATTERY 2' MINIMUM DEPTH.  
 GLASS WATER LINE 36" DEPTH WITH 6" PAD DIRT  
 FLOW LINES 30" DEPTH  
 GAS LINE 26" DEPTH

GAS LINES  
 FLOW LINES  
 PRODUCED WATER  
 POTABLE WATER  
 DRY OIL

TIN CUP TANK BATTERY  
 APPROX. SCALE 1" = 20'



TO WELL #3-26  
 AND PROPOSED  
 PIPELINE TO  
 WELL #2-23

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**CONFIDENTIAL**

Form Approved  
Budget Bureau No. 2-11429

U-31923

**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  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
P.O. Box 2659, Casper, WY 82502

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 536.52' FSL & 3,171.39' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH 13. STATE  
San Juan Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDS, AND WD)  
5,084' GL, 5,097' KB

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

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) <u>See Below</u>	

(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.)\*

PROGRESS REPORT

From: 9-30-82 To: 10-18-82

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED [Signature] TITLE Drilling Superintendent DATE 10/28/82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 10-16-82 5,798' MADE 0' IN AKAH SALT FORMATION. MILL ON FISH 1/2 HR. POH, REC MATA  
CUTTINGS ON MAGNET. RIH W/BIT. DRLD STAGE CLR. RIH TO FLT CLR @ 5,744'.  
POH, PU CSG SCRAPER & RIH. REV CIRC HOLE CLEAN. DOWELL DISPL HOLE W/2%  
KCL. POH. RU GEARHART & RUN CMT BOND LOG. PRESS TEST CSG W/DOWELL TO  
3,000 PSI F/15 MIN, OK.
- 10-17-82 5,798' MADE 0' IN AKAH SALT FORMATION. RIH ND BOPE. NU TBG HEAD & PRESS TEST TO  
3,500 PSI, OK. RIH W/PKR, WOULD NOT GO THRU STAGE CLR. POH W/PKR. SET  
PKR TO SHOP TO BE TURNED DOWN ON GAUGE RING.
- 10-16-82 5,798' MADE 0' IN AKAH SALT FORMATION. RIH W/PKR TO 1,700' & PKR KEPT SETTING,  
COULD NOT GO DOWNHOLE. POH PKR. RIH W/TBG, SET X-MAS TREE. RELEASED RIG  
@ 2 P.M., 10-17-82.

BEST COPY AVAILABLE

TINCUP MESA #2-23

- 10-10-82 5,730' MADE 16' IN AKAH FORMATION. MW 11.1, VIS 51. CORE HEAD RR #1, 8-3/4", CHRIST 2W7099, MC20, TFA - .35, DEPTH IN 5,726', DEPTH OUT 5,780' 54 FEET, 13-3/4 HRS, 3.9 FT/HR, REMARKS: GOOD. POH W/CORE #3. LD CORE, REC 54'. RIH W/BIT & BHA. CIRC F/LOGS. SCHL LOGGING @ 6 A.M. LOGGERS TD @ 5,785'. RAN DLL, FDC, & CNL. CORE #3 DESCRIPTION: 5,726-31' ANHYDRITE; 5,731-35' DOLO; 5,735-39' LIMESTONE; 5,739-44' DOLO; 5,744-45' LIMESTONE; 5,745-47' DOLO; 5,747-48' LIMESTONE; 5,748-49' DOLO; 5,749-70' BLACK DOLO & SHALE; 5,770-73' DOLO, 5,773-79' BLACK DOLO & SHALE, BLEEDING OIL & FLOUR F/78-80' 5,779-80' DOLO BLEEDING OIL & FLOUR. TOP DESERT CREEK @ 5,672', CHIMNEY ROCK @ 5,749', TOP AKAH @ 5,770'.
  
- 10-11-82 5,798' MADE 18' IN AKAH SALT FORMATION. MW 11.2, VIS 61. BIT RR #6, 8-3/4", REED, FP52, JETS 11/11/12, DEPTH IN 5,780', DEPTH OUT 5,798', 18 FEET, 2-3/4 HRS, 6.6 FT/HR, CONDITION 2/E/I, REMARKS: POH TO LOG. FIN LOG W/SCHL. FIN RUN, FDC/CNL GR F/5,780-1200, RAN BHC/SONIC W/GR 5,780-1200. DIPMETER 5,780-5,200. SYBERLOOK F/5,780-4,300. BHT 120°. RIH W/BIT & BHA, DRLD TO 5,798', CIRC POH, RU SCHL & LOGGING. RAN BHC/SONIC W/GR 5,805-5,400. DRLRS T.D. 5,798'; LOGGERS T.D. @ 5,305'.
  
- 10-12-82 5,798' MADE 0' IN AKAH SALT FORMATION. MW 11.1, VIS 55. FIN LOGGING. DLL, MICRO, SFL W/GR FROM 5,805-5,400'; FDC/CNL W/GR & SYBERLOOK FROM 5,805-5,400'. RD SCHL. LD 20 DC'S, PU 20 JTS DP. RIH & CIRC. CIRC @ 5,780' & WAIT ON CSG TO ARRIVE.
  
- 10-13-82 5,798' MADE 0' IN AKAH SALT FORMATION. MW 11.1, VIS 55. COND HOLE F/CSG WHILE WAITING ON 5-1/2" CASING. MADE WIPER TRIP. RIG UP CASERS & RUNNING CASING. RAN 141 JTS 5-1/2", 20#, N-80. RAN FLOAT SHOE, 1 JT & FLT CLR @ 3,529.48 STAGE CLR.
  
- 10-14-82 5,798' MADE 0' IN AKAH SALT FORMATION. DOWELL CEMENTED W/800 SX CLASS "B" W/1% D-60. BUMP PLUG TO 1,500 PSI. PLUG DOWN @ 8:28 A.M. DROP BOMB & OPEN STAGE CLR. CIRC 3-1/2 HRS. CMT W/1,000 SX CLASS "B" 55-35 POZ W/6% D-20 BENTONITE. BUMP PLUG TO 2,900 PSI, PLUG DOWN @ 2:29 P.M. HAD 38 BBLS GOOD CMT TO SURFACE. FLTS HELD OK. NO & SET SLIPS W/90,000#. CUT CSG. NU. WOC.
  
- 10-15-82 5,798' MADE 0' IN AKAH SALT FORMATION. WOC 2 HRS. PU 2-7/8" EUE TBG & RIH. TAG CMT @ 3,565'. DRLD CMT TO 3,579'. TAG STAGE CLR @ 3,579'. DRLD F/2 HRS. GOT HIGH TORQUE. POH, FOUND 2 CONES BROKEN OFF BIT. RIH W/MAGNET. MILL ON FISH & POH. NO RECOVERY OTHER THAN METAL SHAVINGS. RIH, WORK MAGNET. POH, REC 2 CONES & 1 SHANK. RIH W/MAGNET, WORKING MAGNET.

- 9-30-82 4,473' MADE 283' IN HONAKER TRAIL FORMATION. MW 11.1, VIS 52. DRLG, NO PROB.  
HONAKER TRAIL TOP @ 4,325'.
- 10-1-82 4,630' MADE 157' IN HONAKER TRAIL FORMATION. MW 11.0, VIS 60. BIT NO 4, 8-3/4",  
SEC H3679, S36F, JETS 13/13/8, DEPTH IN 4,156', DEPTH OUT 4,628', 472 FEET,  
43-1/4 HRS, 10.9 FT/HR, CONDITION 3/E/I. DRLG, LOST 200 PSI. POH #12 DC  
CRACKED BOX, CHANGED BIT & RIH.
- 10-2-82 4,950' MADE 320' IN HONAKER TRIAL FORMATION. MW 11.1, VIS 56. DRLG, NO  
PROBLEMS.
- 10-3-82 5,171' MADE 221' IN HONAKER TRAIL FORMATION. MW 10.9, VIS 49. DRLG W/NO  
PROBLEMS. POH & S.L.M.
- 10-4-82 5,280' MADE 115' IN PARADOX FORMATION. MW 10.8, VIS 48. BIT NO 5, 8-3/4", HTC  
P2072, J-22, JETS 11/11/12, DEPTH IN 4,638', DEPTH OUT 5,171', 543 FEET,  
45-1/4 HRS, 12 FT/HR CONDITION 3/E/I. POH, SLM CORRECT - 6'. DRLG W/NO  
PROB. PARADOX TOP @ 5,252'.
- 10-5-82 5,450' MADE 170' IN UPPER ISMAY FORMATION. MW 11.0, VIS 55. BIT NO 6, 8-3/4",  
REED E86941, FP52, JETS 11/11/12, DEPTH IN 5,165', DEPTH OUT 5,450', 285  
FEET, 33-3/4 HRS, CONDITON 2/E/I, REMARKS: PULL F/CORE. DRLD TO CORE PIT  
@ 5,450'. CIRC, POH. PU CORE BBL. TOP OF UPPER ISMAY @ 5,420'.
- 10-6-82 5,510' MADE 60' IN UPPER ISMAY FORMATION. MW 10.7, VIS 65. BIT NO COREHEAD #1  
RR, 8-3/4", CHRIST 2W7099, MC20, TFA .35, DEPTH IN 5,450', DEPTH OUT 5,510'  
60 FEET, 11-1/4 RUN, 5.33 FT/HR, CONDITION GOOD. RU CORE BBL & RIH. CUT  
60' CORE #1. POH. LD CORE, REC 50' PU BIT & RIH W/DC'S. AMNHYDRITE  
5,450-5,454'; 5,454-61' DOLOMITE; 5,461-75' LIMESTONE VUGGY & GOOD OIL  
STAIN; 5,475-84' DOLOMITE W/WEAK OIL STAIN; 5,484'-5,510' LIMESTONE VUGGY &  
GOOD OIL STAIN.
- 10-7-82 5,570' MADE 60' IN HOVENWEEP FORMATION. MW 11.2, VIS 47. BIT NO 6RR, 8-3/4"  
REED, FP52, JETS 11/11/12, DEPTH IN 5,510', DEPTH OUT 5,510', CIRC & PULL  
TO CORE. RIH, CIRC & COND MUD F/CORE #2. POH, PU CORE BBL. CORING  
5,510'-5,570' (60'). POH W/CORE #2.
- 10-8-82 5,670' MADE 100' IN GOTHIC SHALE FORMATION. MW 11.0, VIS 50. BIT RR #1 CORE #2,  
8-3/4", CHRIST, MC20, TFA .35, DEPTH IN 5,510', DEPTH OUT 5,570', 60 FEET,  
11 HRS, 5.5 FT/HR, REMARKS: GOOD SHAPE. FIN POH & LD CORE #2 -  
5,510-5,514 DOLOMITE - NO SHOWS: 5,514-26 LIMESTONE - PINPOINT POROSITY  
W/PATCH ON STAIN: 5,526-29 DOLOMITE - TITE: 5,529-40 LIMESTONE - SMALL  
VUGGY POROSITY, PATCHY STAIN: 5,534 APPARENT OIL/WTR CONTACT: 5,540-41  
DOLOMITE - TITE: 5,541-45 DOLOMITE & LIMESTONE, PATCHY STAIN: 5,545-63  
LIMESTONE - PINPOINT TO VUGGY POROSITY: 5,563-66 LIMESTONE - TITE:  
5,566-68.5 DOLOMITE: 5,568.5-5,570 DARK DOLOMITE. TOP OF HOVENWEEP @  
5,568.5; TOP OF GOTHIC SHALE @ 5,656'. PU BIT & RIH. DRLG, NO PROB.
- 10-9-82 5,764' MADE 94' IN CHIMNEY ROCK FORMATION. MW 11.3, VIS 51. BIT NO 6RR, 8-3/4",  
REED E86941, FP52, JETS 11/11/12, DEPTH IN 5,570', DEPTH OUT 5,726', 156  
FEET, 25 HRS, 6.3 FT/HR, CONDITION 2/E/I, REMARKS: POH TO CORE. DRLD TO  
5,726'. POH F/CORE #3. PU CORE BBL & JARS & RIH. NO PROBLEMS.

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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  
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: 586.52' FSL & 3,171.39' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,084' GL, 5,097' KB

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) See Below

SUBSEQUENT REPORT OF

**RECEIVED**  
NOV 22 1982

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

**DIVISION OF  
OIL, GAS & MINING**

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

From: 10-19-82 To: 11-12-82

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED W.E. Kugh TITLE Drilling Superintendent DATE 11-17-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 11-3-82 WELL ON VACUUM. FINISH PULLING TBG. PKR WAS NOT ON ON-OFF TOOL. RIH W/ON-OFF TOOL & TAGGED PKR @ 2,274' KB. LATCHED ONTO ON-OFF TOOL & COH W/PKR. LD PKR. RU & RIH W/MODEL K-1 MECHANICAL SET CMT RETAINER (BAKER). SET RETAINER @ 5,326' KB. PRESS TESTED LINES & TBG TO 4,750' PSI. HELD OK. PMPD WTR TO ESTABLISH RATE. RATE BEGAN @ 1/4 BPM @ 2700 PSI. AFTER 7 BBLS WAS PMPD RATE INCREASED TO 1 BPM @ 33000 PSI. PULLED OUT OF RETAINER & FILLED HOLE W/WTR. PMPD 25 SACKS OF CLASS "B" CMT W/O.4% D60 (FLUID LOSS ADD). PMPD 23 BBLS WTR & STUNG INTO RETAINER. PMPD ADDITIONAL 7 BBLS WTR BEHIND CMT (TBG & LINE VOLUME APPROX 31.86 BBLS). WHEN CMT HIT PERFS THE PRESS INCREASED TO 5300 PSI. COULD NOT PUMP INTO FORMATION. INCREASED PRESS TO 5500 PSI, BUT WAS UNABLE TO PUMP. UNSTUNG FROM RETAINER AND REVERSE CIRCULATED APPROX 1-2 BBLS OF CMT. THIS INDICATED A VERY SMALL AMOUNT OF CMT WAS PMPD THROUGH PERFS. STUNG INTO RETAINER & PRESSURED TO 5300 PSI BUT AGAIN WAS UNABLE TO PUMP INTO FORMATION. PRESSURE DID NOT BLEED OFF. UNSTUNG FROM RETAINER & BEGAN PULLING TBG. SDFN.
- 11-4-82 COH W/TBG. PU 4-5/8" MILL & 2 3-1/2" DC'S. RIH & MILL HUNG UP @ 1,575' KB. POH W/MILL. DISCOVERED THAT THE BLADED PORTION OF THE MILL WAS OVERSIZED.
- 11-5-82 RIH W/4-1/2" MILL & 2 3-1/2" DC'S. TAGGED CMT RETAINER @ 5,326' KB. ENCOUNTERED PROBLEMS W/THE HYDRAULIC SYSTEM ON THE POWER SWIVEL.
- 11-6-82 SHUT DOWN. DRAKE REPAIRED HYDRAULIC SYSTEM FOR THE POWER SWIVEL.
- 11-7-82 MILLED BOTTOM SET OF SLIPS & RETAINER FELL SEVERAL INCHES. COULD NOT MAKE ANY HOLE. STARTED POH W/TBG TO CHECK MILL. SDFN.
- 11-8-82 STATIC. SDFS.
- 11-9-82 FINISHED PULLING TBG, MILL WAS SEVERELY PLUGGED & SHOWED SOME SIGNS OF WEAR. RIH 2/4-1/2" WALKER MCDONALD ROCK BIT & TWO 3-1/2" DC'S. DRLD THRU RETAINER & APPROXIMATELY 100' OF CMT. SDFN.
- 11-10-82 UNABLE TO DRIVE TO LOCATION DUE TO HEAVY RAINS. DRLD THROUGH CEMENT TO APPROX 5,490' KB.
- 11-11-82 RIH & TAGGED PBTD @ 5,747' KB. PULLED 4 STANDS & PREPARED TO SWAB. COULD NOT GET SWABS BELOW 60'. POH W/SWABS & FOUND LARGE AMOUNT OF PARAFFIN. SHUT DOWN DUE TO BAD WEATHER.
- 11-12-82 HOT OIL TRUCK GOT STUCK ON WAY TO LOCATION. RU HOT OIL TRUCK & PMPD 35 BBLS OF 200°F WTR DOWN TBG. RIH TO 600' W/SWAB. PULLED UPHOLE 300' & SANDLINE PARTED. SWAB DID NOT GO DOWN HOLE BECAUSE OF PARAFFIN. RETRIEVED SANDLINE & SWAB WHEN SWAB CAME OUT OF HOLE THERE WAS 5' OF HARD-PACKED PARAFFIN ON TOP OF SWAB. SDFN.

TINCUP MESA #2-23

10-28-82 RIH W/NOWSCO COILED TBG UNIT. INITIATED NX CIRCULATION @ 200' KB & CONTINUED INJECTING AS TBG DECENDED. FIRST OIL SHOW @ 3,600' KB. CONTINUED TO INJECT N2 AS COILED TBG DECENDED TO 5,650' KB (150' BELOW PERFORATIONS). POH W/COILED TBG, WELL UNLOADING ON ITS OWN.

TIME	HRS	CHOKE	FTP	BACK SEP PRESS	MCF	TOTAL BF
11 AM-5 PM	6	14/64"	830	348	717	24.3
5 PM-12 MN	7	12/64"	960	592	634	16.3
12 MD-1 PM	1	16/64"	640	409	780	3.3
1 AM-2 AM	1	18/64"	600	409	825	3.3
2 AM-3 AM	1	20/64"	540	384	777	3.3
3 AM-4 AM	1	20/64"	530	372	787	5
4 AM-5 AM	1	20/64"	520	372	777	3.3

777.000 SCF/D = 9,811 GOR  
 3.3 BPH X 24 HRS  
 (79.2 BPD)

TOTAL FLUID 54.8  
 (APPROX WTR W/EMULSION)

NITROGEN BEING CIRCULATED 11 AM - 2 PM.

10-29-82 TIME	HRS	CHOKE	FTP	BACK SEP PRESS	MCF	TOTAL BBLS
5-7 AM	2	20/64"	520	372	831	5
7-8	1	"	520	"	831	5
8-10	2	"	540	"	831	6.6
10-11	1	"	540	360	849	8.3
11-12	1	22/64"	500	360	885	3.3
12-2	2	21/64"	510	"	849	8.3
2-4	2	"	510	"	778	8.3
4-6	2	"	500	"	708	5.0
	13 HRS		520	360	820 MCFD	92 BOPD

6 PM TO 6 AM NO REPORT FROM WELL WATCHER.

10-30-82 WELL FLOWING THRU RENTAL SEP. AVE 24 HR RATE 817 MCFPD, 96 BOPD, 500# FTP, 21/64" CHOKE. RIGGED UP GO. RAN TEMP & NOISE LOG & CCL. RIGGED DOWN GO - MOVED IN DRAKE RIG #22 - SITP 1,380 AFTER 4-1/2 HRS SHUT IN. RAN CIRC BLANKING PLUG, SET PLUG IN TOP OF ON & OFF TOOL. BLEW WELL DOWN THRU SEP, WELL WOULD NOT BLOW DOWN. SDFN.

10-31-82 SITP 1,420#, BLEW TBG DOWN, WOULD NOT BLOW DOWN. LOADED TBG W/30 BBLS WTR, PRESS UP TBG TO 1,000#, COULD NOT PUMP THRU PLUG. ATTEMPTED TO CHANGE OUT PLUG - RETRIEVING TOOL BROKE ON SURFACE. SD FOR SUNDAY.

11-1-82 STATIC.

11-2-82 SITP 800#, RIGGED UP TEFTELLER. RIH TO RETRIEVE BLANKING PLUG. LATCHED ONTO PLUG & COH. RAN IN HOLE W/NEW PLUG, SET PLUG & BLEW DOWN TBG. PMPD TBG & CSG FULL OF WTR, RELEASED FROM ON & OFF TOOL (LEFT HAND RELEASE). PULLED 39 STNDS, RETRIEVED 1/4" STAINLESS STEEL TBG & DOWN HOLE INJECTION SYSTEM. RBIH, RELEASED PKR & STARTED OUT OF HOLE. SDFN.

TINCUP MESA #2-23

10-19-82/

10-21-82 STATIC.

- 10-22-82 MIRU DRAKE COMPLETION UNIT. FINISH @ 2:00 P.M. PULLED TBG OUT OF HOLE. THE TUBING BOARDS BEGAN SINKING INTO THE MUD & CAUSED SEVERAL STANDS OF TUBING TO SINK IN THE MUD NEXT TO THE WELLHEAD. CLEANED MUD OUT OF BTM OF 27 STANDS. SDFN.
- 10-23-82 PU MILL. COULD NOT GET MILL DOWN THRU FIRST 5-1/2" CSG COLLAR. DRAKE FLEW NEW MILL TO LOCATION. RIH W/MILL & TAGGED STAGE CLR @ 3,573' KB. REV CIRC 2% KCL WTR TO ASSURE TBG WAS CLEAN. MILLED THROUGH STAGE CLR & RUN MILL TO BTM & REV CIRC BTMS UP. POH & LD MILL. RIH W/BAKER AL-2 LOK-SET PKR (2.38" ID), R NIPPLE (2.197" NO-GO), ON-OFF TOOL (2.31" ID), 6' SUB, F NIPPLE (2.25" ID), 6' SUB, SEATING NIPPLE (2.280" ID), 93 JOINTS 2-7/8" TBG, INJECTION SUB & 78 JTS 2-7/8" TBG. SET BTM OF PKR @ 5,422' KB. LANDED INJECTION SUB @ 2,467' KB. RELEASED FROM ON-OFF TOOL. BEGIN POH W/TBG. SDFN.
- 10-24-82 FINISH PULLING TBG TO INJECTION SUB. RU SPERRY-SUN. RIH W/1/4" STAINLESS STEEL INJECTION LINE BANDED TO 2-7/8" TBG. LATCHED ONTO ON-OFF TOOL. COULD NOT ATTACH INJECTION LINE TO DONUT BECAUSE THREADS FROM THE STAINLESS STEEL FITTING & THE DONUT WERE NOT COMPATIBLE, EVEN THOUGH BOTH THREADS WERE SPECIFIED AS NPT THREADS. THE DONUT WAS SENT TO FARMINGTON TO HAVE THE THREADS RE-DRESSED & A NEW FITTING MADE IF NECESSARY.
- 10-25-82 STATIC, SDFS.
- 10-26-82 DRAKE BROUGHT DONUT FROM MACHINE SHOP W/NEW FITTING. ATTACHED 1/4" DIA SS TBG W/UPPER CHECK VALVE TO DONUT. INSTALLED DONUT & LANDED TBG IN 16,000# TENSION. INSTALLED WKM TREE & TESTED TO 3,000#. SPERRY-SUN TESTED INJECTION LINE & CHECK VALVES FOR LEAKS; TESTED OK. RELEASED DRAKE @ 10 A.M.
- 10-27-82 MOVED IN SEPARATOR & FOUR 400 BBL STOCK TANK. SET UP FLOW LINES, FLARE LINE & BLOW LINE TO PIT. RIH W/COILED TBG. TBG UNIT HUNG UP @ 5,398' KB UNABLE TO GET BELOW (POSSIBLY ON "F" NIPPLE). PMPD 1000 GALS 15% MSR ACID THRU COILED TBG. RAN SINKER BAR TO CHECK FOR POSSIBLE OBSTRUCTION, RIH BELOW PROPOSED PERFS, NO PROBLEMS, RU GEARHART RIH W/2" O.D. THRU-TBG GOWINDER HOLLOW CARRIER GUN & PERFORATED ISMAY ZONE 5,480'-5,500' KB W/6 GRAM, 4 JSP @ 0° PHASING; 72 OF THE 80 SHOTS FIRED. DISPLACED ACID WITH (5,000 SCF) OF N<sub>2</sub> @ A MAX. PRESS OF 2,700 PSI (APPROX RATE 1-2 BPM). SWI FOR 15 MINS, OPENED TO PIT, WELL DIED IN 30 MINS. WELL REMAINED OPEN FOR 2-1/2 HRS, NO FLOW. SI FOR 5 HRS, SITP 10 PSI, OPENED TO PIT, SLIGHT BLOW. SI.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**CONFIDENTIAL**

**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  
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: 586.52' FSL & 3,171.39' FEL  
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) See Below

SUBSEQUENT REPORT OF:

- 
- 
- 
- 
- 
- 
- 
- 

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,084' GL, 5,097' KB

(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.)\*

PROGRESS REPORT

From: 11-13-82 To: 12-4-82

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED ME/Kugh TITLE Superintendent DATE 12/7/82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 12-1-82 OPENED WELL TO TEST SEPARATOR THRU 19/64" CHOKE. WELL FLOWED 9 BO & 2 BW, 97 MCF WITH FTP OF 120# FOR 1ST HR. WELL CONTINUED FLOWING F/1/2 HR, PROD 3 MORE BBL OIL THEN DIED. RELEASED PKR, HOOKED UP RIG PUMP & REVERSED OIL OUT OF TBG W/WTR. GAUGED TANKS, ACCUMULATING TOTAL PROD TO DATE = 165 BBL OIL & 122 BBL WTR. POOH W/PKR. RIH W/RET HEAD (TOOL) TO PULL BRIDGE PLUG.
- 12-2-82 FINISHED RIH W/RET TOOL. RAN BACK IN HOLE W/OVERSHOT & JARS. LATCHED ONTO RBP, PULLED 12,000# OVER TBG STRING WT. SET DOWN ON BP AGAIN, PULLED 5,000# OVER WT OF TBG. ROTATED TBG TO RIGHT SEVERAL TIMES MORE THAN REQUIRED. BP RELEASED & STARTED OUT OF HOLE. PULLED 6 STANDS (PLUG DRAGGING ON CSG 3,000-5,000# OVER WT OF TBG). SDFN.
- 12-3-82 FINISHED POH W/RBP, RECOVERED 7/8" ROD BOX, LOST ALUMINUM PUMP OUT PLUG & BALL BACK IN HOLE. PERFORATED 2 SPF ON 180° PHASING 5,507.5-5,512.5'. POH (FLUID LEVEL @ 1,000') ALL SHOTS FIRED. PU & RIH W/MODEL "R" DOUBLE GRIP PKR, RU WITH STOPS ON PKR BODY & MADREL, TC VALVE & TBG STRING. HUNG PKR @ 5,505' KB. RU GO TO RUN CORRELATION LOG. LOG INDICATED BOTTOM OF PKR LANDED @ 5,502' KB. POH W/INSTRUMENTS & RIGGED DOWN GO PICKED UP 1 6'-2-7/8" TBG SUB, LOWERED PKR 4'; SET TOP OF SEAL ASSEMBLY @ 5,502' KB, BOTTOM OF PKR @ 5,506.6' KB. LANDED W/12,000# COMPRESSION.
- 12-4-82 RIGGED UP HALLIBURTON TO ACIDIZE - TESTED LINES TO 3,500#, HELD OK. SPOTTED 250 GAL 15% DOUBLE INHIBITED HCL W/5.5% CHECKER-SOL, W/PKR PARTS OPEN, FOLLOWED ACID W/24 BW, CLOSED PKRS & DISPLACED ACID TO 5,513' W/1 BW, PRESS INCREASED TO 2,000# - SD & CLOSED TC VALVE F/10 MIN. OPENED TC VALVE, PMPD 1/2 BW @ 1 BPM @ 1,200#, CLOSED TC VALVE F/10 MIN, OPENED TC VALVE PMPD 1/2 BW @ 1 BPM @ 900#, CLOSED TC VALVE F/10 MIN, OPENED TC VALVE, PMPD 1/2 BW @ 1 BPM @ 700#, CLOSED TC VALVE F/10 MIN, OPENED TC VALVE, PMPD 1/2 BW @ 1 BPM @ 575'. (NO COMMUNICATION TO BACKSIDE) CLOSED TC F/10 MIN, OPENED TC VALVE - STARTED DISPLACING REMAINDER OF ACID, AFTER PMPG 2 BW @ 1 BPM, PRESS INCREASED FROM 300# TO 1,150# & THE HOLE COMMUNICATED TO THE BACKSIDE. CALLED CASPER FOR ORDERS, REVERSED 2 BBL ACID BACK INTO TBG - SI THE BACKSIDE & PMPD THE REMAINDER OF ACID AWAY, CP 1,200#, TP 1,500#. OPENED CSG & CIRC PARTS ON PKR. SPOTTED THE REMAINDER OF ACID (750 + ADDITIVES) 813 GAL W/12.5 BW, CLOSED PKR & CSG. STARTED DISPLACING ACID INTO PERFS @ 2 BPM @ 600#, PRESS INCREASED TO 1,500#, REDUCED RATE TO 1 BPM @ 1,200#, DISPLACED ACID TO 5,513' KB W/32 BW - JOB COMPLETE @ 1:15. ISIP = 400# BLED TO 0# IN 5 MIN - ON VACUUM IN 6 MIN. RIGGED DOWN HALLIBURTON. PULLED UP HOLE & SEP PKR @ 5,430' KB IN 10,000# COMPRESSION - AFTER 30 MIN, RAN SWAB - TAGGED FLD @ 1,300', TOTAL VOLUME OF LOAD FLD = AMOUNT OF ACID 20 BBL & AMOUNT FORMATION BETWEEN ACID SPOTS POSSIBLY 50 BW, TOTAL WOULD = 50 + 20 = 70 BF. MADE 8 SWAB RUNS, SWABBED 36-40 BW & ACID. WELL KICKED OFF. FLOWED WELL FOR CLEANUP FOR 1 HR. SWI, SDFN.
- 12-5-82 SITP = 540#. OPENED WELL TO TEST SEP, WELL FLOWED F/1 HR, UNLOADED 6 BO THEN DIED. MADE 2 SWAB RUNS, WELL KICKED OFF & CONTINUED FLWG THRU TEST SEP. TEST REPORT FORM 9 AM - 6 P.M.: FTP 130, CHOKE 32/64", SEP PRESS 25, MCF 206, WTR 20 BBL, OIL 123 BBL, TEMP 60°.
- 12-6-82 FTP 120, CHOKE 32/64", SEP PRESS 48, MCF 197, WTR 148, OIL 232, TEMP 65° - 24 HRS.

TINCUP MESA #2-23

11-18-82 FILLED TBG W/FRESH WTR. BEGAN BREAKDOWN. PMPG 1/2 BPM, SPOTTED 500 GAL 15% MSR.

11-19-82 TURNED WELL THRU TEST SEPARATOR. AVERAGED 41 MCF GAS WHILE FLOWING. BEGAN SWABBING, TOTAL BO 15, TOTAL BW 20.

11-20-82 BEGAN SWABBING.

11-21-82 PULLED OUT OF HOLE W/PKR. SET PLUG @ 5,512' KB. SQUEEZED PERFS (5,480' TO 5,500'), TAKING FLUID. RBP SET @ 5,512' KB.

11-22-82 STATIC.

11-23-82 PERF 5,492' TO 5,500' W/2 HOLES/FT. POH, PICKED UP LYONS PIP PKR. SEALS @ 5,490' & TOP @ 5,480'. SET PKR.

11-24-82 KNOCKED OUT SHEAR PINS - LEAVING A 3/4" ROD BOX IN HOLE, OFF OF END OF SINKER BARS. SPOTTED ACID @ 1/2 BPM @ 2,000#, ACID 13 BBLs.

11-25-82 RAN SWAB. GOOD FLOW OF GAS (10' FLARE).

11-26-82 STATIC.

11-27-82 TOTAL SWAB RUNS (5). GAS RATE 33 MCFD, 15 BW & 51 BO.

11-28-82 MADE (3) SWAB RUNS. AVG GAS RATE 99 MCFD, TOTAL 13 BW, & 54 BO.

11-29-82 STATIC.

11-30-82 WELL FLOWED 42 BF, 30 BO & 12 BW.

TINCUP MESA #2-23

- 11-4-82 COH W/TBG. PU 4-5/8" MILL, MILL HUNG UP @ 1,575' KB. POH W/MILL.
- 11-5-82 RIH W/4-1/2" MILL. TAGGED CMT RETAINER @ 5,326' KB. PROBLEMS W/THE POWER SWIVEL.
- 11-6-82 SHUT DOWN.
- 11-7-82 STARTED POH W/TBG TO CHECK MILL. SDFN.
- 11-8-82 STATIC. SDFS.
- 11-9-82 DRLD THRU RETAINER & APPROXIMATELY 100' OF CMT. SDFN.
- 11-10-82 DRLD THROUGH CEMENT TO APPROX 5,490' KB.
- 11-11-82 TAGGED PBSD @ 5,747' KB. COULD NOT GET SWABS BELOW 60', HAMPERED BY PARAFFIN.
- 11-12-82 RU HOT OIL TRUCK & PMPD 35 BBLs.
- 11-13-82 CIRCULATED 125 BBLs OF 200-225°F OF WTR W/HOT OIL TRUCK. THE WELL WAS SWABBED DOWN TO APPROXIMATELY 4,000' KB. FL DROPPED EACH RUN & NO SIGN OF OIL OR GAS. SWI.
- 11-14-82 SWABBED, NO SIGN OF OIL OR GAS.
- 11-15-82 STATIC.
- 11-16-82 PERFORATED INTERVAL FROM 5,520'-5,525' W/LOK-SET PKR (UNABLE TO RUN MODEL "R" DUE TO RESTRICTION AT STAGE COLLAR).
- 11-17-82 RIH W/CSG SCRAPER TO 5,540'. RIH W/PKR. SWABBED, NO SIGN OF OIL OR GAS.

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  
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: 586.52' FSL & 3,171.39' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW -DF, KDB, AND WD)  
5,084' GL, 5,097' KB

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

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) <u>See Below</u>			

(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.)\*

### PROGRESS REPORT

From: 12-1-82 To: 12-16-82

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED M. E. Kung TITLE Drilling Superintendent DATE 12-23-82

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 12-7-82 TP 120, CHOKE 32/64", SEP PRESS 48, MCF 185, 129 BO, 49 BW, TEMP 60° - 15 HRS. PULLED ON TBG STRING, RELEASED MODEL "R" DOUBLE GRIP PKR. REVERSE CIRC OIL OUT OF TBG. POOH W/TBG & PKR. RAN BACK IN HOLE W/LOK-SET PKR, PROFILE & SEATING NIPPLES & ON-OFF TOOL. SET PKR - CAME OFF ON & OFF TOOL. PULLED UP HOLE & INSTALLED INJECTION SUB. SWI. SDFN.
- 12-8-82 SITP 340 - OPENED TBG, WELL TRIED TO FLOW GAS, OIL & WTR. PMPD WTR (APPROX 50 BBL) DOWN BACKSIDE UNTIL WELL DIED. RIGGED UP SPERRY SUN TO BAND 1/4" STEEL TBG TO PROD 2-7/8" TBG WHILE RUNNING IN HOLE. RIH TO APPROX 10' FROM BAKER ON & OFF TOOL. BEGAN PMPG PKR FLUID DOWN CSG WHICH HAD BEEN MIXED IN DOWELL TRANSPORT BY DOWELL. PMPD 90 BBL (10 BBL OVER CSG CAPACITY) & LATCHED ONTO ON & OFF TOOL. OPENED BOP LET CSG STAND OPEN FOR 10 MIN THEN COMPLETED FILLING CSG W/PKR FLUID. PUT VALVE ON TBG. SHUT BOP - SDFN. (WTR DISPLACED OUT OF TBG WHILE PMPG PKR FLUID DOWN CSG, PUT IN RIG PIT.)
- 12-9-82 SITP 300. PUMPED WTR DOWN TBG TO KILL WELL. PICKED UP ON BOP, SET SLIPS. REMOVED BOP INSTALLED TBG HANGER (DONAT) & CONNECTED 1/4" STEEL TBG TO HANGER. LANDED TBG HANGER IN BOWL. HAD DIFFIUCLTLY CLEARING INJECTION PORT ON CSG FLANGE. TREED UP. SPERRY SUN TESTED INJECTION SYSTEM, EVERYTHING TESTED OK. MADE 15 SWAB RUNS. SWABBED BACK APPROX 90 BBL OF GAS CUT FLUID. SWI. SDFN.
- 12-10-82 SITP 480. OPENED WELL TO TEST SEPARATOR. WELL FLOWED FOR 2-1/2 HRS THEN DIED. MADE 3 SWAB RUNS TO KICK WELL OFF. WELL WOULD FLOW FOR 1-2 HRS THEN HAVE TO BE SWABBED. TOTAL FLUID RECOVERED = 15 BO & 65 BW.
- 12-11-82 SITP 510, FTP 100, CHOKE 48/64", SEP 40, MCF 172, 42 BO, 13 BW - 10 HRS. WELL FLOWED FOR 6 HRS - SWABBED 4 HRS.
- 12-12-82 TP 60, CHOKE 48/64", SEP PRESS 40, MCF 157, 128 BO, 49 BW, TEMP 50° - 24 HRS.
- 12-13-82 TP 70, CHOKE 48/64", SEP PRESS 40, MCF 186, 151 BO, 30 BW, TEMP 55° - 24 HRS.
- 12-14-82 FTP 70, CHOKE 48/64", SEP PRESS 40, MCF 157, 122 BO, 20 BW, TEMP 50° - 24 HRS.
- 12-15-82 TP 45, CHOKE 48/64", SEP PRESS 40, MCF 71, 190 BO, 4 BW, TEMP 45°, (GOR 374) - 20 HRS.
- 12-16-82 TP 45, CHOKE 48/64", SEP PRESS 40, MCF 75, 205 BO, 23 BW, TEMP 40° - 24 HRS.

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  
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: 586.52' FSL & 3,171.39' FEL  
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) See Below

SUBSEQUENT REPORT

**RECEIVED**

JAN 12 1983

**DIVISION OF  
OIL, GAS & MINING**

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

5. LEASE  
U-31928

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 23, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5,083' GL, 5,097' KB

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

From: 12-17-82 To: 1-5-83

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED M E Krugh/A.G. TITLE Drilling Superintendent DATE 1-6-83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

12-17-82 CHOKE 48/64", MCF 113, 154 B0, 44 BW. CUT PARAFFIN.  
12-18-82 167 MCF, 157 B0, 49 BW.  
12-19-82 307 MCF, 127 B0, 44 BW.  
12-20-82 MCF 315, 162 B0, 47 BW.  
12-21-82 255 MCF, 168 B0, 39 BW.  
12-22-82 134 B0, 40 BW, 265 MCFD.  
12-23-82 WELL IS FLWG INTO THE TIN CUP BATTERY.  
12-24-82 FTP 110#, 322 MCFPD, 63 B0, 20 BW.  
12-25-82 52/64" CHOKE, 285 MCFPD, 146 B0, 40 BW.  
12-26-82 296 MCFPD, 170 B0, 72 BW.  
12-27-82 290 MCF, 160 B0, 66 BW.  
12-28-82 296 MCFPD, 160 B0, 48 BW.  
12-29-82 296 MCFPD, 164 B0, 46 BW.  
12-30-82 296 MCFPD, 167 B0, 47 BW.  
12-31-82 296 MCFGPD, 156 B0, 39 BW (24 HRS TEST - 296 MCFG, 170 B0, 43 BW).  
1-1-83 CHOKE 52/64", MCF 296, 46 BW, 168 B0.  
1-2-83 CHOKE 52/64", MCF 296, 48 BW, 206 B0.  
1-3-83 296 MCF, 39 BW, 170 B0.  
1-4-83 MCF 296, 43 BW, 170 B0.  
1-5-83 296 MCF, 40 BW, 172 B0.

# CONFIDENTIAL

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  
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: 586.52' FSL & 3,171.39' FEL  
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) See Below

SUBSEQUENT REPORT OF:

**RECEIVED**  
JAN 21 1983

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

DIVISION OF  
OIL GAS & MINING

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

From: 1-6-83 To: 1-14-83

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED M.E. Kaugh/R.C. TITLE Drilling Superintendent DATE 1-19-83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

- 1-6-83 TP 110, CHOKE 52/64", TRTR PRESS 30, MCF 296, 41 BW, 173 B0, TEMP 120°, 24 HRS (1,711 GOR).
- 1-7-83 CHOKE 24/64", MCF 251, 49 BW, 157 B0.
- 1-8-83 MCF 227, 48 BW, 156 B0.
- 1-9-83 MCF 207, 48 BW, 174 B0.
- 1-10-83 MCF 207, 46 BW, 155 B0.
- 1-11-83 MCF 197, 41 BW, 140 B0.
- 1-12-83 MCF 197, 46 BW, 155 B0.
- 1-13-83 MCF 197, 50 BW, 155 B0.
- 1-14-83 MCF 197, 48 BW, 150 B0.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R355.5

14

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_  
 b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

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 and in accordance with any State requirements)\*  
 At surface **587' FSL & 3,171' FEL** **SE SW**  
 At top prod. interval reported below  
 At total depth

14. PERMIT NO. **43-037-30808** DATE ISSUED **8-27-82**

5. LEASE DESIGNATION AND SERIAL NO.  
**U-31928**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
**Tin Cup Mesa Unit**

8. FARM OR LEASE NAME  
**Tin Cup Mesa**

9. WELL NO.  
**2-23**

10. FIELD AND POOL, OR WILDCAT  
**Tin Cup**

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
**Section 23, T38S, R25E**

12. COUNTY OR PARISH **San Juan** 13. STATE **Utah**

15. DATE SPUDDED **9-18-82** 16. DATE T.D. REACHED **10-11-82** 17. DATE COMPL. (Ready to prod.) **1-26-83** 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* **5,095' GL, 5,108' KB** 19. ELEV. CASINGHEAD **--**

20. TOTAL DEPTH, MD & TVD **5,798'** 21. PLUG, BACK T.D., MD & TVD **5,744'** 22. IF MULTIPLE COMPL., HOW MANY\* **--** 23. INTERVALS DRILLED BY **0' - 5,798'** ROTARY TOOLS **0** CABLE TOOLS **0**

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
**Ismay 5,492'-5,500', 5,507.5'-5,512.5', 5,520'-5,525'** 25. WAS DIRECTIONAL SURVEY MADE **No**

26. TYPE ELECTRIC AND OTHER LOGS RUN **CBL, Trasersurvey, Dipmeter, Diff. Temp. Log-borehole Audio, BHC Sonic, CNL-FDC, DLL-MSFL, Cyberlook-Coriband** 27. WAS WELL CORED **3 Cores**

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
16"	Thinwall S.	64'	20"	--	None
9-5/8"	36#	1,324'	12-1/4"	550 SX	None
5-1/2"	20#	5,779'	8-3/4"	1,800 SX	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		None		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,412'	5,418.5'

31. PERFORATION RECORD (Interval, size and number)

Ismay 5,492'-5,500'	2 SPF
5,507.5'-5,512.5'	2 SPF
5,520'-5,525'	2 SPF

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,520'-5,525'	Acidized w/500 gal 15% MSR
5,507.5'-5,512.5'	Acidized w/1000 gal
5,520'-5,525'	15% HCl.

33.\* PRODUCTION

DATE FIRST PRODUCTION **10-28-82** PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) **Flowing** WELL STATUS (Producing or shut-in) **Producing**

DATE OF TEST **1-26-83** HOURS TESTED **24** CHOKE SIZE **24/64** PROD'N. FOR TEST PERIOD **164** OIL—BBL. **164** GAS—MCF. **212** WATER—BBL. **40** GAS-OIL RATIO **1,293**

FLOW. TUBING PRESS. **110 psig** CASING PRESSURE **0** CALCULATED 24-HOUR RATE **164** OIL—BBL. **164** GAS—MCF. **212** WATER—BBL. **40** OIL GRAVITY-API (CORR.) **Gas .700, Oil 45°**

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) **To be sold** TEST WITNESSED BY **E. Nelson**

35. LIST OF ATTACHMENTS **None**

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Dale T Caddy TITLE District Operations Manager DATE February 9, 1983

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws 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. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**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 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top (s), bottom (s) and name (s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS			
FORMATION	TOP	BOTTOM	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Chinle	1,544'	2,346'	Chinle	1,544'	
Shinarump	2,346'	2,400'	Shinarump	2,346'	
Moenkopi	2,400'	2,462'	Moenkopi	2,400'	
Cutler	2,462'	4,319'	Cutler	2,462'	
Honaker Trail	4,319'	5,267'	Honaker Trail	4,319'	
Paradox	5,267'	5,416'	Paradox	5,267'	
Upper Ismay	5,416'	5,578'	Upper Ismay	5,416'	
Hovenweep	5,578'	5,612'	Hovenweep	5,578'	
Lower Ismay	5,612'	5,660'	Lower Ismay	5,612'	
Gothic	5,660'	5,681'	Gothic	5,660'	
Desert Creek	5,681'	5,754'	Desert Creek	5,681'	
Chimney Rock	5,754'	5,774'	Chimney Rock	5,754'	
Akah	5,774'	5,803'	Akah	5,774'	
Salt	5,803'	--	Salt	5,803'	
Log Tops					

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  
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: 586.52' FSL & 3,171.39' FEL  
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) See Below

SUBSEQUENT REPORT OF:

- 
- 
- 
- 
- 
- 
- 
- 

5. LEASE U-31928
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME Tin Cup Mesa
8. FARM OR LEASE NAME Tin Cup Mesa
9. WELL NO. 2-23
10. FIELD OR WILDCAT NAME Tin Cup
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 23, T38S, R25E
12. COUNTY OR PARISH San Juan
13. STATE Utah
14. API NO. 43-037-30808
15. ELEVATIONS (SHOW DF, KDB, AND WD) 5,084' GL, 5,097' KB

(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.)\*

PROGRESS REPORT

From: 1-15-83 To: 2-9-83

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED ME Krugh TITLE Drilling Superintendent DATE 2-14-83

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TINCUP MESA #2-23

1-15-83 24/64" CHOKE, 197 MCFD, 152 B0, 46 BW.  
1-16-83 197 MCFD, 180 B0, 34 BW.  
1-17-83 158 MCFD, 165 B0, 32 BW.  
1-18-83 177 MCFD, 164 B0, 33 BW.  
1-19-83 158 MCFD, 162 B0, 34 BW.  
1-20-83 158 MCFD, 166 B0, 35 BW.  
1-21-83 158 MCFD, 159 B0, 30 BW.  
1-22-83 158 MCFD, 170 B0, 31 BW.  
1-23-83 37 MCFD, 21 B0, 22 BW.  
1-24-83 197 MCFD, 165 B0, 28 BW.  
1-25-83 227 MCFD, 177 B0, 43 BW.  
1-26-83 227 MCFD, 165 B0, 40 BW.  
1-27-83 242 MCFD, 171 B0, 38 BW.  
1-28-83 207 MCFD, 182 B0, 30 BW.  
1-29-83 227 MCFD, 172 B0, 46 BW.  
1-30-83 227 MCFD, 171 B0, 43 BW.  
1-31-83 MCF 168, 170 B0, 41 BW.  
2-1-83 MCF 177, 40 BW, 171 B0.  
2-2-83 CHOKE 28/64", MCF 118, 35 BW, 150 B0.  
2-3-83 MCF 204, 27 BW, 178 B0.  
2-4-83 MCF 217, 39 BW, 171 B0.  
2-5-83 MCF 197, 39 BW, 168 B0.  
2-6-83 MCF 168, 25 BW, 166 B0.  
2-7-83 MCF 145, 28 BW, 151 B0.  
2-8-83 MCF 98, 10 BW, 75 BW.  
2-9-83 SI. WILL DROP FROM REPORT UNTIL WORK RESUMES.

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  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
PO Box 2659, Casper WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 586.52' FSL & 3171.39' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
U-31928 ✓

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa Unit ✓

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD OR WILDCAT NAME  
Tin Cup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 23, T38S R25E

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

14. API NO.  
43-037-30808

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
5084' GL, 5097' KB

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

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input type="checkbox"/>
(other) Please see below ✓	

RECEIVED  
AUG 19 1983  
DIVISION OF  
OIL, GAS & MINING

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.)\*

Under NTL4A we propose to flow test this well for two weeks to establish a flow rate and to take samples of the gas evolved in the oil production. It is necessary to verify gas hydrocarbon composition analyses and establish validity of current data since a large discrepancy is apparent in order to properly size facilities based on accurate compositional data.

The above proposal was discussed by phone between Mr. Bill Martens, BLM, Branch of Liquid Minerals, and Walt West, Marathon Oil Company, on August 4, 1983.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct \_\_\_\_\_ District  
SIGNED Doyle L. Jones TITLE Operations Manager DATE August 5, 1983

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS AND MINING**  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

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  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
PO Box 2659, Casper WY 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: --  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

5. LEASE  
U-31928 ✓

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
--

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
--

10. FIELD OR WILDCAT NAME  
Tin Cup Mesa

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 23, 25, 26, T38S, R25E

12. COUNTY OR PARISH | 13. STATE  
San Juan | Utah

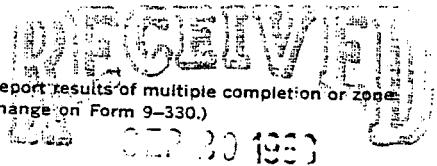
14. API NO.  
--

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
--

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

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) see below.			

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



DIVISION OF

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.)\*

Sirs: We request approval to flare gas from our Tin Cup Mesa Field for a period of 30 days. Approval of this request will give us ample time to finish our pipeline and hookup. All cautionary measures will be taken and safety practices adhered to during this time of flaring.

The above request was discussed and verbal permission was given to Walt West, Marathon Oil Company, by Mr. Brian Wood, BLM, Monticello UT; Mr. Ron Firth, Utah State, Oil, Gas and Mining, Salt Lake City UT; and Mr. Bill Martiens, BLM, Salt Lake City UT, on September 27, 1983.

The starting date of this proposal would be November 1, 1983.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct District \_\_\_\_\_  
SIGNED Doug L Jones TITLE Operations Manager DATE September 27, 1983

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

\*See Instructions on Reverse Side



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

October 24, 1983

Marathon Oil Company  
Att: Walt West  
P. O. Box 2659  
Casper, Wyoming 82602

*Rec 11/14/83*

RE: Well No. Tin Cup Mesa # 2-23  
43-037-30808  
SE SW, Sec. 23, T. 38S, R. 25E.  
San Juan County, Utah

Dear Mr. West:

According to our records, a "Well Completion Report" filed with this office February 9, 1983, from above referred to wells, indicates the following electric logs were run: BHC Sonic, CNL-FDC, DLL, SMFL, Cyberlook-Coriband, CEL, Trasersurvey, Dipmeter, Diff. Temp. Log-borehole Audio. As of today's date, this office has not received these logs.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission together with a copy of the electric and radioactivity logs.

We will be happy to acknowledge receipt of your response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgment should avoid unnecessary mailing of a second notice from our agency.

Your prompt attention to the above will be greatly appreciated.

Respectfully,

DIVISION OF OIL, GAS AND MINING

*Cari Furse*

Cari Furse  
Well Records Specialist

CF/cf



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771  
November 9, 1983

Marathon Oil Company  
P.O. Box 2659  
Casper, Wyoming 82602

RE: Well No. Tin Cup Mesa #1-23  
API # 43-037-30800  
Sec. 23, T. 38S, R. 25E.  
San Juan County, Utah

Well No. Tin Cup Mesa #2-23  
API #43-037-30808  
Sec. 23, T. 38S, R. 25E.  
San Juan County, Utah

Gentlemen:

According to our records, "Well Completion Reports" filed with this office May 11, 1983 and February 9, 1983, from the above referred to wells, indicate that both of these wells were cored. However, to date this office has not received the results of these core tests.

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure requires that this test data be reported to the Commission.

We will be happy to acknowledge receipt of your response to this notice if you will include an extra copy of the transmittal letter with a place for our signature, and a self addressed envelope for the return. Such acknowledgment should avoid unnecessary mailing of a second notice from our agency.

Your prompt attention to the above will be greatly appreciated.

Respectfully,

DIVISION OF OIL, GAS AND MINING

*Claudia Jones*  
Claudia Jones  
Well Records Specialist

CJ/cj

DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH  
Utah Water Pollution Control Committee  
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110-2500



November 15, 1983  
533-6146

Calvin K. Sudweeks  
Executive Secretary  
Rm 410 (801) 533-6146

James O. Mason, M.D., Dr.P.H.  
Executive Director  
Department of Health  
801-533-6111  
Kenneth L. Alkema  
Director  
Division of Environmental Health  
801-533-6121

Mr. Walt West  
Regulatory Coordinator  
Marathon Oil Co.  
Casper, Wyoming 82602

*Calvin K. Sudweeks*  
*Per Sup Office* 2-23  
3-23  
3-26  
4-26

RE: Construction Permit for  
Disposal Pond  
Section 23+26 T38S R25E

MEMBERS

Grant K. Borg, Chairman  
W. Lynn Costrell  
Harold B. Lamb  
Kenneth L. Alkema  
Franklin N. Davis  
Dale P. Bateman  
Joseph A. Urbanik  
C. Arthur Zeldin  
Mrs. Lloyd G. Bliss

Dear Mr. West:

A review of your file and inspection of your property indicate that you have complied with the minimum requirements to obtain an approval for a properly designed disposal pond located in Sections 23+26 T38S R25E for disposal of produced waters from oil and gas wells. We commend you for your cooperative attitude in following the State requirements and for your desire to protect the surface and subsurface waters of the State.

The system consists of 1 large evaporation pond (420' x 270') and the total liquid volume of the system is approximately 307,584 ft<sup>3</sup>.

Before receiving final approval, our bureau also requests a submittal to this office of the frequency of monitoring data and the specific parameters which will be measured. This data should be submitted on a timely basis (recommended within 60 days of the sampling date.)

The pond has been designed according to State standards and as a result, a construction permit is hereby issued as constituted by this letter. A final inspection must be conducted after construction but prior to putting the facility into operation.

If you have any questions, please call Jerry Riding or Fred Pehrson at the above number.

Sincerely,

UTAH WATER POLLUTION CONTROL COMMITTEE

*Calvin K. Sudweeks*  
Calvin K. Sudweeks  
Executive Secretary

RECEIVED  
NOV 20 1983

DIVISION OF  
OIL, GAS & MINING

JRR:na  
cc: Division of Oil, Gas and Mining  
Utah District Health Dept.  
BLM/Oil and Gas Operation  
Division of Water Rights

0100



P.O. Box 2659  
Casper, Wyoming 82602  
Telephone 307/577-1555

November 21, 1983

State of Utah  
Natural Resources  
Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

ATTN: Claudia Jones

RE: Core Data for API #43-037-30800  
and  
API #43-037-30808

Dear Ms. Jones:

Per your letter of November 9, 1983, I am enclosing copies of the results of the core tests run on the following wells:

Well No. Tin Cup Mesa #1-23  
API #43-037-30800  
Section 23, T.38S., R.25E.  
San Juan County, Utah

Well No. Tin Cup Mesa #2-23  
API #43-037-30808  
Section 23, T.38S., R.25E.  
San Juan County, Utah

*File*

Would you please acknowledge the receipt of this material by signing as indicated on the copy of this letter and returning it in the enclosed envelope.

I am sorry for any inconvenience we may have caused the State by being late with this information.

Thank you for your cooperation in this matter.

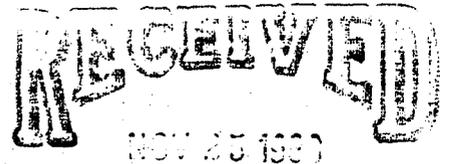
Sincerely,

A handwritten signature in cursive script, appearing to read 'Carl L. Bassett'.

Carl L. Bassett  
Landman

CLB/krj

cc: W. West  
Attachments



DIVISION OF  
OIL, GAS & MINING  
State of Utah  
Oil, Gas & Mining  
By: Claudia Jones  
Well Record Specialist

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-31928 ✓

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Tin Cup Mesa ✓

8. FARM OR LEASE NAME

Tin Cup Mesa Unit

9. WELL NO.

All Unit Wells

10. FIELD AND POOL, OR WILDCAT

Tin Cup Mesa Field

11. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA

Sec. 23,  
Sec. 26, T38S, R25E

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

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

Marathon Oil Company

3. ADDRESS OF OPERATOR

P.O. Box 2659, Casper, WY 82602

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

Wells: #3-26, #4-26, #2-23, #3-23

14. PERMIT NO.

N/A

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

N/A

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) Request to Commingle Production

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.)\*

We request approval to commingle the oil, gas, and water production from the four producing wells in the Tin Cup Mesa Unit. These wells are #2-23, #3-23, #3-26, and #4-26. The participating area for Well #3-26 was approved April 27, 1982. Applications for revision to the participating area were submitted as follows: Well #2-23 was submitted March 21, 1983, Well #3-23 was submitted October 17, 1983, and Well #4-26 was submitted November 23, 1983.

Commingled production will be allocated to the individual well on the basis of monthly well tests and gas analyses.

RECEIVED  
JAN 11 1984

DIVISION OF  
OIL, GAS & MINING

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

SIGNED

*Douglas F. Jones*

TITLE

District  
Operations Manager

DATE

January 6, 1984

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

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 <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Gas Surface Facility		5. LEASE DESIGNATION AND SERIAL NO. U-31928
2. NAME OF OPERATOR Marathon Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 2659, Casper, WY 82602		7. UNIT AGREEMENT NAME Tin Cup Mesa
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface --		8. FARM OR LEASE NAME Tin Cup Mesa
14. PERMIT NO. --	15. ELEVATIONS (Show whether DF, RT, GR, etc.) --	9. WELL NO. -- 1-25
		10. FIELD AND POOL, OR WILDCAT Tin Cup Mesa
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 25, T38S, R25E
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) Please See Below	<input checked="" type="checkbox"/>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recombination 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.)\*

SURFACE FACILITIES, TIN CUP MESA UNIT

Reporting of unavoidable loss of oil, gas, or gas products due to equipment malfunctions, fires, line breaks, etc., shall be reported in accordance with NTL-4.

Emergencies requiring the venting or flaring of gas will be followed by specific requirements contained in Items 1 A. and 1 B. (1), (2), and (3) of the NTL-4.

Good engineering practices will be maintained at all times during the operation of Tin Cup Mesa surface facilities.

RECEIVED  
JAN 18 1984

DIVISION OF  
OIL, GAS & MINING  
District

18. I hereby certify that the foregoing is true and correct.  
SIGNED Daryl L. James TITLE Operations Manager DATE Jan. 16, 1984  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

CORE LABORATORIES, INC.  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

RECEIVED  
MAR 14 1985  
DIVISION OF OIL  
& GAS & MINING

CORE ANALYSIS REPORT

FOR

MARATHON OIL COMPANY

VARIOUS WELLS  
TIN CUP MESA FIELD  
SAN JUAN COUNTY, UTAH

MARATHON OIL COMPANY  
 VARIOUS WELLS  
 TIN CUP MESA FIELD  
 SAN JUAN COUNTY, UTAH

DATE : 11-NOV-84  
 FORMATION :  
 DRLG. FLUID: WATER BASE MUD  
 LOCATION :

FILE NO : 3804-6918  
 ANALYSTS : S.S.  
 ELEVATION:

VERTICAL PERM ANALYSIS-VARIOUS WELLS

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM VERTICAL	DESCRIPTION
-----			
#1-23 TIN CUP MESA			
4	5575.0-76.0	0.01	
5	5576.0-77.0	0.01	
14	5585.0-86.0	0.09	
17	5588.0-89.0	0.17	
#1-25 TIN CUP MESA			
1	5452.0-53.0	0.10	
5	5456.0-57.0	0.13	
6	5416.0-17.0	0.04	
9	5419.0-20.0	2.11	
12	5422.0-23.0	0.01	
16	5426.0-27.0	0.93	
20	5430.0-31.0	3.47	
25	5435.0-36.0	0.03	
37	5447.0-48.0	0.03	
20	5471.0-72.0	0.09	
43	5474.0-75.0	2.32	
#2-23 TIN CUP MESA			
7	5460.0-61.0	30.	
20	5473.0-74.0	0.92	
24	5477.0-78.0	0.96	
32	5485.0-86.0	0.07	

385 25E 23  
POW

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

PAGE 2

MARATHON OIL COMPANY  
 VARIOUS WELLS

DATE : 11-NOV-84  
 FORMATION :

FILE NO : 3804-6918  
 ANALYSTS : S.S.

VERTICAL PERM ANALYSIS-VARIOUS WELLS

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM VERTICAL	DESCRIPTION
45	5498.0-99.0	0.15	
56	5509.0-10.0	0.04	
60	5513.0-14.0	1.70	
62	5515.0-16.0	0.07	
64	5517.0-18.0	0.64	
71	5524.0-25.0	0.04	
76	5529.0-30.0	0.01	
83	5536.0-37.0	0.86	
84	5537.0-38.0	0.64	
87	5540.0-41.0	7.10	
90	5543.0-44.0	0.04	
108	5561.0-62.0	0.27	
111	5564.0-65.0	0.17	

#3-23 TIN CUP MESA

11	5589.0-90.0	9.23	
18	5596.0-97.0	0.02	
26	5604.0-05.0	0.04	
30	5608.0-09.0	0.02	
31	5609.0-10.0	1.27	
33	5611.0-12.0	0.02	
38	5616.0-17.0	0.09	
41	5619.0-20.0	0.20	
47	5625.0-26.0	0.04	
51	5629.0-30.0	1.42	
55	5633.0-34.0	6.40	
60	5638.0-39.0	0.54	
63	5641.0-42.0	43.	
66	5644.0-45.0	0.53	

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
 DALLAS, TEXAS

PAGE 3

MARATHON OIL COMPANY  
 VARIOUS WELLS

DATE : 11-NOV-84  
 FORMATION :

FILE NO : 3804-6918  
 ANALYSTS : S.S.

VERTICAL PERM ANALYSIS-VARIOUS WELLS

SAMPLE NUMBER	DEPTH	PERM. TO AIR (MD) MAXIMUM VERTICAL	DESCRIPTION
69	5647.0-48.0	2.55	
	#3-26 TIN CUP MESA		
3	5467.0-68.0	0.81	
7	5471.0-72.0	0.01	
17	5481.0-82.0	12.	
22	5486.0-87.0	3.27	
27	5491.0-92.0	4.38	
37	5501.0-02.0	8.86	
46	5510.0-11.0	0.05	
47	5511.0-12.0	0.73	
52	5516.0-17.0	3.62	
60	5524.0-25.0	0.93	
71	5535.0-36.0	0.03	
75	5539.0-40.0	16.	
78	5542.0-43.0	0.01	
89	5553.0-54.0	4.20	
101	5565.0-66.0	0.18	

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

2  
14

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 <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SIMO #344320520		5. LEASE DESIGNATION AND SERIAL NO. U-31928
2. NAME OF OPERATOR Marathon Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P.O. Box 2659, Casper, Wyoming 82602		7. UNIT AGREEMENT NAME Tin Cup Mesa Unit
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  SE SW 587' FSL & 3171' FEL		8. FARM OR LEASE NAME Tin Cup Mesa
14. PERMIT NO. 8-27-82 43-037-30808		9. WELL NO. 2-23
15. ELEVATIONS (Show whether dr. or cased) 5095' GL, 5108' KB		10. FIELD AND POOL, OR WILDCAT Tin Cup Mesa
16. PERMIT NO. 8-27-82 43-037-30808		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 23, T38S, R25E
17. ELEVATIONS (Show whether dr. or cased) 5095' GL, 5108' KB		12. COUNTY OR PARISH San Juan
		13. STATE Utah

RECEIVED

SEP 03 1985

DIVISION OF OIL

GAS & MINING

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(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.)

The Ismay interval was additionally perforated from 5513' KB to 5520' KB, 5479' KB to 5487' KB, and 5470' KB to 5474' KB with 4 shots per foot.

After perforating the Ismay interval, the perforations from 5525' KB to 5470' KB were acidized with a total of 1900 gallons of 15% HCL containing additives.

The above work was necessary in order to gain as much oil entry into the wellbore, so that no oil is swept past and lost due to our water injection program.

The work was discussed between Mr. Greg Noble, BLM Moab, and Mr. Frank Krugh, Marathon Oil Company, Casper, on July 23, 1985, and an after the fact Sundry Notice was agreed to be submitted.

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

SIGNED Dayle J. Jones

TITLE District Production Manager DATE August 28, 1985

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE  
(Other instructions on reverse side)

Fully approved  
Budget Bureau No. 1004-0125  
Expires August 31, 1985

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.)

RECEIVED  
OCT 04 1989

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
P. O. Box 2690, Cody, Wyoming 82414

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

587' FSL & 3171' FEL

14. PERMIT NO.  
43-037-30808

16. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5108' KB

5. LEASE DESIGNATION AND SERIAL NO  
U-13655

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Tin Cup Mesa

8. FARM OR LEASE NAME  
Tin Cup Mesa

9. WELL NO.  
2-23

10. FIELD AND POOL, OR WILDCAT  
Tin Cup Mesa

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 23, T38S, R25E

12. COUNTY OR PARISH 13. STATE  
San Juan Utah

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

PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

(Other) See Below

SUBSEQUENT REPORT OF:

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING

REPAIRING WELL   
ALTERING CASING   
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.)

Marathon Oil Company requests approval to recomplete the Upper Ismay formation in this well by following the attached procedure.

OIL AND GAS	
DRN	RJF
JRB ✓	GLH
DTS	SLS

2-TAS ✓  
3-LCR ✓  
MICROFILM ✓  
FILE ✓  
DATE September 18, 1989

18. I hereby certify that the foregoing is true and correct  
BLM-Orig & 3--cc: SUDOGM-2, WRF, FMK, TKS, Title & Contract (Houston) 4

SIGNED R P Meador

TITLE Regulatory Coordinator

DATE September 18, 1989

(This space for Federal or State office use)

APPROVED BY [Signature]  
CONDITIONS OF APPROVAL, IF ANY:

TITLE Acting District Engineer  
ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

\*See Instructions on Reverse Side 10-20-89

DATE: 9/27/89  
BY: [Signature]

Tin Cup Mesa #2-23  
587' FSL, 3171' FEL  
Section 23, T38S, R25E  
San Juan County, Utah  
Recompletion - AFE #5-596-9

Well Data:

Elevation: 5095' GL; 5108' KB  
Depth: 5805' TD; 5744' PBDT

Casing: 9 5/8", 36#, K-55, ST&C Surface Casing set at 1324'  
with 550 sks cement in 12 1/4" hole.  
5 1/2", 20#, N-80, LT&C Production Casing set at  
5780' with 1800 sks cement in 8 3/4" hole.

Tubing Record: 2 7/8", 6.5#, J-55

Perforations: 5470-74' (4 JSPF)  
5479-87' (4 JSPF)  
5492-5500' (2 JSPF) Upper Ismay  
5507.5-12.5' (2 JSPF)  
5512.5-20' (4 JSPF)  
5520-25' (2JSPF)

Proposed Perforations: 5462-70' KB

Cement Top: 2800' per CBL

Procedure Summary

The primary objective of this procedure is to perforate an additional 8' of Upper Ismay pay and then acidize all existing perforations with 50 gal/ft 15% HCl using a selective injection packer. Prior to this stimulation work, the tubing and wellbore will be treated with a PAD job to remove any paraffin and scale build-up. This recompletion is expected to result in a total of gross incremental BOPD at a cost of

Procedure

1. MIRU workover rig. Set 2 - 400 bbl tanks. Fill one tank with produced water.
2. Unseat pump and hot oil ( $\pm 230^{\circ}$  F) down casing with  $\pm 35$  bbls oil and  $\pm 35$  bbls oil down the tubing. This well has a history of paraffin problems and may require additional hot oiling to get cleaned-up enough to pull the pump and rods.
3. POOH with the rods and pump. Release tubing anchor and POOH with the tubing.
4. Pick-up 4-5/8" bit and scraper dressed for 5-1/2", 20# casing. RT bit and scraper to PBDT. LD bit and scraper.
5. Rig up wireline perforating company with a full lubricator. Perforate Upper Ismay from 5462-70' KB using 4" casing guns with 22.7 gram

- charge and 90-120° phasing at 4 JSPF. Correlate depth from gamma ray or collars of CBL run Aug. 5, 1985.
6. PU 5-1/2" PPIP tool (or equivalent) and SN. RIH to 5530' KB.
  7. RU service company. Test lines to 4200 psi.
  8. Spot 1300 gallons PAD acid down tubing and across the perforations with 23 bbls produced water. Let set ten minutes and pump another 5 bbls past perfs. Wait 5-10 minutes and pump another 4 bbls past perfs. Wait another 5-10 minutes and reverse out PAD acid with 60 bbls water. Note: PAD system will contain 80% by volume 7-1/2% HCl, 19% by volume xylene, 1% by volume WS-44 (dispersant) and 1-1/2 gal/1000 HAI-85 corrosion inhibitor.  
Note: All personnel are to wear safety ~~glasses~~<sup>goggles</sup> during all acidizing activities.
  9. Acidize all Upper Ismay perforations 5462-5525' KB using 50 gal/ft 15% Fe HCl (containing 3 gal/1000 HAI-85 and 2 gal/1000 LO Surf 300 and 1 gal/1000 HC-2) with the PPIP on 1 foot spacing, as follows:
    - a) Move down hole to 5535' KB. Set packers and pressure test between packers to 3200' psi.
    - b) Bleed off pressure and release packer.
    - c) Drop SV and RFC valve. Pump 0.5-2.0 bbls water to determine if the valves are opening properly.
    - d) Move packer uphole to straddle the bottom perfs. Locate them by pumping water at a maximum pressure of 3200 psi. (Before proceeding with (e), make sure there is enough daylight left to start swabbing operations).
    - e) Once bottom perf has been located, spot acid to within two bbls of the PPIP. Close bypass.
    - f) Acidize the perfs using a total of 2500 gals 15% HCl (containing iron sequestering agents, corrosion inhibitors, and non-emulsifiers) in 50 gals/ft increments at a maximum pressure of 3200 psi and a maximum rate of 1/2 BPM. Leave the backside open to the pit to check for communication. If communication does occur, shut-in the backside immediately to force the acid into the formation. (Note the rate, pressure, and status of communication on each set).
    - g) Over displace the annulus with 10-15 bbls water after the last set of perfs has been acidized and all the acid in the tubing pumped away.
  10. PUH and reset the packer at 5445'± KB. Pressure test the packer, valves and tubing to the maximum treating pressure to ensure that everything had been working properly.
  11. Retrieve the RFC and standing valves with the sand line.
  12. RU swab equipment. Swab back load fluid until samples are clean and pH has returned to 5.5-6.0. Record fluid levels, cum. recoveries, cuts, and pH hourly.
  13. RD swab equipment. Release and POOH with the PPIP tools, SN and tubing.

14. RIH with production equipment, setting pump at least 30' below the bottom perms. Shoot fluid level before placing the well back on production.

15. RD workover Rig.

TMB/pt

*JMBawley 8/21/89*

Approvals: \_\_\_\_\_

*C. R. 9/7/89*

*S. D. Hemmings 8/29/89*

*T. K. Levin 9/1/89*



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate  
(Check instructions on form)

BLM Form No. 1000-107  
EFFECTIVE DATE 10-1-79  
LEASE DESIGNATION AND SERIAL NO.  
U-13655  
IF INDIAN ALLIANCE OR TRIBE NAME

14

SUNDRY NOTICES AND REPORTS ON WELLS

Use this form for reports on wells or to describe or describe operations on wells.  
Use APPLICATION FOR PERMIT for

**RECEIVED**  
JAN 05 1990

1. WELL TYPE  
OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Marathon Oil Company

3. ADDRESS OF OPERATOR  
P. O. Box 2690, Cody, Wyoming 82414

DIVISION OF  
OIL, GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
587' FSL & 3171' FEL

UNIT AGREEMENT NAME  
Tin Cup Mesa

5. FARM OR LEASE NAME  
Tin Cup Mesa

6. WELL NO.  
2-23

10. FIELD AND POOL, OR WILDCAT  
Tin Cup Mesa

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

Sec. 23, T38S, R25E

12. COUNTY OR PARISH 13. STATE  
San Juan UTAH Wyoming

14. PERMIT NO.  
43-037-30808

15. ELEVATIONS (Show whether of, to, or from)  
5108' KB

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

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other) Work Completed

SUBSEQUENT REPORT OF:  
REPAIRING WELL   
ALTERING CASING

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report (see form.)  
estimated date of completion for all markers and zones perforated

OIL AND GAS	
DAN	RJE
JRB	GLH
DTS	SLS
1-TAS	
2- MICROFILM	
31, 1989	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths pertinent to this work.)

The following work was completed between October 9, 1989 and October 13, 1989.

1. Pulled production equipment and perforated the Upper Ismay 5462'-70' with 4 SPF.
2. Acidized entire Upper Ismay perforations with 50 gallons per foot of 15% HCL, FE acid.
3. Reran production equipment and returned the well to production on October 13, 1989.

BLM-Orig & 3--cc: ~~10000-2~~ <sup>SUBDOG M-2</sup>, WRF, FMK, SPO, WTR-5, Title & Contract (Houston)

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

SIGNED R.P. Meador

TITLE Regulatory Coordinator

DATE December 18, 1989

(This space for Federal or State office use)

APPROVED BY ACCEPTED  
CONDITIONS OF APPROVAL, IF ANY:

TITLE Branch of Fluid Minerals  
Moab District

DATE DEC 22 1989

\*See instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations, or to furnish any information which is false, fictitious or fraudulent.

**COPY**

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

JAN 7 1996

IN REPLY REFER TO:  
UT-922

January 12, 1996

Cochrane Resources, Inc.  
P.O. Box 1656  
Roosevelt, Utah 84066

RE: Tin Cup Mesa Unit  
San Juan County, Utah

Gentlemen:

On January 11, 1996, we received an indenture dated January 9, 1996, whereby Marathon Oil Company resigned as Unit Operator and Cochrane Resources, Inc. was designated as Successor Unit Operator for the Tin Cup Mesa Unit, San Juan County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective January 12, 1996. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Tin Cup Mesa Unit Agreement.

Your statewide (Utah) oil and gas bond No. 0699 will be used to cover all operations within the Tin Cup Mesa Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks  
Chief, Branch of Fluid Minerals

Enclosure

bcc: District Manager - Moab (w/enclosure)  
~~Division of Oil, Gas & Mining~~  
Division of Mineral Adjudication U-923  
File - Tin Cup Mesa Unit (w/enclosure)  
MMS - Data Management Division ((Attn: Rose Dablo)  
Agr. Sec. Chron  
Fluid Chron

U-922:TAThompson:tt:01-12-96

WELL STATUS REPORTS  
UTAH STATE OFFICE

INSPECTION ITEM	API NO.	WELL NUMBER	QTQT	SEC	TWN	RNG	WELL STATUS	LEASE NAME	OPERATOR
** INSPECTION ITEM 8910203910	31761	TIN CUP MESA IS A							
8910203910	430373066500S1	1	S	25	38S	25E	WDW	UTU31928	MARATHON OIL COMPANY
8910203910	430373069000S1	1-25	S	25	38S	25E	WIW	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373080800S1	2-23	S	23	38S	25E	POW	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373098300S1	2-25	N	25	38S	25E	POW	UTU13655	MARATHON OIL COMPANY 413655
8910203910	430373081500S1	3-23	S	23	38S	25E	WIWSI	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373102000S1	3-25	S	25	38S	25E	TA	UTU13655	MARATHON OIL COMPANY 413655
8910203910	430373076200S1	3-26	N	26	38S	25E	WIW	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373114500S1	4-25	S	25	38S	25E	WIW	UTU13655	MARATHON OIL COMPANY 413655
8910203910	430373094100S1	4-26	S	26	38S	25E	WIW	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373136800S1	5-26	S	26	38S	25E	POW	UTU31928	MARATHON OIL COMPANY 431928
8910203910	430373154000S1	6-26	N	26	38S	25E	POW	UTU31928	MARATHON OIL COMPANY 431928

Entity#

2765

JAN 23 1996

## RESIGNATION OF OPERATOR

Tin Cup Mesa Unit Area

County of San Juan

State of Utah

Unit Agreement No. 14-08-0001-20391

Under and pursuant to the provisions of Section 5 of the Unit Agreement for the Development and Operation of the Tin Cup Mesa Unit Area, San Juan County, Utah, Marathon Oil Company, the designated Unit Operator under said Unit Agreement, does hereby resign as Unit Operator, effective upon the selection and approval of a successor Unit Operator.

EXECUTED with effect as aforesaid this 29th day of November, 1995.

ATTEST:

  
\_\_\_\_\_

MARATHON OIL COMPANY

  
\_\_\_\_\_

By: A.R. Kukla  
Title: Attorney-In-Fact



12-19-95

Authorized Officer  
Bureau of Land Management

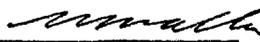
Re: Tin Cup Mesa Unit  
San Juan County, Utah

Gentlemen:

Enclosed for your consideration and approval, are four (4) copies of Resignation  
of Unit Operator ~~and Designated Successor Operator~~ for the Tin Cup Mesa Unit  
Area.

Cochrane Resources, as the designated successor operator under the Tin Cup Mesa Unit  
Agreement, hereby certifies that the requisite approvals of the current working interest  
owners in the agreement have been obtained to satisfy the requirements for selection  
of a successor operator as set forth under the terms and provisions of the agreement.  
All operations within the Tin Cup Mesa Unit Agreement will be covered by bond no.  
UT0699.

Sincerely,

  
Ken Allen  
Cochrane Resources, Inc.  
President

Enclosures

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

Routing:

1-IBC	7-FILM	✓
2-DEK	8-FILE	✓
3-VLD		✓
4-RJF		✓
5-LRC		✓
6-SJ		✓

Attach all documentation received by the division regarding this change.  
 Initial each listed item when completed. Write N/A if item is not applicable.

- Change of Operator (well sold)       Designation of Agent  
 Designation of Operator             Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 12-01-95)

TO (new operator)	<u>COCHRANE RESOURCES INC</u>	FROM (former operator)	<u>MARATHON OIL COMPANY</u>
(address)	<u>PO BOX 1656</u>	(address)	<u>PO BOX 552</u>
	<u>ROOSEVELT UT 84066</u>		<u>MIDLAND TX 79702</u>
phone ( <u>801</u> )	<u>722-5081</u>	phone ( <u>915</u> )	<u>687-8155</u>
account no.	<u>N 7015</u>	account no.	<u>N 3490</u>

**\*TIN CUP MESA UNIT**

Well(s) (attach additional page if needed):

Name: <b>**SEE ATTACHED**</b>	API: <u>037-30808</u>	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____
Name: _____	API: _____	Entity: _____	Sec _____	Twp _____	Rng _____	Lease Type: _____

**OPERATOR CHANGE DOCUMENTATION**

- Sec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). *(Reg. 1-19-96) (Rec'd 1-23-96)*
- Sec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). *(Reg. 1-22-96) (Rec'd 1-23-96)*
- N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) \_\_\_\_ If yes, show company file number: \_\_\_\_\_.
- Sec 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of Federal and Indian well operator changes should take place prior to completion of steps 5 through 9 below.
- Sec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. *(2-8-96 O&G Wells) (Inj. Wells 4-3-96)*
- Sec 6. Cardex file has been updated for each well listed above. *(2-8-96 O&G Wells) (Inj. Wells 4-3-96)*
- Sec 7. Well file labels have been updated for each well listed above. *(2-8-96 O&G Wells) (Inj. Wells 4-3-96)*
- Sec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. *(2-8-96 O&G Wells) (Inj. Wells 4-3-96)*
- Sec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

**ENTITY REVIEW**

- Sec* 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no (If entity assignments were changed, attach copies of Form 6, Entity Action Form).
- N/A* 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

**BOND VERIFICATION (Fee wells only)**

- N/A* 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.
2. A copy of this form has been placed in the new and former operators' bond files.
3. The former operator has requested a release of liability from their bond (yes/no) no. Today's date \_\_\_\_\_ 19\_\_\_\_. If yes, division response was made by letter dated \_\_\_\_\_ 19\_\_\_\_.

**LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY**

- N/A* 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated \_\_\_\_\_ 19\_\_\_\_, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
- DCS*  
*4/8/96*
- N/A* 2. Copies of documents have been sent to State Lands for changes involving State leases.

**FILMING**

- WDR* 1. All attachments to this form have been microfilmed. Date: April 17 1996.

**FILING**

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form and the original attachments have been filed in the Operator Change file.

**COMMENTS**

*960119 Blm/SL App. eff. 1-12-96.*

Division of Oil, Gas and Mining  
**OPERATOR CHANGE WORKSHEET**

<b>ROUTING</b>
1. DJJ
2. CDW

**X - Change of Operator (Well Sold)**

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

**4/1/2008**

<b>FROM:</b> (Old Operator): N7015-Cochrane Resources, Inc PO Box 1656 Roosevelt, UT 84066  Phone: 1 (435-722-5081)	<b>TO:</b> (New Operator): N8195-Mar/Reg Oil Company PO Box 18148 Reno, NV 89511  Phone: 1 (775) 852-7444
--	--

<b>CA No.</b>		<b>Unit:</b>		<b>TIN CUP MESA</b>				
<b>WELL NAME</b>	<b>SEC</b>	<b>TWN</b>	<b>RNG</b>	<b>API NO</b>	<b>ENTITY NO</b>	<b>LEASE TYPE</b>	<b>WELL TYPE</b>	<b>WELL STATUS</b>
<b>SEE ATTACHED LIST</b>								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/4/2008
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/3/2008
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 6/23/2008
- a. Is the new operator registered in the State of Utah:          Business Number: 1267088-0143
- b. If **NO**, the operator was contacted on:
- a. (R649-9-2) Waste Management Plan has been received on: IN PLACE
- b. Inspections of LA PA state/fee well sites complete on:
- c. Reports current for Production/Disposition & Sundries on: ok
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 5/28/2008 BIA
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 5/28/2008
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 7/2/2008

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 7/1/2008
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 7/1/2008
- Bond information entered in RBDMS on: n/a
- Fee/State wells attached to bond in RBDMS on: n/a
- Injection Projects to new operator in RBDMS on: n/a
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: UTB000019
- Indian well(s) covered by Bond Number: n/a
- a. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number: n/a

**COMMENTS:**

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>			5. LEASE DESIGNATION AND SERIAL NUMBER: <b>SEE ATTACHED</b>
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
			7. UNIT or CA AGREEMENT NAME: <b>SEE ATTACHED</b>
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____			8. WELL NAME and NUMBER: <b>SEE ATTACHED</b>
2. NAME OF OPERATOR: <b>COCHRANE RESOURCES, INC. N7015</b>			9. API NUMBER:
3. ADDRESS OF OPERATOR: PO BOX 1656 CITY ROOSEVELT STATE UT ZIP <del>84606</del>		PHONE NUMBER: <b>(435) 722-5081</b>	10. FIELD AND POOL, OR WILDCAT: <b>TIN CUP MESA</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>SEE ATTACHED; EXHIBIT "A"</b> <span style="float: right;"><b>84066</b></span>			COUNTY: <b>SAN JUAN</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:			STATE: <b>UTAH</b>

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start: _____  <input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <b>CHANGE OF OPERATOR</b>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The successor Operator for this well will be:  
 Mar/Reg Oil Company **N 8195**  
 PO Box 18148  
 Reno, NV 89511  
 (775) 852-7444

Agreed and accepted this 2nd day of June 2008  
*effective April 1, 2008*

Mar/Reg Oil Company

By: *Rhonda Ahmad*  
 Rhonda Ahmad  
 President  
 Mar/Reg State Wide Bond # is UTB000019

NAME (PLEASE PRINT) <u>KEN ALLEN</u>	TITLE <u>PRESIDENT</u>
SIGNATURE _____	DATE _____

(This space for State use only)

APPROVED 7/1/2008

*Earlene Russell*  
 Division of Oil, Gas and Mining  
 Earlene Russell, Engineering Technician

RECEIVED  
 JUN 03 2008  
 DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>SEE ATTACHED</b>
2. NAME OF OPERATOR: COCHRANE RESOURCES, INC. <i>N7015</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: PO BOX 1656    CITY ROOSEVELT    STATE UT    ZIP <i>84606</i>		7. UNIT or CA AGREEMENT NAME: <b>SEE ATTACHED</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>SEE ATTACHED; EXHIBIT "A"</b> COUNTY: <b>SAN JUAN</b>		8. WELL NAME and NUMBER: <b>SEE ATTACHED</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:    STATE: <b>UTAH</b>		9. API NUMBER:
PHONE NUMBER: (435) 722-5081		10. FIELD AND POOL, OR WILDCAT: <b>TIN CUP MESA</b>

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <b>CHANGE OF OPERATOR</b>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.**

The successor Operator for this well will be:  
Mar/Reg Oil Company  
PO Box 18148  
Reno, NV 89511  
(775) 852-7444

Agreed and accepted this 3rd day of June 2008

Mar/Reg Oil Company

By: \_\_\_\_\_  
Rhonda Ahmad  
President  
Mar/Reg State Wide Bond # is UTB000019

NAME (PLEASE PRINT) KEN ALLEN    TITLE PRESIDENT  
SIGNATURE *[Signature]*    DATE 6-3-2008

(This space for State use only)  
**APPROVED 7/1/2008**  
*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

**RECEIVED**  
**JUN 04 2008**  
DIV. OF OIL, GAS & MINING

## Exhibit A Well List

### Tin Cup Mesa Unit Field

<u>API#</u>	<u>Lease Type</u>	<u>Well Name</u>	<u>Well Type</u>	<u>County</u>	<u>Location</u>	<u>Utah Entity #</u>
43-037-30690	Federal	TIN CUP MESA 1-25	Water Injection Well	SAN JUAN	25 SWNW T38S R25E	2765
43-037-30762	Federal	TIN CUP MESA 3-26	Oil Well	SAN JUAN	26 NWNE T38S R25E	2765
43-037-30808	Federal	TIN CUP MESA 2-23	Oil Well	SAN JUAN	23 SESW T38S R25E	2765
43-037-30815	Federal	TIN CUP MESA 3-23	Oil Well	SAN JUAN	23 SWSW T38S R25E	2765
43-037-30941	Federal	TIN CUP MESA 4-26	Oil Well	SAN JUAN	26 SENE T38S R25E	2765
43-037-30983	Federal	TIN CUP MESA 2-25	Oil Well	SAN JUAN	25 NWSW T38S R25E	2765
43-037-31020	Federal	TIN CUP MESA 3-25	Oil Well	SAN JUAN	25 SESW T38S R25E	2765
43-037-31145	Federal	TIN CUP MESA 4-25	Oil Well	SAN JUAN	25 SESW T38S R25E	2765
43-037-31368	Federal	TIN CUP MESA 5-26	Oil Well	SAN JUAN	26 SWNE T38S R25E	2765
43-037-31540	Federal	TIN CUP MESA 6-26	Oil Well	SAN JUAN	26 NESE T38S R25E	2765
43-037-31761	Federal	WDW 1	Water Disposal Well	SAN JUAN	25 SWNW T38S R25E	



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155  
<http://www.blm.gov/ut/st/en.html>



IN REPLY REFER TO  
3180  
UT-922

May 28, 2008

Mar/Reg Oil Company  
P. O. Box 18148  
Reno, Nevada 89511

Re: Tin Cup Mesa Unit  
San Juan County, Utah

Dear Ms. Ahmad:

On May 23, 2008, we received an indenture dated May 7, 2008, whereby Cochrane Resources, Inc. resigned as Unit Operator and Mar/Reg Oil Company was designated as Successor Unit Operator for the Tin Cup Mesa Unit, San Juan County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective May 28, 2008. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Tin Cup Mesa Unit Agreement.

Your statewide oil and gas bond no. UTB000019 will be used to cover all operations within the Tin Cup Mesa Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate agencies, with one copy returned herewith.

Sincerely,

*/s/ Becky J. Hammond*

Becky J. Hammond  
Chief, Branch of Fluid Minerals

Enclosure

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

DEGM

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. **U-13655**  
6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** - Other instructions on page 2.

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
**MAR/REG OIL COMPANY**

3a. Address  
PO Box 18148, Reno, NV 89511

3b. Phone No. (include area code)  
**775-852-7444**

7. If Unit of CA/Agreement, Name and/or No.  
**Tin Cup Mesa**

8. Well Name and No. **Tin Cup Mesa Federal 2-23**

9. API Well No. **43-037-30808**

10. Field and Pool or Exploratory Area  
**Tin Cup Mesa**

11. Country or Parish, State  
**San Juan, Utah**

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Raise Pump</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

June 19, 2008 MIRU, pulled rods and 23 joints of 2-7/8" tubing. Set Seating Nipple at 4185.20 ft.

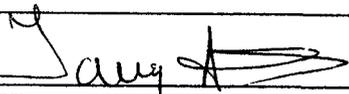
June 20, 2008 Pumped hot oil down tubing. RIH 2-1/2"x2"x20' RWBC pump, 2-25' sinker bars, 82-3/4" rods, 67-7/8" rods, 14-1" rods, 1-1"x6' pony, 1-1"x4' pony, 1-1"x2' pony and 25' polished rod. Total rod configuration: 4182 ft.

Moved rig off hole, awaiting fuel gas supply before putting well into production.

**RECEIVED**  
**JUL 08 2008**  
**DIV. OF OIL, GAS & MINING**

4. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
**Fariq Ahmad**

Title **Petroleum Engineer**

Signature 

Date **07/02/2008**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office \_\_\_\_\_

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

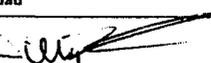
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. <b>U-31928</b>
2. Name of Operator <b>MAR/REG Oil Company</b>		6. If Indian, Allottee or Tribe Name
3a. Address <b>P.O. Box 18148, Reno, NV 89511</b>	3b. Phone No. (include area code) <b>775-852-7444</b>	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>587' FSL, 3171' FEL, (SESW), Section 23, T38S, R25E, SLM</b>		8. Well Name and No. <b>2-23</b>
		9. API Well No. <b>43-037-30808</b>
		10. Field and Pool, or Exploratory Area <b>Tin Cup Mesa</b>
		11. County or Parish, State <b>San Juan, UT</b>

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Lowered pump.</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**On July 27, 2008, removed rods, pump and set aside 25 joints. Replaced pump, rods and tubing. New pump depth is 4972.5' Placed well on production.**

14. I hereby certify that the foregoing is true and correct	
Name (Printed/Typed) <b>Tariq Ahmad</b>	Title <b>Petroleum Engineer</b>
Signature 	Date <b>10/06/2008</b>

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office _____		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**RECEIVED**

**OCT 09 2008**

**DIV. OF OIL, GAS & MINING**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No. U-31928  
6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** – Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.  
Tin Cup Mesa

1. Type of Well  
 Oil Well     Gas Well     Other

8. Well Name and No.  
Federal 2-23

2. Name of Operator  
MAR/REG OIL COMPANY

9. API Well No.  
43-037-30808

3a. Address  
PO Box 18148, Reno, NV 89511

3b. Phone No. (include area code)  
775-852-7444

10. Field and Pool or Exploratory Area  
Tin Cup Mesa

4. Location of Well (Footage, Sec., T, R, M., or Survey Description)  
587 ft FSL, 3171 ft. FEL, (SESW) Sec. 23, T38S, R25E, SLM

11. Country or Parish, State  
San Juan, Utah

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
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<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	_____
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

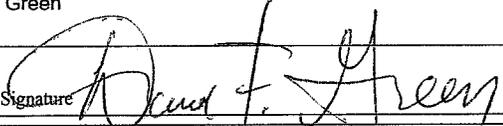
Acidized Well:

Sept 23, 2009 RU Acid truck. Pump 55 gal of 54GO down csg. Pump 10 bbl of production water for spacer. Pump 700 gal 20% HCl acid down csg. Pump rate: 2-3 bpm at 80 psi. Pump 83 bbl of production water down csg for flush at a rate of 3 bpm at 80 psi. Shut-in well.

Sept 24, 2009 Place well into production.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Dan Green

Title Engineer

Signature 

Date 10/23/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

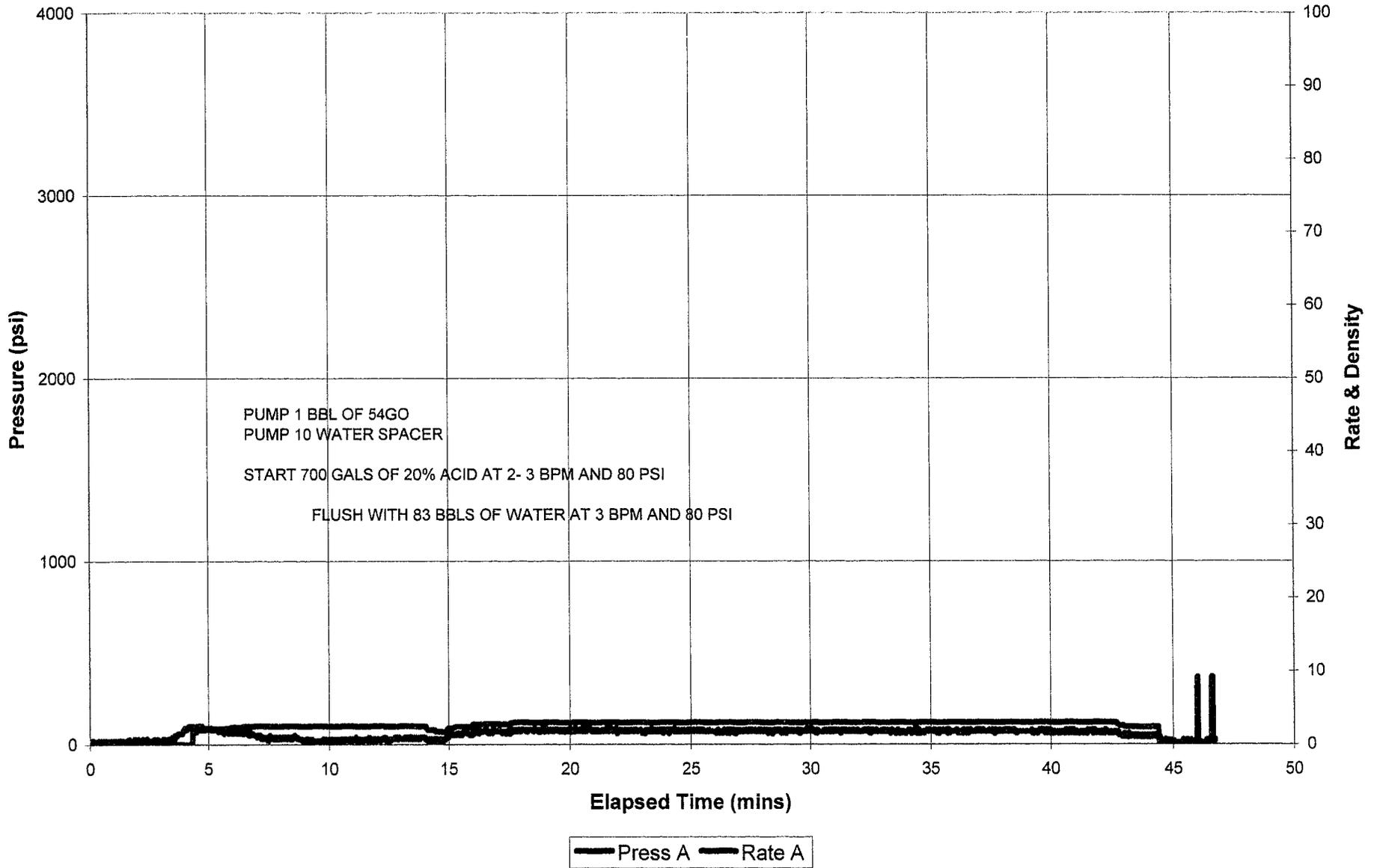
(Instructions on page 2)

**RECEIVED**  
**OCT 27 2009**

**DIV. OF OIL, GAS & MINING**



MAR/REG OI COMPANY  
TIN CUP 2-23  
ACID SCALE  
9/23/09



PROBLEM: SCALE IN FORMATION

ACIDIZE 700 GAL 20% HCL, 55 GAL 5460, 83 BBL WATER IN CSG

11:45 PACE, 5460 ON LOCATION - N11

5460 PUMPED 55 GAL DOWN CSG

12:00 5460 LEFT LOCATION, WAITING FOR WATER TRUCK

12:05 WATER ON LOCATION WITH 100 BBL WATER

12:15 PUMP 10 BBL WATER THEN PUMP 700 GAL HCL 20%

12:45 TOTAL PUMPING IN PROGRESS 70 BBL TOTAL

1:00 FINISH PUMPING 11 BBL; 1 BBL 5460, 10 BBL WATER

17 BBL ACID, 83 BBL WATER

WATER OFF LOCATION

ND PACE

1:30 PACE OFF LOCATION

Continued to page

SIGNATURE

*James Dreyer*

DATE

9/23/2009

DISCLOSED TO AND UNDERSTOOD BY

DATE

PROPRIETARY INFORMATION