Casper Division
Production, U.S. & Canada

Marathon Oil Company

P.O. Box 120
Casper, Wyoming 82602
Telephone 307/235-2511

July 21, 1980

State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Sirs:

Re: Hawk Spring #1-10
Section 10, T.10N., R.6E.
Rich County, Utah

Pursuant to a request from Dale T. Caddy, this is to advise that Louisiana Land and Exploration Company is the record owner of United States Oil and Gas Lease Utah 25115, covering the following described lands in Rich County, State of Utah:

T.10N., R.6E., S. L. M.

Section 3:	Lots 1-4, SW¼NE¼, S½NW¼, N½SW¼, SE¼SW¼, SE¼
Section 4:	Lots 1-4, S½N½, NE¼SW¼, S½SW¼, N½SE¼, SW¼SE¼
Section 9:	All
Section 10:	N½, SW¼, NW¼SE¼
Section 11:	N½NW¼, SW¼NW¼

This lease covers all lands within a 660 foot radius of the proposed well site located 703 feet from the west line and 2351 feet from the north line of Section 10. Marathon, through a previous arrangement with LL&E, will drill this well as operator for itself and LL&E.

Sincerely,

Steve Degenfelder

Steve Degenfelder
Landman

SD:cs

cc: S. O. Nation
W. E. West

RECEIVED
JUL 32 1980
DIVISION OF
OIL, GAS & MINING

Form 9-331-C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U 25115

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Hawk Springs

9. WELL NO.: 1-10

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N,R6E

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [X] OTHER Wildcat SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Marathon Oil Company

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2351' FNL & 703' FWL SW NW
At proposed prod. zone:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 5½ miles southwest of Randolph, Utah

12. COUNTY OR PARISH: Rich

13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 703'

16. NO. OF ACRES IN LEASE: 2414.02

17. NO. OF ACRES ASSIGNED TO THIS WELL: 640

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

19. PROPOSED DEPTH: 13,000' Paleozoic

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6743' GL

22. APPROX. DATE WORK WILL START*: 4th Quarter 1980

23. 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 Program for complete Casing and Cementing Program				

Please see the following attachments:

1. Surveyor's Plat
2. Ten-Point Drilling Program
3. BOP Schematic
4. Thirteen-Point Surface Program
5. Maps & Diagrams

RECEIVED OCT 9 1980 DIVISION OF OIL, GAS, & MINING

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 Caddy TITLE District Operations Manager DATE September 25, 1980

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

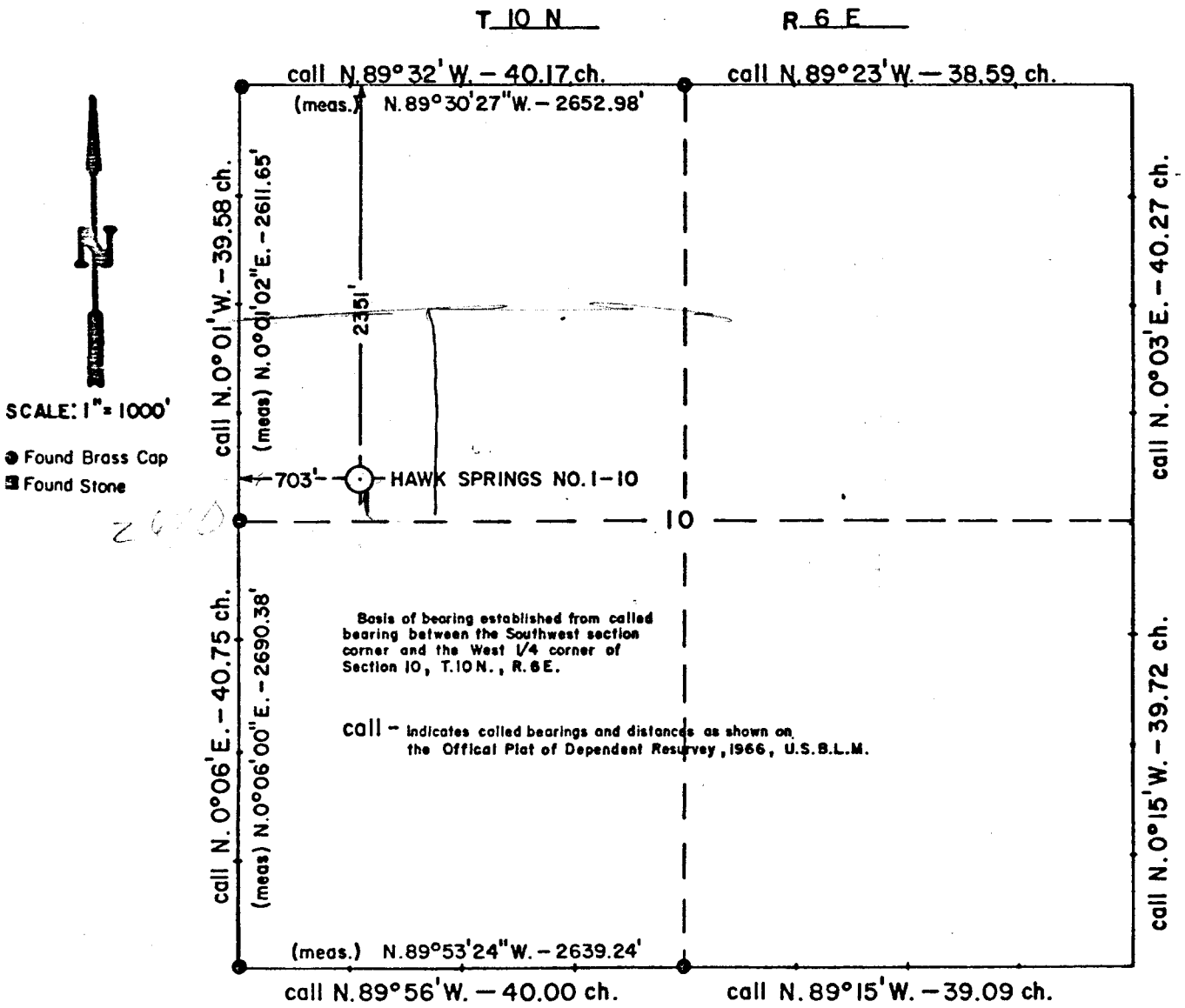
APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 10/15/80
BY: [illegible]

*See Instructions On Reverse Side

P.O. BOX 654
GREEN RIVER, WYOMING
82935
TELEPHONE: (307) 875-3638

WILLIAM H. SMITH & ASSOCIATES
SURVEYING CONSULTANTS

P.O. BOX 1300
MOAB, UTAH
84532
TELEPHONE: (801) 259-6861



I, William H. Smith of Green River, Wyoming hereby certify that in accordance with a request from Walt West of Casper, Wyoming for Marathon Oil Company Randy Rowley under my supervision and direction made a survey on the 30 th. day of June, 19 80 for location and elevation of the HAWK SPRINGS NO. 1-10. As shown on the above map, the wellsite is in the NW/4 of Section 10, Township 10 North, Range 6 East of the Salt Lake Base and Meridian, Rich County, State of Utah. Elevation is 6,743' feet ungraded ground Datum established from spot elevation at the Southwest section corner of Section 10, T.10N., R.6E. as shown on U.S.G.S. 7 1/2' topo "Birch Creek Reseroirs, Utah."

Reference Point 300' NORTH, rebar and lath, Elevation top of rebar = 6,771.1'

Reference Point 300' SOUTH, rebar and lath, Elevation top of rebar = 6,740.2'

Reference Point 300' EAST, rebar and lath, Elevation top of rebar = 6,734.4'

Reference Point 300' WEST, rebar and lath, Elevation top of rebar = 6,744.7'

William H. Smith
UTAH R.L.S. NO. 2764

JOB NO. 87-80

Rb

MARATHON OIL COMPANY

DRILLING OPERATIONS PLAN

DATE:

WELL NAME: Hawk Springs #1-10

LOCATION: 2,351' FNL & 703' FWL, Sec. 10, T10N, R6E, Rich Co., Utah

1. Geologic name of the surface formation:

   Tertiary Wasatch Formation

2. Estimated tops of important geological markers:

Formation	Depth	Datum	Formation	Depth	Datum
Wasatch	Surface	+6,743'	Brazer	6,350'	+ 393'
Nugget	300'	+6,443	Lodgepole	7,600'	- 857'
Ankerah	500'	+6,243'	Devonian	8,150'	-1,407'
Thaynes	1,950'	+4,793'	Ordovician	9,480'	-2,737'
Woodside	3,750'	+2,993'	Cambrian	10,980'	-4,237'
Dinwoody	4,500'	+2,243'	- Fault -	12,000'	-5,257'
Phosphoria	4,850'	+1,893'	Upper Paleozoics?	12,000'	-5,257'
Weber	5,450'	+1,293'	T.D.	13,000'	-6,257'
Amsden	6,050'	+ 693'			

Formation tops are uncertain due to poor seismic reflections, undetectable faulting, and possible overturned beds.

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

Formation/System	Possible Content	Depth
Thaynes	Gas	1,950'
*Dinwoody	Gas	4,500'
Phosphoria	Gas	4,850'
Lodgepole	Gas	7,600'
Orodvician	Gas	9,480'

*Primary Objective

Potentially dangerous quantities of hydrogen sulfide may be encountered in these gas zones.

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	TENSION LOAD (1,000#)	SF_t	SF_c	SF_b
Drive Pipe	42"	0-100'	100'	30"	Thinwall Steel	New	NA	NA	NA	NA	NA
Conductor	26"	0-1,000'	1,000'	20"	94#, K-55, STC	New	8.4 - 8.6ppg	94	8.77	1.10	5.25
Surface	17-1/2"	0-3,500'	3,500'	13-3/8"	61#, S-80, STC	New	8.6 - 8.8	244	3.27	1.19	2.16
		3,500-4,000'	500'	13-3/8"	68#, S-80, STC	New	8.6 - 8.8	34	>10.00	1.47	>10.00
Intermediate	12-1/4"	0-1,000'	1,000'	10-3/4"	55.5#, SS-95, SCC Butt	New	8.6 - 8.8	610	1.80	9.40	1.64
		1,000-10,000'	9,000'	10-3/4"	55.5#, S-80, SCC Butt	New	8.6 - 8.8	555	2.05	1.12	1.24
		10,000-11,000'	1,000'	10-3/4"	55.5#, SS-95, SCC Butt	New	8.6 - 8.8	56	>10.00	1.12	>10.00
Production Liner	9-1/2"	10,800-13,000'	2,200'	7-5/8"	33.7#, SS-95, LTC	New	8.6 - 8.8	74	>10.00	1.40	>10.00

4. The cementing program including type, amounts, and additives:

20" Casing

Lead Slurry: 800' caluclated plus 100% excess - 1,425 sacks Light-Weight Slurry containing 3% salt and 1/4#/sack cellophane flakes.

Tail Slurry: 200' calculated plus 100% excess - 600 sacks Class "G" containing 2% $CaCl_2$ and 1/4#/sack cellophane flakes.

Casing Equip: Stab-in float collar, guide shoe, 3 centralizers. WOC time to be 12 hours. Casing will be pressure tested to 1,000 psi prior to drilling out. An additional 5' of hole will be made and the casing shoe tested to 10.0 ppg, equivalent mud weight, or to leakoff, whichever occurs first.

13-3/8" Casing

Cement: **
Casing Equip: Differential fill float collar, differential fill float shoe, 10 centralizers. WOC time to be 12 hours. The casing will be pressure tested to 2,200 psi. After drilling an additional 5' of hole, a shoe test will be made to 12.0 ppg equivalent mud weight, or to leakoff, whichever occurs first.

10-3/4" Casing

Cement: **
Casing Equip: Differential fill float collar, differential fill float shoe, centralizers as needed. WOC time to be 12 hours. The casing will be pressure tested to 3,000 psi. After drilling an additional 5' of hole, a shoe test will be made to 12.0 ppg equivalent mud weight, or to leakoff, whichever occurs first.

7-5/8" Liner

Cement: **
Liner Equip: Float collar, float shoe, 10 centralizers, liner hanger.

**Uncertain formation tops, productive intervals, temperatures and lost circulation potentials are some factors affecting cementing criteria. As drilling progresses, these factors will be analyzed and appropriate cementing programs will be designed.

5. Pressure Control Equipment:

B.O.P. specification and testing: (See the attached schematic diagram for size and pressure ratings).

A 20" bag type preventer (Hydril) with a 2,000 psi maximum working pressure will be used with the 20" casing string. Pressure test Hydril to 1,000 psi prior to drilling out. An additional 5' of hole will be drilled and a casing shoe test to 10.0 ppg or leakoff test will be performed.

5. Pressure Control Equipment (Continued):

Nippled-up on the 13-3/8" casing and 10-3/4" intermediate string will be one annular BOP (Hydril) and dual ram type BOP with pipe rams and blind rams and all equipment will have a 5,000 psi minimum working pressure. The accumulator will be of suffieient size to close and open all components of the BOP stack without operating pump.

Blind rams, pipe rams, and annular preventer will be pressure tested to 2,200 psi prior to drilling out of the 13-3/8" casing string. Test blind rams and pipe rams to 3,000 psi and annular preventer to 2,500 psi prior to drilling under 10-3/4" casing. Test choke/kill line, choke manifold, and all valves to equivalent BOP component pressure. Function blind/pipe rams when out of hole. BOP testing procedures and frequency will be in compliance with State and Federal Regulatory Agencies.

6. Drilling Mud Program:

From	To	Type Mud	Weight	% Oil	Water Loss
Surface	1,000'	Water/Gel	8.4-8.6	--	No Control
1,000'	4,000'	Gel	8.6-8.8	--	Less than 15 cc's
4,000'	11,000'	Gel	8.6-8.8	--	Less than 10 cc's
11,000'	T.D.	Gel	8.6-8.8	--	Less than 10 cc's

Water loss will be maintained to combat sloughing shales and insure proper formation evaluation. A lightly dispersed or low solids system will be employed with every effort made to maintain mud weight at a minimum value. Lost circulation is likely at any depth in the hole. LCM will be available on location. H_2S may be encountered in gas zones, and an H_2S scavenger and corrosion agent will be used. A maximum pressure of 5,630 psi is anticipated at a T.D. which will require an 8.4 ppg mud.

7. Auxillary Equipment Required:

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

The mud system will include a desander, desilter, gas separator, degasser, pit level monitor and flowline sensor. Both a remote adjustable choke and a manual choke will be used.

A kelly cock will be used, a TIW safety valve and inside BOP will be available on the rig floor for each size pipe in the string.

A casinghead bowl protector will be installed after setting surface casing and will be in use during all drilling operations.

A hydrogen sulfide respiratory drill site unit will be placed on location, and the crews will be thoroughly trained in H_2S safety.

Mud line flow rate indication and recording equipment shall be used during drilling operations.

7. Auxiliary Equipment Required: (Continued)

Deviation Control:

From	To	Maximum Distance Between Surveys	Maximum Deviation From Vertical	Maximum Change Per 100' of Depth
0	T.D.	100'	*	1°

*High angle dips will make deviation control difficult. Survey interval will be dependent on hole condition and severity of deviation problem.

8. Testing, Logging, Coring and Fracing Program:

Drilling samples will be taken every 10' from surface to T.D. or as directed by the wellsite geologist. A two-man logging unit with H_2S detection equipment will be assigned to the well from surface to T.D.

Logs are anticipated to be run at every casing point. The Exploration Department will determine logging requirements as drilling progresses. A casing inspection log will be run in the 10-3/4" intermediate casing before drilling ahead and prior to hanging the 7-5/8" liner.

During the drilling phase, a number of DST's and cores will be utilized to insure proper formation evaluation.

Fracing Program:

If stimulation is deemed necessary after perforating and testing, individual zones will be fractured with 80 to 100,000 gallons of gelled water with approximately 250,000 lbs. of sand. Flammable liquids will not be used in the fracs. Acid stimulation (approximately 10,000 gallons of 15% HCl) may also be performed. See diagram F.

9. Anticipated Abnormal Pressures or Temperatures:

No abnormal pressures or temperatures are expected. A maximum temperature of 200° F, and a maximum pressure of 5,630 psi are expected at T.D.

10. The anticipated starting date and duration of operation:

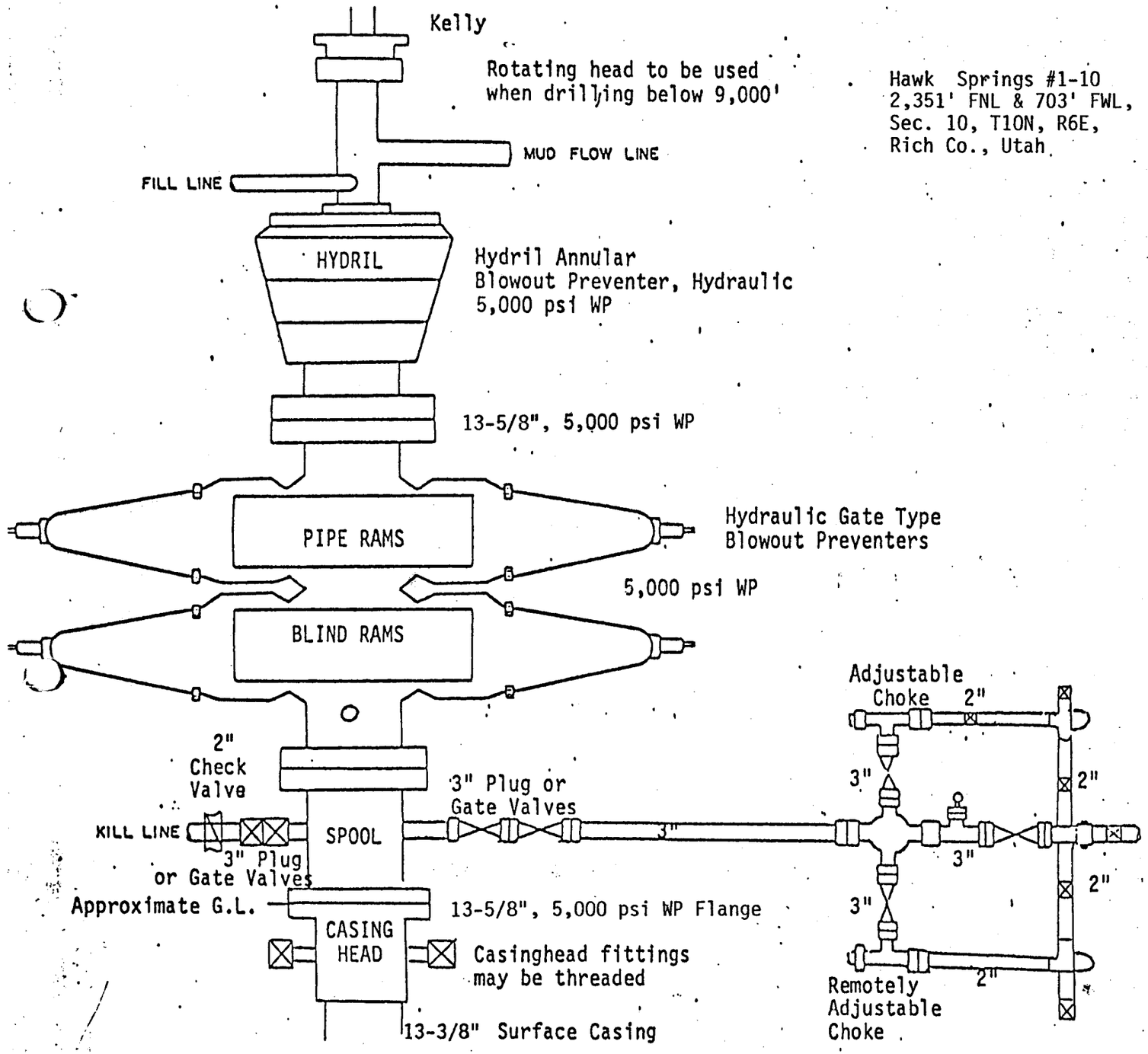
Starting Date: 4th Quarter 1980

Duration: 210 Days

KAT.

Minimum BOP Specifications

Hawk Springs #1-10
2,351' FNL & 703' FWL,
Sec. 10, T10N, R6E,
Rich Co., Utah



1. Blowout preventers, master valve, plug valve and all fittings must be in good condition. Use new API Sealing Rings.

2. All fittings (gates, valves, etc.) to have pressure rating equivalent to preventers. Valves to be flanged and at least 2" unless otherwise specified. Valves next to BOP to be 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 valve should be as great as I.D. of tool joints of drill pipe.

5. Kelly safety valve installed, to have 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 w/controls on the rig floor and one or mor remote controls near steps or at accumulator.

8. Fillup line shall be tied to drilling nipple with connection below and approximately 90° to the flow line.

9. Gauge will be installed for testing but removed while drilling.

10. If spool is not used, the choke line can be connected to BOP side outlet, below bottom rams.

11. Casinghead and casinghead fittings to be furnished by Marathon Oil Company.

12. Chokes will be adjustable.

13. One side of casinghead may be bull plugged.

MARATHON OIL COMPANY
SURFACE USE & OPERATIONS PLAN

DATE: September 25, 1980

WELL NAME: Hawk Springs #1-10

LOCATION: 2351' FNL & 703' FWL, Sec. 10, T10N, R6E, Rich 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.

5½ miles southwest of Randolph, Utah
See map diagram "A" color coded red.

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, Part of "A".

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

Not applicable

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

Blade and gravel where needed.

#2 Planned Access Roads:

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

(1) Width 16'

(2) Maximum grades 13%-600', 3% to 7%-3700', 10%-750' (Ungraded).

(3) Turnouts None required.

(4) Drainage design Ditched & Crowned

(5) Location and size of culverts and brief description of any major cuts and fills.

Approx. 3, 18" culverts.

(6) Surfacing material

Gravel.

(7) Necessary gates, cattleguards, or fence cuts.

No cattleguards or fence cuts will be required.

(8) (New or reconstructed roads are to be center-line flagged at time of location staking).
All new access road is centerlined flagged with Hot Blue and Hot Orange flagging material. The access was walked 50' on each side by Archeologist from the University of Utah. See map diagram "A" Color coded green.

#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 None

(4) Disposal wells None

(5) Drilling wells None

(6) Producing wells None

(7) Shut-in wells None

(8) Injection wells None

(9) Monitoring or observation wells for other resources.

None

#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 None

(2) Production Facilities None

(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. See diagram "B".

(2) Dimensions of Facilities

See diagram "B".

(3) Construction methods and materials:

Good engineering practices will be used in the construction of these facilities and materials will be obtained through local venders 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 areas and flagging, if necessary.

C. Plans for rehabilitation of disturbed areas no longer needed for operations after construction completed.
Restoration of the drill site and tank battery areas will be reshaped to conform with the topography. The top soil will be redistributed at the proper time. The sites will be reseeded as per the recommended seed mixture.

#5 Location and Type of Water Supply:

A. Show location and type of water supply either on map or by written description.
A water supply well will be drilled on the well site. Necessary permitting has been obtained from Division of Water Rights, State of Utah.

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

None.

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).

Water supply well will be drilled.

#6 Source of Construction Materials:

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

Construction materials will be native soil or purchased from a Jobber and hauled to the well site by same.

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 purchased from a Jobber and hauled to the well site.

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)	Frac Tanks

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

(4) Sewage.

Porta Pot, Rig Crew, 1000 gal. Septic tank and Leach line for MOC trailers. Permit obtained from Bear River Board of Health, Logan, Utah, Mr. Nick Galloway.

(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 on the drill site, and it will be fenced.

(6) Statement regarding proper cleanup of well site area when rig moves out.

At the completion of drilling, the site and surrounding area will be cleaned up and all burnable material will be put in the burn pit and burned. All foreign material will be buried.

#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 planned.

#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.

The reserve pit will not be lined and will be in the cut. See diagram "C".

#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.

The drill site will be cleaned and waste material will be put in the trash burn pit, which will be covered at the finish of the drilling operation. The reserve pit will be backfilled as soon as it is dry.

(2) Revegetation and rehabilitation - including access roads (normally per BLM recommendations).

The top soil will be redistributed and at the proper season the seed mixture of BLM requirements will be drilled planted.

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

(3) Prior to rig release, pits will be fenced and so maintained until cleanup.

The reserve pit will be fenced on 3 sides during drilling. At the completion of the drilling, all pits will be fenced on the one remaining side.

(4) If oil on pit, remove oil or install overhead flagging.

If there is 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.

Topo is sagebrush covered hills, occasionally dissected by drainage features.
Flora is sagebrush, wheat grass and short stubby native grasses.
Fauna is deer, rabbits, fox, small rodents, cattle and sheep.

(2) Other surface use activities and surface ownership of all involved lands.

The drill site is owned by LL & E with USO & G lease #U 25115. Access road through Sec. 15.16 & 9 are fee. Necessary permission to traverse have been made by MOC Land Dept.

(3) Proximity of water, occupied dwellings, archeological, historical or cultural sites.

There is no water or occupied dwellings in the area. Archeological services were performed by Dr. Richard Holmer and his staff, University of Utah.

#12 Lessee's or Operator's Representative: Mr. K.A. Thoma
Marathon Oil Company
P.O. Box 2659
Casper, WY 82602
(307) 235-2511

#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.

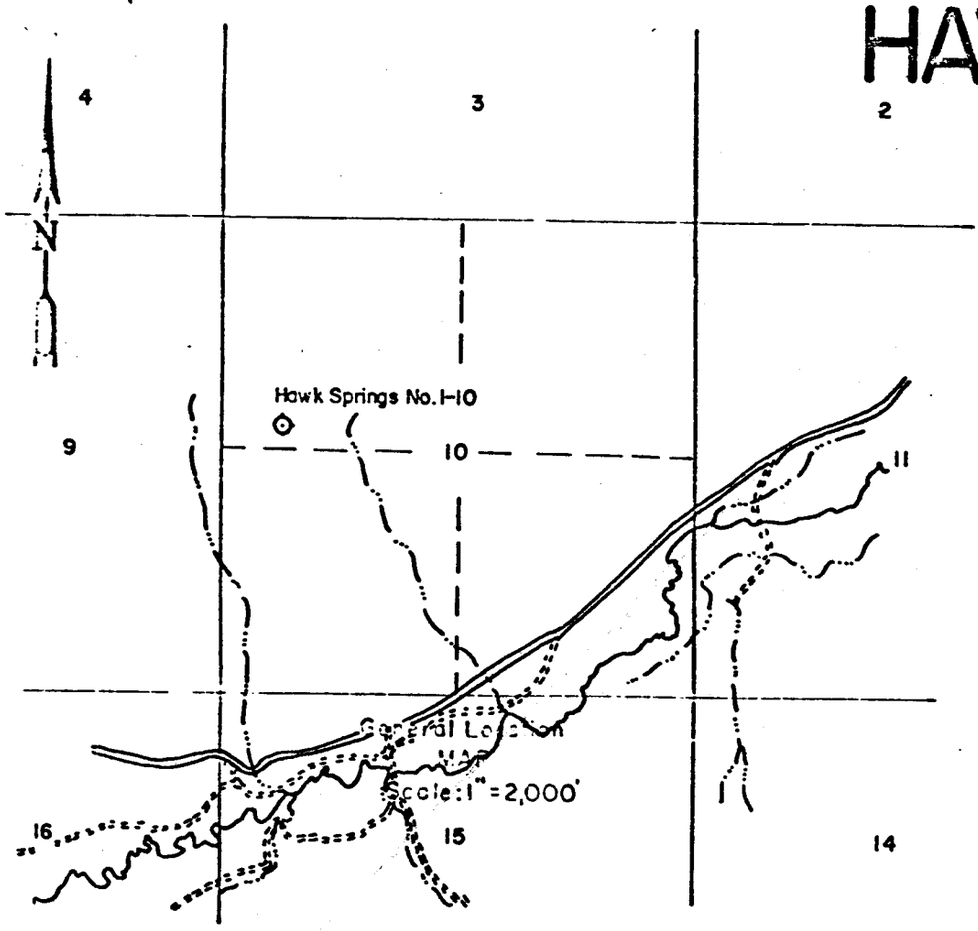
9/23/80 — Date

K.A. Thoma. — Name

Drilling Superintendent — Title

HAWK SPR

Located in the
Section 10 T10
S.L.B.&M., Ri
Utah.



Legend

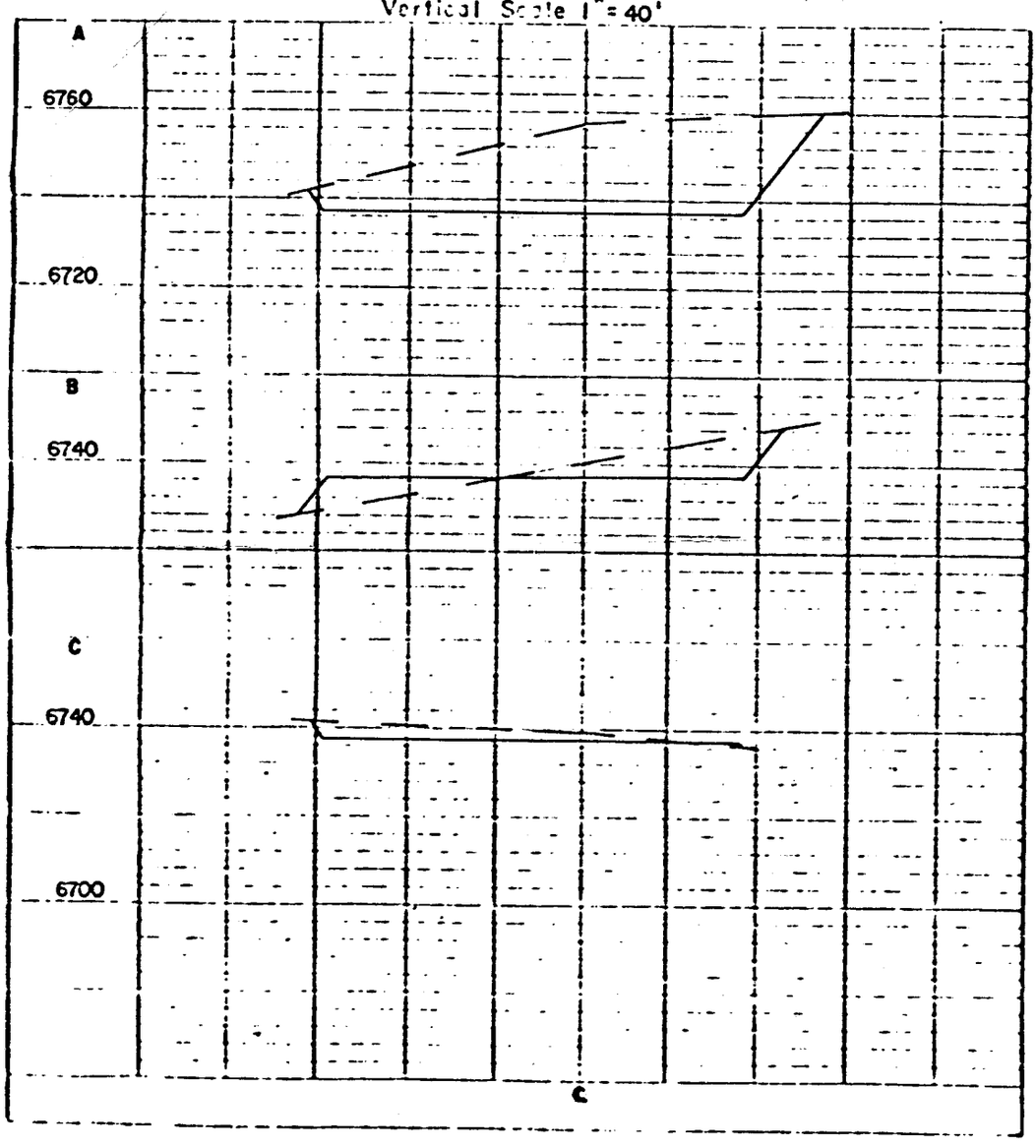
- Well Location
- Reference Point
- Slope Stake
- Slope Stake at Reserve Pit
- 100'

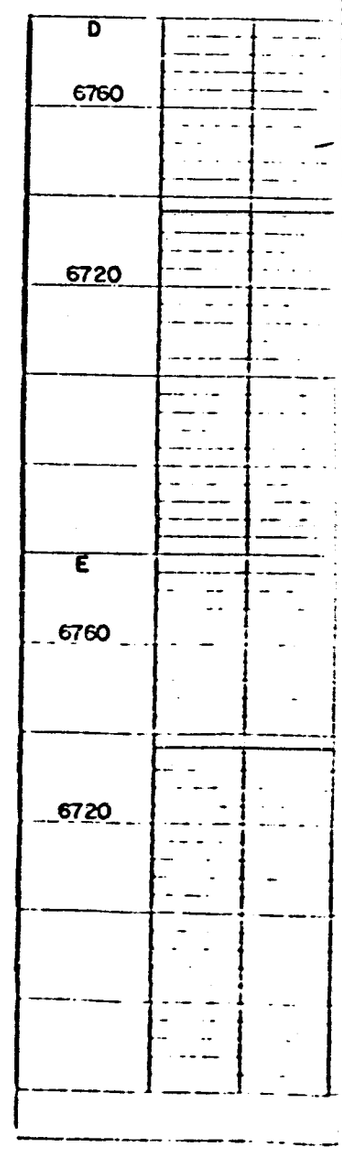
Total Yar

Cut = 61,647
Fill = 1,634
Spoil pile = 54,79
Top soil = 5,22

Reserve pit capa
74,074 B

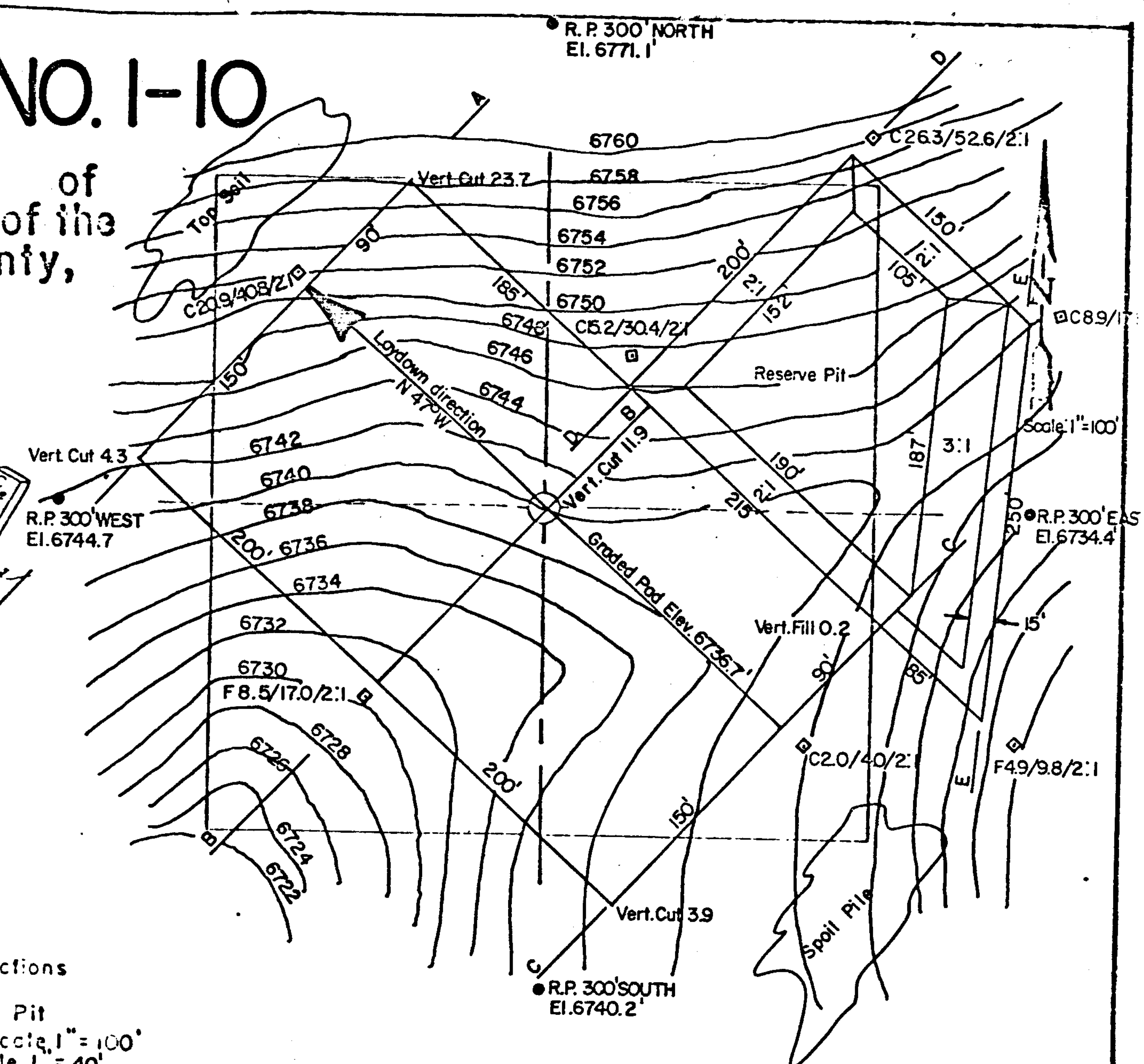
Cross Sections
of
Laydown Direction
Horizontal Scale 1" = 100'
Vertical Scale 1" = 40'





NGS NO. 1-10

NW/4 of
N, R 6 E of the
h County,



Typical Slope Stake

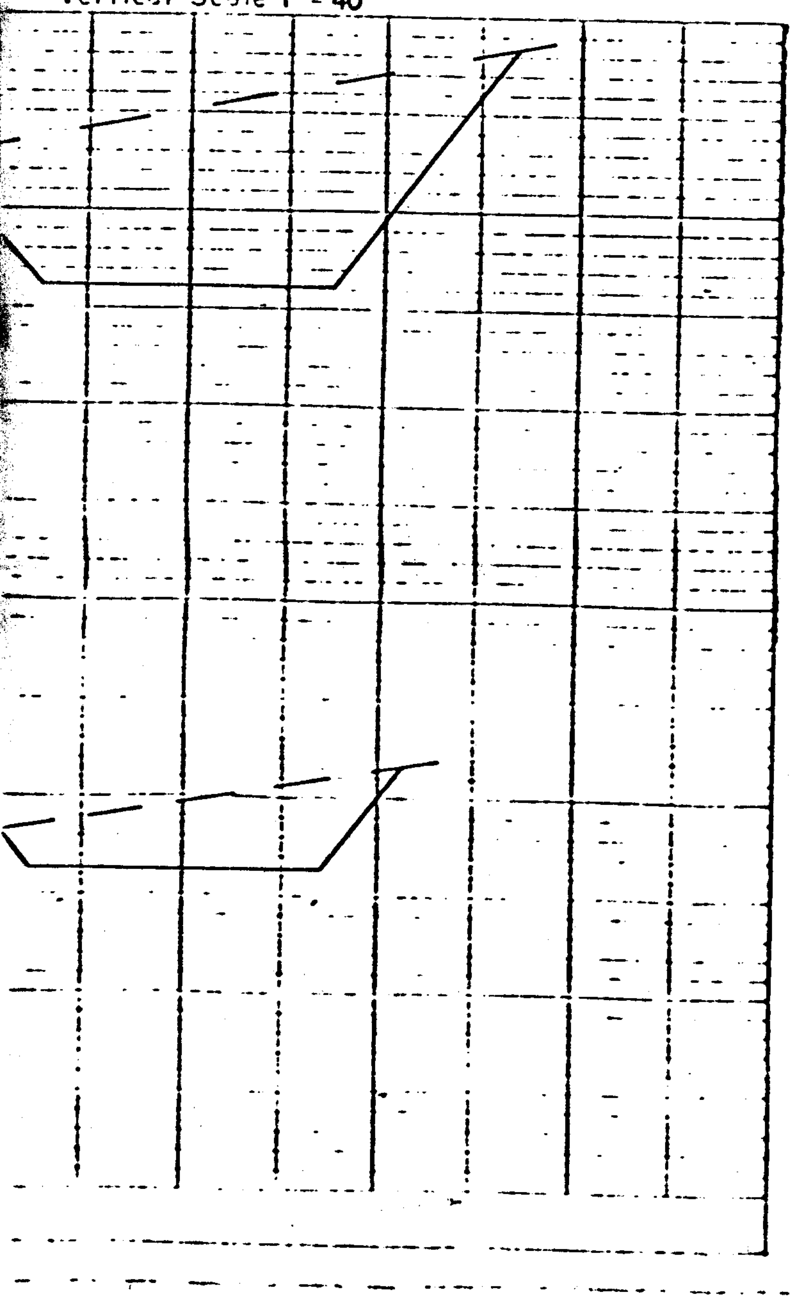
2
3.9'
6.9'

…age

___ cu. yds.
___ cu. yds.
___ cu. yds.
___ cu. yds.

…ity =
…rrels at 12' depth

Cross Sections
of
Reserve Pit
Horizontal Scale 1" = 100'
Vertical Scale 1" = 40'



MAP
To
Accompany Application
for
PERMIT To DRILL
Applicant:

MARATHON OIL COMPANY
P.O. Box 120
Casper, Wyoming 82601

Prepared
By

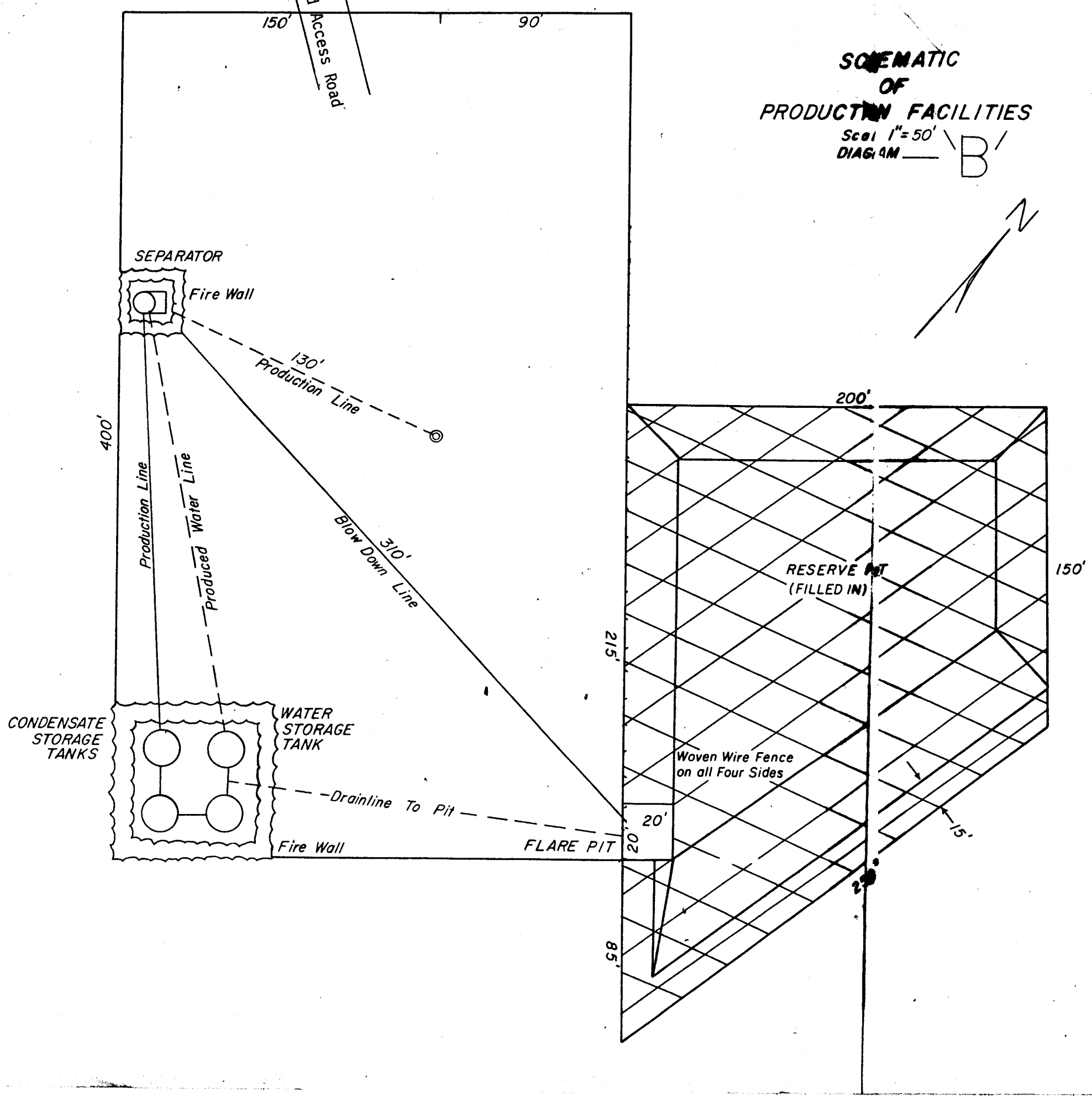
William H. Smith
and Associates
Surveying Consultants

By: RMC/RJR
Date: 9/4/80
Job No. 87-80

MAP DIAGRAM 'C'

HAWK[illegible]INGS #1-10
2351' [illegible]L & 703'FWL
SECT. 10, T10N, R6E
RICH[illegible]OUNTY, UTAH

SC[illegible]EMATIC
OF
PRODUCT[illegible] FACILITIES
Scal 1"=50'
DIAG[illegible]AM B

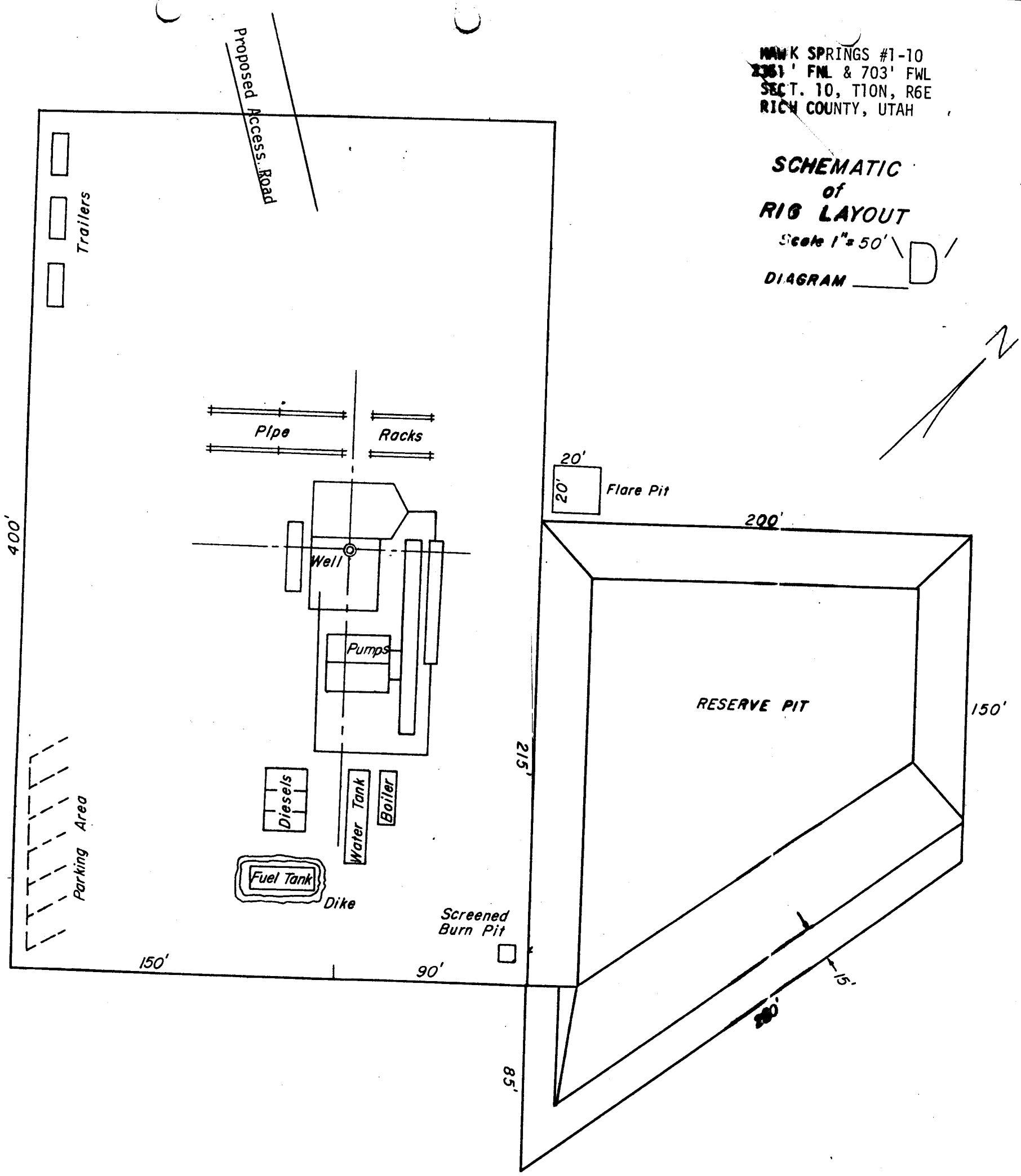


HAWK SPRINGS #1-10
2361' FNL & 703' FWL
SECT. 10, T10N, R6E
RICH COUNTY, UTAH

SCHEMATIC of RIG LAYOUT

Scale 1" = 50'

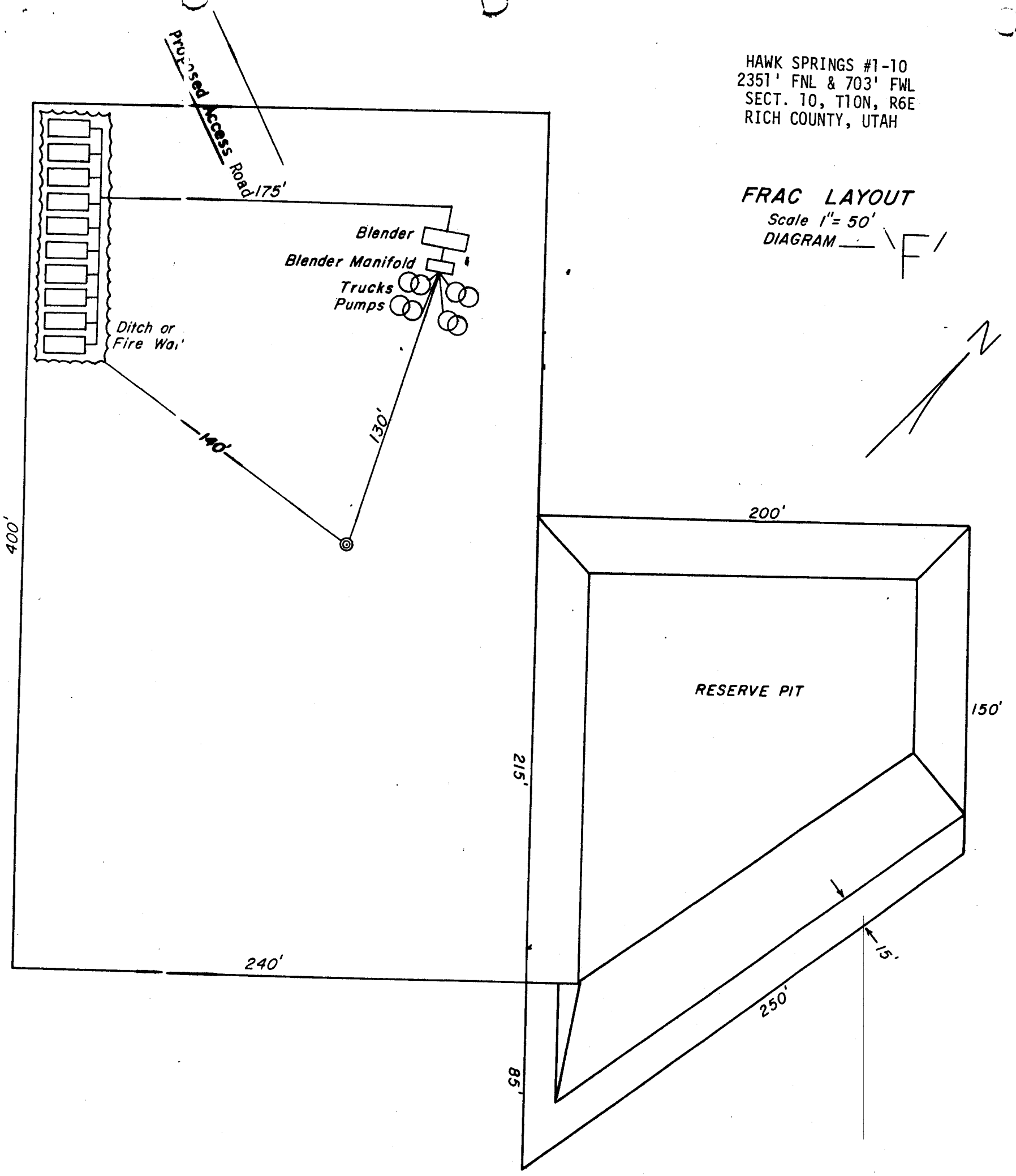
DIAGRAM D



HAWK SPRINGS #1-10
2351' FNL & 703' FWL
SECT. 10, T10N, R6E
RICH COUNTY, UTAH

FRAC LAYOUT

Scale 1" = 50'
DIAGRAM F



** FILE NOTATIONS **

DATE: Oct 10, 1980

OPERATOR: Marathon Oil Company

WELL NO: Hawk Springs #1-10

Location: Sec. 10 T. 10N R. 6E County: Rich

File Prepared: [ ] Entered on N.I.D: [ ]

Card Indexed: [ ] Completion Sheet: [ ]

API Number 43-038-30028

CHECKED BY:

Petroleum Engineer:

Director: OK Topo exception under rule C-3c provided operator owns or controls all oil & gas rights within 660 feet from the proposed location.

Administrative Aide:

APPROVAL LETTER:

Bond Required: [ ] Survey Plat Required: [ ]

Order No. O.K. Rule C-3 [ ]

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

Lease Designation [Fed] Plotted on Map [✓]

Approval Letter Written [✓]

Hot Line [✓] P.I. [✓]

October 17, 1980

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

Re: Well No. Hawk Springs 1-10
Sec. 10, T. 10N, R. 6E
Rich County, Utah

Insofar as this office is concerned, approval to drill the above referred to o/g well on said unorthodox location is hereby granted in accordance with Rule C-3(c), 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:

MICHAEL T. MINDER - Petroleum Engineer
Office: 533-5771
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (acquifers) 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 43-033-30028.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

Cleon B. Feight /ka

Cleon B. Feight
Director

/ka
cc: USGS

DUPLICATE

Form 9-331 C
(May 1963)

SUBMIT DUPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U 25115

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Hawk Springs

9. WELL NO.: 1-10

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N,R6E

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER Wildcat SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Marathon Oil Company

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2351' FNL & 703' FWL
At proposed prod. zone:

12. COUNTY OR PARISH: Rich

13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 5½ miles southwest of Randolph, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 703'

16. NO. OF ACRES IN LEASE: 2414.02

17. NO. OF ACRES ASSIGNED TO THIS WELL: 640

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

19. PROPOSED DEPTH: 13,000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6743' GL

22. APPROX. DATE WORK WILL START*: 4th Quarter 1980

23. 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 Program for complete Casing and Cementing Program				

Please see the following attachments:

1. Surveyor's Plat
2. Ten-Point Drilling Program
3. BOP Schematic
4. Thirteen-Point Surface Program
5. Maps & Diagrams

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 Caddy TITLE District Operations Manager DATE September 25, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY ~~(Orig. Sgd.) R. A. Henricks~~ TITLE FOR E. W. GUYNN - DISTRICT ENGINEER DATE FEB 13 1981

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY
*See Instructions On Reverse Side

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

State Oil & Gas Production Facilities and Flowline NOT Approved

Identification No. 743-80

United States Department of the Interior
Geological Survey
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, Utah 84104

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Marathon Oil Company

Project Type Oil and/or Gas Well

Project Location 2351' FNL & 703' FWL, SW/4 NW/4 Section 10, T. 10N., R. 6E.

Well No. Hawk Springs 1-10 Lease No. U-25115

Date Project Submitted September 26, 1980

FIELD INSPECTION Date October 3, 1980

Field Inspection Participants

George Diwachak	USGS
Dan Washington, Nancy Fox	BLM
Walt West, Jim Pattuso	Marathon
Genie Durnford, Mac Hansen	Marathon
Harvey Lundershausen	Opal Construction Company
Tom Truscher	Opal Construction Company
Typing In & Out:	

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.

November 7, 1980
Date Prepared

George Diwachak
Environmental Scientist

I concur

11/14/80
Date

District Supervisor

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency: Correspondence (date)	Federal/State Agency: Phone check (date)	Federal/State Agency: Meeting (date)	Local and private correspondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
1. Public health and safety					9a, 9b, 9c		6	10-3-80	4, 8
2. Unique characteristics					9		6	✓	1, 4, 8
3. Environmentally controversial					9		6	✓	1, 8
4. Uncertain and unknown risks					9a, 9b, 9c		6	✓	1, 4, 8
5. Establishes precedents					9		6	✓	1
6. Cumulatively significant					9		6	✓	1, 4
7. National Register historic places								✓	1
8. Endangered/ threatened species								✓	1
9. Violate Federal, State, local, tribal law					9		6	✓	8

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input (including recommended stipulations)

2. Reviews Reports, or information received from Geological Survey (Conservation Division, Geological Division, Water Resource Division, Topographic Division)

3. Lease Stipulations/Terms

4. Application Permit to Drill

5. Operator Correspondence

6. Field Observation

7. Private Rehabilitation Agreement

8. Recommended Stipulations (USGS)

9. a. Usual Environmental Analysis No. 441-79, Marathon Oil Company, Well No. 1-21, Section 21, T. 12N., R. 6E., Rich County, Utah, USGS, Salt Lake City

   b. Ususal Environmental Analysis No. 440-80, Marathon Oil Company, Well No. 1-35, Section 35, T. 10N., R. 7E., Rich County, USGS, Salt Lake City

   c. Usual Environmental Analysis No. 441-80, Marathon Oil Company, Well No. 1-10, Section 10, T. 9N., R. 5E., Rich County, USGS, Salt Lake City

   d. Unusual Environmental Analysis No. 1401-A, American Quasar Petroleum Corporation, Well No. 18-1, Section 18, T. 9N., R. 6E., Rich County, Utah

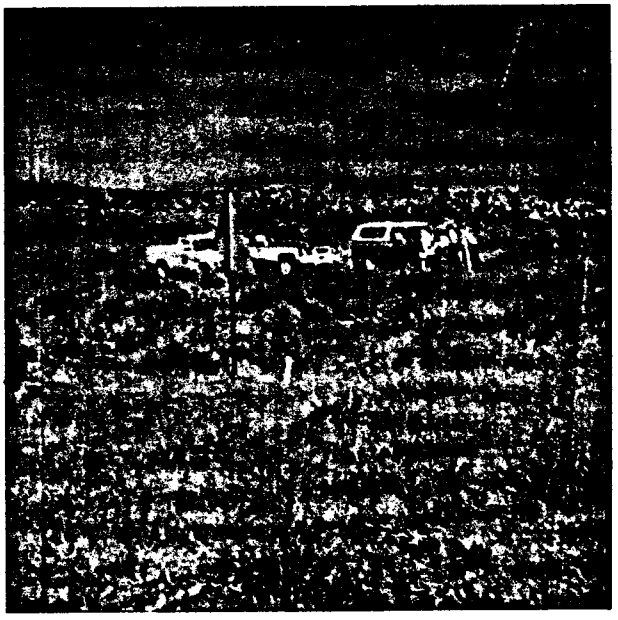
   e. Draft Environmental Assessment Report, Oil and Gas Leasing, Rich County, Utah, BLM, Salt Lake City

10. Water Quality Analysis from water well at Marathon Oil Company No. 1-10 well, Section 10, T. 9N., R. 5E., Rich County, Utah

Attach this to each CER

MARATHON 1-10 ↑ S

MARATHON 1-10 ↑ W



MARATHON 1-10 ↑ N

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SURFACE DISTURBANCE STIPULATIONS
Oil and Gas Lease

1. Notwithstanding any provision of this lease to the contrary, any drilling, construction, or other operation on the leased lands that will disturb the surface thereof or otherwise affect the environment, hereinafter called "surface disturbing operation," conducted by lessee shall be subject, as set forth in this stipulation, to prior written approval of such operation by the Area Oil and Gas Supervisor and the appropriate surface management agency and to such reasonable conditions, not inconsistent with the purposes for which this lease is issued, as the Supervisor or surface management agency may require to protect the surface of the leased lands and the environment.

2. Prior to entry upon the land or the disturbance of the surface thereof for drilling or other purposes, lessee shall submit for approval in writing two (2) copies of a map and explanation of the nature of the anticipated activity and surface disturbance for all counties in Utah other than San Juan County to the Area Oil and Gas Supervisor, Geological Survey, P. O. Box 2859, Casper, Wyoming 82601, and for San Juan County, Utah, to Area Oil and Gas Supervisor, Geological Survey, P. O. Box 1857, Roswell, New Mexico 88201, and will also furnish the appropriate surface management agency (see reverse side of this form) with a copy of such map and explanation.

An environmental analysis will be made by the Geological Survey in consultation with the appropriate surface management agency for the purpose of assuring proper protection of the surface, the natural resources, the environment, existing improvements, and for assuring timely reclamation of disturbed lands.

3. Upon completion of said environmental analysis, the Area Oil and Gas Supervisor shall notify lessee of the conditions, if any, to which the proposed surface disturbing operations will be subject. Said conditions may relate to any of the following:

(a) Location of drilling or other exploratory or developmental operations or the manner in which they are to be conducted;

(b) Types of vehicles that may be used and areas in which they may be used;

(c) Manner or location in which improvements such as roads, buildings, pipelines, or other improvements are to be constructed;

(d) Roads in areas with mancos or arapien shale, or on slopes in excess of 15 percent, will have water bars as specified in writing by the authorized officer. Water will be conveyed away from the road by ditches constructed on grade where the roads are parallel with the slope. Roads constructed across the slope will require culverts placed on the ground and parallel with the slope. During adverse weather conditions only all weather roads will be used; all other roads will require written approval from the authorized officer; and,

(e) Sludge pits will be kept free of oil films that may be hazardous to migratory birds.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Salt Lake District Office
2370 South 2300 West
Salt Lake City, Utah 84119

IN REPLY REFER TO
3000
OIG 0007
U-25115
(U-201)

OCT 23 1980

U.S. Geological Survey
Oil and Gas Section
ATTN: Mr. George Diwachak
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, Utah 84119

Dear George:

Enclosed is a staff report and revised operating plan for Marathon Oil Companys' Hawk Springs #1-10 well site located in T. 10 N., R. 6 E., Sec. 10 SE¼SW¼NW¼, SLM, Rich County, Utah.

I concur with approval of the application for permit to drill and the surface development and operating plan as amended.

Sincerely yours.

Evan N Rudd

Jack C. Peterson
For Bear River Resource Area Manager

Enclosure

DWashington/cn

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

STAFF REPORT

An on site inspection was made on Friday, October 3, 1980, of a proposed drilling location for Marathon Oil Company's Hawk Spring's #1-10 located in T. 10 N., R. 6 E., Sec. 10, SLM, Rich County, Utah. Those present for the inspection were George Diwachak, USGS; Walt West, Genie Durnford, Jim Patterson, and Mac Hansen, Marathon Oil Company; Harvey Lundershausen, and Tom Teuscher, Opal Construction; Nancy Fox, and Dan Washington, BLM.

The proposed location lies about five miles southwest of Randolph, Utah in the Bear River drainage. Topography consists mainly of rolling hills and valleys. The proposed well pad is situated on a low bench about a mile north of Big Creek at an elevation of 6743 feet above mean sea level. Several species of wildlife frequent the area with the most prevalent being mule deer, elk, coyotes, badgers, rabbits, ground squirrels, raptors, and sage grouse. One area of concern is a sage grouse struting ground that lies about a mile southeast of the pad. Our planning system information shows that there are no threatened or endangered species known to be in this area and the field inspection discovered the same. Cattle grazing occurs during late spring, summer and fall.

An archaeological investigation was completed for this pad site by the University of Utah. Their findings showed that area was used by the Fremont culture however, it is anticipated that no cultural resources will be adversely affected by the proposed construction.

Vegetation is mainly a sagebrush - wheatgrass - forb biome which is scattered on a sandy loam type soil. Annual precipitation ranges between 8-10 inches.

Access to the location will require some minor up-grading on the existing county road and new road construction of about 3/4's of a mile. Water will be obtained preferably by a well drilled on the pad or will be trucked from Big Creek.

1. A complete Hydrogen Sulfide (H_2S) Contingency Plan must be submitted for approval prior to drilling out the conductor portion of the casing string (1000 ft.).

2. Adequate H_2S mud scavangers and corrosion agents must be on location throughout drilling of the well.

3. H_2S Monitors, located at the bell nipple and shale shaker will be on location throughout drilling.

4. Plans and diagrams for an H_2S escape route shall be included in the Contingency Plan.

5. The approved H_2S Contingency Plan must be fully implemented, including safety equipment, when drilling reaches 1000 feet above or 7 days prior to (whichever is lesser) the penetration of the Thaynes Formation.

6. If any H_2S gas is encountered at shallower depths than the Thaynes, the well will be shut in and operations will cease until the contingency plan can be implemented.

7. The USGS, Conservation Division, Oil and Gas Branch must be notified if any H_2S gas is discovered.

8. The proposed access road shall be shifted to the east at its junction with the county road as decided upon at the onsite inspection.

9. The access road will enter the pad at the center of the southwest edge of the location, not at the north edge of the location as proposed.

10. An agreement will be necessary with Rich County for use and upgrading of the existing county road.

11. At least one half of the reserve pit depth shall be constructed below existing ground levels.

12. Any permanent production equipment will be painted a color to blend with the natural surroundings.

13. A 2 foot high bermed ditch will be constructed on the uphill side of the pad to divert runoff around the location.

14. All shows of fresh water encountered during drilling shall be reported and isolated with cement.

- REVISED OPERATING PLAN -

Marathon Oil Company's Hawk Springs #1-10 -

1. No change.

2. No change.

3. No change.

4. No change.

5. The BLM would be interested in developing the water well to be drilled on location if it is successful.

6. No change.

7. No change.

8. No change.

9. No change.

10. Approximately the first 12 inches of soil covering the pad will be stockpiled on the Northwest side of the location. Upon completion of recontouring the location as close as possible to the original contours the stockpiled top soil will be redistributed over the site.
The site will then be seeded in the fall (Sept. 15 - Nov. 15), following site preparation for abandonment. Seed shall be planted to a depth of ¼" to ½" and shall be repeated seasonally until a satisfactory ground cover is obtained as determined by the District Manager or his delegate. The seed mixture is:

3 lbs/ac	Crested Wheatgrass
1 lb /ac	Small Burnet
½ lb /ac	Bitterbrush
1 lb /ac	Rambler alfalfa
1½ lbs/ac	Bluebunch Wheatgrass
½ lb /ac	Perennial Rye.

11. As stated in the preliminary environmental assessment, activities on the location will be restricted to protect the sage grouse population in the area if drilling continues between April 1 and June 15. The restriction will be in the form of additional stipulations. They are:

    1. Shift changes would occur only at times when they would cause the least amount of disturbance to the birds.

    2. Travel on the access would be restricted during the times in the morning and evening when the birds are highly active.

3. No dogs would be allowed on the location and rig personnel will not cause any undue stress to the birds.

4. Pit will be fenced with materials that will prevent access to the birds.

5. If deemed necessary a private consultant will be retained to study all effects to the birds from the continued drilling.

6. Other stipulations may be needed which have not been covered here, but will be discussed with company officials prior to installation.

12. No change.

13. No change.

14. The BLM representative for surface disturbance/reclamation is Dan Washington, Salt Lake District, (801-524-5348).

SUBMIT IN TRIPLICATE

Hawk Springs #1-10

Rule 30 CFR 221.20 requires well shall not be drilled closer than 200 feet from the lease boundary, or 200 feet from any legal subdivision, without adequate reasons or consent.

District Oil and Gas Engineer
U. S. Geological Survey
Conservation Division
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

Re: Stipulation

Dear Sir:

Louisiana Land and Exploration (LLE) is the owner of U. S. Oil and Gas Lease U-25115, and proposes to drill a well on the leased premises to test for oil and gas at a location in the SW ¼ NW ¼, Section 10, Township 10N, Range 6E, S.L. Meridian, Rich County, State of Utah, 2351' from North line, and 703' from West line of Section 10.

Section 221.20 of the Federal Oil and Gas Regulations requires that no well be drilled less than 200 feet from the boundary of any legal subdivision without the written consent of the Supervisor, United States Geological Survey. The proposed location is approximately 289' from the South boundary line and 617' from the East boundary line of the SW ¼ NW ¼ of Section 10, but is considered to be necessary because of Terrain Difficulties

Therefore, Louisiana Land and Exploration, Lessee, requests the consent of the Supervisor to the drilling of the proposed well at the above-described location. In consideration of such consent, Louisiana Land and Exploration, Lessee, hereby expressly covenants and agrees that he will make no separate assignments of the NE¼, E½NW¼, NW¼NW¼, SW¼, NW¼SE¼, Section 10, Township 10 N., Range 6 E., S.L. Meridian, and that he will keep the two described subdivisions under joint assignment until the above mentioned well has been plugged and abandoned with the approval of the Supervisor.

Sincerely Yours,

John Marchetti
Exploration Manager
Louisiana Land and Exploration

* Marathon Oil Company to be operator

DRESSER ATLAS DIVISION, DRESSER INDUSTRIES, INC. 1532 METROBANK BUILDING DENVER, COLORADO 303/620-0601

TO: Utah Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116
Attn: Mr. Mike Minder

DATE: May 13, 1981

SUBJECT:
DCC# 7054
RE: Diplog

DEAR SIR:

ENCLOSED PLEASE FIND THE DATA AS DESCRIBED BELOW:

WELL		DATA	
COMPANY:	Manitou Oil Company		600' TAPE REEL(S)
WELL:	Hawk Springs #1-10	1	COMPUTER LISTER(S)
FIELD:	Wildcat		VERSATEC SEPIA(S)
COUNTY, STATE:	Rich, Utah		DATA SHEET(S)
		1	LOG PRINT(S)

MISC.

TRANSMITTED BY:

- ☑ MAIL
- ☐ AIRFREIGHT
- ☐ COUNTER TO COUNTER
- ☐ HAND DELIVERY

PLEASE ACKNOWLEDGE RECEIPT OF THE INFORMATION BY SIGNING AND RETURNING THE ATTACHED COPY OF THIS LETTER.

VERY TRULY YOURS,

Karen Jacavetta

DENVER COMPUTER CENTER

RECEIVED BY: _____ DATE: _____

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
05/07/81

INTERVAL 100.0 TO 998.0
RUN 1 RLAC 54.
ENGINEER PAULSON MAG DEC 16.

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*****************************************
* /*                                    *
*                                       *
*     0    0    0    0    0             *
*****************************************
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
106.0	8.00	22.4	52	N 52 E	43	0.0	290	N 70 W
112.0	8.00	14.9	227	S 47 W	40	0.1	303	N 57 W
114.0	8.00	19.2	207	S 27 W	67	0.1	304	N 56 W
116.0	8.00	16.7	185	S 5 W	69	0.0	289	N 71 W
120.0	8.00	4.5	169	S 11 E	77	0.1	264	S 84 W
122.0	8.00	4.5	342	N 18 W	89	0.2	267	S 87 W
124.0	8.00	2.6	58	N 58 E	57	0.1	263	S 83 W
126.0	8.00	2.3	128	S 52 E	99	0.1	255	S 75 W
130.0	8.00	3.7	48	N 48 E	97	0.0	262	S 82 W
132.0	8.00	5.5	299	N 61 W	91	0.1	272	N 88 W
134.0	8.00	23.4	341	N 19 W	23	0.0	273	N 87 W
136.0	8.00	33.4	324	N 36 W	16	0.1	274	N 86 W
138.0	8.00	16.7	308	N 52 W	14	0.0	268	S 88 W
140.0	8.00	23.5	9	N 9 E	17	0.1	267	S 87 W
142.0	8.00	7.9	323	N 37 W	5	0.1	271	N 89 W
146.0	8.00	23.7	286	N 74 W	13	0.0	273	N 87 W
148.0	8.00	12.4	347	N 13 W	45	0.2	271	N 89 W
150.0	8.00	9.8	64	N 64 E	62	0.1	261	S 81 W
152.0	8.00	10.9	54	N 54 E	50	0.0	251	S 71 W
154.0	8.00	10.0	19	N 19 E	73	0.1	251	S 71 W
156.0	8.00	20.9	40	N 40 E	30	0.1	250	S 70 W
158.0	8.00	32.5	170	S 10 E	22	0.0	257	S 77 W
164.0	8.00	14.6	276	N 84 W	20	0.1	256	S 76 W
166.0	8.00	3.6	249	S 69 W	64	0.1	256	S 76 W
172.0	8.00	13.7	52	N 52 E	20	0.1	248	S 68 W
174.0	8.00	11.8	51	N 51 E	52	0.0	243	S 63 W
178.0	8.00	11.2	54	N 54 E	65	0.0	250	S 70 W
184.0	8.00	25.7	99	S 81 E	46	0.0	248	S 68 W
186.0	8.00	21.0	109	S 71 E	40	0.0	246	S 66 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
188.0	8.00	9.5	220	S 40 W	100	0.0	243	S 63 W	
190.0	8.00	8.3	145	S 35 E	100	0.0	237	S 57 W	
192.0	8.00	6.5	135	S 45 E	100	0.0	230	S 50 W	
194.0	8.00	6.6	133	S 47 E	79	0.1	225	S 45 W	
196.0	8.00	25.3	313	N 47 W	60	0.1	227	S 47 W	
198.0	8.00	24.8	332	N 28 W	41	0.0	227	S 47 W	
200.0	8.00	23.8	356	N 4 W	51	0.0	228	S 48 W	
202.0	8.00	13.3	3	N 3 E	57	0.1	231	S 51 W	
204.0	8.00	10.2	29	N 29 E	82	0.1	235	S 55 W	
206.0	8.00	5.4	57	N 57 E	80	0.1	236	S 56 W	
208.0	8.00	11.7	20	N 20 E	66	0.0	239	S 59 W	
210.0	8.00	3.4	8	N 8 E	100	0.0	238	S 58 W	
212.0	8.00	14.9	338	N 22 W	100	0.1	238	S 58 W	
216.0	8.00	4.0	35	N 35 E	94	0.1	239	S 59 W	
218.0	8.00	3.3	11	N 11 E	71	0.1	240	S 60 W	
220.0	8.00	3.7	340	N 20 W	100	0.0	240	S 60 W	
222.0	8.00	2.8	309	N 51 W	100	0.0	237	S 57 W	
224.0	8.00	2.5	261	S 81 W	100	0.0	240	S 60 W	
228.0	8.00	4.1	109	S 71 E	100	0.1	241	S 61 W	
230.0	8.00	18.7	177	S 3 E	53	0.0	239	S 59 W	
232.0	8.00	6.6	63	N 63 E	78	0.0	238	S 58 W	
234.0	8.00	8.3	55	N 55 E	50	0.0	238	S 58 W	
242.0	8.00	9.8	262	S 82 W	100	0.0	258	S 78 W	
244.0	8.00	9.7	245	S 65 W	58	0.1	258	S 78 W	
246.0	8.00	11.4	185	S 5 W	79	0.1	256	S 76 W	
248.0	8.00	11.2	184	S 4 W	93	0.0	252	S 72 W	
250.0	8.00	9.2	180	S 0 E	82	0.1	244	S 64 W	
254.0	8.00	5.4	240	S 60 W	100	0.0	241	S 61 W	
256.0	8.00	3.4	334	N 26 W	88	0.0	241	S 61 W	
258.0	8.00	3.3	6	N 6 E	100	0.0	240	S 60 W	
260.0	8.00	7.2	43	N 43 E	76	0.1	240	S 60 W	
262.0	8.00	3.3	148	S 32 E	64	0.0	242	S 62 W	
268.0	8.00	13.7	198	S 18 W	16	0.0	250	S 70 W	
272.0	8.00	27.3	166	S 14 E	28	0.0	240	S 60 W	
274.0	8.00	18.6	161	S 19 E	10	0.1	239	S 59 W	
276.0	8.00	24.7	147	S 33 E	59	0.1	233	S 53 W	
280.0	8.00	9.7	355	N 5 W	97	0.2	239	S 59 W	
282.0	8.00	7.9	29	N 29 E	100	0.3	233	S 53 W	
288.0	8.00	29.9	351	N 9 W	27	0.2	239	S 59 W	
290.0	8.00	8.3	12	N 12 E	54	0.2	234	S 54 W	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP					****BOREHOLE*****				
DEPTH	WL	ANG	AZ	BEARING		GRADE	DA	DAZ	BEARING		
292.0	8.00	10.2	328	N	32	W	30	0.1	233	S	53 W
294.0	8.00	23.0	340	N	20	W	29	0.1	221	S	41 W
296.0	8.00	2.8	180	S	0	E	75	0.3	221	S	41 W
298.0	8.00	5.0	228	S	48	W	100	0.1	221	S	41 W
300.0	8.00	1.5	226	S	46	W	100	0.1	221	S	41 W
302.0	8.00	5.5	344	N	16	W	100	0.2	221	S	41 W
304.0	8.00	7.9	331	N	29	W	97	0.1	221	S	41 W
306.0	8.00	10.1	333	N	27	W	96	0.0	220	S	40 W
308.0	8.00	10.5	334	N	26	W	91	0.1	220	S	40 W
310.0	8.00	8.5	6	N	6	E	69	0.2	220	S	40 W
316.0	8.00	9.2	186	S	6	W	56	0.3	220	S	40 W
320.0	8.00	19.0	45	N	45	E	46	0.1	220	S	40 W
322.0	8.00	2.9	159	S	21	E	100	0.1	220	S	40 W
324.0	8.00	2.1	225	S	45	W	100	0.1	220	S	40 W
326.0	8.00	2.2	193	S	13	W	100	0.1	219	S	39 W
328.0	8.00	2.2	184	S	4	W	100	0.2	219	S	39 W
330.0	8.00	11.0	290	N	70	W	82	0.2	219	S	39 W
332.0	8.00	12.5	303	N	57	W	63	0.2	219	S	39 W
334.0	8.00	22.6	307	N	53	W	45	0.1	219	S	39 W
336.0	8.00	18.2	302	N	58	W	80	0.2	219	S	39 W
338.0	8.00	17.6	333	N	27	W	69	0.2	219	S	39 W
340.0	8.00	13.3	308	N	52	W	63	0.2	219	S	39 W
342.0	8.00	13.8	301	N	59	W	73	0.1	219	S	39 W
344.0	8.00	10.5	68	N	68	E	48	0.2	219	S	39 W
348.0	8.00	14.9	149	S	31	E	55	0.2	218	S	38 W
350.0	8.00	19.7	188	S	8	W	69	0.1	218	S	38 W
352.0	8.00	18.2	204	S	24	W	59	0.2	218	S	38 W
356.0	8.00	11.5	6	N	6	E	68	0.2	218	S	38 W
360.0	8.00	4.8	24	N	24	E	82	0.4	218	S	38 W
362.0	8.00	18.6	333	N	27	W	57	0.2	218	S	38 W
364.0	8.00	15.7	129	S	51	E	60	0.2	218	S	38 W
366.0	8.00	7.0	192	S	12	W	91	0.3	217	S	37 W
368.0	8.00	7.2	61	N	61	E	80	0.3	217	S	37 W
370.0	8.00	10.4	213	S	33	W	44	0.3	217	S	37 W
372.0	8.00	9.5	116	S	64	E	54	0.3	217	S	37 W
374.0	8.00	2.8	14	N	14	E	86	0.3	217	S	37 W
376.0	8.00	2.7	11	N	11	E	100	0.2	217	S	37 W
378.0	8.00	3.4	41	N	41	E	100	0.2	217	S	37 W
380.0	8.00	3.3	52	N	52	E	100	0.2	217	S	37 W
382.0	8.00	11.2	350	N	10	W	57	0.2	217	S	37 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
384.0	8.00	3.5	188	S 8 W	62	0.2	217	S 37 W
386.0	8.00	7.0	218	S 38 W	100	0.2	216	S 36 W
388.0	8.00	10.7	261	S 81 W	64	0.1	216	S 36 W
390.0	8.00	4.3	234	S 54 W	100	0.2	216	S 36 W
392.0	8.00	8.4	211	S 31 W	100	0.1	216	S 36 W
394.0	8.00	5.3	165	S 15 E	100	0.1	216	S 36 W
398.0	8.00	4.3	169	S 11 E	100	0.1	216	S 36 W
400.0	8.00	9.0	251	S 71 W	100	0.3	215	S 35 W
402.0	8.00	3.6	323	N 37 W	100	0.5	215	S 35 W
404.0	8.00	3.4	325	N 35 W	60	0.3	215	S 35 W
406.0	8.00	8.9	12	N 12 E	83	0.3	215	S 35 W
408.0	8.00	1.3	331	N 29 W	100	0.3	215	S 35 W
410.0	8.00	1.4	332	N 28 W	100	0.2	214	S 34 W
412.0	8.00	1.6	323	N 37 W	100	0.2	214	S 34 W
414.0	8.00	6.8	331	N 29 W	100	0.2	214	S 34 W
416.0	8.00	5.9	341	N 19 W	100	0.3	214	S 34 W
418.0	8.00	4.6	346	N 14 W	83	0.3	214	S 34 W
426.0	8.00	3.1	343	N 17 W	100	0.2	213	S 33 W
430.0	8.00	8.9	161	S 19 E	27	0.4	212	S 32 W
432.0	8.00	10.3	344	N 16 W	43	0.3	212	S 32 W
434.0	8.00	11.6	343	N 17 W	32	0.2	212	S 32 W
436.0	8.00	7.4	162	S 18 E	91	0.3	212	S 32 W
438.0	8.00	6.7	287	N 73 W	93	0.4	212	S 32 W
440.0	8.00	5.0	218	S 38 W	100	0.2	211	S 31 W
442.0	8.00	5.1	165	S 15 E	100	0.2	211	S 31 W
444.0	8.00	4.5	276	N 84 W	70	0.2	211	S 31 W
446.0	8.00	4.1	25	N 25 E	70	0.2	211	S 31 W
448.0	8.00	36.3	33	N 33 E	53	0.3	211	S 31 W
452.0	8.00	16.4	355	N 5 W	51	0.2	210	S 30 W
454.0	8.00	13.0	346	N 14 W	22	0.3	210	S 30 W
456.0	8.00	11.8	6	N 6 E	84	0.4	210	S 30 W
458.0	8.00	0.9	162	S 18 E	100	0.3	210	S 30 W
460.0	8.00	0.9	146	S 34 E	100	0.2	209	S 29 W
466.0	8.00	7.7	62	N 62 E	72	0.3	209	S 29 W
468.0	8.00	6.5	355	N 5 W	88	0.3	209	S 29 W
470.0	8.00	6.1	349	N 11 W	98	0.2	208	S 28 W
472.0	8.00	5.7	347	N 13 W	85	0.3	208	S 28 W
474.0	8.00	6.2	147	S 33 E	68	0.4	208	S 28 W
476.0	8.00	5.1	169	S 11 E	76	0.3	208	S 28 W
478.0	8.00	10.6	266	S 86 W	100	0.3	208	S 28 W

Dresser/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
480.0	8.00	9.4	266	S 86 W	100	0.3	207	S 27 W
482.0	8.00	2.3	270	N 90 W	100	0.3	207	S 27 W
484.0	8.00	3.6	300	N 60 W	100	0.3	207	S 27 W
486.0	8.00	12.3	107	S 73 E	82	0.3	207	S 27 W
488.0	8.00	9.6	132	S 48 E	65	0.2	207	S 27 W
492.0	8.00	6.1	77	N 77 E	91	0.6	206	S 26 W
494.0	8.00	8.8	13	N 13 E	93	0.4	206	S 26 W
496.0	8.00	10.2	11	N 11 E	100	0.4	206	S 26 W
498.0	8.00	7.5	3	N 3 E	100	0.2	206	S 26 W
502.0	8.00	7.3	328	N 32 W	77	0.3	206	S 26 W
504.0	8.00	10.8	310	N 50 W	31	0.4	207	S 27 W
510.0	8.00	2.5	77	N 77 E	100	0.3	207	S 27 W
512.0	8.00	0.8	118	S 62 E	73	0.4	207	S 27 W
514.0	8.00	0.8	132	S 48 E	67	0.2	207	S 27 W
516.0	8.00	5.3	162	S 18 E	61	0.3	207	S 27 W
518.0	8.00	4.5	68	N 68 E	90	0.2	207	S 27 W
520.0	8.00	4.8	151	S 29 E	86	0.4	207	S 27 W
522.0	8.00	4.9	342	N 18 W	35	0.2	207	S 27 W
526.0	8.00	5.4	326	N 34 W	100	0.4	208	S 28 W
528.0	8.00	7.1	328	N 32 W	100	0.1	208	S 28 W
530.0	8.00	7.2	318	N 42 W	98	0.4	208	S 28 W
532.0	8.00	9.5	288	N 72 W	54	0.3	208	S 28 W
538.0	8.00	13.3	95	S 85 E	95	0.3	208	S 28 W
540.0	8.00	8.2	71	N 71 E	98	0.3	208	S 28 W
542.0	8.00	9.9	72	N 72 E	100	0.3	208	S 28 W
544.0	8.00	9.2	58	N 58 E	100	0.3	209	S 29 W
546.0	8.00	5.3	66	N 66 E	100	0.4	209	S 29 W
548.0	8.00	4.7	32	N 32 E	100	0.4	209	S 29 W
550.0	8.00	0.7	91	S 89 E	100	0.4	209	S 29 W
552.0	8.00	11.7	350	N 10 W	91	0.4	209	S 29 W
554.0	8.00	5.0	280	N 80 W	48	0.5	209	S 29 W
556.0	8.00	4.6	167	S 13 E	76	0.5	209	S 29 W
558.0	8.00	0.4	28	N 28 E	98	0.4	209	S 29 W
560.0	8.00	0.4	17	N 17 E	82	0.4	209	S 29 W
562.0	8.00	0.6	13	N 13 E	100	0.6	209	S 29 W
564.0	8.00	18.9	107	S 73 E	58	0.5	210	S 30 W
566.0	8.00	20.8	86	N 86 E	44	0.4	210	S 30 W
568.0	8.00	14.6	106	S 74 E	69	0.3	210	S 30 W
570.0	8.00	5.4	61	N 61 E	84	0.3	210	S 30 W
572.0	8.00	14.1	17	N 17 E	62	0.4	210	S 30 W

Prosser/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP					****BOREHOLE*****				
DEPTH	WL	ANG	AZ	BEARING		GRADE	DA	DAZ	BEARING		
574.0	8.00	15.0	334	N	26	W	37	0.4	210	S	30 W
576.0	8.00	14.1	7	N	7	E	77	0.4	210	S	30 W
578.0	8.00	15.6	179	S	1	E	26	0.4	210	S	30 W
580.0	8.00	12.3	213	S	33	W	58	0.4	210	S	30 W
584.0	8.00	11.5	193	S	13	W	38	0.4	211	S	31 W
588.0	8.00	17.7	225	S	45	W	41	0.4	211	S	31 W
590.0	8.00	8.7	204	S	24	W	36	0.4	211	S	31 W
592.0	8.00	14.3	234	S	54	W	28	0.4	211	S	31 W
594.0	8.00	13.5	229	S	49	W	40	0.4	211	S	31 W
596.0	8.00	9.1	10	N	10	E	34	0.4	211	S	31 W
598.0	8.00	1.7	330	N	30	W	27	0.5	211	S	31 W
602.0	8.00	1.5	343	N	17	W	76	0.6	211	S	31 W
604.0	8.00	4.5	40	N	40	E	100	0.5	211	S	31 W
606.0	8.00	7.9	82	N	82	E	97	0.5	210	S	30 W
608.0	8.00	8.3	74	N	74	E	100	0.5	210	S	30 W
610.0	8.00	19.9	61	N	61	E	26	0.5	210	S	30 W
612.0	8.00	18.0	62	N	62	E	24	0.5	210	S	30 W
614.0	8.00	10.1	74	N	74	E	50	0.5	210	S	30 W
616.0	8.00	18.8	329	N	31	W	58	0.6	210	S	30 W
618.0	8.00	5.6	38	N	38	E	49	0.5	210	S	30 W
620.0	8.00	17.8	301	N	59	W	54	0.5	210	S	30 W
622.0	8.00	14.9	133	S	47	E	50	0.5	210	S	30 W
624.0	8.00	9.1	165	S	15	E	76	0.5	210	S	30 W
626.0	8.00	13.9	316	N	44	W	59	0.5	209	S	29 W
630.0	8.00	18.8	221	S	41	W	45	0.5	209	S	29 W
634.0	8.00	5.1	145	S	35	E	83	0.4	209	S	29 W
636.0	8.00	12.6	81	N	81	E	64	0.4	209	S	29 W
638.0	8.00	13.5	86	N	86	E	37	0.5	209	S	29 W
640.0	8.00	13.9	79	N	79	E	32	0.5	209	S	29 W
642.0	8.00	9.2	43	N	43	E	17	0.3	209	S	29 W
644.0	8.00	22.6	114	S	66	E	41	0.5	209	S	29 W
646.0	8.00	12.0	240	S	60	W	38	0.4	208	S	28 W
648.0	8.00	5.8	263	S	83	W	25	0.4	208	S	28 W
656.0	8.00	20.5	104	S	76	E	9	0.3	208	S	28 W
658.0	8.00	6.6	117	S	63	E	33	0.4	208	S	28 W
660.0	8.00	4.7	75	N	75	E	77	0.3	208	S	28 W
662.0	8.00	0.3	59	N	59	E	46	0.4	208	S	28 W
666.0	8.00	10.9	119	S	61	E	76	0.4	207	S	27 W
676.0	8.00	15.1	250	S	70	W	82	0.4	207	S	27 W
678.0	8.00	14.4	3	N	3	E	70	0.4	207	S	27 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
680.0	8.00	12.7	16	N 16 E	64	0.4	207	S 27 W
682.0	8.00	11.8	24	N 24 E	69	0.4	207	S 27 W
684.0	8.00	22.9	344	N 16 W	86	0.4	207	S 27 W
696.0	8.00	18.2	40	N 40 E	44	0.4	206	S 26 W
704.0	8.00	19.8	73	N 73 E	63	0.4	207	S 27 W
714.0	8.00	28.7	354	N 6 W	16	0.4	208	S 28 W
720.0	8.00	16.0	309	N 51 W	20	0.4	209	S 29 W
722.0	8.00	15.2	308	N 52 W	14	0.4	209	S 29 W
724.0	8.00	14.0	316	N 44 W	13	0.4	209	S 29 W
726.0	8.00	15.1	31	N 31 E	87	0.3	209	S 29 W
728.0	8.00	13.4	22	N 22 E	67	0.3	209	S 29 W
732.0	8.00	4.2	316	N 44 W	86	0.3	210	S 30 W
734.0	8.00	5.4	196	S 16 W	25	0.4	210	S 30 W
736.0	8.00	7.3	267	S 87 W	58	0.4	210	S 30 W
742.0	8.00	11.7	10	N 10 E	9	0.4	211	S 31 W
746.0	8.00	7.1	194	S 14 W	24	0.4	211	S 31 W
750.0	8.00	12.0	341	N 19 W	44	0.5	212	S 32 W
752.0	8.00	11.9	346	N 14 W	78	0.4	212	S 32 W
756.0	8.00	16.5	46	N 46 E	70	0.4	212	S 32 W
760.0	8.00	13.2	30	N 30 E	26	0.4	213	S 33 W
768.0	8.00	3.2	233	S 53 W	95	0.4	213	S 33 W
770.0	8.00	17.6	86	N 86 E	46	0.4	214	S 34 W
778.0	8.00	9.3	27	N 27 E	94	0.4	214	S 34 W
780.0	8.00	8.4	18	N 18 E	100	0.3	215	S 35 W
784.0	8.00	8.3	358	N 2 W	62	0.6	215	S 35 W
790.0	8.00	16.9	138	S 42 E	80	0.4	216	S 36 W
792.0	8.00	5.9	339	N 21 W	100	0.4	216	S 36 W
794.0	8.00	8.6	0	N 0 E	73	0.5	216	S 36 W
796.0	8.00	6.3	354	N 6 W	100	0.4	216	S 36 W
798.0	8.00	16.8	351	N 9 W	71	0.3	217	S 37 W
802.0	8.00	22.9	338	N 22 W	49	0.4	217	S 37 W
812.0	8.00	25.1	206	S 26 W	24	0.2	219	S 39 W
818.0	8.00	15.0	309	N 51 W	78	0.1	220	S 40 W
820.0	8.00	8.6	119	S 61 E	65	0.1	220	S 40 W
822.0	8.00	5.7	202	S 22 W	57	0.0	221	S 41 W
836.0	8.00	13.8	103	S 77 E	56	0.2	223	S 43 W
838.0	8.00	15.1	70	N 70 E	72	0.2	223	S 43 W
840.0	8.00	19.6	84	N 84 E	73	0.2	224	S 44 W
846.0	8.00	17.5	95	S 85 E	31	0.1	225	S 45 W
848.0	8.00	19.2	94	S 86 E	41	0.0	225	S 45 W

DrosserAtlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
05/07/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
850.0	8.00	13.3	71	N 71 E	100	0.0	225	S 45 W
852.0	8.00	11.5	78	N 78 E	100	0.0	226	S 46 W
854.0	8.00	13.4	68	N 68 E	65	0.0	226	S 46 W
856.0	8.00	22.0	78	N 78 E	47	0.0	226	S 46 W
860.0	8.00	14.9	108	S 72 E	39	0.0	227	S 47 W
862.0	8.00	12.7	122	S 58 E	85	0.1	227	S 47 W
864.0	8.00	8.4	109	S 71 E	85	0.1	228	S 48 W
866.0	8.00	6.9	93	S 87 E	78	0.2	228	S 48 W
868.0	8.00	21.3	44	N 44 E	47	0.2	228	S 48 W
870.0	8.00	9.8	26	N 26 E	99	0.3	229	S 49 W
872.0	8.00	18.7	28	N 28 E	38	0.3	229	S 49 W
874.0	8.00	20.3	10	N 10 E	41	0.2	229	S 49 W
876.0	8.00	14.3	29	N 29 E	50	0.1	230	S 50 W
878.0	8.00	22.9	336	N 24 W	47	0.1	230	S 50 W
882.0	8.00	15.8	56	N 56 E	35	0.1	231	S 51 W
886.0	8.00	19.3	207	S 27 W	51	0.1	230	S 50 W
888.0	8.00	22.2	218	S 38 W	54	0.0	229	S 49 W
892.0	8.00	17.4	173	S 7 E	53	0.0	227	S 47 W
894.0	8.00	11.5	240	S 60 W	84	0.2	226	S 46 W
896.0	8.00	26.8	74	N 74 E	51	0.3	225	S 45 W
898.0	8.00	24.2	313	N 47 W	29	0.3	224	S 44 W
902.0	8.00	6.4	49	N 49 E	54	0.3	222	S 42 W
904.0	8.00	7.2	33	N 33 E	55	0.3	221	S 41 W
906.0	8.00	6.2	99	S 81 E	74	0.4	220	S 40 W
910.0	8.00	19.1	359	N 1 W	36	0.1	218	S 38 W
912.0	8.00	14.7	39	N 39 E	55	0.0	217	S 37 W
914.0	8.00	16.6	49	N 49 E	65	0.3	216	S 36 W
916.0	8.00	15.1	67	N 67 E	23	0.4	215	S 35 W
918.0	8.00	17.1	64	N 64 E	35	0.4	214	S 34 W
920.0	8.00	2.0	173	S 7 E	36	0.2	213	S 33 W
922.0	8.00	2.7	248	S 68 W	17	0.1	212	S 32 W
932.0	8.00	22.7	329	N 31 W	19	0.2	207	S 27 W
934.0	8.00	14.1	283	N 77 W	20	0.0	206	S 26 W
936.0	8.00	14.7	286	N 74 W	38	0.0	205	S 25 W
938.0	8.00	15.7	285	N 75 W	70	0.1	204	S 24 W
940.0	8.00	13.5	287	N 73 W	72	0.2	203	S 23 W
942.0	8.00	15.4	281	N 79 W	67	0.2	202	S 22 W
944.0	8.00	16.2	132	S 48 E	36	0.2	201	S 21 W
946.0	8.00	16.7	139	S 41 E	11	0.1	204	S 24 W
948.0	8.00	22.9	101	S 79 E	12	0.2	207	S 27 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
05/07/81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
950.0	8.00	12.9	88	N 88 E	32	0.1	211	S 31 W
952.0	8.00	16.3	294	N 66 W	38	0.2	214	S 34 W
954.0	8.00	27.5	96	S 84 E	43	0.2	217	S 37 W
956.0	8.00	13.9	85	N 85 E	21	0.3	220	S 40 W
958.0	8.00	25.7	100	S 80 E	41	0.1	223	S 43 W
960.0	8.00	17.3	110	S 70 E	84	0.0	227	S 47 W
962.0	8.00	16.6	103	S 77 E	100	0.0	230	S 50 W
968.0	8.00	2.4	168	S 12 E	100	0.3	241	S 61 W
970.0	8.00	2.5	163	S 17 E	72	0.2	243	S 63 W
972.0	8.00	6.1	257	S 77 W	66	0.0	245	S 65 W
976.0	8.00	0.6	261	S 81 W	57	0.1	249	S 69 W
978.0	8.00	0.9	275	N 85 W	58	0.1	251	S 71 W
980.0	8.00	0.9	273	N 87 W	74	0.1	253	S 73 W
986.0	8.00	22.9	82	N 82 E	15	0.2	259	S 79 W
988.0	8.00	45.2	257	S 77 W	14	0.0	261	S 81 W
990.0	8.00	46.5	259	S 79 W	9	0.1	263	S 83 W
992.0	8.00	46.9	252	S 72 W	1	0.4	265	S 85 W

Dresser Atlas

June 3, 1981

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

Re: Well NO. Hawk Springs #1-10
Sec. 10, T.10N. R.6E.
Rich County, Utah

Gentlemen:

In reference to the above mentioned well, considerable time has gone by since approval was obtained from this office.

This office has not recieved any notification of spuddingg If you do not intend to drill this well, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If you plan on drilling this location at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

Sandy Bates

SANDY BATES
CLERK-TYPIST

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

(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
JUN 1
DIVISION OF
OIL, GAS & MINING

PROGRESS REPORT

See Attachments

From 5-2-81 To 5-15-81

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

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

SIGNED R. Guthrie TITLE Drilling Superintendent DATE 6-9-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

5-2-81	80'	MADE 0' IN WASATCH FORMATION. MW 8.5, VIS 31, WL NC, PH 7.5, PV 0, YP 0, 3/4 GELS, 1.5 SOLIDS, TR CHLORIDE, 160 CALCIUM. BIT NO 1, 17-1/2", HTC, OSC 16J HS 731, JETS 18/18/18, DEPTH IN 80'.
5-3-81	160'	MADE 80' IN WASATCH FORMATION. MW 8.6, VIS 32, WL 24, PH 9, PV 5, UP 8, 4/5 GELS, 2.1 SOLDIS, 400 CHLORIDE, 200 CALCIUM. PMP PRESS 175, GPM 380, ANNULAR VELOCITY 45/57. BIT NO 1, 17-1/2", HTC, OSIGJ, HS731, JETS 18/18/18, DEPTH IN 80', 80 FT, 17 HRS, 4.7 FT/HR. SPUD WELL @ 8:00 AM 5-2-81. DRLD 80'-120'.
5-4-81	272'	MADE 112' IN WASATCH FORMATION. MW 8.8, VIS 34, WL 16, PH 9.5, PV 5, YP 9, 3/5 GELS, 3.8 SOLIDS, 450 CHLORIDE, 100 CALCIUM. PMP PRESS 1,950, GPM 740, ANNULAR VELOCITY 112/88. BIT NO 1, 17-1/2", HTC, OSCIGJ, HS 731, JETS 18/18/B, DEPTH IN 80', 190 FT, 34-1/2 HRS, 5.6 FT/HR. DEV DEPTH 185' 1°, DEV DEPTH 193' INC 1°, DEV DEPTH 240' INC 1°. DRLD TO 195', SURV & DROP FRAC BALL, DRLD & SURV TO 272'. LITH: 70% ORANGE TO PINK, SOFT TO FIRM, FINE GRAINED LIMEY SS, 20% ORANGE TO YELLOW, SOFT TO FIRM SANDY & SILTY LIMESTONE. NO GAS.
5-5-81	417'	MADE 145' IN WASATCH FORMATION. MW 9.0, VIS 32, WL 16.4, PH 9.0, PV 7, YP 3, 2/4 GELS, 5.4 SOLIDS, 250 CHLORIDE, 50 CALCIUM. PMP PRESS 1,200, GPM 720, ANNULAR VELOCITY 108/64. DEV DEPTH 273' INC 1°, DEV DEPTH 300' INC 1-1/2°, DEV DEPTH 330' INC 1/2°, DEV DEPTH 364' INC 3/4°, DEV DEPTH 394' INC 0°. GEOLOGY: 30% YELLOW TO CLEAR, LIMEY, FINE GRAINED SS, 70% YELLOW TO WHITE, SANDY LIMESTONE, NO GAS.

HAWK SPRING #1-10 WELL HISTORY

5-6-81 732' MADE 315' IN WASATCH FORMATION. MW 8.9, VIS 35. DEV DEPTH 426' INC 1/2°, DEV DEPTH 456' INC 1/2°, DEV DEPTH 486' INC 499' INC 1/2°, DEV DEPTH 531' INC 1/2°, DEV DEPTH 560' INC 1/2°, DEV DEPTH 608' INC 1/2°, DEV DEPTH 699' INC 1/4°, DEV DEPTH 701' INC 1/2°. LITH: 80% ORANGE TO YELLOW SANDY CRYSTALLINE, FIRM LIMESTONE, 20% CLEAR TO RED BRN VERY FINE GRAINED DOLOMITE LIMEY SS, NO GAS.

5-7-81 1,009' MADE 277' IN WASATCH FORMATION. MW 8.9, VIS 36. DEV DEPTH 732' IN 1/2°, DEV DEPTH 794' INC 1/4°, DEV DEPTH 857' INC 1/4°, DEV DEPTH 916' INC 3/4°, DEV DEPTH 948' INC 1/4°, DEV DEPTH 1,009' INC 1/4°. DRESSER RAN SONIC GR LOG, PRESENTLY RUNNING DIPMETER LOG F/1,009'-0'. LITH: 60% MULTICOLORED CHERT & QUARTZITE FIRM TO HARD, 30% MULTICOLORED SS FIRM TO FRIABLE, 10% TAN LIMESTONE, SILTY TO SANDY. NO GAS, NO SHOWS.

5-8-81 1,009'-17-1/2"
125'-26" MADE 45'-26" IN WASATCH FORMATION. MW 9.0, VIS 39. FIN RUNNING DIPMETER LOG, SLM, NO CORRECITON. TAG FILL @ 9,996', CIRC & COND HOLE.

HAWK SPRING #1-10 WELL HISTORY

5-9-81 125'-26" MADE 135'-26" WASATCH FORMATION. MW 8.7, VIS 47.

5-10-81 371'-26" MADE 111' IN WASATCH FORMATION. MW 9.0, VIS 50.

5-11-81 428'-26" MADE 57' IN WASATCH FORMATION. MW 8.9, VIS 50.

5-12-81 499'-26" MADE 71' IN WASATCH FORMATION. MW 9.1, VIS 40.

5-13-81 561'-26" MADE 62' IN WASATCH FORMATION. MW 9.1, VIS 50. REAM 60' TO BTM, OK.

5-14-81 887'-26" MADE 326' IN WASATCH FORMATION. MW 9.1, VIS 50. REMARKS: OPEN HOLE.

5-15-81 1,009'-26" MADE 122' IN WASATCH FORMATION. MW 9.1, VIS 37. OPEN HOLE FROM 887'-1,009', RUNNING 20" CSG W/EAGLE CSG SERVICE BIT ON LOCATION TO CMT.

1. RIH w/CEDP To 12,077'.
Set 200' cmt Plug 11,877'-12,077' (90 sx).

2. Run Free Pt. Cut & Retrieve
10 3/4" csg.

3. Set 200' cmt Plug, 100' inside 10 3/4" stub
& 100' outside 10 3/4" stub (120 sx). Circ to
clean DP.

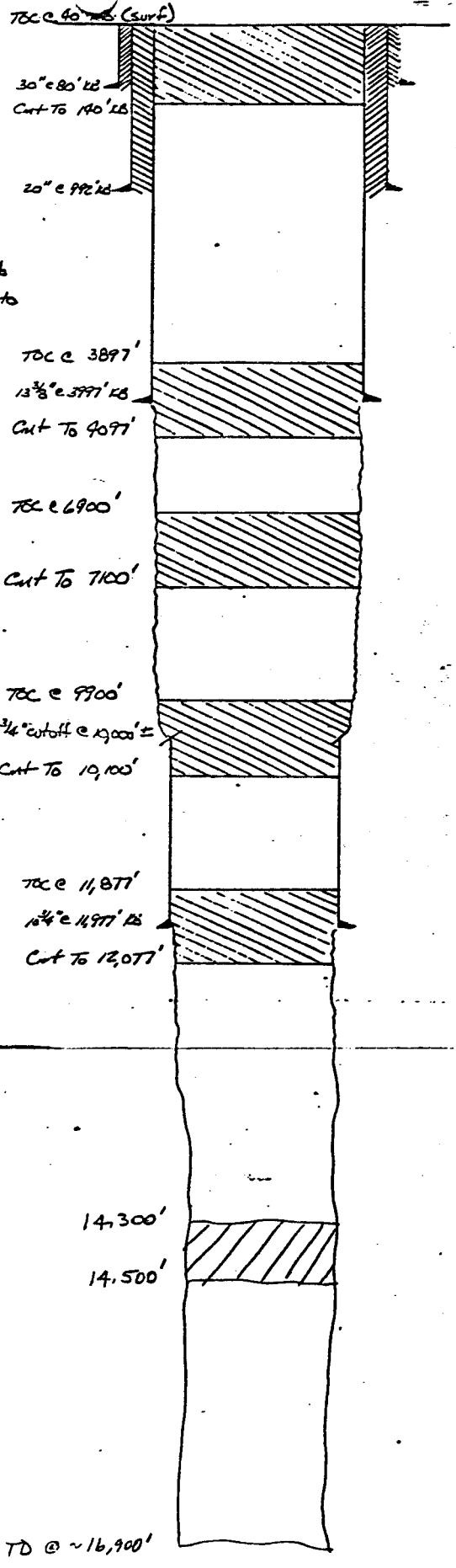
4. POH To 7100'. Set 200' cmt plug
7100'-6900' (150 sx). Circ to clean DP.

5. POH To 4097'. Set 200' cmt plug
4097'-3897' (150 sx). Circ to clean DP.

6. POH to 140' KB. Set 100' cmt plug
to surface (75 sx).

7. Install Dry Hole Marker, Fence
Reserve Pit & Clean Trash.

Verbal Approval Given by
Jimmy Raffoul (USGS-Salt Lake City)
on 11/12/81.



If we run no
DST in open hole

Verbal Approval For changes
From Jimmy Raffoul 8:45 AM
12-18-81
MEK

DRESSER ATLAS DIVISION, DRESSER INDUSTRIES, INC. 1532 METROBANK BUILDING DENVER, COLORADO 303/620-0601

TO: Utah Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah
Attn: Mr. Mike Mendes

DATE: 6-24-81

SUBJECT:
DCC: 168
RE:

RECEIVED
JUL 09 1981
OIL, GAS & MINING
DIVISION OF

DEAR SIR:

ENCLOSED PLEASE FIND THE DATA AS DESCRIBED BELOW:

WELL		DATA	
COMPANY:	Marathon Oil Co.		600' TAPE REEL(S)
WELL:	Hawk Springs 1-10	1	COMPUTER LISTER(S)
FIELD:	WIC		VERSATEC SEPIA(S)
COUNTY, STATE:	Rich, Wyo.		DATA SHEET(S)
		2	LOG PRINT(S)

MISC.

TRANSMITTED BY:

- [x] MAIL
- [ ] AIRFREIGHT
- [ ] COUNTER TO COUNTER
- [ ] HAND DELIVERY

PLEASE ACKNOWLEDGE RECEIPT OF THE INFORMATION BY SIGNING AND RETURNING THE ATTACHED COPY OF THIS LETTER.

VERY TRULY YOURS,

Janel Crow

DENVER COMPUTER CENTER

RECEIVED BY: _____

DATE: _____

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659, Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

RECEIVED
JUL 27 1981
DIVISION OF
OIL, GAS & MINING

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

(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

See Attachments

From 5-16-81 To 6-5-81

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

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

SIGNED M E Krugh TITLE Drilling Superintendent DATE 7-22-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

5-16-81 1,004' MADE 0' IN WASATCH FORMATION. MW 9.1, VIS 37, WL 14.4. RUN 20" CSG, CIRC, PMP 10 BBL MUD SWEEP & CMT W/1,425 SKS BJ LITE W/1/4#/SK CELLOFLAKE & 3% SALT FOLLOWED BY 600 SK CLASS "G" W/SAME ADDITIVES. CSG SHOE @ 992' KB.

5-17-81 1,009' MADE 0' IN WASATCH FORMATION. MW 9.0, VIS 37, WL 15.2. WOC, WELD ON 20" FLANGE, NU SPOOL & 20" HYDRIL, BUILD FLOW NIPPLE, RIH TO TEST CSG & HYDRIL.

5-18-81 1,077' MADE 68' IN WASATCH FORMATION. MW 8.8, VIS 42, WL 26. DEV DEPTH 1,049' INC 1/4°. PRESS TEST DYDRIL & CSG, DRLD CMT. TEST TO 9.5 PPG EQUIV OK. DRLD & SURV @ 1,049'. LITH: 40% LMSTONE, 40% QUARTZ & CHERT, 20% SS.

5-19-81 1,213' MADE 136' IN WASATCH FORMATION. MW 8.9, VIS 41, WL 12.8. DEV DPETH 1,213' INC 3/4°. DRLD TO 1,115'. DROP SURV & POH, CHGD BIT & RIH. DRLG AHEAD, NO PROBLEMS. LITH: 40% SS, 30% LMSTONE, 30% QUARTZ & CHERT.

5-20-81 1,380' MADE 167' IN WASATCH FORMATION. MW 9.0, VIS 41, WL 12. DEV DEPTH 1,368' 1/2°. DRLD & SURV TO 1,315', POH, RIH W/BIT #5, DRLG AHEAD. LITH: 50% QUARTZ & CHIRT, 40% SS, 10% LIMESTONE.

5-21-81 1,489' MADE 109' IN WASATCH FORMATION. MW 9.0, VIS 43, WL 13.6. DEV DEPTH 1,461' INC 1°. DRLD & SURV, KEEPING WT @ 12-15,000#, NO PROBLEMS. LITH: 65% SS, 25% CHIRT & QUARTZ, 10% LIMESTONE.

5-22-81 1,571' MADE 82' IN WASATCH FORMATION. MW 8.9, VIS 36, WL 13.6. DEV DEPTH 1,551' INC 3/4°. DRILL W/12-14,000 WT FOR DEV CONTROL, LITH: 65% SS, 30% LIMESTONE, 10% SILTSTONE.

HAWK SPRING #1-10 WELL HISTORY

5-23-81 1,674' MADE 103' IN WASATCH FORMATION. MW 8.8, VIS 34, WL 40. DEV DEPTH 1,674' INC 1-1/4°. DRILL & SURV TO 1,600', POH FOR BIT #6, RIH W/TOOTH BIT, GEOLOGY: 80% SILTSONE, 15% QUARTZ, 5% SANDSTONE.

5-24-81 1,754' MADE 80' IN WASATCH FORMATION. MW 8.7, VIS 37, WL 18.2. DEV DEPTH 1,735' INC 1°. DRILL TO 1,715', POH FOR BIT #7, GEOLOGY: 98% LIMESTONE, 2% SHALE.

5-25-81 1,864' MADE 110' IN ANKAREH FORMATION. MW 8.8, VIS 39, WL 13.6. DEV DEPTH 1,826' INC 1°. DRLG AHEAD, 4-5 FPH, 10-13,000# WOB FOR DEV, GEOLOGY: 100% GRAY SHALE.

5-26-81 1,899' MADE 35' IN THAYNES FORMATION. MW 8.8, VIS 38, WL 12.8. DEV DEPTH 1,888' INC 1-1/2°. DRLD AHEAD, POH F/NEW BIT #8, INSPECT BHA OK, RIH, LITH: 100% GRAY SHALE.

5-27-81 1,942' MADE 43' IN THAYNES FORMATION. MW 8.7, VIS 36, WL 16. DEV DEPTH 1,909' INC 1-1/2°. POH, RIH W/MILL TOOTH BIT, DRLG AHEAD, NO PROBLEMS. LITH: 98% GRAY SHALE, 2% LIMESTONE.

5-28-81 1,997' MADE 55' IN THAYNES FORMATION. MW 8.6, VIS 40, WL 12. DEV DEPTH 1,987' INC 1-1/4°. DRLD 1,942'-1,997', NO PROBLEMS. LITH: 95% SHALE, 5% LIMESTONE.

5-29-81 2,038' MADE 41' IN THAYNES FORMATION. MW 8.6, VIS 48, WL 12. DEV DEPTH 2,036' INC 1-1/4°. DRLG AHEAD TO 2,036', POH, CHGD BIT & RIH, PRESENTLY DRLG AHEAD. LITH: 50% SHALE, 50% LIMESTONE.

HAWK SPRING #1-10 WELL HISTORY

5-30-81	2,173'	MADE 135' IN THAYNES FORMATION. MW 8.4, VIS 42, WL 14.4. DEV DEPTH 2,156' INC 1-1/2°. DRLG AHEAD W/NO PROBLEMS. LITH: 85% LIMESTONE & 15% SHALE.
5-31-81	2,245'	MADE 72' IN THAYNES FORMATION. MW 8.4, VIS 41, WL 12.8. DEV DEPTH 2,217' INC 1-1/4°. POH, CHANGE BIT, RIH, LITH: 100% LIMESTONE.
6-1-81	2,403'	MADE 158' IN THAYNES FORMATION. MW 8.7, VIS 35, WL 17.2. DEV DEPTH 2,380' INC 2°. DRLG, NO PROBLEMS. LITH: SILTY SS 90%, 10% SS.
6-2-81	2,509'	MADE 106' IN THAYNES FORMATION. MW 8.8, VIS 38, WL 16.6. DEV DEPTH 2,505' INC 1-3/4°. DRLG W/NO PROBLEMS. LITH: 50% LIMESTONE, 50% SHALE.
6-3-81	2,601'	MADE 92' IN THANYES FORMATION. MW 8.8, VIS 38, WL 14. DEV DEPTH 2,598' INC 1-1/2°. DRLG AHEAD, NO PROBLEMS. LITH: 50% LIMESTONE, 50% SHALE.
6-4-81	2,679'	MADE 78' IN THAYNES FORMATION. MW 8.8, VIS 37, WL 12.8. DEV DEPTH 2,679' INC 1°. DRLD TO 2,679', POH, PRESENTLY CHG BITS TO RIH. LITH: 50% LIMESTONE, 50% SHALE.
6-5-81	2,793'	MADE 114' IN THAYNES FORMATION. MW 8.8, VIS 39, WL 12.8. DEV DEPTH 2,792' INC 1° WL. DRLD AHEAD, NO PROBLEMS. RIH, LITH: 50% LIMESTONE, 50% SHALE, SAND & PYRITE TR.

2

RECEIVED JUL 0 1981 DIVISION OF OIL, GAS & MINING

FLUID SAMPLE DATA

Date 7-17-81 Ticket Number 161891

Sampler Pressure 60 P.S.I.G. at Surface

Kind of D.S.T. OPEN HOLE Halliburton Location VERNAL

Recovery: Cu. Ft. Gas
cc. Oil
cc. Water 2400
cc. Mud
Tot. Liquid cc.

Tester MR. RIPPLE MR. WESTBROOK Witness MR. PATTERSON

Drilling Contractor PARKER DRILLING # 118 PW -sm

Gravity ° API @ °F.

Gas/Oil Ratio cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.	ppm
Recovery Mud	@	°F.	ppm
Recovery Mud Filtrate	@	°F.	ppm
Mud Pit Sample	5.2 @ 60	°F.	1200 ppm
Mud Pit Sample Filtrate	@	°F.	ppm
Mud Weight	9.4	vis	52-18 sec.

EQUIPMENT & HOLE DATA

Formation Tested Ankerah
Elevation 6743' ground level Ft.
Net Productive Interval 50' Ft.
All Depths Measured From Kelly bushing
Total Depth 6132' Ft.
Main Hole/Casing Size 12 1/4" Open hole
Drill Collar Length 268.5-151.73 I.D. 3.125 & 3.340"
Drill Pipe Length 5552' I.D. 4.276"
Packer Depth(s) 6003-6011' Ft.
Depth Tester Valve 5986' Ft.

Cushion TYPE water AMOUNT 475 Ft. Depth Back Pres. Valve Surface Choke 1/8" Bottom Choke .75"

Recovered Feet of No recovery reported

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Mea. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET

*See attached incremental pressure sheet

TEMPERATURE	Gauge No. 205 Depth: 5988 Ft.	Gauge No. 192 Depth: 6129 Ft.	Gauge No. Depth: Ft.	TIME (00:00-24:00 hrs.)
Est. °F.	24 Hour Clock Blanked Off no	24 Hour Clock Blanked Off yes	Hour Clock Blanked Off	Tool Opened 1540
Actual 117 °F.	Pressures	Pressures	Pressures	Opened Bypass 1932

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	2915.6	2970.1	2998.7	3032.4			—	—
First Period Flow Initial	303.1	318.9	378.4	377.4			19	*
First Period Flow Final	316.9	316.9	378.4	376.8			30	*
First Period Closed in	728.2	740.3	782.3	790.7			—	—
Second Period Flow Initial	316.9	324.8	378.4	386.1			60	*
Second Period Flow Final	316.9	321.2	378.4	381.6			123	*
Second Period Closed in	1206.3	1192.8	1241.2	1250.5			—	—
Third Period Flow Initial								
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic	2915.6	2958.2	2998.7	3019.9			—	—

Legal Location Sec. - Rng. 10 10N 6E

Lease Name HUNT SPRINGS

Well No. 1-10

Test No. 1

Field Area WILDCAT

Tested Interval 6011 - 6132'

County RICH

State UTAH

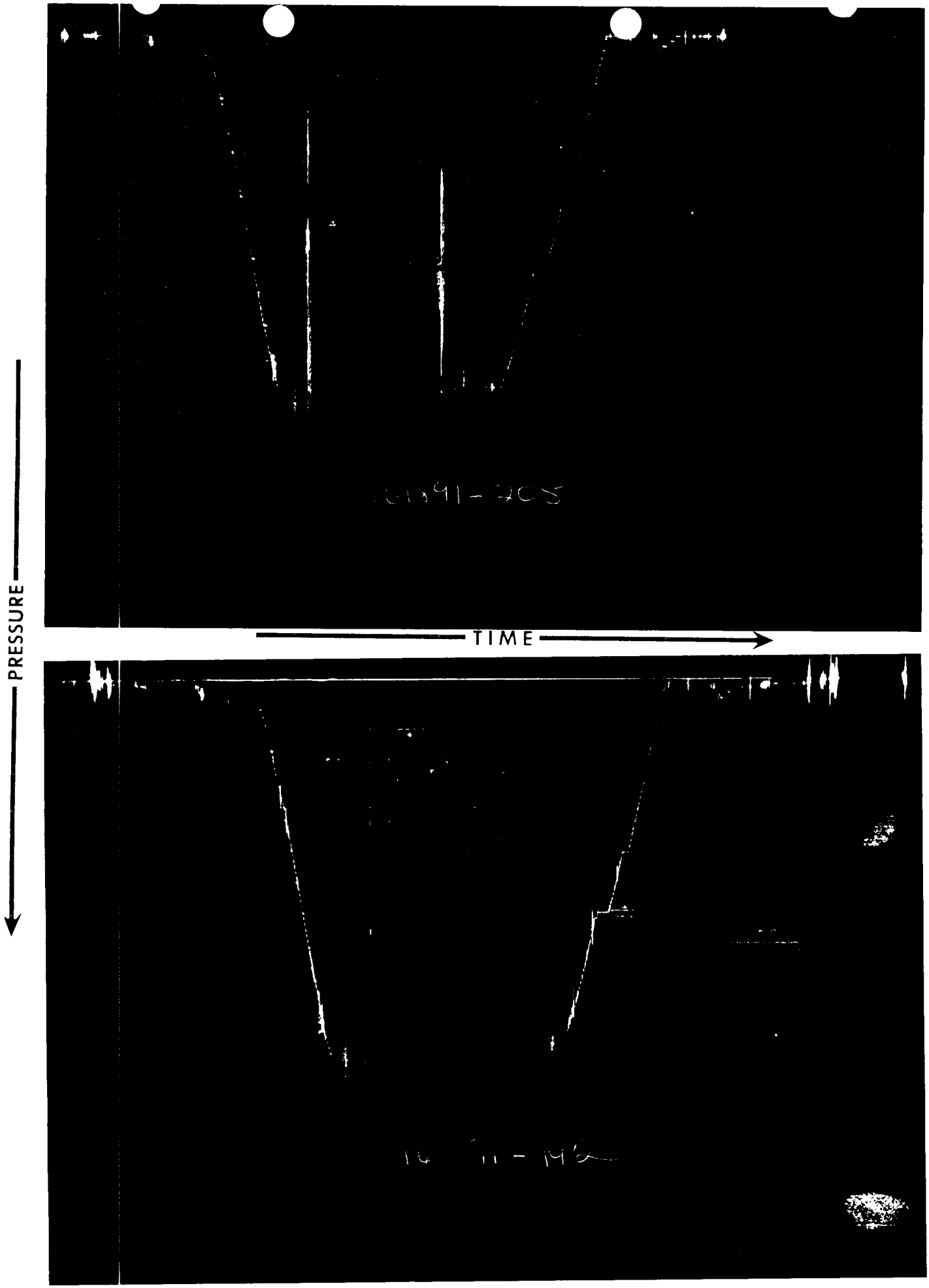
Lease Owner/Company Name MARATHON OIL COMPANY

FORM 181-R2 — PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S

21



Each Horizontal Line Equal to 1000 p.s.i.

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 161891
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0010 7-17-81					On location
0640					Picked up tools
0920					Ran in hole with tools
1200					Filled with 475' fresh water
1510					Rigged up LT-20 head and manifold
1540	1/8"				Tool opened with 2" blow
1545	"	1			
1550	"	1			
1555	"	1			
1559					Closed tool for first CIP
1629	1/8"				Opened with no blow, dead throughout
					final flow
1729					Closed tool
1932					Pulled tools loose
1935					Laid LT-20 head down
1952					Pulled 3 stands to reverse out
2003					Rigged up LT-20 head
2009					Dropped bar
2010					Reversed out
2050					Broke down LT-20 head
2120					Pulled out of hole
0245					Drained sampler-broke down tools
					Tools loaded out and laid down 3 -
					7" collars
0545					Read charts
0610					Thru with job

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

MARATHON OIL COMPANY

Lease Owner/Company Name

161891

Ticket Number

B.T. 205

Depth 5988' - 24 Hr.

B.T. 192

Depth 6129' - 24 Hr.

B.T.

Depth

Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
FLOW PERIOD 1			FLOW PERIOD 1					
0		318.9	0		377.4			
17.9		316.9	18.6		376.8			
CLOSED IN PERIOD 1			CLOSED IN PERIOD 1					
0		316.9	0		376.8			
3		377.0	3		433.4			
6		428.2	6		481.5			
9		474.4	9		527.3			
12		526.5	12		567.1			
15		551.8	15		607.1			
18		589.8	18		641.3			
21		622.3	21		676.7			
24		659.2	24		712.6			
27		692.6	27		743.5			
31.5		740.3	31.7		790.7			
FLOW PERIOD 2			FLOW PERIOD 2					
0		324.8	0		386.1			
60.3		321.2	60.3		381.6			
CLOSED IN PERIOD 2			CLOSED IN PERIOD 2					
0		321.2	0		381.6			
10		429.2	10		490.4			
20		525.3	20		585.2			
30		614.1	30		674.1			
40		694.9	40		755.0			
50		768.9	50		831.2			
60		837.6	60		899.9			
70		903.3	70		966.3			
80		965.0	80		1027.2			
90		1024.7	90		1087.4			
100		1081.0	100		1142.8			
110		1134.0	110		1193.0			
120		1182.7	120		1243.5			
122.3		1192.8	121.6		1250.5			

Remarks:

80-2860

TICKET NO. 161891

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5"	4.276"	5552'	
Drill Collars Weight Pipe	5"	3.340"	151.73'	
Reversing Sub	7 3/4"	3.25"	1.41'	
~~Water Cushion Valve~~ collars	9.25"	3 1/8"	90.64'	
~~Drill Pipe~~ collars	9.25"	3 1/8"	177.86'	
Drill Collars				
Handling Sub & Choke Assembly				
~~Dual CIP Valve~~ X over	7 3/4"	2½"	1.44'	
Dual CIP Sampler	5"	.75"	7'	5981'
Hydro-Spring Tester	5"	.75"	5'	5986'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	5988'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.78'	
Pressure Equalizing Crossover				
Packer Assembly	11 1/4"	1.68"	5.81'	6003'
Distributor	5"	1.68"	2.17'	
Packer Assembly	11 1/4"	1.68"	5.81'	6011'
Flush Joint Anchor	5 3/4"	2.37"	20'	
Pressure Equalizing Tube				
~~Blanked-Off B.T. Running Case~~ X over	6 1/8"	2 3/4"	.79'	
Drill Collars	6 3/4"	3 1/8"	88.64'	
~~Anchor Pipe Safety Joint~~ X over	6"	2 3/4"	.76'	
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5 3/4"	2.37"	5'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4.12'	6129'
Total Depth				6132'

EQUIPMENT DATA

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

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

RECEIVED
AUG 17 1981
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

See Attachments

From 6-6-81 To 6-30-81

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

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

SIGNED M E Krugh/HG TITLE Drilling Superintendent DATE 8-13-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

6-6-81	2,976'	MADE 183' IN THAYNES FORMATION. MW 8.8, VIS 41, WL 11.2. BIT NO 12, 17-1/2", HTC, X-33 FL682. DEV DEPTH 2,823' INC 3/4° WL, DEV DETH 2,853' INC 1-3/4° WL, DEV DPETH 2,883' INC 1° WL, DEV DEPTH 2,913' INC 2° WL, DEV DPETH 2,945' INC 2° WEL.
6-7-81	3,087'	MADE 111' IN THAYNES FORMATION. MW 8.9, VIS 40, WL 12. DEV DEPTH 2,976' INC 2-1/4° WL, DEV DEPTH 3,008' INC 1-3/4° WL, DEV DPETH 3,039' INC 2-1/4° WL, DEV DPETH 3,069' INC 2-3/4° WL. LITH: 90% LIMESTONE, 10% SILTSONE.
6-8-81	3,192'	MADE 105' IN THAYNES FORMATION. MW 8.7, VIS 41, WL 15.6.
6-9-81	3,320'	DEV DEPTH 3,223' INC 2-3/4° WL, DEV DEPTH 3,253' INC 3° WL, DEV DEPTH 3,284' INC 2-3/4° WL, DEV DPETH 3,315' INC 2° WL. LITH: 100% SS.
6-10-81	3,396'	MADE 76' IN NUGGET FORMATION. MW 9.0, VIS 41, WL 12.8. BIT NO 13, 17-1/2", HTC, X-33 LH007. DEV DEPTH 3,345' INC 2-3/4° WL, DEV DEPTH 3,367' INC 4° DROP. LITH: 100% SS, TR SHALE & ANNHYDRITE.
6-11-81	3,457'	MADE 61' IN NUGGET FORMATION. MW 8.9, VIS 36, WL 14.6. DEV DPETH 3,407' INC 3-3/4° WL, DEV DEPTH 3,437' INC 4° WL. LITH: 100% SS WHITE TO CLEAR, TR ANNHYDRITE.
6-12-81	3,505'	MADE 48' IN NUGGET FORMATION. MW 9, VIS 36, WL 13.2. DEV DPETH 3,467' MISRUN, DEV DEPTH 3,498' INC 5°. LITH: 95% SS, 5% SHALE @ 3,500' INCREASE IN SHALE & INCREASE IN BGG FROM 1/2 UNIT TO 1 UNIT C1 58 PPM TO 140 PPM.
6-13-81	3,507'	MADE 2' IN NUGGET FORMATION. MW 8.9, VIS 39, WL 12.4. POH FOR HOLE IN PIPE. BIT NO RR #8, 17-1/2", REED, S53J 938991. GEOLOGY: 95% SANDSTONE, 5% SHALE.
6-14-81	3,550'	MADE 43' IN NUGGET FORMATION. MW 8.8, VIS 40, WL 12.8. DEV DEPTH 3,518' INC 4-1/2°, DEV DPETH 3,548' INC 4°. LITH: 100% SANDSTONE (BECOMING RED @ 3,534').
6-15-81	3,567'	MADE 17' IN NUGGET FORMATION. MW 8.9, VIS 38, WL 12.8. BIT NO 15, 17-1/2", REED, SG2 932454. DEV DEPTH 3,565' INC 4°. CHECK CORROSION RINGS. LITH: 100% SS, TR ANNHYDRITE.

HAWK SPRINGS #1-10 WELL HISTORY

6-16-81 3,588' MADE 21' IN NUGGET FORMATION. MW 8.7, VIS 43, WL 12. LITH: 98% SS, 2% ANNHYDRITE.

6-17-81 3,632' MADE 44' IN NUGGET FORMATION. MW 8.8, VIS 46, WL 15.2. BIT NO 14, 17-1/2", REED, SG2 932454. DEV DEPTH 3,600' INC 4° WL, DEV DEPTH 3,631' INC 3-1/2° WL. LITH: 100% SS, PINK TO LITE ORANGE, TR ANNHYDRITE.

6-18-81 3,754' MADE 122' IN NUGGET FORMATION. MW 8.8, VIS 37, WL 14.8. DEV DPETH 3,662' INC 3° WL, DEV DEPTH 3,692' INC 3-1/8° WL, DEV DEPTH 3,723' INC 3-1/8° WL. LITH: 100% SS, PINK TO LITE ORANGE, TR ANNHYDRITE.

6-19-81 3,907' MADE 153' IN NUGGET FORMATION. MW 9.0, VIS 40, WL 14.8. DEV DEPTH 3,754' INC 3-1/8° WL, DEV DPETH 3,785' INC 3-1/2° WL, DEV DEPTH 3,815' INC 3-1/4° WL, DEV DEPTH 3,864' INC 4D WL, DEV DEPTH 3,876' INC 4° WL, DEV DEPTH 3,907' INC 4-1/2° WL. LITH: 100% SS, TR ANNHYDRITE.

6-20-81 3,970' MADE 63' IN NUGGET FORMATION. MW 8.9, VIS 38, WL 16. BIT NO 15, 17-1/2", REED, SG2 932549. DEV DEPTH 3,910' INC 4° DROPPED, DEV DEPTH 3,938' INC 4-1/4° WL, DEV DEPTH 3,970' INC 4-1/4° WL. LITH: 100% SS, TRACE ANNHYDRITE.

6-21-81 4,010' MADE 40' IN NUGGET FORMATION. MW 8.9, VIS 49, WL 13.6. DRESSER LOGGING, LOGS RAN CN-CDL, DI-FL. LITH: 100% SS, TR ANNHYDRITE.

6-22-81 4,010' MADE 0' IN NUGGET FORMATION. MW 8.9, VIS 39, WL 13.2. LOGS RUN, BHC VD2, SPECTRA-LOG, DIPMETER, BHT 109°, RD LOGGERS.

6-23-81 4,010' MADE 0' IN NUGGET FORMATION. MW 8.9, VIS 39. BIT NO RR #15, 17-1/2", REED. RAN 93 JTS 13-3/8" S-80 68# CSG. PRESENTLY CMT'G.

6-24-81 4,010' MADE 0' IN NUGGET FORMATION. MW 8.9, VIS 40.

6-25-81 4,010' MADE 0' IN NUGGET FORMATION. MW 8.9, VIS 45.

6-26-81 4,010' MADE 0' IN NUGGET FORMATION. MW 8.9, VIS 45.

6-27-81 4,046' MADE 36' IN NUGGET FORMATION. MW 9.0, VIS 35, WL 16.4. BIT NO 16, 12-1/4", SMT, F-4 BH1625. LITH: 100% SANDSTONE, TR ANNYDRITE.

6-28-81 4,144' MADE 98' IN NUGGET FORMATION. MW 9.0, VIS 42, WL 12.4. DEV DEPTH 4,053' INC 4°, DEV DEPTH 4,083' INC 4°, DEV DEPTH 4,115' INC 3-3/4°, DEV DEPTH 4,144' INC 3-3/4° DROPPED. LITH: 100% SANDSTONE, TR ANNHYDRITE.

6-29-81 4,147' MAD 3' IN NUGGET FORMATION. MW 8.9, VIS 47, WL 14. BIT NO 17, 12-1/4", HTC, J-44 EP902. LITH: 100% SS, TR ANNHYDRITE.

6-30-81 4,298' MADE 151' IN ANKAREH FORMATION. MW 8.8, VIS 42, WL 13.6. DEV DPETH 4,163' INC 3-1/4° WL, DEV DEPTH 4,194' INC 4° WL, DEV DEPTH 4,224' INC 4-1/4° WL, DEV DEPTH 4,256' INC 4° WL. ANKERAH TOP @ 4,221'. LITH: 60% SILTSTONE, 30% SHALE, 10% SS, TR ANNHYDRITE.

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:
5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

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

RECEIVED
AUG 17 1981
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

See Attachments

From 7-1-81 To 8-12-81

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 8-14-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

8-3-81	7,408'	MADE 135' IN THAYNES FORMATION. MW 9.2, VIS 55, WL 8.2. DEV DEPTH 7,301' INC 8-1/2° TELE, DEV DEPTH 7,331' INC 8-1/2° TELE, DEV DEPTH 7,363' INC 8° TELE, DEV DEPTH 7,393' INC 8-1/2° TELE. LITH: 75% SILTSTONE, DARK GRAY, 10% LIMESTONE, LT GRAY, 10% DOLOMITE, DARK GRAY, 5% CALCITE AS FRACTURED FILL.
8-4-81	7,515'	MADE 107' IN THAYNES FORMATION. MW 9.1, VIS 46, WL 10. DEV DEPTH 7,425' 8-1/2° TELE, DEV DEPTH 7,425' 9° WL, DEV DEPTH 7,457' INC 8-1/2° TELE, DEV DEPTH 7,488' INC 8° TELE. LITH: 70% SILTSTONE, GRAY TO LT GRAY, DOLOMITE, 30% DOLOMITE, GRAY & SILTY.
8-5-81	7,625'	MADE 110' IN THAYNES FORMATION. MW 9.1, VIS 46, WL 8.8. DEV DEPTH 7,519' INC 8-1/2D TELE, DEV DEPTH 7,551' INC 8-1/2° TELE, DEV DEPTH 7,581' INC 9° TELE, DEV DEPTH 7,612' INC 8-1/2° TELE. LITH: 80% DOLOMITE & SILTSTONE DRK GRAY & BRN, 15% LIMESTONE GRAY, 5% CALCITE FRAC FILLED.
8-6-81	7,677'	MADE 52' IN THAYNES FORMATION. MW 9.2, VIS 45, WL 9.2. BIT NO 25, 12-1/4", HTC, J33 122568. DEV DEPTH 7,642' INC 8-1/2° TELE, DEV DEPTH 7,642' INC 9-1/2° DROP. LITH: 50% GRAY SILTSTONE, 25% DOLOMITE DRK GRAY, 25% LIMESTONE, LT GRAY.
8-7-81	7,829'	MADE 152' IN THAYNES FORMATION. MW 9.2, VIS 47, WL 9.2. DEV DEPTH 7,703' INC 9° WL, DEV DEPTH 7,766' INC 9° WL, DEV DEPTH 7,828' INC 9° TELE. LITH: 80% GRAY SILTSTONE, 10% GRAY LIMESTION, 10% GRAY DOLOMITE.
8-8-81	7,970'	MADE 141' IN THAYNES FORMATION. MW 9.2, VIS 46, WL 9.2. DEV DEPTH 7,860' INC 9° TELE, DEV DEPTH 7,922' INC 9D WL, DEV DEPTH 7,922' INC 9-1/2D TELE, DEV DEPTH 7,952' INC 9° TELE. LITH: 60% LT TO MED GRAY LIMESTONE, 20% LT GRAY DOLOMITE, 20% DRK GRAY SILTSTONE.
8-9-81	8,014'	MADE 44' IN THAYNES FORMATION. MW 9.1, VIS 37, WL 7.6. BIT NO 26, 12-1/4", HTC, J55R MH310. DEV DEPTH 7,983' INC 9° TELE, DEV DEPTH 8,014' INC 9° DROPPED. LITH: 40% GRAY LIMESTONE, 30% GRAY DOLOMITE, 30% GRAY SILTSTONE.
8-10-81	8,014'	MADE 0' IN THAYNES FORMATION. MW 9.1, VIS 37, WL 8.4. DC INSPECTION.
8-11-81	8,112'	MADE 98' IN THAYNES FORMATION. MW 9.1, VIS 42, WL 8.8. DEV DEPTH 8,024' INC 8-1/2° TELE, DEV DEPTH 8053' INC 8-1/2° TELE, DEV DEPTH 8,085' INC 8-1/2° TELE. LITH: 70% LT GRAY SILTSTONE, 15% DRK GRAY LIMESTONE, 15% LT GRAY DOLOMITE.
8-12-81	8,249'	MADE 137' IN THAYNES FORMATION. MW 9.2, VIS 44, WL 8.8. DEV DEPTH 8,117' INC 8-1/2° TELE, DEV DEPTH 8,148' INC 8-1/2D TELE, DEV DEPTH 8,211' INC 8° TELE, DEV DEPTH 8,242' INC 8° TELE. LITH: 80% LT GRAY LIMESTONE, 20% MED GRAY SILTSTONE.

HAWK SPRING #1-10 WELL HISTORY

7-29-81	6,846'	MADE 84' IN ANKAREH FORMATION. MW 9.0, VIS 43, WL 8.0. DEV DEPTH 6,781' INC 8° TELE, DEV DEPTH 6,812' INC 8° TELE, DEV DEPTH 6,843' INC 7-1/2° TELE. LITH: 90% SILTSTONE, LITE GRAY TO RED BRN, HARD, 7-8% OCCAS AND & SHALE, 2-3 % ANNHYDRITE & CALCITE.
7-30-81	6,963'	MADE 117' IN THAYNES FORMATION. MW 9.0, VIS 40, WL 8.8. DEV DEPTH 6,873' INC 7-1/2° TELE, DEV DEPTH 6,873' INC 7-1/2° WL, DEV DEPTH 6,903' INC 8° TELE, DEV DEPTH 6,918' INC 8° TELE, DEV DEPTH 6,934' INC 8° TELE. LITH: 85% SILTSTONE, LT GRAY, 13% DOLOMITE, MED GRAY, 2% ANNHYDRITE, TR DOLOMITE LIMESTION.
7-31-81	6,999'	MADE 36' IN THAYNES FORMATION. MW 9.0, VIS 39, WL 8.8. BIT NO 23, 12-1/4", SEC, M89F 83244. DEV DEPTH 6,975' 8° DROP, DEV DEPTH 6,975' INC 8° TELE. LITH: 80% SILTSTONE, LT GRAY, 17% DOLOMITE, MED GRAY, 3% ANNHYDRITE.
8-1-81	7,138'	MADE 139' IN THAYNES FORMATION. MW 9.1, VIS 45, WL 8.0. DEV DEPTH 7,023' INC 8° TELE, DEV DEPTH 7,053' INC 8° TELE, DEV DEPTH 7,084' INC 8° TELE, DEV DEPTH 7,115' INC 8-1/2° TELE. LITH: 80% SILTSTONE, LT GRAY, 20% DOLOMITE, MED GRAY.
8-2-81	7,273'	MADE 135' IN THAYNES FORMATION. MW 9.2, VIS 42, WL 8.4. DEV DEPTH 7,146' INC 8-1/2° TELE, DEV DEPTH 7,178' INC 8-1/2° TELE, DEV DEPTH 7,208' INC 8-1/2° TELE, DEV DEPTH 7,240' INC 8-1/2° TELE, DEV DEPTH 7,269' INC 8-1/2° TELE. LITH: 60-70% SILTSTONE, DARK GRAY, DOLOMITE, 30-35% LIMESTONE, LT GRAY W/SOME DOLOMITE. 5% CALCITE.

HAWK SPRING #1-10 WELL HISTORY

7-21-81 6,358± MADE 98± IN ANKAREH FORMATION. MW 9.3, VIS 42, WL 8.4. DEV DEPTH 6,281± INC 6-3/4°, DEV DEPTH 6,312± INC 6-3/4°, DEV DEPTH 6,342± INC 7°. LITH: 100% SILTSTONE, RED & FIRM.

7-22-81 6,459± MADE 101± IN ANKAREH FORMATION. MW 9.3, VIS 41, WL 8.4. DEV DEPTH 6,372± INC 7-1/4°, DEV DEPTH 6,404± INC 7°, DEV DEPTH 6,435± INC 7-1/2°. LITH: 90% TAN TO LT SILTSTONE, SLIGHTLY CALCAREOUS, FIRM, 10% CREAM, BUFF SS, FINE GRAINED, SLITE CALCAREOUS, TR CALCAREOUS ANNHYDRITE.

7-23-81 6,499± MADE 40± IN ANKAREH FORMATION. MW 9.3, VIS 42, WL 8.8. DEV DEPTH 6,498± INC 8°. LITH: 75% SANDSTONE, TAN TO BR, 25% SILTSTONE BRN TO TAN, TR ANNHYDRITE.

7-24-81 6,553± MADE 54± IN ANKAREH FORMATION. MW 9.3, VIS 41, WL 8.8. BIT NO 22, 12-1/4", REED, FP62 347365. DEV DEPTH 6,499± 7-1/2° TELE, DEV DEPTH 6,521± INC 7-1/2° TELE, DEV DEPTH 6,552± INC 7-1/2° TELE. LITH: 85% SILTSTONE RED TO BRN & TAN, 10% SHALE LT RED BRN TO LT GREEN, 5% SAND.

7-25-81 6,661± MADE 108± IN ANKAREH FORMATION. MW 9.2, VIS 43, WL 7.8. DEV DEPTH 6,582± INC 8° TELE, DEV DEPTH 6,582± INC 7-1/2° WL, DEV DEPTH 6,613± INC 7-1/2° TELE, DEV DEPTH 6,644± INC 8° TELE, DEV DEPTH 6,644± INC 7-3/4° WL. LITH: 75% SILTSTONE LT BRN, 25% SHALE RED BRN, TR CALCITE.

7-26-81 6,693± MADE 32± IN ANKAREH FORMATION. MW 9.2, VIS 43, WL 6.4. DEV DEPTH 6,675± INC 8° TELE, DEV DEPTH 6,675± INC 7-1/2° WL, DEV DEPTH 6,693± INC 8° TELE. LITH: 100% SILTSTONE, CREAM COLOR & HARD.

7-27-81 6,720± MADE 27± IN ANKAREH FORMATION. MW 9.1, VIS 43, WL 6.8. DEV DEPTH 6,693± INC 8° DROP, DEV DEPTH 6,720± INC 7-1/2° TELE. LITH: 100% SILTSTONE, CREAM COLOR & HARD & QUARTZITIC & 2-3% CALCITE.

7-28-81 6,762± MADE 42± IN ANKAREH FORMATION. MW 9.1, VIS 50, WL 8.0. DEV DEPTH 6,736± INC 8° TELE, DEV DEPTH 6,750± INC 8° TELE, DEV DEPTH 6,750± INC 8° WL. LITH: 98% SILTSTONE, TAN TO RED BRN, VERY HARD, 2% ANNHYDRITE W/TR RED SHALE.

AWK SPRING #1-10 WELL HISTORY

-11-81	5,752'	MADE 143' IN ANKAREH FORMATION. MW 8.8, VIS 45, WL 11.2. DEV DEPTH 5,627' INC 6-3/4°, DEV DEPTH 5,658' INC 6-1/4°, DEV DEPTH 5,689' INC 6-1/4°, DEV DPETH 5,750' INC 6-1/4°. LITH: 95% SILTSTONE, 5% SS, TR OF ANHY.
-12-81	5,799'	MADE 47' IN ANKAREH FORMATION. MW 8.8, VIS 45, WL 12. BIT NO 19, 12-1/4", SEC, M84F 966608. DEV DEPTH 5,780' INC 6-1/2°. LITH: 100% SILTSTONE.
-13-81	5,885'	MADE 86' IN ANKAREH FORMATION. MW 8.9, VIS 45, WL 10. DEV DEPTH 5,811' INC 6-1/4°, DEV DEPTH 5,842' INC 6-1/4°, DEV DEPTH 5,873' INC 7°. LITH: 100% SILTSTONE.
-14-81	5,989'	MADE 104' IN ANKAREH FORMATION. MW 8.9, VIS 50, WL 10. DEV DEPTH 5,902' INC 6-1/2°, DEV DEPTH 5,935' INC 6-3/4°, DEV DEPTH 5,966' INC 6-1/4°. LITH: 85% SS & 15% SILTSTONE.
-15-81	6,073'	MADE 84' IN ANKAREH FORMATION. MW 8.8, VIS 45, WL 10. DEV DEPTH 5,998' INC 7°, DEV DEPTH 6,029' INC MISRUN, DEV DEPTH 6,059' INC 7°. LITH: 95% HARD SS, 5% SHALE.
-16-81	6,124'	MADE 51' IN ANKAREH FORMATION. MW 9.0, VIS 45, WL 10.4. DEV DEPTH 6,089' INC 7°, DEV DPETH 6,120' INC 7°. LITH: 80% SS WHITE TO LT GRAY, 20% SHALE LT GRAY TO GREEN GRAY, TR OF PYRITE.
-17-81	6,132'	MADE 8' IN ANKAREH FORMATION. MW 9.4, VIS 52, WL 7.8. LITH: 60% LT GRAY SS, 20% RED BRN SS, 20% GRAY SHALE.
-18-81	6,132'	MADE 0' IN ANKAREH FORMATION. MW 9.3, VIS 43, WL 8.4.
-19-81	6,135'	MADE 3' IN ANKAREH FORMATION. MW 9.3, VIS 44, WL 7.7. BIT NO 21, 12-1/4", SEC M89TF 956416. LITH: 80% SS, 10% SHALE, 10% SILTSTONE.
-20-81	6,260'	MADE 125' IN ANKAREH FORMATION. MW 9.3, VIS 50, WL 8.0. DEV DEPTH 6,159' INC 6-1/2°, DEV DEPTH 6,188' INC 6-1/2°, DEV DEPTH 6,219' INC 6-1/2°, DEV DEPTH 6,250' INC 6-1/2°. LITH: 100% SILTSTONE. BGG: 1/2-1 UNIT Cl 120 PPM.

HAWK SPRING #1-10 WELL HISTORY

7-1-81	4,446'	MADE 148' IN ANKAREH FORMATION. MW 8.9, VIS 41, WL 10.4. DEV DEPTH 4,317' INC 4-1/2° WL, DEV DEPTH 4,348' INC 4-1/2° WL, DEV DEPTH 4,378' INC 4° WL, DEV DEPTH 4,409' INC 4-1/2°, DEV DEPTH 4,440' INC 4-1/4° WL. LITH: 100% SILTSTONE.
7-2-81	4,625'	MADE 179' IN ANKAREH FORMATION. MW 8.9, VIS 40, WL 11.2. DEPTH IN 4,144', 481 FT, 66 HRS, 7.3 FT/HR. RPM 65, WT ON BIT 46,000#. DEV DEPTH 4,472' INC 4°, DEV DEPTH 4,505' INC 3-3/4°, DEV DEPTH 4,534' INC 4-1/4°, DEV DEPTH 4,564' INC 4°, DEV DEPTH 4,594' INC 4°.
7-3-81	4,717'	MADE 92' IN ANKAREH FORMATION. MW 8.8, VIS 44, WL 10.8. DEV DEPTH 4,625' INC 4°, DEV DEPTH 4,638' INC 4-1/2°, DEV DEPTH 4,660' INC 4-3/4°, DEV DEPTH 4,691' INC 4-1/2°.
7-4-81	4,882'	MADE 165' IN ANKAREH FORMATION. MW 8.8, VIS 40, WL 12. BIT NO 18, 12-1/4", SEC, M84F 966806. DEV DEPTH 4,721' INC 4-3/4°, DEV DEPTH 4,750' INC 5°, DEV DEPTH 4,783' INC 5°, DEV DEPTH 4,815' INC 5-1/2°, DEV DEPTH 4,845' INC 4-1/2°, DEV DEPTH 4,87' INC 4-3/4°.
7-5-81	4,999'	MADE 117' IN ANKAREH FORMATION. MW 8.8, VIS 40, WL 13.6. DEV DEPTH 4,907' INC 4-3/4°, DEV DEPTH 4,937' INC 5°, DEV DEPTH 4,969' INC 4-3/4°, DEV DEPTH 4,998' MISRUN.
7-6-81	5,137'	MADE 138' IN ANKAREH FORMATION. MW 8.7, VIS 38, WL 14. DEV DEPTH 5,029' INC 4-3/4°, DEV DEPTH 5,060' INC 5°, DEV DEPTH 5,088' INC 5°, DEV DEPTH 5,122' INC 5-1/4°. LITH: 90% SS, 10% SILTSTONE.
7-7-81	5,262'	MADE 125' IN ANKAREH FORMATION. MW 8.7, VIS 40, WL 13.2. DEV DEPTH 5,208' INC 5-1/2°, DEV DEPTH 5,246' INC 5-1/2°. LITH: 75% GRAY DOLOMITE, 25% SILTSTONE.
7-8-81	5,303'	MADE 41' IN ANKAREH FORMATION. MW 8.7, VIS 43, WL 13.2. BIT NO 19, 12-1/4", SEC, M84F 966608. DEV DEPTH 5,275', INC 5-1/4°. LITH: 30% DOLOMITE, 30% SILTSTONE, 40% LIMESTONE.
7-9-81	5,458'	MADE 155' IN ANKAREH FORMATION. MW 8.7, VIS 42, WL 11.6. DEV DEPTH 5,321' INC 5-1/2°, DEV DEPTH 5,352' INC 5-1/2°, DEV DEPTH 5,382' INC 5-3/4°, DEV DEPTH 5,414' INC 5-3/4°, DEV DEPTH 5,445' INC 6°. LITH: 60% SILTSTONE, 40% DOLOMITE & LIMESTONE.
7-10-81	5,609'	MADE 151' IN ANKAREH FORMATION. MW 8.9, VIS 46, WL 13.6. DEV DEPTH 5,475' INC 6°, DEV DEPTH 5,506' INC 6°, DEV DEPTH 5,532' INC 6-1/4°, DEV DEPTH 5,567' INC 6°, DEV DEPTH 5,598' INC 6°. LITH: 90% SS, 10% SILTSTONE.

DRESSER ATLAS DIVISION, DRESSER INDUSTRIES, INC. 1532 METROBANK BUILDING DENVER, COLORADO 303/620-0601

TO: Utah Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116
Attn: Mike Minder

DATE: 9-9-81

SUBJECT:
DCC# 1530, 79

RE:

DEAR SIR:

ENCLOSED PLEASE FIND THE DATA AS DESCRIBED BELOW:

WELL		DATA	
COMPANY:	Marathon Oil Co.		600' TAPE REEL(S)
WELL:	Hawk Springs 1-10	1	COMPUTER LISTER(S)
FIELD:	WIC		VERSATEC SEPIA(S)
COUNTY, STATE:	Rich, Utah		DATA SHEET(S)
		2	LOG PRINT(S)

MISC.

TRANSMITTED BY:

- [x] MAIL
- [ ] AIRFREIGHT
- [ ] COUNTER TO COUNTER
- [ ] HAND DELIVERY

PLEASE ACKNOWLEDGE RECEIPT OF THE INFORMATION BY SIGNING AND RETURNING THE ATTACHED COPY OF THIS LETTER.

VERY TRULY YOURS,

Janel Crawford

DENVER COMPUTER CENTER

RECEIVED BY: _____ DATE: _____

HAWK SPRINGS Lease Name	1-10 Well No.	2 Test No.	10679'-10820' Tested Interval	MARATHON OIL COMPANY Lease Owner/Company Name
133286 Ticket Number	ROCK SPRINGS Camp		9-12-81 Date	7951-7950 Gauge Number(s)

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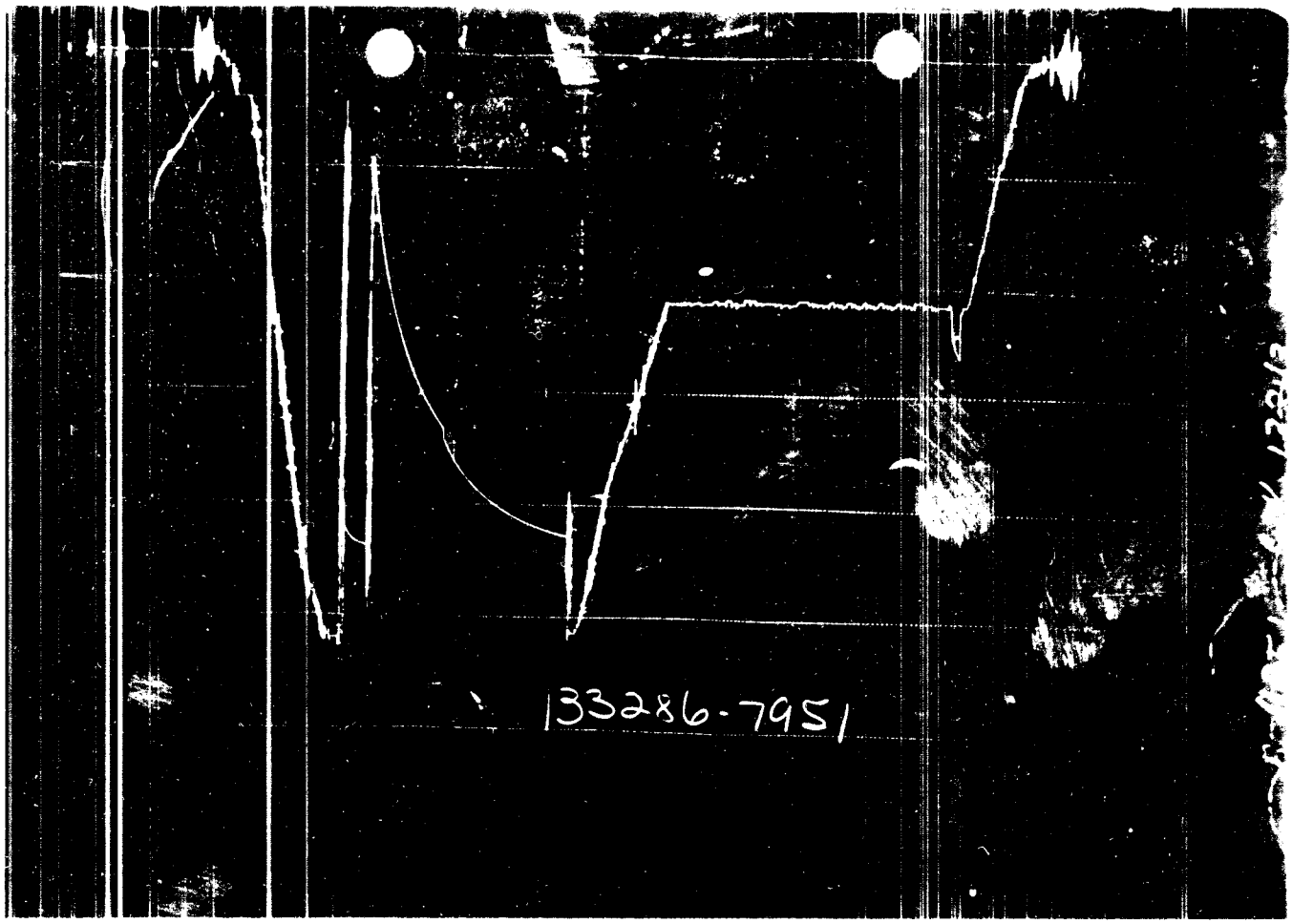
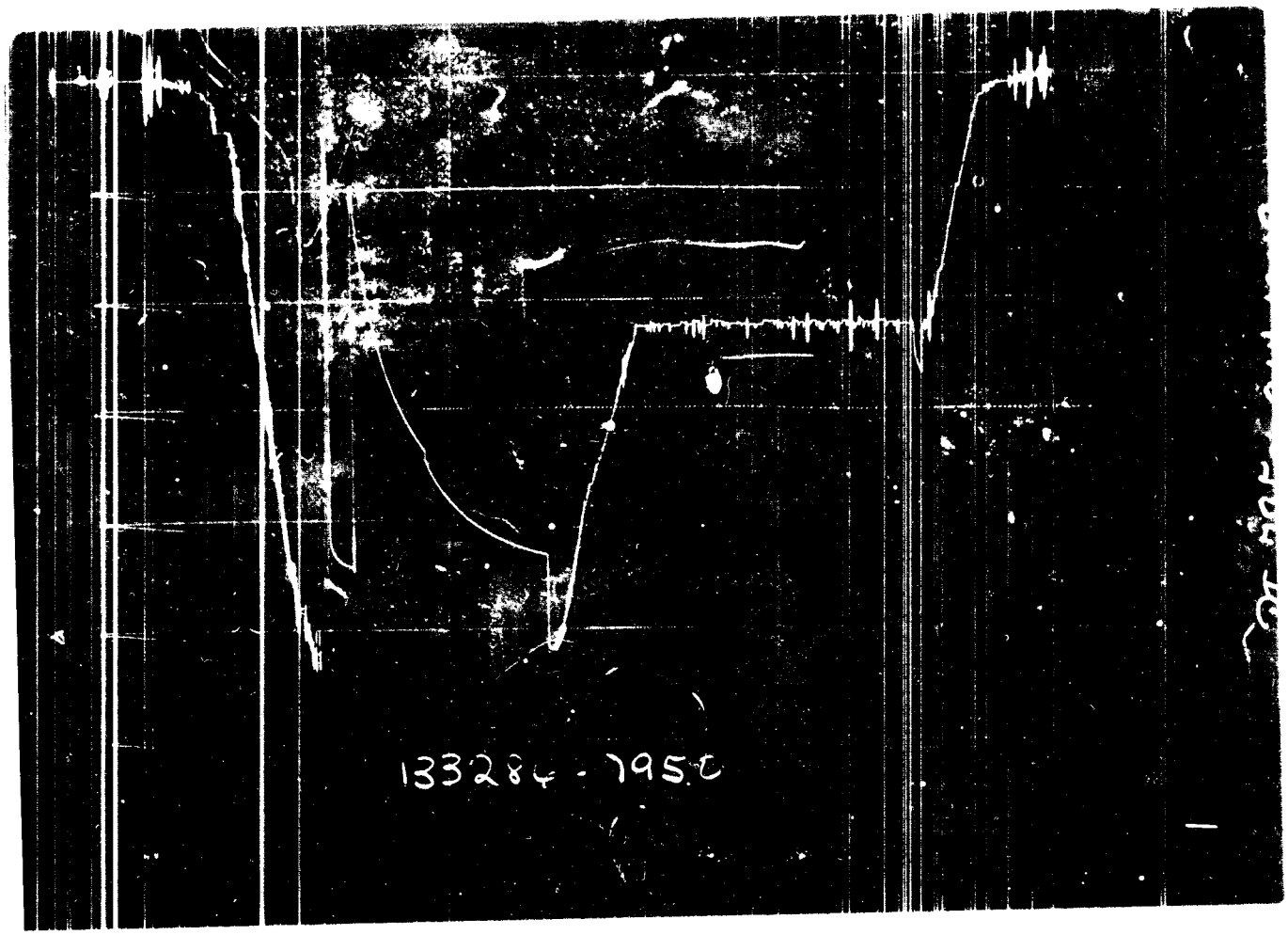
RECEIVED
OCT 13 1981
DIVISION OF
OIL, GAS & MINING

HALLIBURTON
SERVICES


133286-7951


133284-7950

TICKET NO. 133286 DATE 9-12-81 HALLIBURTON CAMP ROCK SPRINGS

LEASE OWNER MARATHON OIL COMPANY

LEASE NAME HAWK SPRINGS WELL NO. 1-10 TEST NO. 2

LEGAL LOCATION 10-10N-6E FORMATION TESTED DIN WOODY

FIELD AREA WILDCAT COUNTY RICH STATE UTAH PW-dr

TYPE OF D.S.T. OPEN HOLE

TESTER(S) R. KAUSE-C. RIDER

WITNESS RAY ROSENTHAL DRILLING CONTRACTOR PARKER DRILLING CO.

DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.)

TYPE AND SIZE OF GAS MEASURING DEVICE

CUSHION DATA

TYPE AMMONIA ZINC OXIDE AMOUNT 115 WEIGHT (lb./gal.) 11.2

TYPE WATER AMOUNT 900 WEIGHT (lb./gal.) 8.3

RECOVERY (ft. or bbl.): 6969' of gas cut mud and water

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
DRILL PIPE	.80 @ 68 °F	7750	SAMPLER	.82 @ 68 °F	7300
DRILL PIPE	.63 @ 68 °F	9000	WATER HOSE	17.4 @ 68 °F	280
DRILL PIPE	.86 @ 68 °F	7000	MUD PIT	.62 @ 68 °F	9250

REMARKS:

TICKET NO. 133286 DATE 9-12-81 ELEVATION (FT) 6778' KB

TOP OF TESTED INTERVAL (ft.) 10679' BOTTOM OF TESTED INTERVAL (ft.) 10820

NET PAY (ft.) _____ TOTAL DEPTH (ft.) 10820'

HOLE OR CASING SIZE (in.) 12 1/4" MUD WEIGHT (lb./gal.) 9.3 VISCOSITY (sec.) 43

SURFACE CHOKE (in.) BUBBLE HOSE BOTTOM CHOKE (in.) .75"

OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 600 CUBIC FT. OF GAS .25

C.C.'s OF OIL _____ C.C.'s OF WATER 2100

C.C.'s OF MUD _____ TOTAL LIQUID C.C.'s _____

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE _____

ACTUAL 208

DEPTH (ft.) _____

H.T.-500 ☐; THERMOMETER ☒

T.E. OR R.T.-7 ☐; OTHER ☐

SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY _____ DATA APPROVED BY _____

RECORDERS	GAUGE NUMBER	7951	7950			
	GAUGE TYPE	1	2			
	GAUGE DEPTH (ft.)	10656.22	10817			
	CLOCK NUMBER	13843	10118			
	CLOCK RANGE (HR.)	48	48			
PRESSURES	INITIAL HYDROSTATIC	5203.1	5254.3			
	1st. INITIAL FLOW	439.3	522.0			
	1st. FINAL FLOW	718.2	827.8			
	1st. CLOSED-IN	4383.1	4441.2			
	2nd. INITIAL FLOW	939.1	989.3			
	2nd. FINAL FLOW	3347.5	3390.3			
	2nd. CLOSED-IN	4293.4	4341.4			
	3rd. INITIAL FLOW	*-See incremental pressure reading sheet				
	3rd. FINAL FLOW					
	3rd. CLOSED-IN					
	FINAL HYDROSTATIC	5151.3	5191.2			

TIMES
(00:00-24:00 HRS.)

TOOL OPENED 07:00

DATE 9-12-81

BYPASS OPENED 16:05

DATE 9-12-81

PERIOD	MINUTES
XXX	XXX
1st. FLOW	5 *
1st. C.I.P.	60 *
XXX	XXX
2nd. FLOW	180 *
2nd. C.I.P.	300 *
XXX	XXX
3rd. FLOW	
3rd. C.I.P.	
XXX	XXX

FORM NO. 327—LITTLE'S 114675 3M 7/81

FORMATION TEST DATA (SHEET 2)

22

MARATHON OIL COMPANY
Lease Owner/Company Name

133286
Ticket Number

B.T. 7951 | B.T. 7950 | B.T.

Depth 10656 | Depth 10817' | Depth

PAGE 1

Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.
FIRST FLOW			FIRST FLOW					
0		439.8	0		522.0			
6		718.2	5		827.8			
FIRST CIP			FIRST CIP					
0		718.2	0		827.8			
4		4235.6	4		4265.3			
8		4266.2	8		4306.6			
12		4290.5	12		4334.7			
16		4310.8	16		4355.3			
20		4324.6	20		4373.2			
24		4336.3	24		4387.6			
28		4347.0	28		4398.2			
32		4353.4	32		4407.1			
36		4362.4	36		4415.7			
40		4367.7	40		4422.8			
44		4371.2	44		4429.0			
48		4376.0	48		4432.7			
52		4380.4	52		4437.4			
56		4382.0	56		4441.2			
57.2		4383.1	58.4		4441.2			
SECOND FLOW			SECOND FLOW					
0		939.1	0		989.3			
20		1483.6	20		1596.2			
40		1957.3	40		2038.9			
60		2302.0	60		2373.0			
80		2569.6	80		2650.3			
100		2780.9	100		2859.1			
120		2968.3	120		3026.1			
140		3116.1	140		3169.9			
160		3240.3	160		3292.0			
179.7		3347.5	178.8		3390.3			

Remarks:

80-2860

22

MARATHON OIL COMPANY
Lease Owner/Company Name

133286
Ticket Number

B.T. 7951 | B.T. 7950 | B.T.

Depth 10656 | Depth 10817' | Depth

PAGE 2

Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.
SECOND CIP			SECOND CIP					
0		3347.5	0		3390.3			
20		3583.2	20		3632.5			
40		3701.3	40		3748.5			
60		3798.0	60		3843.1			
80		3876.0	80		3922.6			
100		3944.0	100		3995.6			
120		4002.2	120		4052.9			
140		4053.6	140		4103.3			
160		4098.7	160		4148.2			
180		4138.2	180		4187.8			
200		4172.7	200		4221.9			
220		4202.0	220		4252.0			
240		4229.0	240		4279.0			
260		4253.0	260		4302.7			
280		4273.6	280		4321.5			
302.1		4293.4	301.0		4341.4			

Remarks:

80-2860

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Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 133286

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F PAGE 1

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
9-11-81 20:00					On location
23:00					Picked up tools
9-12-81 06:40					Rig up surface equipment
06:58					On bottom
07:00					Opened tool with a moderate blow
07:05					Closed tool, bubble to bottom of bucket
08:05					Opened tool with a moderate blow
08:07					Bubble to bottom of bucket
08:20		2#			
08:30		3			
08:45		4.5			
08:50		5			
09:00		6			
09:10		7			
09:20		8			
09:30		8			
09:40		8			
09:50		8.5			
10:00		8.5			
10:10		8			
10:20		8			
10:30		7.5			
10:40		7			
10:50		6.5			
11:00		6			

FORM 102-RI—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 133286
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11:05		6#			Closed tool
16:05					Opened bypass, pulled tools
20:00					Gas kicks in drill pipe
20:30					Left tool hanging in hole till daylight
9-13-81					
06:30					Rig surface equipment
07:00					Took gas sample, bled off drill pipe
07:04					Dropped bar to reversed out
07:07					Pin sheared, reversed out
13:00					Broke out tools.

FORM 162-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

TICKET NO. 133286

Tool Description	O.D.	I.D.	Length	Depth
Drill Pipe	5"	4.276"	10371'	
Drill Collars	9"	2.68"	180'	
Reversing sub	7.50"	2.875"	1'	10552'
Drill Collars	9.00"	2.68"	90'	
Crossover	7.563"	2.875"	.83'	
Dual CIP sampler	5"	.87"	6.75'	10649.1
Hydrospring tester	5"	.75"	5.02'	
Running Case AP	5"	3.06"	4.12'	10656.22'
Big John Jars	5.03"	1.75"	5.00'	
Safety Joint VR	5.00"	1.00"	2.78'	
Packer Open Hole	6.00"	1.68"	5.85'	10671'
Distributor Valve	5.00"	1.68"	2'	
Packer Opened hole	6.00"	1.68"	5.85'	10679'
Safety Joint-Anchor	5.75"	1.50 "	4.00'	
Cross over	6.25"	2.25 "	1.15'	
Drill Collars	7.00"	2.50"	89'	
Crossover	6.125"	2.813"	1.12'	
Perforated Tail Pipe	5.75"	3"	40'	
Running case	5.75"	2.50"	4.00'	10817'
Total Depth				10820'

EQUIPMENT DATA SHEET

WELL NAME MARATHON OIL HAWK SPRINGS 1-10

DRILLING RATE IN MIN/FT	LITHOLOGY: INTERPRETIVE	DEPTH	PERCENTAGE	OIL SHOW T F G	CHROMATOGRAPH HYDROCARBONS IN PPM (M 1000 PPM): TOTAL GAS — METHANE — ETHANE PROPANE BUTANE PENTANE	REMARKS: WT VIS WL PH CKF
9/18/81 WOB 50M RPM 55 PP 2000 SPM 115		11200				9.1 41 8.5 9.5 2/32 Cl:800 ppm
						DOLO LTGRY-GRN BLKY MICROXL SFT-FRM NO VIS POR OCC VEINLETS OF WH SFT CALCITE NSOFC
9/19/81 WOB 55M RPM 55 PP 2000 SPM 115		11300			DST 3: 11335-11405 IH: 5375 psi FH: 5244 psi IFP: 5 min. 3972-3972 psi ISIP: 60 min. 4397 psi FFP: 2 hrs. 4322-4526 psi FSIP: 4 hrs. 4673 psi SUMMARY: OPENED TOOL TO STRONG BLOW REMAINING THROUGHOUT FLOW PERIOD. NO GAS TO THE SURFACE. RECOVERED: 10475' WATER BEING: 1000' WATER CUSHION AND 9475' GAS CUT WATER. SAMPLER: 24 psi, 1400 cc WATER.	9.1 42 8.0 9.5 2/32 Cl: 750 ppm
						DOLO AA BCMG LIMEY IP TR PYR
9/20/81 WOB 60M RPM 55	DST 3					SLTST DKGRY-BLK BLKY FRM SL CALC-CALC IP HD MICA OCC STRG WH CALCITE NSOFC
9/21 24/81 WOB 50M RPM 55 PP 1500 SPM 115		11400			TG: 9450 ppm C_1 TG: 3500 ppm C_1	9.1 40 8.4 9.3 2/32 Cl: 700 ppm N.S. SHAKER BYPASSED DUE TO LOST CIRC. ABUND LCM IN SAMPLE TIH TO 3900' TO CIRC & COND HOLE: TG; 38 UNITS, 9450ppm Cl. BOTTOMS UP TG: 14 UNITS, 3500 ppm Cl.
					100 GRAM CARBIDE LAG: 115 MINUTES	NB35: REED FP-63 BIT 34: 515' /110¼ hrs.
9/25/81 WOB 50M RPM 55 PP 1500 SPM 115		11500				8.7 42 15 9.4 3/32 Cl: 650 ppm
						SLTST BLK-DKGRY BLKY FRM HD CALC OCC STRG CALCITE MICA PYR NSOFC

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HAWK SPRINGS Lease Name	1-10 Well No.	3 Test No.	11325-11405' Tested Interval
094994 Ticket Number	ROCK SPRINGS Camp	9-21-81 Date	MARATHON OIL COMPANY Lease Owner/Company Name
		425-1579 Gauge Number(s)	

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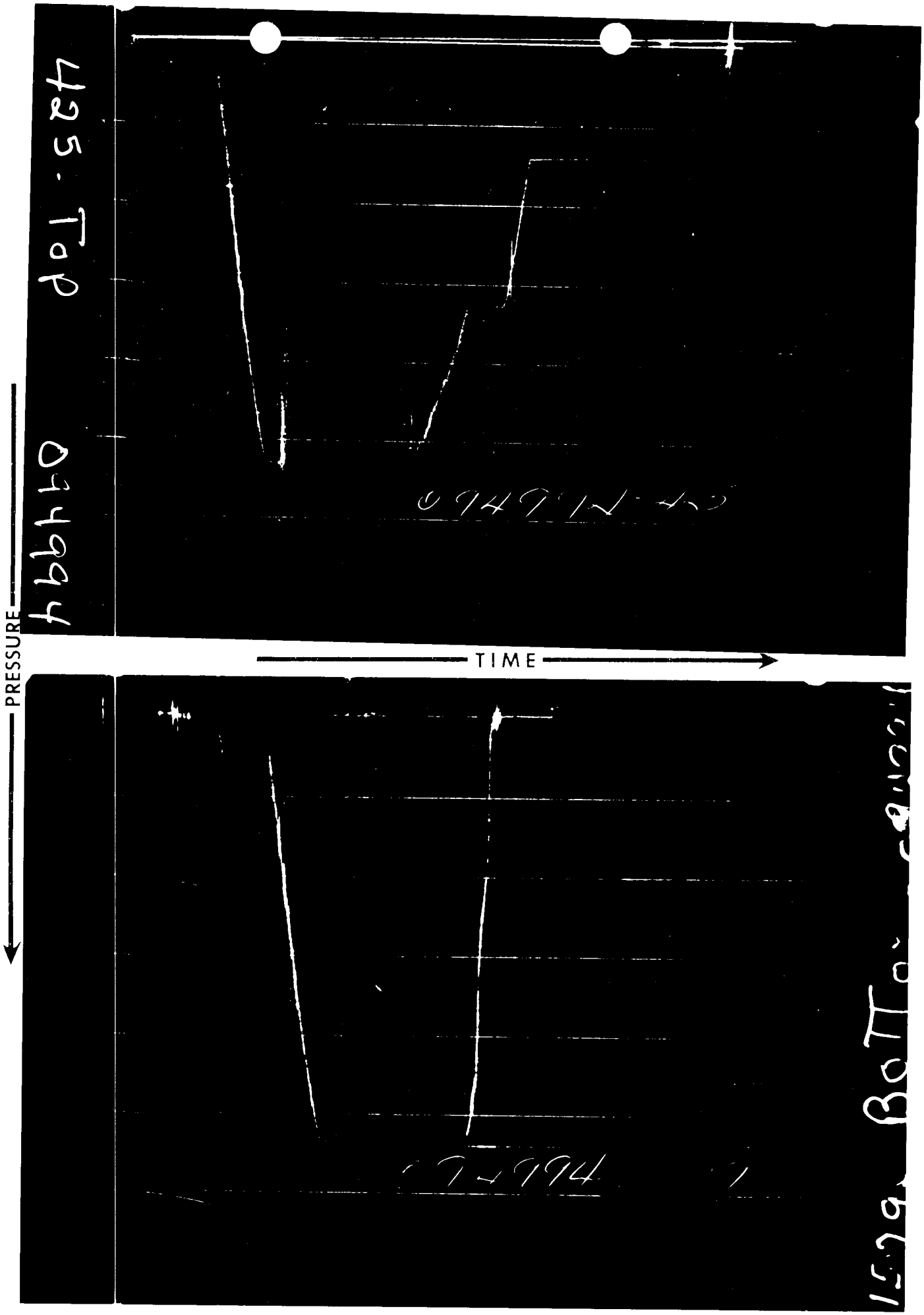
HALLIBURTON
SERVICES

22



Each Horizontal Line Equal to 1000 p.s.i.

TICKET NO. [redacted]994 DATE 9-21-81 HALLIBURTON CAMP ROCK SPRINGS

LEASE OWNER MARATHON OIL COMPANY

LEASE NAME HAWK SPRINGS WELL NO. 1-10 TEST NO. 3

LEGAL LOCATION SEC. 10-10N-6E FORMATION TESTED

FIELD AREA WILDCAT COUNTY RICH STATE UTAH SM- dr

TYPE OF D.S.T. OPEN HOLE

TESTER(S) H. BALDWIN AND C. SUTTER

WITNESS RAY ROSENTHAL DRILLING CONTRACTOR PARKER 118

DEPTHS MEASURED FROM CASING PERFS (FT.)

TYPE AND SIZE OF GAS MEASURING DEVICE

CUSHION DATA

TYPE AMOUNT WEIGHT (lb./gal.)

TYPE AMOUNT WEIGHT (lb./gal.)

RECOVERY (ft. or bbl.): 930' gas cut water

At 4000'-smelly water

At 8928'-H20 Ammonia

At sampler-Smelly water

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
PIT MUD	1.15 @ 68 °F	5,800	Sampler	1.7 @ 68 °F	3300
8928' Drill pipe	1.24 @ 68 °F	5,100		@ °F	
4000' Drill pipe	1.7 @ 68 °F	3,300		@ °F	

REMARKS:

TICKET NO. 094994 DATE 9-21-81 ELEVATION (FT). 6741' GL

TOP OF TESTED INTERVAL (ft.) 11325' BOTTOM OF TESTED INTERVAL (ft.) 11405'

NET PAY (ft.) _____ TOTAL DEPTH (ft.) 11405'

HOLE OR CASING SIZE (in.) 12 1/4" MUD WEIGHT (lb./gal.) 9.3 VISCOSITY (sec.) 46

SURFACE CHOKE (in.) _____ BOTTOM CHOKE (in.) .25"

OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 24 CUBIC FT. OF GAS _____

C.C.'s OF OIL _____ C.C.'s OF WATER 1,400

C.C.'s OF MUD _____ TOTAL LIQUID C.C.'s _____

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE 220

ACTUAL 275

DEPTH (ft.) 11401

H.T.-500 ☐; THERMOMETER XX ☐; T.E. OR R.T.-7 ☐; OTHER ☐

SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY _____ DATA APPROVED BY _____

RECORDERS					
GAUGE NUMBER	425	1579			
GAUGE TYPE					
GAUGE DEPTH (ft.)	11300	11401			
CLOCK NUMBER	12743	13843			
CLOCK RANGE (HR.)	48	48			

TIMES (00:00-24:00 HRS.)

TOOL OPENED 0655

DATE 9-21-81

BYPASS OPENED 1415

DATE 9-21-81

PRESSURES						PERIOD	MINUTES
INITIAL HYDROSTATIC		5293.8	5330.8				
1st.	INITIAL FLOW	3767.2	4419.7			XXX	XXX
1st.	FINAL FLOW	3814.4	4024.8			1st. FLOW	10 *
1st.	CLOSED-IN	4731.3	4769.7			1st. C.I.P.	64 *
2nd.	INITIAL FLOW	4038.9	4333.3			XXX	XXX
2nd.	FINAL FLOW	4642.2	4680.7			2nd. FLOW	126 *
2nd.	CLOSED-IN	4685.7	4729.4			2nd. C.I.P.	240 *
3rd.	INITIAL FLOW	*-See incremental pressure reading sheet				XXX	XXX
3rd.	FINAL FLOW					3rd. FLOW	
3rd.	CLOSED-IN					3rd. C.I.P.	
FINAL HYDROSTATIC		5214.5	5244.8			XXX	XXX

Casing perfs. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 094994
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1700					Called
2000					On location
2030					Picked up tools
2100					Started in hole
2300					Tool threw Kelly Bushing
0640					Tool on bottom, heavy flow
0655					Lost packer seat
					REset packer
0705					Closed tool
0809					Opened dual cip sampler
0814	1/8	5			strong blow
0824	1/8	11			
0838	1/8	35			
0855	1/8	36			
0909	1/8	22			
0918	1/8	18			
0939	1/8	20			
1015					Closed tool
1415					Started pulling pipe
1730					Pumped 200 bbls. of mud through
					reversing sub after dropping bar.
					Never got mud back to surface, just
					water. Shut down to mix mud
2000					Pulled pipe, pulled up to casing
2130					Shut down to build mud volume and

PRODUCTION TEST DATA

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 094994

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
					waited till daylight
0630					Started pulling pipe again
0900					Sampler at surface @ 0900
1130					Tool laid down

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

MARATHON OIL COMPANY
Lease Owner/Company Name

094994
Ticket Number

B.T. 425 | B.T. 1579 | B.T. _____

Depth 11300 | Depth 11401' | Depth _____

Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.
FIRST FLOW			FIRST FLOW					
0		3767.2	0		4419.7			
9.2		3814.4	2		4160.3			
			4		4035.1			
			6		4018.9			
			8		4018.9			
			9.3		4024.8			
FIRST CIP			FIRST CIP					
0		3814.4	0		4024.8			
3		4597.1	3		4624.1			
6		4649.0	6		4671.3			
9		4676.8	9		4708.6			
12		4690.7	12		4728.9			
15		4703.3	15		4743.9			
18		4713.9	18		4752.6			
21		4717.2	21		4757.2			
24		4721.4	24		5762.5			
37		4724.1	27		4764.9			
30		4726.3	30		4766.0			
40		4729.1	40		4769.5			
50		4730.7	50		4769.7			
60		4729.4	60		4769.7			
63.6		4731.3	64.8		4769.7			
SECOND FLOW			SECOND FLOW					
0		4038.9	0		4333.3			
20		4492.7	20		4524.8			
40		4594.7	40		4634.9			
60		4612.6	60		4656.1			
80		4625.2	80		4667.5			
100		4633.8	100		4675.9			
122.0		4642.2	122.0		4680.7			

Remarks: _____

80-2860

MARATHON OIL COMPANY
Lease Owner/Company Name

094994
Ticket Number

B.T. 425 B.T. 1579 B.T.

Depth 11300' Depth 11401' Depth

PAGE 2

Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+0}{0}$	PSIG Temp. Corr.
SECOND CIP			SECOND CIP					
0		4642.2	0		4680.7			
20		4647.5	20		4691.7			
40		4654.5	40		4697.8			
60		4658.9	60		4702.9			
80		4664.0	80		4707.2			
100		4668.9	100		4710.5			
120		4670.6	120		4715.6			
140		4672.8	140		4717.5			
160		4677.5	160		4721.1			
180		4676.4	180		4723.2			
200		4679.5	200		4725.7			
220		4684.3	220		4728.7			
244.1		4685.7	245.1		4729.4			

Remarks:

80-2860

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TICKET NO. 094994

Tool Description	O.D.	I.D.	Length	Depth
Drill Pipe	5"		11020.6'	
DRill Collar	9"	2 13/16"	180'	
Reverse sub	7 1/4"	2 1/2"	12"	
Drill Collar	9"	2 13/16"	90'	
Change over sub	7 1/4"	2 3/8"	.95"	
CIP Dual Sampler	5 3/4"	.87"	6.75'	11291.67'
Hydrospring	5"	.75"	5'	11296.67'
AP Running case	5"	3.06"	4'	11300.6'
Big John Jars	5"	1.50 "	5'	
NR 2 Packer	11 3/4"	1.53"	4.12'	11324.34'
VR Safety Joint	5"	1"	2.60'	
Sub-Change over	6 1/4"	2 1/4"	1.1'	
Drill Collar	7"	2 1/4"	28.25"	
ANchor pipe safety joint	5 3/4"	1.50"	4'	
Perforations	5 3/4"	2.25"	40'	
Blanked off B.T. case	5 3/4"	3.06"	4'	11401'
Total Depth				11405'

HAWK SPRINGS	#10-1	#4	11610' to 11629'	MARATHON OIL COMPANY
Lease Name	Well No.	Test No.	Tested Interval	Lease Owner/Company Name

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122455	ROCK SPRINGS	9-27-81	1579 - 425
Ticket Number	Camp	Date	Gauge Number(s)

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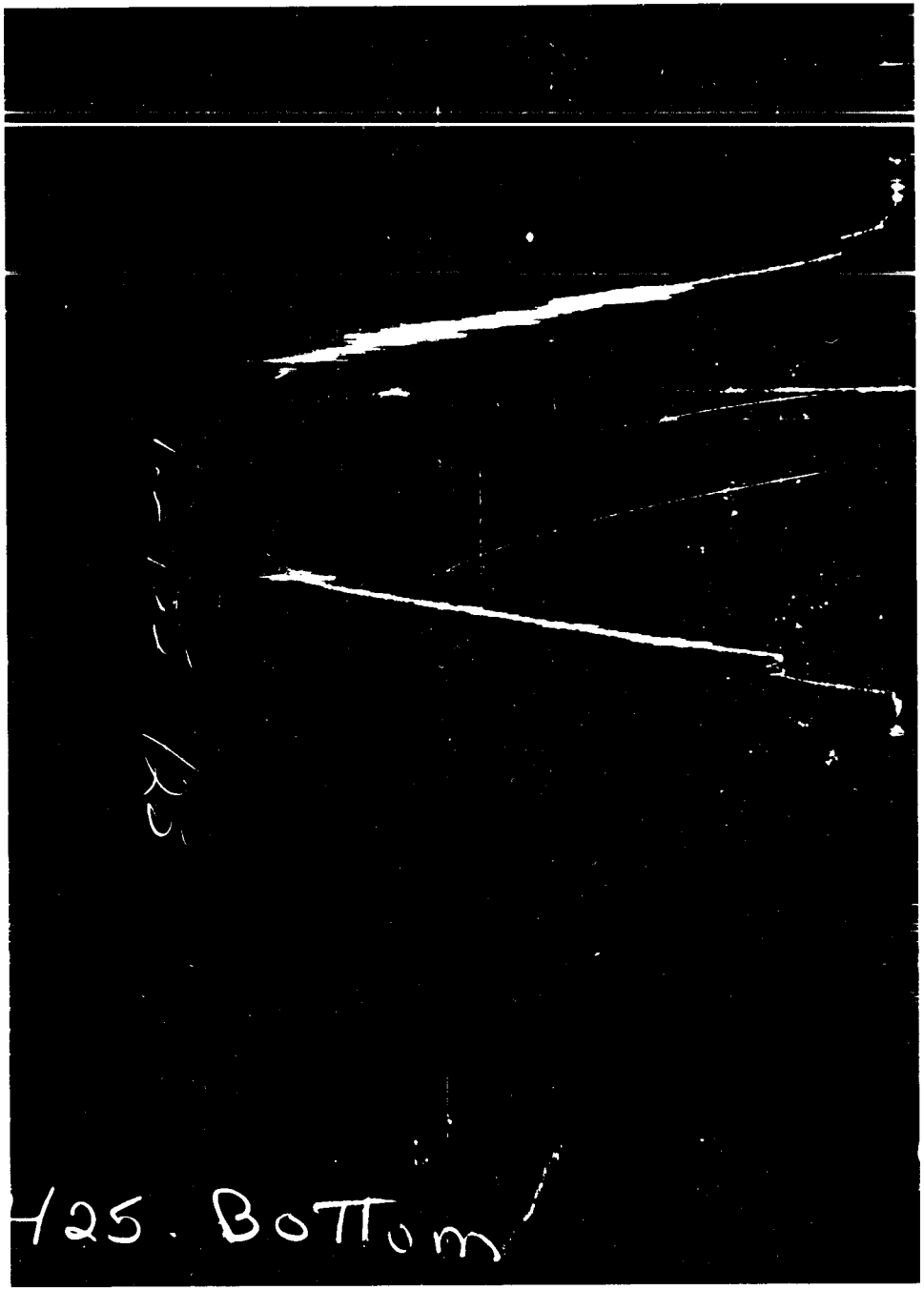
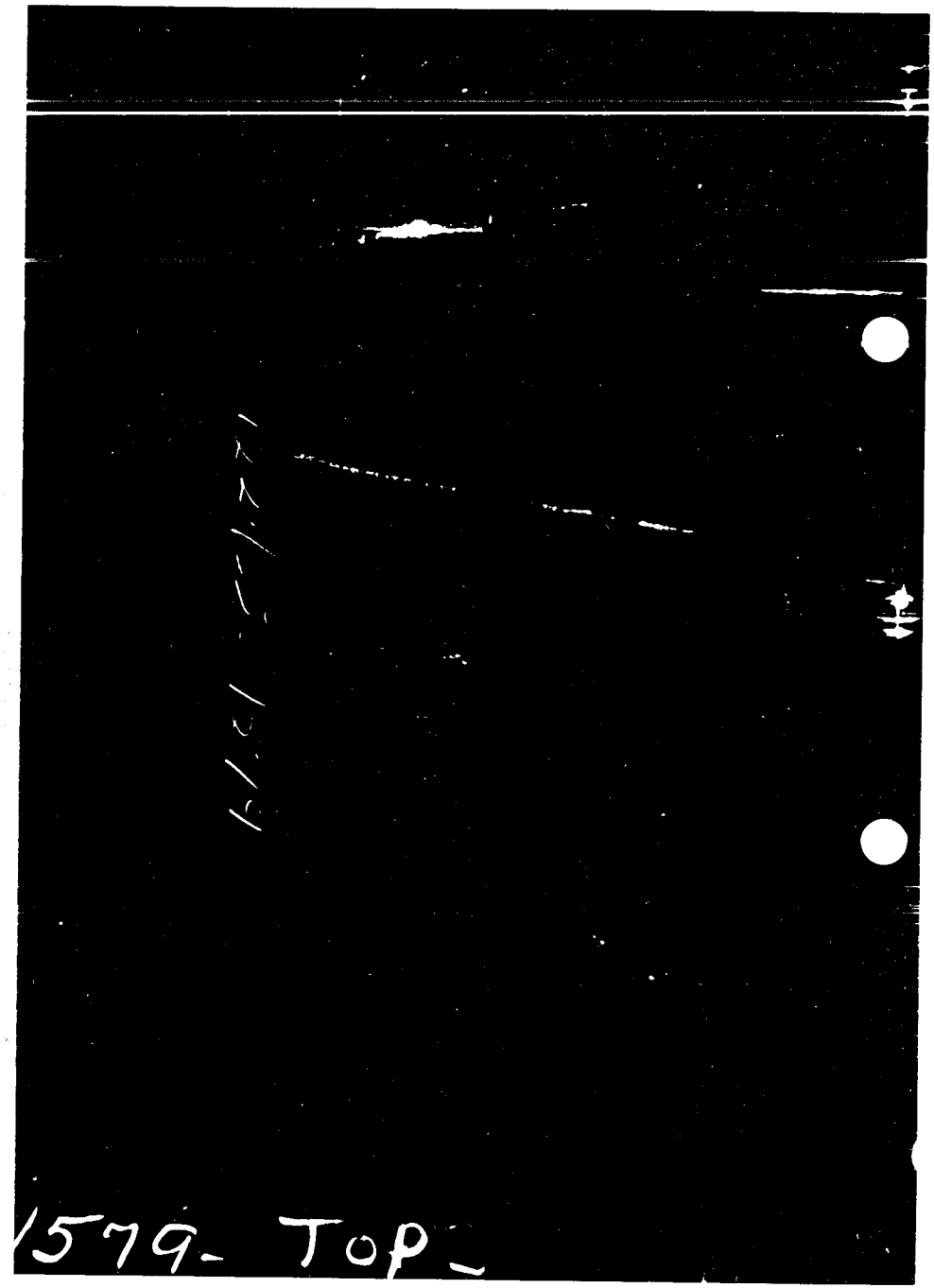

H25. Bottom


1579- Top

TICKET NO. 122455 DATE 9-27-81 HALLIBURTON CAMP ROCK SPRINGS

LEASE OWNER MARATHON OIL COMPANY IC bj

LEASE NAME HAWK SPRINGS WELL NO. #10-1 TEST NO. #4

LEGAL LOCATION 10 10N 6E FORMATION TESTED PHOSPHORIA

FIELD AREA WILDCAT COUNTY RICH STATE UTAH

TYPE OF D.S.T. OPEN HOLE

TESTER(S) H. BALDWIN

WITNESS MAC HANSEN DRILLING CONTRACTOR PARKER

DEPTHS MEASURED FROM KELLY BUSHING 6741' GL CASING PERFS (FT.) 19'

TYPE AND SIZE OF GAS MEASURING DEVICE POSITIVE CHOKE

CUSHION DATA

TYPE AMMONIA & ZINC CARBONATE AMOUNT 110 Gal WEIGHT (lb./gal.)

TYPE WATER AMOUNT 1013 WEIGHT (lb./gal.)

RECOVERY (ft. or bbl.):

1950 recovery - 937' of clabored mud....

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
PIT	@ 68 °F			@ °F	
TOP SAMPLER	1.06 @ 68 °F	140,000		@ °F	
SAMPLER	1.06 @ 68 °F	140,000		@ °F	

REMARKS:

....SEE PRODUCTION TEST DATA SHEET....

TICKET NO. 122455 DATE 9-27-81 ELEVATION (FT). 6741' GL

TOP OF TESTED INTERVAL (ft.) 11610' BOTTOM OF TESTED INTERVAL (ft.) 11629'

NET PAY (ft.) _____ TOTAL DEPTH (ft.) 11629'

HOLE OR CASING SIZE (in.) 12.25" MUD WEIGHT (lb./gal.) 8.8 VISCOSITY (sec.) 51

SURFACE CHOKE (in.) _____ BOTTOM CHOKE (in.) _____

OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 110 CUBIC FT. OF GAS _____

C.C.'s OF OIL _____ C.C.'s OF WATER _____

C.C.'s OF MUD 1600 TOTAL LIQUID C.C.'s _____

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE 250

ACTUAL 275

DEPTH (ft.) 11625'

H.T.-500 ☐; THERMOMETER ☒; T.E. OR R.T.-7 ☐; OTHER ☐

SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY _____ DATA APPROVED BY _____

RECORDERS					
GAUGE NUMBER	1579	425			
GAUGE TYPE	1	2			
GAUGE DEPTH (ft.)	11587'	11625'			
CLOCK NUMBER	12912	13843			
CLOCK RANGE (HR.)	48 HOUR	48 HOUR			

TIMES (00:00-24:00 HRS.)

TOOL OPENED 0724

DATE 9-28-81

BYPASS OPENED 1430

DATE 9-28-81

PRESSURES						PERIOD	MINUTES
	INITIAL HYDROSTATIC	5417.9	5446.3				
	INITIAL FLOW	435.3	468.7			XXX	XXX
1st.	FINAL FLOW	435.3	470.2			1st. FLOW	6 *
	CLOSED-IN	2045.9	2077.2			1st. C.I.P.	60 *
	INITIAL FLOW	436.8	472.6			XXX	XXX
2nd.	FINAL FLOW	436.8	473.1			2nd. FLOW	120 *
	CLOSED-IN	3950.0	3986.2			2nd. C.I.P.	240 *
	INITIAL FLOW					XXX	XXX
3rd.	FINAL FLOW	*See attached incremental pressure sheet....				3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
	FINAL HYDROSTATIC	5301.1	5334.1			XXX	XXX

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 122455
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
9-27-81					
2000					On location.
2300					Picked up tools.
9-28-81					
0800					Rigged up surface.
0724					Opened tool-dead.
0730					Closed dual CIP sampler.
0830					Opened dual CIP sampler.
					Opened tool - dead
1030					Closed dual CIP sampler
					No blow throughout.
1430					Opened bypass
2100					Tools on bank.

FORM 162-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

MARATHON OIL COMPANY
Lease Owner/Company Name

122455
Ticket Number

B.T. 1579
Depth 11587'
48 HOUR

B.T. 425
Depth 11625'
48 HOUR

B.T.
Depth

Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+t}{t}$	PSIG Temp. Corr.
FLOW PERIOD #1			FLOW PERIOD #1					
0		435.3	0		468.7			
8.5		435.3	8.2		470.2			
CLOSED IN PERIOD #2			CLOSED IN PERIOD #2					
0		435.3	0		470.2			
5		665.1	5		705.4			
10		839.2	10		837.4			
15		990.2	15		1039.0			
20		1135.5	20		1186.0			
25		1271.6	25		1316.9			
30		1398.9	30		1448.5			
35		1518.6	35		1579.8			
40		1632.8	40		1690.8			
45		1734.1	45		1787.9			
50		1831.1	50		1882.9			
55		1926.1	55		1972.8			
61.8		2045.9	61.3		2077.2			
FLOW PERIOD #2			FLOW PERIOD #2					
0		436.8	0		472.6			
119.0		436.8	119.2		473.1			
CLOSED IN PERIOD #2			CLOSED IN PERIOD #2					
0		436.8	0		473.1			
20		827.0	20		870.6			
40		1248.8	40		1288.8			
60		1642.9	60		1683.6			
80		2016.4	80		2059.4			
100		2365.5	100		2396.3			
120		2688.1	120		2702.2			
140		2971.8	140		2984.2			
160		3220.1	160		3242.7			
180		3445.5	180		3476.4			
200		3643.9	200		3679.5			
220		3823.8	220		3864.4			
236.7		3950.0	236.8		3986.2			

Remarks:

80-2860

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TICKET NO. 122455

Tool Description	O.D.	I.D.	Length	Depth
DRILL PIPE	??	??	11314'	
DRILL COLLARS	9.00"	2.8125"	170'	
REVERSING SUB			1.00'	11485'
DRILL COLLARS	9.00"	2.8125"	88'	
X OVER SUB	6.25"	2.25"	.8'	
DUAL CIP SAMPLER	5.75"	.75"	7.00'	
HYDROSPRING TESTER	5.00"	.75"	5.00'	11581'
AP RUNNING CASE	5.00"	3.06"	4.06'	11587'
BIG JOHN JARS	5.00"	1.75"	5.00'	
SAFETY JOINT VR	5.00"	1.00"	2.78'	
PACKER OPEN HOLE	11.25"	1.53"	5.81'	11602'
DISTRIBUTOR VALVE	5.00"	1.68"	2.00'	
PACKER OPEN HOLE	11.25"	1.53"	5.81'	11610'
PERFORATED TAIL PIPE	5.75"	3.00"	13'	
BLANKED-OFF RUNNING CASE	5.75"	3.00"	4.56'	11625'
TOTAL DEPTH				11629'

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

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

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

PROGRESS REPORT

See Attachments

From 8-13-81 To 8-31-81

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

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

SIGNED M E Krugh TITLE Drilling Superintendent DATE 10-5-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

8-13-81 8,357' MADE 108' IN THAYNES FORMATION. MW 9.1, VIS 41, WL 8.8, PH 9.7, PV 12, YP 7, 3/16 GELS, 5.8 SOLIDS, 900 CHLORIDE, 120 CALCIUM. PMP PRESS 1,600, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 26, 12-1/4", THC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', 343 FT, 64-1/4 HRS, 5.3 FT/HR. REMARKS: DLRG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,274' INC 8° TELE, DEV DEPTH 8,305' INC 7-1/2° TELE, DEV DEPTH 8,336' INC 8° WL. TOTAL BHA 586.48'. DLRG AHEAD W/NO PROBLEMS. CIRC & RUN WL SURV @ 8,336'. LITH: LT GRAY SHALE, 50% LT GRAY LIMESTONE. BGG: 1/2 UNIT C1 72 PPM, NO SHOWS.

8-14-81 8,474' MADE 117' IN THAYNES FORMATION. MW 9.2, VIS 44, WL 8.8, PH 9.7, PV 14, YP 10, 4/21 GELS, 900 SOLIDS, 100 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 26, 12-1/4", HTC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', 460 FT, 86 HRS, 5.3 FT/HR. REMARKS: DLRG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,366' INC 8°, DEV DEPTH 8,397' INC 8°, DEV DEPTH 8,427' INC 7-1/2°, DEV DEPTH 8,458' INC 7-1/2°. TOTAL BHA 586.48'. DRLG & SURV W/NO PROBLEMS. CIRC, RUN WL SURV 8,458'-7-1/2°. LITH: 60% SHALE MED TO DARK GRAY, 50% LIMESTONE MED GRAY. BGG: TR-1/2 UNIT 96 PPM C1. NO CONNECTION GAS & NO SHOWS.

8-15-81 8,605' MADE 131' IN THAYNES FORMATION. MW 9.1, VIS 46, WL 8.4, PH 9, PV 15, YP 11, 3/21 GELS, 5.8 SOLIDS, 900 CHLORIDE, 120 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 26, 12-1/4", HTC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', 591 FT, 107-1/4 HRS, 5.5 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,489' INC 7-1/2° TELE, DEV DEPTH 8,520' INC 7-1/2° TELE, DEV DEPTH 8,552' INC 7-1/2° TELE, DEV DEPTH 8,584' INC 7-1/2° WL. TOTAL BHA 586.48'. DRL AHEAD, CIRC, RUN WL SURV @ 8,584' 7-1/2° NO PROBLEMS. CORROSION RINGS, SAVER SUB, 9.26 (MECHANICL DAMAGE) RECHECKED CORROSION SYSTEM OK. LITH: 50% MED GRAY LIMESTONE, 50% DK GRAY SHALE. BGG: 1-1-1/2 UNITS, 216-264 PPM C1, NO SHOWS, NO CONNECTION GAS.

8-16-81 8,742' MADE 137' IN THAYNES FORMATION. MW 9.2, VIS 45, WL 8, PH 9.3, PV 15, YP 9, 4/25 GELS, 6.5 SOLIDS, 900 CHLORIDE, 120 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 26, 12-1/4", HTC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', DEPTH OUT 8,742', 728 FT, 127-1/2 HRS, 5.7 FT/HR. REMARKS: TRIP. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,615' INC 7-1/2D TELE, DEV DEPTH 8,646' INC 7-1/2° TELE, DEV DEPTH 8,678' INC MISRUN TELE, DEV DEPTH 8,710' INC 7-1/2° TELE, DEV DEPTH 8,741' INC 7-1/4° WL. TOTAL BHA 586.48'. DLR AHEAD, ROTARY TORQUE INCREASED, BEGIN POH F/NEW BIT. RECEIVED LOAD OF FUEL, WILL CHANGE SQUARE DRILL COLLARS & CHECK WEAR BUSHING & TELEDRIFT ON TRIP. LITH: 90% LIMESTONE LT GRAY, 10% SILTSTONE MED GRAY. BGG: 1/2-3/4 UNITS, 100-120 PPM C1, NO SHOWS.

8-17-81 8,784' MADE 42' IN THAYNES FORMATION. MW 9.2, VIS 46, WL 8.8, PH 9.4, PV 14, YP 11, 4/26 GELS, 6.5 SOLIDS, 900 CHLORIDE, 100 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 26, 12-1/4", HTC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', DEPTH OUT 8,742', 728 FT, 127-1/2 HRS, 5.7 FT/HR, COND 4-E-I. REMARKS: PULLED. BIT NO 27, 12-1/4", SEC, M84F 967857, JETS 13/13/13, DEPTH IN 8,742', 42 FT, 9-3/4 HRS, 4.3 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,773' INC 7° TELE.

COMPONENT	LENGTH	O.D.	I.D.
BIT	1.00'	12-1/4"	
6 PT RMR	13.76'	8-15/16"	2-3/4"
IBS	5.32'	8-15/16"	2-7/8"
TELEDRIFT	7.50'	9"	2-7/8"
IBS	5.31'	9"	2-7/8"
SQ DC	28.85'	9-1/2"	2-7/8"
IBS	5.34'	8-15/16"	2-3/4"
XO	1.01'	10"	2-3/4"
SQ DC	30.90'	9-1/2"	2-7/8"
IBS	5.33'	8-15/16"	2-3/4"
SS	15.39'	8"	3"
XO	2.58'	8-3/4"	2-3/4"
6 DC'S	177.95'	9-1/8"	3"
XO	2.60'	9"	2-7/8"
3 DC'S	93.28'	9"	3"
XO	2.85'	8-1/8"	2-3/4"
JARS	34.61'	7-5/8"	2-1/8"
5 HWDP	153.73'	5"	3-3/16"

TOTAL BHA 587.31'. TRIP F/BIT #27, CHECK WEAR BUSHING & BLIND RAM OK. CHANGE OUT BTM SQ DC, CHANGE TELEDRIFT SETTING. RIH, WASH 120' TO BTM, NO PROBLEMS. CHANGE CORROSION RING IN DP, 261 HRS, 0.97 F3/YR. LITH: 90% LIMESTONE MED GRAY, 10% SILTSTONE MED TO DK GRAY. BGG: 1/2 UNIT, 96 PPM C1. TRIP GAS: 4 UNITS, 480 PPM C1, NO SHOWS.

8-18-81 8,857' MADE 73' IN THAYNES FORMATION. MW 9.2, VIS 45, WL 8.4, PH 9.7, PV 13, YP 9, 4/24 GELS, 6.5 SOLIDS, 950 CHLORIDE, 100 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 27, 12-1/4", SEC, M84F 967857, JETS 13/13/13, DEPTH IN 8,742', 115 FT, 32 HRS, 3.5 FT/HR. REMARKS: DLRG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,793' INC 7° TELE, DEV DEPTH 8,804' INC 7° TELE, DEV DEPTH 8,835' INC 6-3/4° WL. TOTAL BHA 587.31'. DRLG AHEAD, DLRG RATE VARIES 25 MINS/FT TO 10 MIN/FT. LITH: 85% LIMESTONE LT GRAY & FIRM, 15% SHALE MED GRAY & SOFT. BGG: TR TO 1/2 UNIT, 72 PPM C1, NO SHOWS.

8-19-81 8,968' MADE 111' IN THAYNES FORMATION. MW 9.1, VIS 46, WL 8.8, PH 9.7, PV 16, YP 9, 4/21 GELS, 5.8 SOLIDS, 900 CHLORIDE, 60 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 27, 12-1/4", SEC, M84F 967857, JETS 13/13/13, DEPTH IN 8,742', 226 FT, 54-3/4 HRS, 4.2 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 8,866' INC 7° TELE, DEV DEPTH 8,897' INC 7° TELE, DEV DEPTH 8,929' INC 6-1/2° TELE, DEV DEPTH 8,960' INC 6-1/2° TELE. TOTAL BHA 587.31'. DLRG & SURV W/NO PROBLEMS. RECIEVED LOAD OF GEL. LITH: 70% LIMESTONE MED GRAY, 15% SHALE MED GRAY, 15% SS LITE GRAY. BGG: TR TO 1/2 UNITS, 120 PPM C1, NO SHOWS.

8-20-81 9,015' MADE 47' IN THAYNES FORMATION. MW 9.2, VIS 44, WL 8.2, PH 9.6, PV 14, YP 8, 3/17 GELS, 6.5 SOLIDS, 950 CHLORIDE, 160 CALCIUM. PMP PRESS 1,900, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 27, 12-1/4", SEC, M84F 967857, JETS 13/13/13, DEPTH IN 8,742', DEPTH OUT 8,977, 235 FT, 59-1/2 HRS, 3.9 FT/HR, COND 3-E-I. REMARKS: PULLED. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', 38 FT, 8 HRS, 4.7 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DPETH 8,977' INC 7° DROPPED, DEV DEPTH 8,991' INC 6-1/2° TELE. TOTAL BHA 587.31'. DRLD, POH F/BIT #28, RIH, CUT DRLG LINE, WASH & REAM 60' TO BTM, DRLG AHEAD NO PROBLEMS. LITH: 60% LIMESTONE LT TO MED DRK GRY, 40% SILTSTONE LT TO MED GRY. BGG: TR TO 1/2 UNITS 96 PPM C1, NO SHOWS. TRIP GAS: 5 UNITS 576 PPM C1.

8-21-81 9,132' MADE 117' IN WOODSIDE FORMATION. MW 9.2, VIS 44, WL 8.0, PH 9.7, PV 15, YP 9, 3/14 GELS, 6.5 SOLIDS, 1,000 CHLORIDE, 120 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', 155 FT, 30-3/4 HRS, 5 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,022' INC 7° TELE, DEV DEPTH 9,053' INC 6-1/2° TELE, DEV DPETH 9,085' INC 6-1/2° TELE, DEV DEPTH 9,117' INC 6-1/2° TELE. TOTAL BHA 587.31'. DRLG W/NO PROBLEMS. CORROSION RING, SAVER SUB .72 (170 HRS), TOP OF WOODSIDE 9,060'. LITH: 60% SILTSONE RED BRN TO PALE RED, 40% SS LT BRN. BGG: 1/2-3/4 UNITS 120 PPM C1, NO SHOWS.

8-22-81 9,244' MADE 109' IN WOODSIDE FORMATION. MW 9.2, VIS 44, WL 9.2, PH 9.3, PV 15, UP 7, 2/11 GELS, 6.5 SOLIDS, 9.50 CHLORIDE, 200 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', 264 FT, 52-1/4 HRS, 5 FT/HR. REMARKS: DLRG. RPM 65, WT ON BIT 55,000#. DEV DPETH 9,148' INC 6-1/2° TELE, DEV DEPTH 9,181' INC 6-1/2° TELE, DEV DEPTH 9,219' INC 6-1/2° TELE. TOTAL BHA 587.31'. DRLG W/NO PROBLEMS. LITH: 80% RED BRN SILTSONE, 10% LT BRN SS, 10% PALE RED TO GRY SHALE. BGG: 1/2 UNIT 100 PPM C1, NO SHOWS.

8-23-81 9,350' MADE 109' IN WOODSIDE FORMATION. MW 9.2, VIS 47, WL 8.8, PH 9.0, PV 16, YP 12, 3/14 GELS, 6.5 SOLIDS, 950 CHLORIDE, 160 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', 373 FT, 75 HRS, 4.97 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,251' INC 6-1/2° TELE, DEV DEPTH 9,275' INC 6-1/2° TELE, DEV DEPTH 9,307' INC 6-1/2° TELE, DEV DPETH 9,339' INC 7D TELE. TOTAL BHA 587.31'. DLRG AHEAD W/NO PROBLEMS. LITH: 80% RED BRN SILTSTONE, 10% WHITE SS, 10% RED BRN SHALE. BGG; 1/2 UNIT 120 PPM C1, NO SHOWS.

8-24-81 9,450' MADE 100' IN WOODSIDE FORMATION. MW 9.2, VIS 44, WL 8.4, PH 9.0, PV 14, UP 9, 3/12 GELS, 6.5 SOLIDS, 950 CHLORIDE, 250 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', 473 FT, 98-1/2 HRS, 4.8 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,370' INC 6-1/2°, DEV DEPTH 9,403' INC 6-1/2° TELE, DEV DPETH 9,434' INC 6-1/2° TELE. TOTAL BHA 587.31'. DRLG NO PROBLEMS. LITH: 70% RED BRN TO LT GRAY SILTSTONE, 20% RED BRN SHALE, 10% WHITE GRY SS. BGG: 1/2 UNIT 100 PPM C1.

9-25-81 9,472 MADE 22' IN WOODSIDE FORMATION. MW 9.2, VIS 45, WL 8.0, PH 9.2, PV 15, UP 9, 2/11 GELS, 6.5 SOLIDS, 950 CHLORIDE, 320 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', DEPTH OUT 9,472', 495 FT, 104-1/2 HRS, 4.73 FT/HR, COND 5-F-1/8. BIT NO 29, 12-1/4", HTC, J-55R MH429, JETS 13/13/13, DEPTH IN 9,472'. REMARKS: RIH. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,466' INC 6-1/2° TELE, DEV DEPTH 9,472' INC 5-3/4° DROPPED. TOTAL BHA 587.31'. DRLD, POH F/NEW BIT. TEST PIPE RAMS TO 2,500 PSI, BLIND TO 2,500 PSI, HRC & MANUAL VALVES TO 2,500 PSI, HYDRIL TO 1,500 PSI, CHOKE MAN TO 2,500 PSI. RIH W/BHA, PU NEW SHOCK SUB & JARS, RIH L/D G PIPE, CORROSION RIG, 2 JTS ABOVE HWDP WAS .45. LITH: 50% RED BRN SHALE, 45% RED BRN SILTSTONE, 5% WHITE SS. BGG: 1/2 UNIT C1 100 PPM, NO SHOWS.

8-26-81 9,536' MADE 64' IN WOODSIDE FORMATION. MW 9.3, VIS 42, WL 8.4, PH 9.6, PV 14, UP 8, 3/16 GELS, 7.2 SOLIDS, 900 CHLORIDE, 320 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 64 FT, 15-3/4 HRS, 4.1 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,484' INC 5-1/2° TELE, DEV DEPTH 9,515' INC 5-1/2° TELE.

COMPONENT	LENGTH	O.D.	I.D.
CORRECTION			
JARS	5.17		

TOTAL BHA 592.48'. PU "E" DP, FIN RIH, REAM 100' TO BTM, DRLG AHEAD, NO PROBLEMS. LITH: 50% RED BRN SILTSTONE, 50% RED BRN GRAY SHALE. BGG: 1/2 UNIT C1 90 PPM, NO SHOWS. TRIP GAS: 7 UNITS C1 792 PPM.

8-27-81 9,661' MADE 125' IN WOODSIDE FORMATION. MW 9.3, VIS 46, WL 8.4, PH 9.8, PV 16, YP 10, 4/24 GELS, 7.3 SOLIDS, 900 CHLORIDE, 240 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 189 FT, 38-1/2 HRS, 4.9 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,544' INC 5° TELE, DEV DEPTH 9,576' INC 5° TELE, DEV DEPTH 9,607' INC 5° TELE, DEV DPETH 9,637' INC 5D TELE. TOTAL BHA 592.48'. DRLG AHEAD, NO PROBLEMS. CORROSION RIG @ SAVER SUB IS .61. LITH: 60% RED BRN SHALE, 40% RED BRN SILTSTONE. BGG: 1/2 UNIT C1 120 PPM.

8-28-81 9,808' MADE 147' IN WOODSIDE FORMATION. MW 9.2, VIS 48, WL 8.4, PH 9.6, PV 16, YP 12, 5/34 GELS, 6.9 SOLIDS, 1,200 CHLORIDE, 220 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 336 FT, 61 HRS, 5.5 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,666' INC 5° TELE, DEV DEPTH 9,696' INC 5° TELE, DEV DEPTH 9,727' INC 5° TELE, DEV DEPTH 9,757' INC 5° TELE, DEV DEPTH 9,788' INC 5° TELE. TOTAL BHA 592.48'. DLRG, NO PROBLEMS. LITH: 50% RED BRN TAN SILTSTONE, 50% RED BRN SHALE. BGG: 1/2 UNIT C1 120 PPM, NO SHOWS.

8-29-81 9,966' MADE 158' IN WOODSIDE FORMATION. MW 9.2, VIS 48, WL 10, PH 9.8, PV 16, YP 12, 5/41 GELS, 6.5 SOLIDS, 1,000 CHLORIDE, 240 CALCIUM. PMP PRESS 2,000, GPM 398, ANNULAR VELOCITY 141/78. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 494 FT, 83-1/2 HRS, 5.9 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,819' INC 5° TELE, DEV DEPTH 9,850' INC 5° TELE, DEV DPETH 9,882' INC 5° TELE, DEV DPETH 9,913' INC 5° TELE, DEV DEPTH 9,944' INC 5D TELE. TOTAL BHA 592.48'. DRLG AHEAD, NO PROBLEMS. JET PLUGGED @ 5 PM. LITH: 50% RED BRN SHALE, 45% RED BRN TAN SILTSTONE, 5% WHITE ANNHYDRITE. BGG: 1/2 UNIT C1 150 PPM, NO SHOWS.

8-30-81 10,106' MADE 140' IN WOODSIDE FORMATION. MW 9.3, VIS 42, WL 8.8, PH 9.6, PV 12, YP 7, 3/20 GELS, 7.3 SOLIDS, 1,000 CHLORIDE, 180 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 634 FT, 105-3/4 HRS, 6.00 FT/HR. RPM 65, WT ON BIT 55,000#. DEV DEPTH 9,976' INC 5° TELE, DEV DEPTH 10,006' INC 5° TELE, DEV DEPTH 10,038' INC 5° TELE, DEV DPETH 10,070' INC 5° TELE, DEV DEPTH 10,101' INC 5° TELE. TOTAL BHA 592.48'. DRLG, NO PROBLEMS. LITH: 60% RED, BRN, TAN SILTSTONE, 40% RED BRN SHALE, TR WHITE ANNHYDRITE, TR WHITE SS. BGG: 1/2 UNIT C1 180 PPM, NO SHOWS.

8-31-81 10,217' MADE 111' IN WOODSIDE FORMATION. MW 9.2, VIS 44, WL 9.6, PH 9.8, PV 12, YP 8, 3/24 GELS, 6.9 SOLIDS, 1,000 CHLORIDE, 260 CALCIUM. PMP PRESS 1,800, GPM 497, ANNULAR VELOCITY 177/98. BIT NO 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', 745 FT, 128-3/4 HRS, 5.8 FT/HR. REMARKS: DRLG. RPM 65, WT ON BIT 55,000#. DEV DEPTH 10,132' INC 5° TELE, DEV DEPTH 10,164' INC 5D TELE, DEV DEPTH 10,195' INC 5° TELE. TOTAL BHA 592.48'. DRLG, NO PROBLEMS. LITH: 55% RED, BRN TAN SILSTONE, 45% RED BRN SHALE, TR WHITE SS. BGG: 2 UNITS C1 420 PPM. 3 UNITS @ 10,175' C1 665 PPM, NO FLUOR, CUT OR DRLG BREAD, NO POROSITY.

DIVISION OF OIL, GAS AND MINING

B.O.P. TEST

~~SPUDDING~~ INFORMATION

NAME OF COMPANY: Marathon Oil Co.

WELL NAME: Hawk Springs 1-10

SECTION 10 TOWNSHIP 10N RANGE 6E COUNTY Rich

DRILLING CONTRACTOR Parker

RIG # 118

~~SPUDDED~~ TEST DATE 10/14/81

TIME 8:00 p.m.

~~HOW~~

~~DRILLING~~ WILL COMMENCE

10 4/3",L80, S80, SS95 @ 11,938 (TOC 10,000
400 SX Poz Mix 350 Neet)

1) 13 5/8", 5000# Annular BOP tested to #2500
2) 13 5/8" cammeron rams (2 pipe) #10,000
(1 blend) tested to #3000
3) Choke & Maniford 10,000# tested to #3000
4) Casing tested to #3000

REPORTED BY Walt West

TELEPHONE #307-577-1555
801-793-2375 (Lyndin Ivele)
307-789-4676 (Yellow Jacket)

DATE 10/14/81 SIGNED M.T.M. M.T.M.

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

NOV 05 1981
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.)*

PROGRESS REPORT

See Attachments

From 9-1-81 To 10-14-81

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

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

SIGNED H. L. Guthrie TITLE Drilling Superintendent DATE 11-1-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

8-13-81	8,357'	MADE 108' IN THAYNES FORMATION. MW 9.1, VIS 41. DLRG AHEAD.
8-14-81	8,474'	MADE 117' IN THAYNES FORMATION. MW 9.2, VIS 44. DRLG & SURV.
8-15-81	8,605'	MADE 131' IN THAYNES FORMATION. MW 9.1, VIS 46. DRL AHEAD.
8-16-81	8,742'	MADE 137' IN THAYNES FORMATION. MW 9.2, VIS 45. DLR AHEAD, BEGIN POH F/NEW BIT.
8-17-81	8,784'	MADE 42' IN THAYNES FORMATION. MW 9.2, VIS 46. BIT NO 26, 12-1/4", HTC, J55R MH310, JETS 13/13/13, DEPTH IN 8,014', DEPTH OUT 8,742', 728 FT, 127-1/2 HRS, 5.7 FT/HR, COND 4-E-I. TRIP F/BIT #27, CHECK WEAR BUSHING & BLIND RAM OK.
8-18-81	8,857'	MADE 73' IN THAYNES FORMATION. MW 9.2, VIS 45. DRLG AHEAD.
8-19-81	8,968'	MADE 111' IN THAYNES FORMATION. MW 9.1, VIS 46. DLRG & SURV.
8-20-81	9,015'	MADE 47' IN THAYNES FORMATION. MW 9.2, VIS 44. BIT NO 27, 12-1/4", SEC, M84F 967857, JETS 13/13/13, DEPTH IN 8,742', DEPTH OUT 8,977, 235 FT, 59-1/2 HRS, 3.9 FT/HR, COND 3-E-I. DRLD, POH F/BIT #28, DRLG AHEAD.
8-21-81	9,132'	MADE 117' IN WOODSIDE FORMATION. MW 9.2, VIS 44. DRLG.
8-22-81	9,244'	MADE 109' IN WOODSIDE FORMATION. MW 9.2, VIS 44. DRLG.
8-23-81	9,350'	MADE 109' IN WOODSIDE FORMATION. MW 9.2, VIS 47. DLRG.
8-24-81	9,450'	MADE 100' IN WOODSIDE FORMATION. MW 9.2, VIS 44. DRLG.
9-25-81	9,472	MADE 22' IN WOODSIDE FORMATION. MW 9.2, VIS 45. BIT NO 28, 12-1/4", HTC, J-44 ML372, JETS 13/13/13, DEPTH IN 8,977', DEPTH OUT 9,472', 495 FT, 104-1/2 HRS, 4.73 FT/HR, COND 5-F-1/8. DRLD, POH F/NEW BIT.
8-26-81	9,536'	MADE 64' IN WOODSIDE FORMATION. MW 9.3, VIS 42. DRLG.
8-27-81	9,661'	MADE 125' IN WOODSIDE FORMATION. MW 9.3, VIS 46. DRLG AHEAD.
8-28-81	9,808'	MADE 147' IN WOODSIDE FORMATION. MW 9.2, VIS 48. DLRG.
8-29-81	9,966'	MADE 158' IN WOODSIDE FORMATION. MW 9.2, VIS 48. DRLG AHEAD.
8-30-81	10,106'	MADE 140' IN WOODSIDE FORMATION. MW 9.3, VIS 42. DRLG.
8-31-81	10,217'	MADE 111' IN WOODSIDE FORMATION. MW 9.2, VIS 44. DRLG.
9-1-81	10,235'	MADE 18' IN WOODSIDE FORMATION. MW 9.2, VIS 41. BIT 29, 12-1/4", HTC, J55R MH429, JETS 13/13/13, DEPTH IN 9,472', DEPTH OUT 10,221', 749 FT, 130-3/4 HRS, 5.7 FT/HR, CONDITION 5/F/1/8. BREAK IN BIT & DRLG AHEAD.

HAWK SPRING #1-10 WELL HISTORY

9-2-81 10,277' MADE 42' IN WOODSIDE FORMATION. MW 9.1, VIS 44. DRLG, CIRC F/LOGS, SHORT TRIP.

9-3-81 10,277' MADE 0' IN WOODSIDE FORMATION. MW 9.3, VIS 39. BIT NO 30, 12-1/4", SEC M89TF 956124, JETS 13/13/14, DEPTH IN 10,221', DEPTH OUT 10,277' 56 FT, 25 HRS, 2.2 FT/HR, CONDITION 2/F/I. POH F/LOGS. RIG LOGGERS & RUN, SPECTRO LOG & GAMMARAY.

9-4-81 10,227' MADE 0' IN WOODSIDE FORMATION. MW 9.3, VIS 39. RAN DIL, GR, CNL, & ACOUSTIC WILL RUN DIL, DIP, & DIP TRACK IN 2 MORE RUNS & CSGINSP LOG. RIH W/DP & COND HOLE, CIRC & COND HOLE. PRESENTLY POH.

9-5-81 10,277' MADE 0' IN WOODSIDE FORMATION. MW 9.3, VIS 38. FIN POOH, RUN DRESSLER ATLAS DIL & DIP LOGS, RU DIALOG. RAN CSG INSP LOG.

9-6-81 1,0349' MADE 72' IN WOODSIDE FORMATION. MW 9.2, VIS 39. DRLG AHEAD.

9-7-81 10,451' MADE 102' IN WOODSIDE FORMATION. MW 9.3, VIS 39. DRL & SURV.

9-8-81 10,494' MADE 41' IN WOODSIDE FORMATION. MW 9.3, VIS 46. DRLD & SURV.

9-9-81 10,540' MADE 46' IN WOODSIDE FORMATION. MW 9.3, VIS 37. DRLG & SURV.

9-10-81 10,672' MADE 132' IN WOODSIDE FORMATION. MW 9.3, VIS 40. DRLG.

9-11-81 10,797' MADE 125' IN DINWOODY FORMATION. MW 9.3, VIS 43. DRLG. TOP DINWOODY 10,690'.

9-12-81 10,820' MADE 23' IN DINWOODY FORMATION. MW 9.3, VIS 43. BIT NO 31, 12-1/4", HTC, J55R KJ178, JETS 13/13/13, DEPTH IN 10,277', DEPTH OUT 10,820', 534 FT, 117 HRS, 4.6 FT/HR, CONDITION 6/C/I. DRLD & CIRC F/DST #2. SHORT TRIP. CIRC & POH.

9-13-81 10,820' MADE 0' IN DINWOODY FORMATION. MW 9.3, VIS 38. RIH W/DST #2. IF 5 MINS GOOD BLOW, ISI 1 HR, FF 3 HRS W/GOOD BLOW, 8-1/4# PSI DECREASED TO 5# BLOWING FROM BTM OF BUCKET, FSI 5 HRS. POH W/DST #2, RECOV 6,969' OF GAS CUT MUD & H20 @ 3,900'. 6,969' OF RECOV FLUID INCLUDES 1,000 WTR CUSHION.

9-14-81 10,839 MADE 19' IN DINWOODY FORMATION. MW 9.2, VIS 44. DST #2 TOP CHART IF 5 MINS 822 PSI FINAL 822 PSI, ISI 1 HR 4,406 PSI. FF: 3 HRS 1,000 PSI, FINAL PRESS 3,357 PSI. FSI: 5 HRS 4,319 PSI, HP 5,196 PSI. BTM CHART IF 5 MINS 501 FINAL 801 PSI, HP 5,244, BHT 208°, SAMPLE CHAMBER RESISTIVITY .82 @ 68° 7,300 PPM @ 600 PSI 2,100 CC'S H20, 25 CU FT GAS.

9-15-81 10,890 MADE 51' IN DINWOODY FORMATION. MW 9.3, VIS 37. BIT NO 32, 12-1/4", REED, FP62 907370, JETS 13/13/13, DEPTH IN 10,820', DEPTH OUT 10,890', 70 FT, 17-3/4 HRS, 3.94 FT/HR, CONDITION 8/E/E. DRLG.

HAWK SPRING #1-10 WELL HISTORY

9-16-81 10,977' MADE 87' IN DINWOODY FORMATION. MW 9.2, VIS 43. DRLG AHEAD.

9-17-81 11,079' MADE 102' IN DINWOOODY FORMATION. MW 9.1, VIS 41. DRLG.

9-18-81 11,190' MADE 111' IN DINWOODY FORMATION. MW 9.1, VIS 41. DRLG.

9-19-81 11,299' MADE 109' IN DINWOODY FORMATION. MW 9.1,-VIS 42. DRLG.

9-20-81 11,402' MADE 103' IN PHOSPHORIA FORMATION. MW 9.1, VIS 40. DRLG. LOST 120 BM @ 11,373-11,379', LOST 40 BBLS 11,391-11,400'. FULL RETURN @ 6 AM. TOP PHOSPHORIA @ 11,340'.

9-21-81 11,405' MADE 3' IN PHOSPHORIA FORMATION. MW 9.3, VIS 46. BIT NO 33, 12-1/4", HTC, J55R KE190, JETS 13/13/13, DEPTH IN 10,890', DEPTH OUT 11,405', 515 FT, 110-1/4 HRS, 4.7 FT/HR, CONDITION 8/E/I. DRLD TO 11,405'. CIRC. SHORT TRIP 10 STDS. CIRC BU & POH. RIH, F/DST #3.

9-22-81 11,405' MADE 0' IN PHOSPHORIA FORMATION. MW 8.2, VIS 52. DST #3, IF 5 MIN W/GOOD BLOW, ISI 1 HR, FF 2 HR W/GOOD BLOW PRESS, 35 PSI IN 30 MIN, 22 PSI IN 1 HR, 16 PSI IN 1-1/4 HR, 10 PSI IN 1-1/2 HR, 6 PSI IN 2 HR, FSI 4 HR. RELEASE TOOLS & POH. FLUID LEVEL IN DP @ 930', REC WTR CUSHION 1,000', 6,500' GAS CUT WTR & MUD, & 3,000' BRACKISH BLACK WTR. LOST 350 BM WHILE REV CIRC.

9-23-81 11,405' MADE 0' IN PHOSPHORIA FORMATION. MW 8.9, VIS 54. FIN POH W/DST TOP CHART DATE: HYDROSTATIC 5,328 PSI, IF 3,895, ISI 4,689, FF 4,203-4,601, FSI 4,645, FINAL HYDROSTATIC 5,218. BTM CHART: HYDROSTATIC 5,376 PSI, IF 3,972, ISI 4,937, FF 4,322,-4,629, FSI 4,673, FINAL HYDROSTATIC 5,244. REC 1,400 CC FORM WTR IN SAMPLE CHAMBER @ 24 PSI, NO GAS & RESISTIVITY OF 1.7 @ 68°, 3,300 PPM. HOLE GOOD, LOSING NO MUD.

9-24-81 11,405 MADE 0' IN PHOSPHORIA FORMATION. MW 9.0, VIS 44. RIH & COND HOLE. SPOT 50 BBL W/25% LCM PILLON BTM, POH.

9-25-81 11,493' MADE 88' IN PHOSPHORIA FORMATION. MW 8.9, VIS 43. DRLG AHEAD.

9-26-81 11,602' MADE 109' IN PHOSPHORIA FORMATION. MW 9.0, VIS 40. DRLG. H2S IN MUD @ 30 PPM. TR OFGAS ' SHAKER TREATING W/AMMONIA ZINC CABONATE.

HAWK SPRING #1-10 WELL HISTORY

9-27-81 11,629' MADE 27' IN PHOSPHORIA FORMATION. MW 8.8, VIS 51. INSTALL ROTATEHEAD CIRC COND MUD F/DST #4.

9-28-81 11,629' MADE 0' IN PHOSPHORIA FORMATION. MW 8.8, VIS 38. BIT NO 34, 12-1/4", REED, FP63, JETS 14/14/14/, DEPTH IN 11,405' DEPTH OUT 11,629', 224 FT, 43-3/4 HRS, F.1 FT/HR, CONDITION 6/E/I. CIRC & COND MUD. SHORT TRIP. POH, MU DST TOOLS.

9-29-81 11,629' MADE 0' IN PHOSPHORIA FORMATION. MW 8.8, VIS 50. DST #4, IF 5 MIN, ISI 60 MIN, FF 120 MIN, FSI 240 MIN. OPEN TOOL, NO BUBBLES @ SURF, NO BUBBLES ON FF. REC 1,000' WTR CUSH, THEN 930' CLABBERRED MUD. TOP CHART IF-SPIKED, ISI 2,052 PSI, FF 436 PSI, FSI 3,928 PSI. BTM CHART IF-SPIKED, FSI 2,059 PSI, FF 482 PSI, FSI 3,983 PSI. BTM PKR WAS SET @ 11,610', HYDROSTATIC 5,438' INITIAL 5,608' FINAL.

9-30-81 11,667' MADE 38' IN PHOSPHORIA FORMATION. MW 9.0, VIS 46. DRLG AHEAD.

10-1-81 11,742' MADE 75' IN PHOSPHORIA FORMATION. MW 8.9, VIS 45. DRLG AHEAD.

10-2-81 11,804' MADE 62' IN PHOSPHORIA FORMATION. MW 8.9, VIS 41. BIT NO 35, 12-1/4", REED, S72 544994, JETS 14/14/14/, DEPTH IN 11,629', DEPTH OUT 11,804', 175 FT, 53 HRS, 3.3 FT/HR, CONDITION 4/E/I.

10-3-81 11,827' MADE 23' IN PHOSPHORIA FORMATION. MW 9.0, VIS 43. PULL WEAR RING, OK. TEST BOPE. DRLG.

10-4-81 11,902' MADE 75' IN PHOSPHORIA FORMATION. MW 9.0, VIS 46. DRLG.

10-5-81 11,952' MADE 50' IN PHOSPHORIA FORMATION. MW 8.9, VIS 50. DRLG.

10-6-81 11,968' MADE 16' IN PHOSPHORIA FORMATION. MW 8.8, VIS 56. BIT NO 36, 12-1/4", STC, F5 BN0431, JETS 13/13/13, DEPTH IN 11,804', DEPTH OUT 11,957', 153 FT, 54-1/2 HRS, 2.8 FT/HR, CONDITION 7/E/1/8. RUN WT TO CONTROL DEV.

HAWK SPRING #1-10 WELL HISTORY

10-7-81	12,000'	MADE 32' IN WEBER FORMATION. MW 8.9, VIS 49. DRLG, CIRC FOR LOGS, SHT TRP 22 STDS. CIRC & TO FOR LOGS, 11,940' WEBER TOP.
10-8-81	12,000'	MADE 0' IN WEBER FORMATION. MW 8.9, VIS 49. RU, DA LOGGERS. RAN CDL W/GR. CN W/GR, DIL W/GR, DIFL W/GR, E/12,000'-9,900'. LOGGERS TD @ 12,009', DRILLERS @ 12,000'.
10-9-81	12,000'	MADE 0' IN WEBER FORMATION. MW 8.8, VIS 79. FIN LOGS W/ DA, RAN BHC, CALIPER, GR & SPECTRO, GR F/12,000-9,900. BHT 157° F. RU DIALOG RAN CSG INSP LOG F/3,970'.
10-10-81	12,000'	MADE 0' IN WEBER FORMATION. MW 8.8, VIS 45. CIRC, COND HOLE. TO TO CSG & CIRC.
10-11-81	12,000'	MADE 0' IN WEBER FORMATION. MW 8.7, VIS 50. CIRC & COND FOR CSG.
10-12-81	12,000'	MADE 0' IN WEBER FORMATION. MW 8.6, VIS 55. CIRC & COND HOLE.
10-13-81	12,000'	MADE 0' IN WEBER FORMATION. CIRC & COND HOLE. POH TO RUN CSG.
10-14-81	12,000	MADE 0' IN WEBER FORMATION. RAN 281 JTS, 10-3/4" CSG TO 11,938' KB. CIRC & COND FOR CMT JOB.

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

(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

See Attachments

NOV 6 1981
DIVISION OF OIL, GAS & MINING

From 10-10-81 To 10-25-81

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

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

SIGNED M E Kruger TITLE Drilling Superintendent DATE 11-5-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

10-14-81 RAN 281 JTS OF 10-3/4" CSG TO 1,977'. CMTD CSG W/400 SKS OF 65/35 POZ W/6% GEL, 1/4# SK D-29 (CELLOPHANE), FOLLOWED BY 350 SKS OF CLASS "G" W/2% D-13, 1/4# SK D-29. PMPD 840 GAL MUD FLUSH.

10-15-81 12,000' MADE 0' IN WEBER FORMATION. SET SLIPS & CUT OFF. N/U CSG SPOOL & ADAPTER FLANGE. N/U BOPE.

10-16-81 12,000' MADE 0' IN WEBER FORMATION. FIN N/U BOPE. MODIFY CHOKE LINE TO FIT CSG SPOOL. PRES HAVE ALL BOPE TESTED EXCEPT CHOKE LINE & MANIFOLD.

10-17-81 12,000' MADE 0' IN WEBER FORMATION. MW 8.8, VIS 81. TEST UPPER & LOWER PR'S BLIND RAMS, KELLY COCK SAFETY VALVE CHOKE & CHOKE MANIFOLD TO 2,500#. TEST ANN TO 2,000#. PU 6-3/4" DC'S. TAG CMT @ 11,531'. PRESENTLY DRLG CMT @ 11,843'.

10-18-81 12,000' MADE 0' IN WEBER FORMATION. MW 9.0, VIS 40. DRLD CMT & SHOE. TEST CSG 2,000# FOR 30 MIN. DRLG SHOE @ 11,938' TAG FORM @ 11,985'. POH FOR NEW BIT.

10-19-81 12,000' MADE 0' IN WEBER FORMATION. MW 8.9, VIS 43. LOST CONE, DRLG CMT & FLT EQUIP. FIN POH W/BIT #38-1 CONE MISSING. RU MCCULLOUGH & RAN CSG INSP LOG.

10-20-81 12,004' MADE 4' IN WEBER FORMATION. MW 9.0, VIS 40. FIN POH W/FINGER BSKT, REC LOST BIT CONE. RIH W/BIT #39, DRLD 4' RAN LEAK OFF TEST. MAX SURF PRESS WAS 960 PSI (EQUIP 10.4 PPG) PRESS STAB @ 390 PSI IN 15 MIN (9.5 EQUIV) CIRC.

10-21-81 12,004' MADE 0' IN WEBER FORMATION. RIH W/CSG SCRPR TO 11,867'. POH RU HOWCO CMT RTNR & RIH, SET RTN @ 11,847'. RU HOWCO PMP IN @ 2+ BPM @ 1,400 PSI.

10-22-81 12,004' MADE 0' IN WEBER FORMATION. MW 9.0, VIS 45. SQUEEZE SHOE W/HALLIBURTON. SQUEEZE TO 2,400 PSI, BLED TO 1,000 PSI IN 3 MINS. PULL OUT OF RETAINER & WOC, 6 HRS. STING INTO RETAINER PRESS TO 2,000 PSI, BLED TO 1,700 PSI IN 1/2 HR. PRESS TO 2,050 PSI FOR 15 MINS. HELD, OK. POH, PU BIT, JUNK BSKT, & DC'S, & RIH. BREAK CIRC WASH 90' TO BTM & DRILL ON RETAINER.

HAWK SPRINGS WELL HISTORY

10-23-81 12,004' MADE 0' IN WEBER FROMATION. MW. 9.0, VIS 44. DRL RTR, WASH & REAM TO BTM. BIT TORQUED UP & STUCK PIPE, WORK PIPE FREE.

10-24-81 12,033' MADE 29' IN WEBER FORMATION. MW 8.9, VIS 38. WASH & REAM TO BTM, DRILL 4'. TEST TO 12 PPG. DRILL AHEAD. POH F/BIT #40.

10-25-81 12,119' MADE 86' IN WEBER FORMATION. MW 8.9, VIS 46. DRLG AHEAD NO PROB.

10-26-81 12,191' MADE 72' IN WEBER FORMATION. MW 8.9, VIS 60. DEPTH 12,176' INC 16°. DRLD AHEAD, NO PROB.

10-27-81 12,204' MADE 13' IN WEBER FORMATION. MW 9.0, VIS 51. POH, CHGD BITS. DRLD AHEAD NO PROB.

10-28-81 12,286 MADE 82' IN WEBER FORMATION. MW 8.9, VIS 61. DRLD AHEAD, NO PROB.

DRESSER ATLAS DIVISION, DRESSER INDUSTRIES, INC. 1532 METROBANK BUILDING DENVER, COLORADO 303/620-0601

TO: Utah Div. of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah
Attn: Mike Mender 84

DATE: 11-20-81

SUBJECT:
DCC# 95.5
TYPE: Diplog

RECEIVED
NOV 25 1981
DIVISION OF
OIL, GAS & MINING

DEAR SIR:

ENCLOSED PLEASE FIND THE DATA AS DESCRIBED BELOW:

WELL		DATA	
COMPANY:	Marathon Oil Co.		600' TAPE REEL(S)
WELL:	Hawk Springs #1-10	1	COMPUTER LISTER(S)
FIELD:	Wildcat		VERSATEC SEPIA(S)
COUNTY, STATE:	Rich, Utah		DATA SHEET(S)
		1	LOG PRINT(S)
MISC.		1 Book	

TRANSMITTED BY:

- ☐ MAIL
- ☐ AIRFREIGHT
- ☐ COUNTER TO COUNTER
- ☐ HAND DELIVERY

AIRBILL NUMBER _____

AIRLINES _____

PLEASE ACKNOWLEDGE RECEIPT OF THE INFORMATION BY SIGNING AND RETURNING THE ATTACHED COPY OF THIS LETTER.

VERY TRULY YOURS,

Steve O Brien

DENVER COMPUTER CENTER

RECEIVED BY: _____

DATE: _____

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

INTERVAL 11950.0 TO 13750.0
RUN 5 RLAC 955.
ENGINEER RALL MAG DEC 16.

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*     4    0    0    0    0                     *
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
11996.0	8.00	12.2	205	S 25 W	35	13.8	104	S 76 E
11998.0	8.00	22.3	308	N 52 W	41	13.9	103	S 77 E
12000.0	8.00	11.1	199	S 19 W	29	14.0	103	S 77 E
12006.0	8.00	11.8	208	S 28 W	36	13.8	105	S 75 E
12018.0	8.00	7.3	193	S 13 W	59	13.8	112	S 68 E
12020.0	8.00	8.0	216	S 36 W	100	14.0	111	S 69 E
12022.0	8.00	8.8	216	S 36 W	100	14.0	109	S 71 E
12024.0	8.00	23.6	314	N 46 W	88	14.0	109	S 71 E
12026.0	8.00	24.2	312	N 48 W	96	14.0	110	S 70 E
12028.0	8.00	23.6	314	N 46 W	100	13.9	114	S 66 E
12030.0	8.00	24.3	315	N 45 W	98	13.9	116	S 64 E
12032.0	8.00	26.1	313	N 47 W	80	13.9	117	S 63 E
12036.0	8.00	38.5	281	N 79 W	61	13.9	117	S 63 E
12040.0	8.00	6.4	215	S 35 W	46	13.9	114	S 66 E
12046.0	8.00	22.1	123	S 57 E	47	14.0	109	S 71 E
12048.0	8.00	29.6	196	S 16 W	17	13.9	109	S 71 E
12050.0	8.00	16.0	69	N 69 E	17	14.0	112	S 68 E
12062.0	8.00	33.7	304	N 56 W	48	14.0	115	S 65 E
12064.0	8.00	25.9	295	N 65 W	90	13.9	117	S 63 E
12066.0	8.00	25.7	293	N 67 W	100	14.0	116	S 64 E
12068.0	8.00	25.1	292	N 68 W	100	14.0	115	S 65 E
12080.0	8.00	34.6	318	N 42 W	61	14.0	115	S 65 E
12082.0	8.00	34.2	318	N 42 W	63	13.9	116	S 64 E
12084.0	8.00	32.2	321	N 39 W	69	13.8	116	S 64 E
12086.0	8.00	31.1	322	N 38 W	71	13.9	116	S 64 E
12088.0	8.00	20.0	357	N 3 W	30	13.8	116	S 64 E
12090.0	8.00	29.4	290	N 70 W	33	13.7	117	S 63 E
12094.0	8.00	44.1	278	N 82 W	81	13.7	115	S 65 E
12112.0	8.00	30.9	313	N 47 W	79	13.8	117	S 63 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
12114.0	8.00	31.7	316	N 44 W	81	13.8	117	S 63 E	
12116.0	8.00	9.2	190	S 10 W	48	13.8	118	S 62 E	
12118.0	8.00	14.6	187	S 7 W	55	13.8	117	S 63 E	
12120.0	8.00	36.1	320	N 40 W	58	13.8	116	S 64 E	
12122.0	8.00	15.0	134	S 46 E	72	13.9	114	S 66 E	
12130.0	8.00	31.0	331	N 29 W	99	13.8	112	S 68 E	
12132.0	8.00	31.5	332	N 28 W	37	13.8	115	S 65 E	
12134.0	8.00	40.2	293	N 67 W	77	13.9	115	S 65 E	
12144.0	8.00	36.8	303	N 57 W	58	13.9	112	S 68 E	
12146.0	8.00	25.1	273	N 87 W	81	13.8	113	S 67 E	
12148.0	8.00	26.0	289	N 71 W	64	13.8	113	S 67 E	
12150.0	8.00	24.8	288	N 72 W	100	13.9	113	S 67 E	
12152.0	8.00	7.5	195	S 15 W	100	13.8	114	S 66 E	
12154.0	8.00	13.7	169	S 11 E	96	13.9	112	S 68 E	
12156.0	8.00	12.6	168	S 12 E	87	14.0	115	S 65 E	
12158.0	8.00	14.0	164	S 16 E	70	13.9	115	S 65 E	
12170.0	8.00	34.6	319	N 41 W	65	13.8	112	S 68 E	
12178.0	8.00	30.1	282	N 78 W	100	13.9	115	S 65 E	
12180.0	8.00	30.6	289	N 71 W	90	13.9	119	S 61 E	
12182.0	8.00	27.6	293	N 67 W	100	13.9	120	S 60 E	
12198.0	8.00	32.2	259	S 79 W	17	14.1	81	N 81 E	
12208.0	8.00	9.8	207	S 27 W	76	13.9	117	S 63 E	
12258.0	8.00	26.6	317	N 43 W	59	14.4	96	S 84 E	
12304.0	8.00	25.7	314	N 46 W	100	14.1	106	S 74 E	
12306.0	8.00	24.9	313	N 47 W	100	14.0	106	S 74 E	
12308.0	8.00	21.8	324	N 36 W	96	14.0	107	S 73 E	
12310.0	8.00	21.9	311	N 49 W	81	14.0	105	S 75 E	
12324.0	8.00	10.0	67	N 67 E	94	14.2	327	N 33 W	
12346.0	8.00	18.8	12	N 12 E	81	14.5	145	S 35 E	
12348.0	8.00	9.5	78	N 78 E	77	14.3	211	S 31 W	
12362.0	8.00	20.5	205	S 25 W	16	14.2	111	S 69 E	
12368.0	8.00	17.9	268	S 88 W	49	14.3	110	S 70 E	
12406.0	8.00	31.2	318	N 42 W	94	14.3	112	S 68 E	
12408.0	8.00	29.6	316	N 44 W	60	14.3	111	S 69 E	
12410.0	8.00	27.9	314	N 46 W	82	14.3	110	S 70 E	
12412.0	8.00	28.3	315	N 45 W	98	14.3	110	S 70 E	
12414.0	8.00	30.0	316	N 44 W	100	14.2	112	S 68 E	
12416.0	8.00	31.9	319	N 41 W	100	14.3	113	S 67 E	
12432.0	8.00	29.2	315	N 45 W	100	14.2	114	S 66 E	
12434.0	8.00	32.5	317	N 43 W	97	14.1	114	S 66 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
12438.0	8.00	29.7	316	N 44 W	67	14.4	113	S 67 E
12440.0	8.00	27.2	316	N 44 W	100	14.2	112	S 68 E
12446.0	8.00	28.2	316	N 44 W	100	14.2	109	S 71 E
12448.0	8.00	34.6	319	N 41 W	64	14.2	109	S 71 E
12452.0	8.00	28.3	315	N 45 W	100	14.2	109	S 71 E
12470.0	8.00	6.5	329	N 31 W	55	14.6	112	S 68 E
12472.0	8.00	6.4	324	N 36 W	79	14.6	110	S 70 E
12474.0	8.00	9.3	18	N 18 E	69	14.5	110	S 70 E
12492.0	8.00	32.3	286	N 74 W	53	14.8	113	S 67 E
12494.0	8.00	32.0	287	N 73 W	46	14.9	114	S 66 E
12496.0	8.00	32.6	283	N 77 W	64	14.9	112	S 68 E
12508.0	8.00	22.3	351	N 9 W	35	14.8	114	S 66 E
12516.0	8.00	9.6	6	N 6 E	73	15.2	114	S 66 E
12544.0	8.00	29.5	320	N 40 W	12	15.4	114	S 66 E
12548.0	8.00	26.5	313	N 47 W	100	15.6	114	S 66 E
12558.0	8.00	30.3	317	N 43 W	100	15.6	114	S 66 E
12560.0	8.00	29.6	314	N 46 W	100	15.6	113	S 67 E
12562.0	8.00	32.0	316	N 44 W	100	15.6	113	S 67 E
12564.0	8.00	31.9	316	N 44 W	100	15.5	114	S 66 E
12570.0	8.00	32.1	317	N 43 W	100	15.8	113	S 67 E
12572.0	8.00	32.4	313	N 47 W	100	15.8	113	S 67 E
12574.0	8.00	32.1	312	N 48 W	100	15.8	113	S 67 E
12576.0	8.00	32.0	314	N 46 W	100	15.8	114	S 66 E
12582.0	8.00	29.9	314	N 46 W	100	15.5	113	S 67 E
12604.0	8.00	30.5	300	N 60 W	12	15.6	109	S 71 E
12622.0	8.00	6.7	322	N 38 W	66	15.7	114	S 66 E
12636.0	8.00	34.3	284	N 76 W	66	15.7	112	S 68 E
12638.0	8.00	25.5	280	N 80 W	67	15.8	110	S 70 E
12672.0	8.00	40.0	287	N 73 W	100	16.0	112	S 68 E
12678.0	8.00	11.2	338	N 22 W	40	16.0	112	S 68 E
12680.0	8.00	29.8	266	S 86 W	46	16.0	113	S 67 E
12684.0	8.00	11.4	328	N 32 W	100	15.8	113	S 67 E
12702.0	8.00	31.2	319	N 41 W	100	16.0	112	S 68 E
12704.0	8.00	31.7	321	N 39 W	100	16.0	114	S 66 E
12706.0	8.00	31.9	322	N 38 W	100	16.1	114	S 66 E
12708.0	8.00	28.6	306	N 54 W	60	16.0	115	S 65 E
12712.0	8.00	34.2	327	N 33 W	52	16.0	110	S 70 E
12714.0	8.00	31.4	324	N 36 W	43	16.1	105	S 75 E
12728.0	8.00	22.9	299	N 61 W	100	16.1	109	S 71 E
12730.0	8.00	23.8	307	N 53 W	100	16.1	108	S 72 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
12732.0	8.00	15.0	203	S 23 W	100	16.1	105	S 75 E	
12734.0	8.00	24.6	310	N 50 W	100	16.1	105	S 75 E	
12736.0	8.00	12.2	196	S 16 W	100	16.1	106	S 74 E	
12738.0	8.00	26.3	310	N 50 W	100	16.1	108	S 72 E	
12750.0	8.00	11.9	11	N 11 E	7	16.2	104	S 76 E	
12826.0	8.00	16.8	201	S 21 W	51	16.5	109	S 71 E	
12840.0	8.00	28.9	315	N 45 W	100	16.4	112	S 68 E	
12842.0	8.00	29.7	316	N 44 W	100	16.4	115	S 65 E	
12852.0	8.00	25.0	312	N 48 W	100	16.5	112	S 68 E	
12854.0	8.00	24.4	308	N 52 W	100	16.5	109	S 71 E	
12856.0	8.00	24.2	307	N 53 W	100	16.6	111	S 69 E	
12858.0	8.00	24.1	306	N 54 W	100	16.6	110	S 70 E	
12860.0	8.00	29.3	310	N 50 W	100	16.6	113	S 67 E	
12862.0	8.00	30.5	313	N 47 W	100	16.6	114	S 66 E	
12866.0	8.00	31.3	315	N 45 W	100	16.6	114	S 66 E	
12868.0	8.00	31.1	316	N 44 W	100	16.6	114	S 66 E	
12872.0	8.00	31.5	311	N 49 W	100	16.6	114	S 66 E	
12878.0	8.00	35.7	320	N 40 W	100	16.6	113	S 67 E	
12880.0	8.00	35.7	320	N 40 W	100	16.6	116	S 64 E	
12882.0	8.00	34.9	321	N 39 W	100	16.6	117	S 63 E	
12884.0	8.00	32.2	319	N 41 W	100	16.6	115	S 65 E	
12888.0	8.00	28.1	300	N 60 W	93	16.6	115	S 65 E	
12894.0	8.00	10.2	265	S 85 W	65	16.6	113	S 67 E	
12916.0	8.00	16.0	359	N 1 W	24	16.5	110	S 70 E	
12938.0	8.00	30.7	270	N 90 W	21	16.7	113	S 67 E	
12974.0	8.00	44.2	287	N 73 W	89	16.7	115	S 65 E	
12976.0	8.00	44.0	288	N 72 W	58	16.7	115	S 65 E	
12978.0	8.00	31.4	331	N 29 W	74	16.8	114	S 66 E	
12980.0	8.00	31.6	327	N 33 W	100	16.8	115	S 65 E	
12982.0	8.00	31.6	316	N 44 W	100	16.8	114	S 66 E	
12984.0	8.00	32.3	317	N 43 W	100	16.8	115	S 65 E	
13000.0	8.00	33.4	313	N 47 W	46	16.7	115	S 65 E	
13014.0	8.00	32.3	315	N 45 W	73	16.8	113	S 67 E	
13022.0	8.00	33.7	322	N 38 W	100	16.8	113	S 67 E	
13024.0	8.00	34.4	323	N 37 W	100	16.8	113	S 67 E	
13026.0	8.00	33.2	317	N 43 W	100	16.7	113	S 67 E	
13028.0	8.00	33.6	317	N 43 W	100	16.7	113	S 67 E	
13038.0	8.00	32.6	315	N 45 W	100	16.8	113	S 67 E	
13040.0	8.00	32.3	313	N 47 W	100	16.8	111	S 69 E	
13042.0	8.00	33.6	313	N 47 W	100	16.8	112	S 68 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
13044.0	8.00	32.9	310	N 50 W	100	16.8	112	S 68 E
13048.0	8.00	32.0	303	N 57 W	63	16.8	110	S 70 E
13078.0	8.00	27.7	238	S 58 W	57	16.8	109	S 71 E
13080.0	8.00	40.6	288	N 72 W	100	16.8	110	S 70 E
13128.0	8.00	32.7	317	N 43 W	100	16.9	117	S 63 E
13130.0	8.00	32.8	319	N 41 W	100	16.8	113	S 67 E
13132.0	8.00	10.8	198	S 18 W	54	16.9	114	S 66 E
13134.0	8.00	11.6	207	S 27 W	51	16.9	112	S 68 E
13152.0	8.00	26.6	314	N 46 W	100	16.9	114	S 66 E
13154.0	8.00	26.0	316	N 44 W	100	16.9	118	S 62 E
13166.0	8.00	25.5	312	N 48 W	100	17.0	114	S 66 E
13168.0	8.00	25.4	313	N 47 W	100	16.9	114	S 66 E
13170.0	8.00	27.4	318	N 42 W	100	17.0	114	S 66 E
13172.0	8.00	27.8	318	N 42 W	97	17.0	111	S 69 E
13184.0	8.00	22.7	225	S 45 W	45	16.9	111	S 69 E
13190.0	8.00	19.6	235	S 55 W	56	17.0	111	S 69 E
13196.0	8.00	26.6	268	S 88 W	49	17.0	114	S 66 E
13198.0	8.00	29.2	280	N 80 W	100	17.0	113	S 67 E
13200.0	8.00	29.4	280	N 80 W	80	17.0	114	S 66 E
13218.0	8.00	40.8	289	N 71 W	18	16.9	114	S 66 E
13222.0	8.00	41.4	288	N 72 W	100	16.9	114	S 66 E
13230.0	8.00	15.4	268	S 88 W	74	16.9	115	S 65 E
13284.0	8.00	31.7	314	N 46 W	100	17.3	114	S 66 E
13294.0	8.00	37.3	311	N 49 W	100	17.4	114	S 66 E
13296.0	8.00	37.4	319	N 41 W	87	17.5	114	S 66 E
13358.0	8.00	34.7	308	N 52 W	69	17.7	114	S 66 E
13362.0	8.00	43.2	288	N 72 W	100	17.7	114	S 66 E
13364.0	8.00	43.6	289	N 71 W	100	17.7	115	S 65 E
13366.0	8.00	43.0	286	N 74 W	100	17.7	112	S 68 E
13368.0	8.00	43.5	288	N 72 W	100	17.7	114	S 66 E
13370.0	8.00	41.4	283	N 77 W	100	17.7	113	S 67 E
13376.0	8.00	10.4	242	S 62 W	80	17.5	114	S 66 E
13378.0	8.00	16.3	226	S 46 W	70	17.7	93	S 87 E
13382.0	8.00	29.9	316	N 44 W	80	17.4	105	S 75 E
13388.0	8.00	26.0	302	N 58 W	59	17.7	94	S 86 E
13390.0	8.00	27.9	313	N 47 W	57	17.5	113	S 67 E
13392.0	8.00	28.5	313	N 47 W	56	17.5	113	S 67 E
13394.0	8.00	10.6	254	S 74 W	55	17.6	117	S 63 E
13396.0	8.00	10.7	241	S 61 W	61	17.5	117	S 63 E
13400.0	8.00	12.7	248	S 68 W	80	17.7	119	S 61 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
13402.0	8.00	30.4	317	N 43 W	66	17.7	123	S 57 E
13404.0	8.00	29.8	315	N 45 W	62	17.7	117	S 63 E
13406.0	8.00	29.4	314	N 46 W	76	17.8	117	S 63 E
13408.0	8.00	28.6	314	N 46 W	100	17.7	118	S 62 E
13410.0	8.00	33.3	313	N 47 W	100	17.6	119	S 61 E
13412.0	8.00	31.6	319	N 41 W	100	17.7	119	S 61 E
13414.0	8.00	31.8	320	N 40 W	100	17.7	120	S 60 E
13416.0	8.00	12.0	232	S 52 W	100	17.7	119	S 61 E
13418.0	8.00	10.4	249	S 69 W	85	17.7	120	S 60 E
13420.0	8.00	10.6	250	S 70 W	77	17.7	121	S 59 E
13426.0	8.00	42.0	296	N 64 W	100	17.7	122	S 58 E
13428.0	8.00	42.5	297	N 63 W	100	17.7	122	S 58 E
13430.0	8.00	43.0	297	N 63 W	100	17.8	122	S 58 E
13432.0	8.00	44.1	264	S 84 W	100	18.0	94	S 86 E
13438.0	8.00	42.2	281	N 79 W	100	18.1	111	S 69 E
13442.0	8.00	41.0	279	N 81 W	100	18.1	101	S 79 E
13452.0	8.00	30.1	289	N 71 W	93	18.0	90	N 90 E
13460.0	8.00	11.3	152	S 28 E	51	18.0	88	N 88 E
13464.0	8.00	40.6	283	N 77 W	54	17.7	103	S 77 E
13468.0	8.00	33.6	280	N 80 W	31	17.6	118	S 62 E
13472.0	8.00	24.2	297	N 63 W	100	17.7	105	S 75 E
13474.0	8.00	13.1	231	S 51 W	100	17.8	104	S 76 E
13476.0	8.00	12.3	237	S 57 W	100	17.7	107	S 73 E
13478.0	8.00	28.2	308	N 52 W	100	17.7	107	S 73 E
13480.0	8.00	27.5	310	N 50 W	100	17.7	107	S 73 E
13482.0	8.00	32.1	307	N 53 W	100	17.6	110	S 70 E
13484.0	8.00	32.1	308	N 52 W	100	17.6	114	S 66 E
13486.0	8.00	30.9	306	N 54 W	100	17.6	111	S 69 E
13488.0	8.00	29.2	310	N 50 W	100	17.6	110	S 70 E
13490.0	8.00	8.2	253	S 73 W	100	17.7	120	S 60 E
13492.0	8.00	29.8	308	N 52 W	93	18.2	114	S 66 E
13494.0	8.00	28.5	309	N 51 W	68	17.3	118	S 62 E
13496.0	8.00	11.9	233	S 53 W	98	17.5	111	S 69 E
13498.0	8.00	10.9	252	S 72 W	59	17.6	116	S 64 E
13500.0	8.00	32.9	306	N 54 W	51	17.7	114	S 66 E
13502.0	8.00	34.2	307	N 53 W	62	17.7	117	S 63 E
13506.0	8.00	32.2	304	N 56 W	90	17.5	110	S 70 E
13508.0	8.00	33.4	309	N 51 W	100	17.6	115	S 65 E
13510.0	8.00	35.3	306	N 54 W	100	17.9	115	S 65 E
13536.0	8.00	29.2	228	S 48 W	10	17.5	113	S 67 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
11-12-81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
13574.0	8.00	5.5	219	S 39 W	67	17.3	107	S 73 E	
13576.0	8.00	4.8	219	S 39 W	72	17.2	112	S 68 E	
13584.0	8.00	27.7	263	S 83 W	45	17.3	100	S 80 E	
13586.0	8.00	17.5	323	N 37 W	58	17.3	91	S 89 E	
13588.0	8.00	20.3	239	S 59 W	100	17.4	96	S 84 E	
13590.0	8.00	30.7	300	N 60 W	97	17.5	99	S 81 E	
13592.0	8.00	32.6	284	N 76 W	67	17.6	100	S 80 E	
13594.0	8.00	32.8	271	N 89 W	72	17.6	99	S 81 E	
13596.0	8.00	30.9	272	N 88 W	53	17.7	104	S 76 E	
13600.0	8.00	12.4	305	N 55 W	90	17.5	84	N 84 E	
13602.0	8.00	17.2	324	N 36 W	100	17.4	87	N 87 E	
13604.0	8.00	19.6	315	N 45 W	100	17.4	89	N 89 E	
13606.0	8.00	20.8	309	N 51 W	97	17.4	89	N 89 E	
13616.0	8.00	26.4	290	N 70 W	53	17.3	92	S 88 E	
13638.0	8.00	26.3	289	N 71 W	91	17.4	96	S 84 E	
13642.0	8.00	30.0	299	N 61 W	44	17.5	106	S 74 E	
13644.0	8.00	31.5	265	S 85 W	57	17.5	106	S 74 E	
13654.0	8.00	40.4	270	N 90 W	53	17.3	91	S 89 E	
13660.0	8.00	19.3	310	N 50 W	81	17.3	90	N 90 E	
13664.0	8.00	20.8	307	N 53 W	65	17.3	90	N 90 E	
13670.0	8.00	20.0	221	S 41 W	96	17.3	89	N 89 E	
13672.0	8.00	17.2	217	S 37 W	100	17.4	91	S 89 E	
13674.0	8.00	17.0	217	S 37 W	100	17.4	89	N 89 E	
13676.0	8.00	15.9	215	S 35 W	100	17.3	90	N 90 E	
13678.0	8.00	14.4	217	S 37 W	100	17.3	93	S 87 E	
13680.0	8.00	12.9	229	S 49 W	95	17.0	102	S 78 E	
13682.0	8.00	26.0	304	N 56 W	26	17.0	102	S 78 E	
13684.0	8.00	29.7	302	N 58 W	75	17.0	103	S 77 E	
13686.0	8.00	29.5	303	N 57 W	73	17.0	106	S 74 E	
13688.0	8.00	28.8	303	N 57 W	100	17.1	107	S 73 E	
13690.0	8.00	29.9	295	N 65 W	100	16.9	103	S 77 E	
13692.0	8.00	6.9	232	S 52 W	100	17.0	106	S 74 E	
13694.0	8.00	30.4	290	N 70 W	100	17.1	105	S 75 E	
13696.0	8.00	2.8	263	S 83 W	86	17.1	105	S 75 E	
13698.0	8.00	2.2	276	N 84 W	80	17.2	103	S 77 E	
13700.0	8.00	3.3	313	N 47 W	68	17.1	102	S 78 E	

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well

2. NAME OF OPERATOR
Marathon Oil Company

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

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 2,351' FNL & 703' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-25115

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Hawk Springs

9. WELL NO.
1-10

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10, T10N, R6E

12. COUNTY OR PARISH
Rich

13. STATE
Utah

14. API NO.
43-033-30028

15. ELEVATIONS (SHOW DF, KDB, AND WD)
6,74[illegible] GL, 6,771'

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

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

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(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

See Attachments

From 10-29-81 To 11-6-81

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

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

SIGNED M E Krugh/H.G. TITLE Drilling Superintendent DATE Nov. 13, 81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

10-29-81 12,332' MADE 46' IN WEBER FORMATION. MW 9.0, VIS 44. DRLD AHEAD. ROP SLOWED TORQUE INC, SURV & POH.

10-30-81 12,332' MADE 0' IN WEBER FORMATION. MW 9.8, VIS 72. BIT NO 41, 9-1/2", SEC, M89F 944842, JETS 12/12/12, DEPTH IN 12,193', DEPTH OUT 12,332', 139 FT, 47 HRS, 2.9 FT/HR, COND: 8/8, REMARKS: ALL 3 CONES BROKEN. POH, MISSING 1 NOSE OFF BIT CONE. PU MAGNET & BOOT BSKT. RIH, WORK TOOLS ON BTM. POH. REC NOSE CONE.

10-31-81 12,452' MADE 120' IN WEBER FORMATION. MW 8.9, VIS 47. DRLD AHEAD.

11-01-81 12,496' MADE 44' IN WEBER FORMATION. MW 9.0, VIS 46. BIT NO 42, 9-1/2", SMITH, F-5 CD0171, JETS 12/12/13, DEPTH IN 12,332', DEPTH OUT 12,496', 164 FT, 31 HRS, 5.3 FT/HR, COND: 6/E/1/8. DRLG AHEAD.

11-02-81 12,639' MADE 143' IN WEBER FORMATION. MW 9.0, VIS 42. DRLG AHEAD.

11-03-81 12,830' MADE 191' IN WEBER FORMATION. MW 9.0, VIS 46. DRLD AHEAD.

11-04-81 12,881' MADE 51' IN WEBER FORMATION. MW 9.0, VIS 41. BIT NO 43, 9-1/2", HTC, J55R PB368, JETS 12/12/13, DEPTH IN 12,496', DEPTH OUT 12,881', 385 FT, 50-1/2 HRS, 7.6 FT/HR, CONDITION 8/F/1/4. DRLD AHEAD TORQUE INC POH.

11-05-81 13,058' MADE 177' IN WEBER FORMATION. MW 9.1, VIS 55. DRLG AHEAD.

11-06-81 13,222' MADE 164' IN BRAZER FORMATION. MW 9.1, VIS 41. DRLD AHEAD, NO PROB.

HAWK SPRINGS	1	5	13602'-13701'
Lease Name	Well No.	Test No.	Tested Interval
122464	ROCK SPRINGS	11-13-81	7951 7950
Ticket Number	Camp	Date	Gauge Number(s)
			MARATHON OIL COMPANY
			Lease Owner/Company Name

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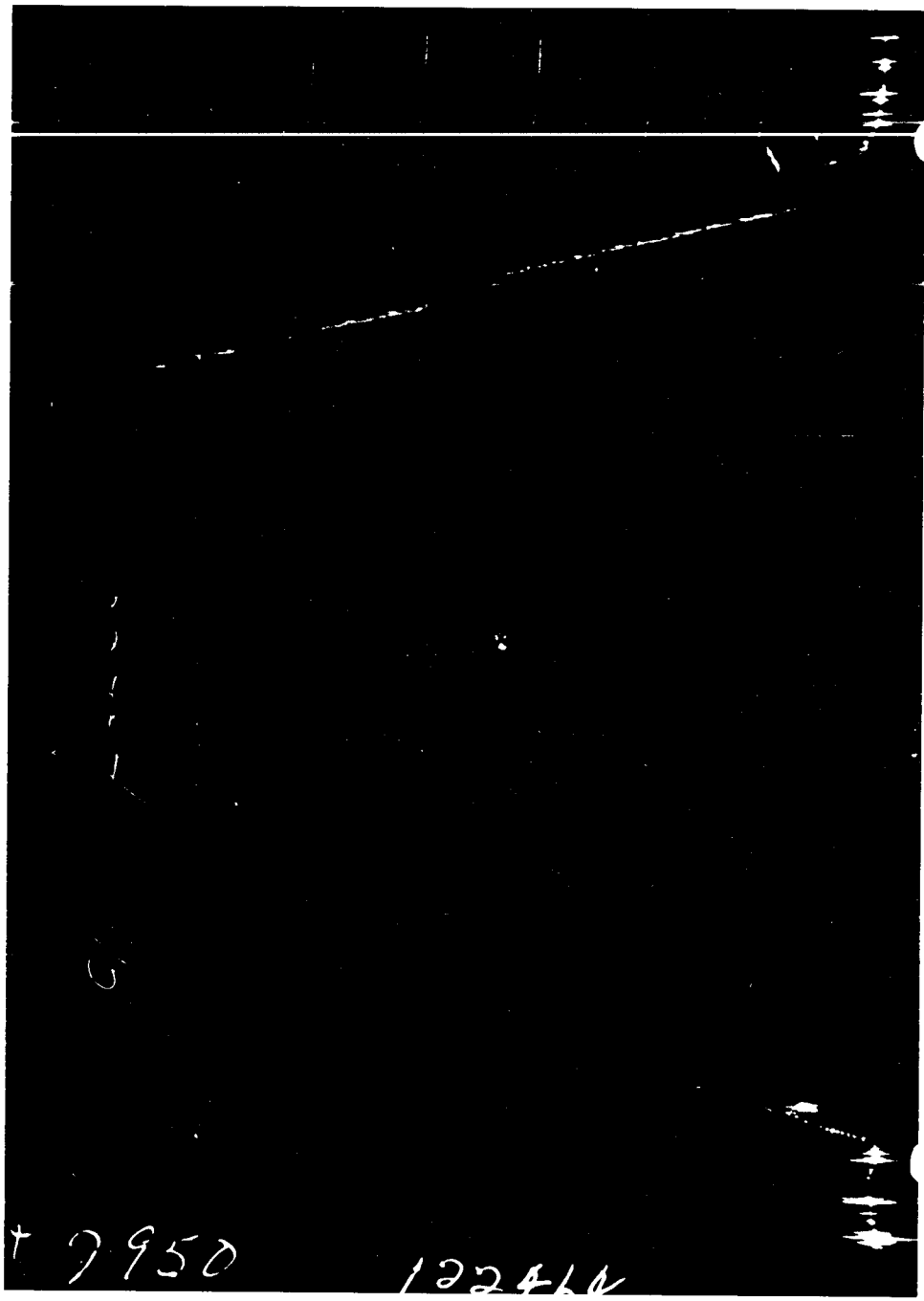
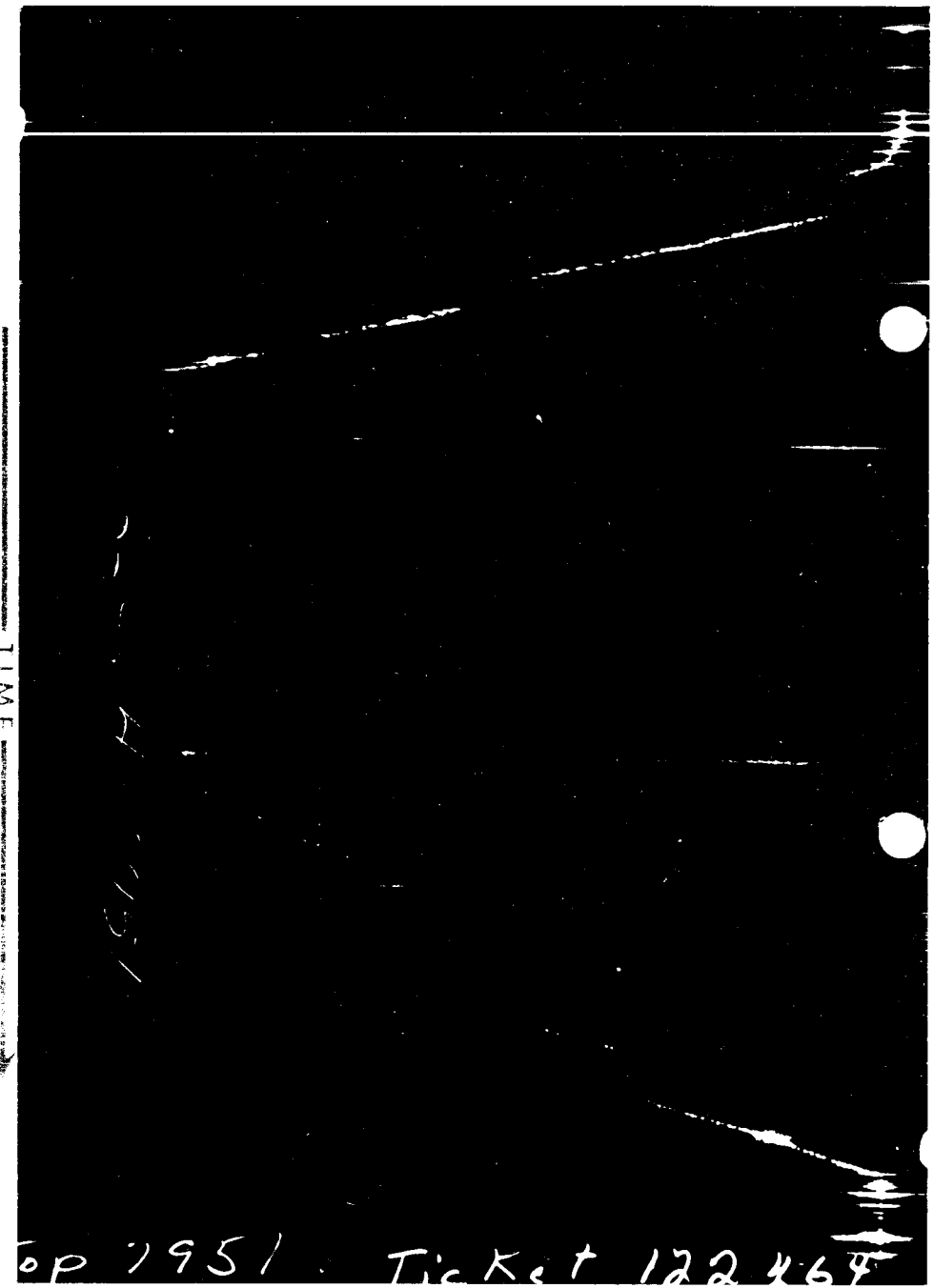
HALLIBURTON
SERVICES

22

PRESSURE



TIME



TICKET NO. 122464 DATE 11-13-81 HALLIBURTON CAMP ROCK SPRINGS

LEASE OWNER MARATHON OIL COMPANY SM /vf

LEASE NAME HAWK SPRINGS WELL NO. 1 TEST NO. 5

LEGAL LOCATION 10 10N 6E FORMATION TESTED BRAZER

FIELD AREA WILDCAT COUNTY RICH STATE UTAH

TYPE OF D.S.T. OPEN HOLE

TESTER(S) L. SUTTER

WITNESS MR. PATTERSON DRILLING CONTRACTOR PARKER

DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.) OPEN HOLE

TYPE AND SIZE OF GAS MEASURING DEVICE POSITIVE CHOKE

CUSHION DATA

TYPE WATER AMOUNT 1000' WEIGHT (lb./gal.)

TYPE AMMONIA AMOUNT 55 GAL WEIGHT (lb./gal.)

RECOVERY (ft. or bbl.):

NO FLUID RECOVERY

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
PIT	.08 @ 68 °F	140,000		@ °F	
SAMPLER	.08 @ 68 °F	140,000		@ °F	
	@ °F			@ °F	

REMARKS:

-SEE PRODUCTION TEST DATA SHEET-

TICKET NO. 122464 DATE 11-13-81 ELEVATION (FT).

TOP OF TESTED INTERVAL (ft.) 13602 BOTTOM OF TESTED INTERVAL (ft.) 13701

NET PAY (ft.) TOTAL DEPTH (ft.) 13701

HOLE OR CASING SIZE (in.) 9.5 MUD WEIGHT (lb./gal.) 9.1 VISCOSITY (sec.) 42

SURFACE CHOKE (in.) .25 BH BOTTOM CHOKE (in.) .75

OIL GRAVITY @ °F GAS GRAVITY—ESTIMATED ACTUAL

SAMPLER DATA

PRESSURE (P.S.I.) CUBIC FT. OF GAS

C.C.'s OF OIL C.C.'s OF WATER

C.C.'s OF MUD 1700 TOTAL LIQUID C.C.'s 1700

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER OTHER

TEMPERATURE (°F)

ESTIMATE 250

ACTUAL

DEPTH (ft.) 13696

H.T.-500 ☐; THERMOMETER ☒; T.E. OR R.T.-7 ☐; OTHER ☐

SERIAL NO.

RECORDER AND PRESSURE DATA

CHARTS READ BY DATA APPROVED BY

RECORDERS					
GAUGE NUMBER	7951	7950			
GAUGE TYPE	1	2			
GAUGE DEPTH (ft.)	13579	13697			
CLOCK NUMBER	16973	9654			
CLOCK RANGE (HR.)	24	24			

TIMES (00:00-24:00 HRS.)

TOOL OPENED 0718

DATE 11-14-81

BYPASS OPENED 1335

DATE 11-14-81

PRESSURES						PERIOD	MINUTES
	INITIAL HYDROSTATIC	6280.1	6310.5				
	INITIAL FLOW	450.7	488.2			XXX	XXX
1st.	FINAL FLOW	449.8	489.5			1st. FLOW	10.7
	CLOSED-IN	764.4	798.2			1st. C.I.P.	61.6
	INITIAL FLOW	448.9	487.1			XXX	XXX
2nd.	FINAL FLOW	448.9	488.0			2nd. FLOW	61.6
	CLOSED-IN	783.3	816.5			2nd. C.I.P.	236.9
	INITIAL FLOW					XXX	XXX
3rd.	FINAL FLOW					3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
	FINAL HYDROSTATIC	6271.8	6295.4			XXX	XXX

Casing perfs. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 122464
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11-13-81					
2215					On location.
2300					Picked up tools.
11-14-81					
0100					Ran Drill Pipe.
0600					Rigged up surface.
0718					Tool opened-no bubble to surface.
0723					Tried to close Dual CIP Sampler.
0735					Finished closing sampler-Drill Pipe
					was torquing up.
0835					Opened Dual CIP Sampler-no bubble
					to surface.
0935					Closed Dual CIP Sampler-no bubble to
					surface.
1335					Opened by-pass.
1600					Reversed out.
2200					Tools on bank.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

MARATHON OIL COMPANY
Lease Owner/Company Name

122464
Ticket Number

B.T. 7951
Depth 13579'

B.T. 7950
Depth 13697'

B.T.
Depth

Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
FIRST FLOW			FIRST FLOW					
0		450.7	0		488.2			
10.7		449.8	10.7		489.5			
FIRST CLOSED-IN			FIRST CLOSED-IN					
0		449.8	0		489.5			
6		513.6	6		545.0			
12		558.0	12		590.2			
18		593.3	18		624.9			
24		624.4	24		655.9			
30		653.8	30		684.4			
36		677.3	36		711.1			
42		698.7	42		734.3			
48		718.9	48		756.6			
54		738.9	54		775.5			
61.6		764.4	61.6		798.2			
SECOND FLOW			SECOND FLOW					
0		448.9	0		487.1			
61.6		448.9	61.6		488.0			
SECOND CLOSED-IN			SECOND CLOSED-IN					
0		448.9	0		488.0			
20		477.6	20		515.1			
40		516.7	40		554.3			
60		553.3	60		589.3			
80		587.6	80		621.6			
100		619.3	100		652.3			
120		645.8	120		680.8			
140		671.6	140		707.3			
160		697.3	160		733.9			
180		722.9	180		756.8			
200		745.1	200		780.2			
220		765.6	220		800.7			
236.9		783.3	236.9		816.5			

Remarks:

80-2860

TICKET NO. 122464

Tool Description	O.D.	I.D.	Length	Depth
DRILL PIPE	5"	4.276"	?	
DRILL COLLARS	6.75"	2.8125"	?	
REVERSING SUB	5.75"	2.5"	-	?
DRILL COLLARS	6.75"	2.8125"	"	
X/O	5.75"	2.5"	1'	
DUAL CIP SAMPLER	5.75"	.75"	7'	
HYDROSPRING TESTER	5"	.75"	4'	13577'
AP RUNNING CASE	5"	3.06"	4.10'	13579'
BIG JOHN JARS	5.03"	1.75"	5'	
VR SAFETY JOINT	5"	1"	2.78'	
PACKER	8.5"	1.53"	5.81'	13594'
DISTRIBUTOR VALVE	5"	1.68"	2'	
PACKER	8.5"	1.53"	5.81'	13602'
ANCHOR PIPE JOINT	5.75"	1.50"	4.3'	
X/O	5.75"	2.5"	1'	
DRILL COLLARS	6.75"	2.8125"	61.37'	
X/O	5.75"	2.5"	1'	
PERFORATIONS	5.75"	3"	25'	
BLANKED OFF BT RUNNING CASE	5.75"	3"	4.10'	13697'
TOTAL DEPTH				13701'

EQUIPMENT DATA SHEET

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

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DEC 02 1981
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.)*

PROGRESS REPORT

See Attachments

From 11-13-81 To 11-19-81

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

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

SIGNED M E Kunz TITLE Drilling Superintendent DATE 11-25-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

11-13-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.9, VIS 39. RAN CDL-CN LOG, BHC-ALC, SPECTROLOG, & DIP LOG.

11-14-81 13,701' MADE 0' IN BRAZER FORMATION. RIH W/DST #5 TOOLS. RAN 1,050' WTR CUSHION.

11-15-81 13,701' MADE 0' IN BRAZER FORMATION. MW 9.0, VIS 36. FIN RIH W/DST #5. SET PKR @ 13,602'. IF 5 MIN, ISI 60 MIN, FF 60 MIN, FSI 240 MIN. OPEN TOOL FOR IF W/NO BLOW ON SURF, FF W/NO BLOW ON SURF. TOP CHART: IF SPIKED, ISI 756#, FF 445#, FSI 756#, HYDROSTATIC 6,295#. BTM CHART: IF SPIKED, ISI 846#, FF 490#, FSI 846#, HYDROSTATIC 6,320#. REC 1,700' CC OF CLEAN DRLG MUD W/NO GAS.

11-16-81 13,701' MADE 0' IN BRAZER FORMATION. MW 9.0, VIS 34. RAN VELOCITY SURV.

11-17-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.7, VIS 31. RU HALIB, PUMP 100 SX CLASS "G" CMT & LAID CMT PLKG 12,078' TO 11,878'.

11-18-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.7, VIS 34. CIRC & COND MUD.

11-19-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.7, VIS 33. RAN CSG INSP LOG IN 10-3/4" CSG, TEST BLINDS, PIPE RAMS, CHOKE MAN, ALL VALVES, UPPER & LOWER KELLY COCKS @ 2,500 PSI. TEST HYDRIL TO 1,500 PSI.

2

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

(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

See Attachments

From 11-20-81 To 12-3-81

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

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

SIGNED M E Burgh TITLE Drilling Superintendent DATE 12-9-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWK SPRING #1-10 WELL HISTORY

11-20-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.9. RIH, WASH 11,661'-12,645'. PRESENTLY WASH & REAM TO BTM.

11-21-81 13,701' MADE 0' IN BRAZER FORMATION. MW 8.8, VIS 31. BIT NO 47 RR, 9-1/2", HTC, J-3 HP537, JETS 16/16/16, DEPTH IN WASH & REAM, 26-3/4 HRS, CONDITION: 2/E/I. FIN WASH & REAM TO BTM. CIRC & COND MUD.

11-22-81 13,789' MADE 88' IN BRAZER FORMATION. MW 8.9, VIS 40. DEV DEPTH 13,701' INC 17°. DRLG AHEAD.

11-23-81 13,902' MADE 113' IN LODGEPOLE FORMATION. MW 9.0, VIS 45. DEV DEPTH 13,793' INC 17° WL. DRLD & SURV TO 13,902'. TOP OF LODGEPOLE @ 13,701'.

11-24-81 14,016' MADE 114' IN LODGEPOLE FORMATION. MW 9.0, VIS 43. DEV DEPTH 13,982' INC 17-1/2° WL. DRLD & SURV TO 14,016'.

11-25-81 14,155' MADE 139' IN LODGEPOLE FORMATION. MW 9.0, VIS 45. DEV DEPTH 14,076' INC 18° WL. DRLG AHEAD, NO PROB.

11-26-81 14,298' MADE 143' IN LODGEPOLE FORMATION. MW 9.0, VIS 43. DRLD & SURV TO 14,298'. POH.

11-27-81 14,356' MADE 58' IN LODGEPOLE FORMATION. MW 9.0, VIS 49. BIT NO 48, 9-1/2", SEC, M89TF 971753, JETS 14/13/13, DEPTH IN 13,701', DEPTH OUT 14,298', 597 FT, 98-1/4 HRS, 6.1 FT/HR, COND 2/E/I. RIH. DRLG AHEAD.

11-28-81 14,531' MADE 175' IN THREE FORKS FORMATION. MW 9.0, VIS 54. DEV DEPTH 14,487' INC 19-1/2° WL. DRLG & SURV.

11-29-81 14,692' MADE 161' IN THREE FORKS FORMATION. MW 8.9, VIS 55. DRLG AHEAD.

11-30-81 14,750' MADE 58' IN THREE FORKS. MW 8.9, VIS 47. DRLD TO 14,750'. POH. INSP BHA.

12-1-81 14,811' MADE 61' IN THREE FORKS FORMATION. MW 8.9, VIS 49. BIT NO 49, 9-1/2", REED, FP62 893251, JETS 12/12/12, DEPTH IN 14,298', DEPTH OUT 14,750', 452 FT, 61-3/4 HRS, 7.3 FT/HR, COND 6/F/I. DEV DEPTH 14,750' INC 20° DROP. DRLG AHEAD.

12-2-81 14,964' MADE 153' IN JEFFERSON FORMATION. MW 8.9, VIS 42. DRLG AHEAD.

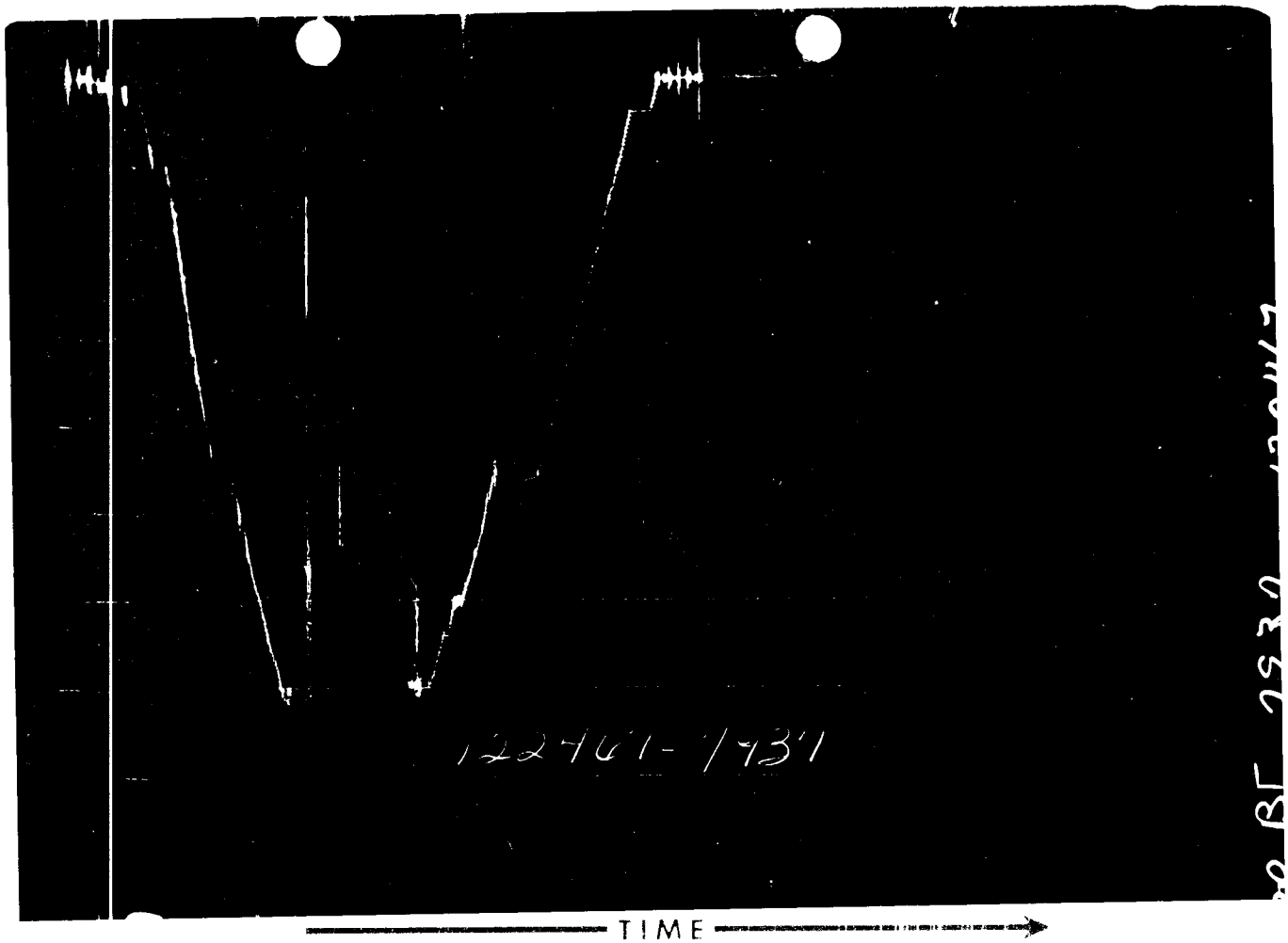
12-3-81 15,132' MADE 168' IN JEFFERSON FORMATION. MW 9.0, VIS 40. DEV DEPTH 15,057' INC 20° WL. DRLG AHEAD.

HAWK SPRINGS	1-10	6	15675'-15947'	MARATHON OIL COMPANY
Lease Name	Well No.	Test No.	Tested Interval	Lease Owner/Company Name
122467	ROCK SPRINGS		12-10-81	7937 1843
Ticket Number	Camp		Date	Gauge Number(s)

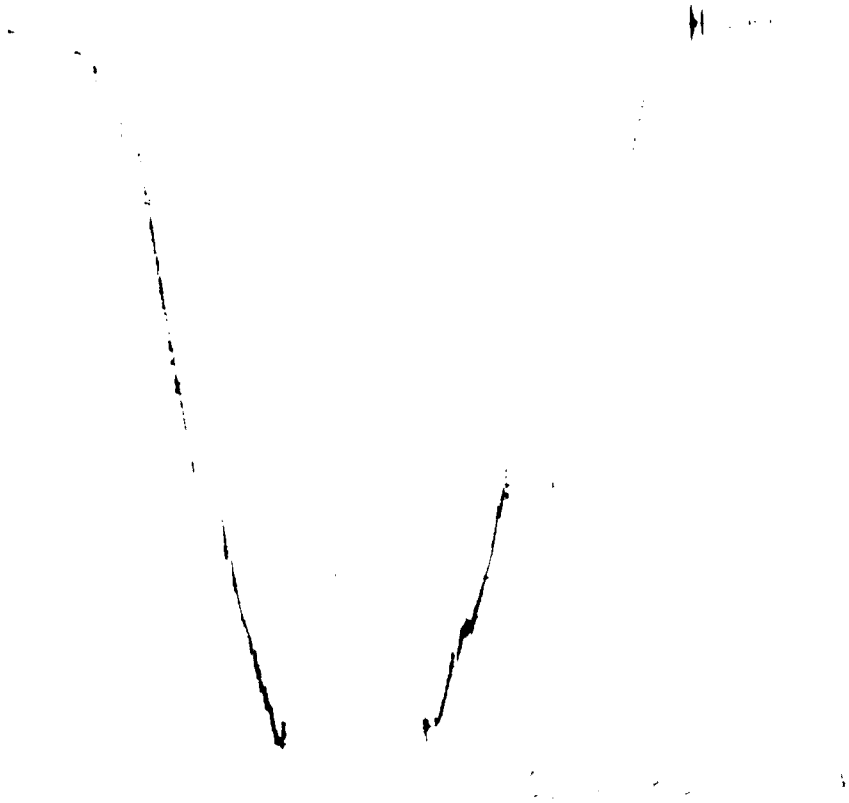
(22)

RECEIVED
DEC 22 1981
DIVISION OF
OIL, GAS & MINING

HALLIBURTON
SERVICES



PRESSURE



Each Horizontal Line Equal to 1000 p s i.

TICKET NO. 122467 DATE 12-10-81 HALLIBURTON CAMP ROCK SPRINGS

LEASE OWNER MARATHON OIL COMPANY IC-dr

LEASE NAME HAWK SPRINGS WELL NO. 1-10 TEST NO. 6

LEGAL LOCATION 10-10N-6N FORMATION TESTED SILURIAN AND ORDIVICIAN?

FIELD AREA WILDCAT COUNTY RICH STATE UTAH

TYPE OF D.S.T. OPEN HOLE

TESTER(S) L. SUTTER

WITNESS T. PATTERSON DRILLING CONTRACTOR PACKER

DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.) OPEN HOLE

TYPE AND SIZE OF GAS MEASURING DEVICE POSITIVE CHOKE

CUSHION DATA

TYPE Water AMOUNT 2000' WEIGHT (lb./gal.)

TYPE Ammonia AMOUNT 55 gal. WEIGHT (lb./gal.)

RECOVERY (ft. or bbl.):

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
Pit	1.25 @ 68 °F	6500		@ °F	
Collars	1.25 @ 68 °F	6500		@ °F	
Sampler	1.25 @ 68 °F	6500		@ °F	

REMARKS:

TICKET NO. 122467 DATE 12-10-81 ELEVATION (FT). 6741-6771' KB

TOP OF TESTED INTERVAL (ft.) 15675' BOTTOM OF TESTED INTERVAL (ft.) 15947'

NET PAY (ft.) _____ TOTAL DEPTH (ft.) 15947'

HOLE OR CASING SIZE (in.) 9 1/2" MUD WEIGHT (lb./gal.) 8.9 VISCOSITY (sec.) 50

SURFACE CHOKE (in.) _____ BOTTOM CHOKE (in.) .75"

OIL GRAVITY _____ @ _____ °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) _____ CUBIC FT. OF GAS _____

C.C.'s OF OIL _____ C.C.'s OF WATER _____

C.C.'s OF MUD 2000 TOTAL LIQUID C.C.'s 2000

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE _____

ACTUAL 210

DEPTH (ft.) 15940'

H.T.-500 ☐; THERMOMETER ☒; T.E. OR R.T.-7 ☐; OTHER ☐

SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY MR. SUTTER DATA APPROVED BY _____

RECORDERS						TIMES (00:00-24:00 HRS.)	
GAUGE NUMBER	7937	1843					
GAUGE TYPE	2	2				TOOL OPENED	07:15
GAUGE DEPTH (ft.)	15652	15941				DATE	12-11-81
CLOCK NUMBER	13843	12912				BYPASS OPENED	11:40
CLOCK RANGE (HR.)	48	48				DATE	12-11-81

PRESSURES						PERIOD	MINUTES
	INITIAL HYDROSTATIC	7082.9	7211.1			XXX	XXX
	INITIAL FLOW	922.4	1042.5			1st. FLOW	20.2
1st.	FINAL FLOW	929.2	1053.3			1st. C.I.P.	56.4
	CLOSED-IN	5531.2	5634.3			XXX	XXX
	INITIAL FLOW	953.0	1067.3			2nd. FLOW	68.2
2nd.	FINAL FLOW	958.5	1079.8			2nd. C.I.P.	116.8
	CLOSED-IN	5888.3	5996.7			XXX	XXX
	INITIAL FLOW					3rd. FLOW	
3rd.	FINAL FLOW					3rd. C.I.P.	
	CLOSED-IN	USED STANDARD CLOCK FACTOR TO DETERMINE TIMES				XXX	XXX
	FINAL HYDROSTATIC	7020.6	7127.4				

FORM NO. 327—LITTLE'S 114675 3M 7/81

FORMATION TEST DATA (SHEET 2)

Casing perfs. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 122467
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
12-10-81 1600					On location, still pulling drill pipe
2000					Picked up tools
2230					Run drill collars
12-11-81 0030					Rig up surface equipment
0715					Opened tool with no blow
0730					Closed dual cip sampler, had trouble
					closing tool
0840					Opened dual cip sampler
0940					Closed dual cip sampler
					No bubble to surface
1140					Opened bypass, started out of hole,
					pulled drill pipe till up in casing
1500					Dropped bar to reverse out
1700					Started tripping out of hole again.
2300					Tools on bank

FORM 192-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S

MARATHON OIL COMPANY
Lease Owner/Company Name

122467 PAGE 1
Ticket Number

B.T. 7937 B.T. 1843 B.T.

Depth 15652' Depth 15941' Depth

Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
FIRST FLOW			FIRST FLOW					
0		922.4	0		1042.5			
4		923.3	4		1047.5			
8		924.8	8		1049.4			
12		925.4	12		1051.9			
16		926.2	16		1053.0			
20.2		929.2	20.2		1053.3			
FIRST CIP			FIRST CIP					
0		929.2	0		1053.3			
5		2104.4	5		2332.5			
10		2893.2	10		3055.0			
15		3464.9	15		3648.6			
20		3934.1	20		4086.3			
25		4290.0	25		4446.5			
30		4600.3	30		4738.1			
35		4855.3	35		4990.0			
40		5049.9	40		5196.0			
45		5234.3	45		5358.5			
50		5378.3	50		5495.8			
56.4		5531.2	56.4		5634.3			
SECOND FLOW			SECOND FLOW					
0		953.0	0		1067.3			
10		950.3	10		1070.9			
20		951.8	20		1070.9			
30		953.2	30		1071.2			
40		955.0	40		1072.0			
50		955.6	50		1072.8			
60		956.5	60		1074.8			
68.2		958.5	68.2		1079.8			
SECOND CIP			SECOND CIP					
0		958.5	0		1079.8			
10		2616.3	10		2707.8			
20		3535.3	20		3653.6			
30		4161.5	30		4311.6			
40		4613.7	40		4761.4			
50		4944.5	50		5077.5			
60		5193.4	60		5316.8			
70		5392.0	70		5498.8			
80		5540.0	80		5646.3			
90		5662.7	90		5774.4			
100		5762.1	100		5875.5			

Remarks:

80-2860

MARATHON OIL COMPANY
Lease Owner/Company Name

122467 PAGE 2
Ticket Number

B.T. 7937 B.T. 1843 B.T.

Depth 15652' Depth 15941' Depth

Time (minutes)	Log $\frac{t+\Theta}{\Theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\Theta}{\Theta}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t+\Theta}{\Theta}$	PSIG Temp. Corr.
110		5843.1	110		5955.3			
116.8		5888.3	116.8		5996.7			

Remarks:

80-2860

TICKET NO. 122467

Tool Description	O.D.	I.D.	Length	Depth
Drill Pipe	5"	4.184"	15122'	
Drill Collars	6 3/4"	2 15/16"	153.6'	
Reversing sub	6 1/8"	3"	1'	15576'
Drill Collars	6 3/4"	2 15/16"	61.97'	
Crossover	6 1/4"	2 3/4"	1.25"	
Dual CIP Sampler	5 3/4"	.75"	7'	
Hydrospring	5"	.75"	5'	15650'
AP Running case	5"	3.06"	4.10'	15652'
Big John Jars	5.03"	1.75"	5'	
VR Safety Joint	5"	1"	2.78'	
NR Packer	9"	1.53 "	5.20'	15667'
Distributor	5"	1.68"	2'	
NR Packer	9"	1.53"	5.80'	15675'
Anchor pipe safety joint	5 3/4"	1.50 "	4.3'	
Crossover	6 1/8"	2 1/8"	1.2'	
Collars	6 3/4"	2 13/16"	211'	
Crossover	6 1/4"	3"	1.2'	
Perforations	5 3/4"	3"	4'	
B.T. Case	5 3/4"	3"	4.70'	15941'
Total Depth				15945'

EQUIPMENT DATA SHEET

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P.O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' GNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771' 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	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other) Please see below		

(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.)*

Attached is the proposed plug-back procedure

for Hawks Springs #1-10:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 12/31/81
BY: CB Feight

RECEIVED
DEC 28 1981
DIVISION OF OIL, GAS & MINING

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

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

SIGNED M E Krugh TITLE Drilling Superintendent DATE 12-18-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Submitted herein is the proposed plug-back procedure for Hawk Springs #1-10. The anticipated total depth is 16,900'.

1. The first cement plug (200') will be set in the 9-1/2" hole from 14,500' to 14,300'. (90 Sacks)

2. The second plug (200') will be set in the 8-3/4" hole/10-3/4" casing from 12,077' to 11,877'. (90 Sacks)

3. A casing free point log will then be run to determine the amount of recoverable 10-3/4" casing.

4. The 10-3/4" casing will be cut with a mechanical casing cutter at the anticipated depth of approximately 10,000' and retrieved from the hole.

5. The third cement plug (200') will be set 100' inside the 10-3/4" casing stub and 100' outside the 10-3/4" casing stub. (120 Sacks)

6. The fourth cement plug (200') will be set in the 12-1/4" hole from 7,100' to 6,900'. (150 Sacks)

7. The fifth cement plug (200') will be set in the 12-1/4" hole/13-3/8" casing from 4,097' to 3,897'. (150 Sacks)

8. The sixth cement plug (100') will be set from 140' K.B. to the surface. (75 Sacks)

9. A dryhole marker will be installed. The reserve pit will be fenced and the location cleared of debris. The water well will be capped.

If it is determined that a drillstem test is to be run at approximately 15,950', another cement plug (400') would be required from approximately 16,350' to 15,950'. (175 Sacks)

AMS:klb

1. RIH w/OEDP To 12,077'.
Set 200' cmt Plug 11,877'-12,077' (90sx).

2. Run Free Pt. Cut & Retrieve
$10^{3}/_{4}$" csg.

3. Set 200' cmt Plug, 100' inside $10^{3}/_{4}$" stub
& 100' outside $10^{3}/_{4}$" stub (120 sx). Circ to
Clean DP.

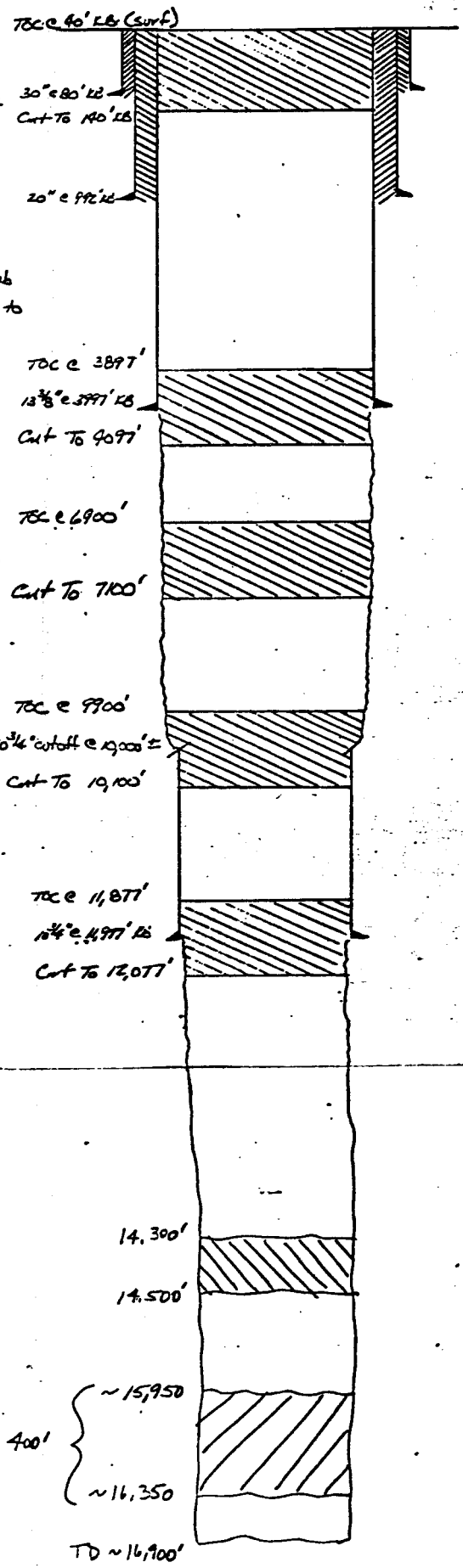
4. POH To 7100'. Set 200' cmt plug
7100'-6900' (150 sx). Circ to clean DP.

5. POH To 4097'. Set 200' cmt plug
4097'-3897' (150 sx). Circ to clean DP.

6. POH to 140' KB. Set 100' cmt plug
to surface (75 sx).

7. Install Dry Hole Marker, Fence
Reserve Pit & Clean Trash.

Verbal Approval Given by
Jimmy Raffoul (USGS-Salt Lake City)
on 11/12/81.



If we run
a DST in The
neighborhood of 15,950'.

Verbal Approval For changes
From Jimmy Raffoul
8:45 Am 12-12-81
MEK

Dresser Atlas | DRESSER

DRESSER ATLAS DIVISION, DRESSER INDUSTRIES, INC. 1532 METROBANK BUILDING DENVER, COLORADO 303/620-0601

TO: Utah Division of Oil, Gas & Mining
1588 W. North Temple
Salt Lake City, Utah 84116
Attn: Mike Mender

DATE: December 29, 1981

SUBJECT:
DCC# 2095.6, 1678

RE: Diplog, Dip Frac
Acsig

DEAR SIR:

ENCLOSED PLEASE FIND THE DATA AS DESCRIBED BELOW:

WELL	DATA	
COMPANY: Marathon Oil Co.		600' TAPE REEL(S)
WELL: Hawk Springs 1-10	1	COMPUTER LISTER(S)
FIELD: Wildcat		VERSATEC SEPIA(S)
COUNTY, STATE: Rich, Utah		DATA SHEET(S)
	3	LOG PRINT(S)
	1	BOOK(S)
		FILM(S)

TRANSMITTED BY:

- ☒ MAIL
- ☐ AIRFREIGHT
- ☐ COUNTER TO COUNTER
- ☐ HAND DELIVERY

AIRBILL NUMBER _____

AIRLINES _____

RECEIVED
JAN 11 1982
DIVISION OF
OIL, GAS & MINING

PLEASE ACKNOWLEDGE RECEIPT OF THE INFORMATION BY SIGNING AND RETURNING THE ATTACHED COPY OF THIS LETTER.

VERY TRULY YOURS,

Karen Jacovetta
DENVER COMPUTER CENTER

RECEIVED BY: _____

DATE: _____

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P. O. Box 2659; Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

(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
JAN 12 1982
DIVISION OF OIL, GAS & MINING

PROGRESS REPORT

See Attachments

From 12-4-81 To 12-18-81

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

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

SIGNED M E Krugh TITLE Drilling Superintendent DATE 1-6-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWKS SPRINGS #1-10 WELL HISTORY

12-1-81	14,811'	MADE 61' IN THREE FORKS FORMATION. MW 8.9, VIS 49, WL 13.0. FIN POH. INSP DC'S: FOUND 3 CRACKED, 2 PULLED THREADS, 2 DAMAGED THREADS. PU 4 DC'S & BIT #50. RIH REAM 80' TO BTM. DRLG AHEAD, NO PROB.
12-2-81	14,964'	MADE 153' IN JEFFERSON FORMATION. MW 8.9, VIS 42, WL 9.9. DRLG AHEAD, NO PROB.
12-3-81	15,132'	MADE 168' IN JEFFERSON FORMATION. MW 9.0, VIS 40, WL 10.5. DRLG AHEAD, NO PROB.
12-4-81	15,300'	MADE 168' IN JEFFERSON FORMATION. MW 8.9, VIS 52, WL 11.6. DRLD TO 15,300', NO PROB.
12-5-81	15,453'	MADE 153' IN BIG HORN FORMATION. MW 8.8, VIS 45, WL 15.4. DRLD & SURV. TO 15,453', AVG ROP 8'/MIN. DRLG BREAK 15,406'-145428' 3-3-1/2'/MIN. TOP OF BIG HORN @ 15,290'.
12-6-81	15,674'	MADE 221' IN BIG HORN FORMATION. MW 8.8, VIS 39, WL 14.4. PRESENTLY DRLG AHEAD @ 7-10'/MIN.
12-7-81	15,775'	MADE 101' IN BIG HORN FORMATION. MW 8.8, VIS 40, WL 13.2. DRLD TO 15,775', NO PROB. SURV & POH.
12-8-81	15,775'	MADE 0' IN BIG HORN FORMAT~~ION~~. MW 8.8, VIS 52, WL 12.4. REMARKS: LOST 3 CONES.
12-9-81	15,775'	0' IN BIG HORN FORMATION. MW 8.9, VIS 52, WL 12. FIN POH. REC 1 CONE & OUTSIDE PART OF SECOND CONE W/FINGER BSKT. REC 32 BALL BEARINGS & RACES. RIH W/9" MAGNET & BOOT BSKT, WORK MAGNET & POH. REC 1 FULL CONE, 1 NOSE CONE, PIECES OF BEARING RACES & IRON FILINGS, PULL WORN WEAR BUSHING & REPLACED. RIH W/DRLG ASSY, CUT DRL LINE. PRESENTLY RIH.
12-10-81	15,925'	MADE 150' IN SLURIAN ORDOVICIAN FORMATION. CONT'D RIH. WASH & REAM 40' TO BTM. DRLG AHEAD, NO PROB.
12-11-81	15,945'	MADE 20' IN SILURIAN ORDOVICIAN FORMATION. REMARKS: PULL F/DST.
12-12-81	15,945'	MADE 0' IN SILURIAN ORDIVICIAN FORMATION. MW 8.8. FIN RIH W/DST #6. SET PKR @ 15,675'. IF-15 MIN, ISI-60 MIN, FF-60 MIN, FSI-120 MIN. OPEN TOOL F/IF W/NO BUBBLES; FF W/NO BUBBLES. PULLED PKR FREE & PULL 60 STDS. LOST 105 BBLS MUD. REV OUT & RECOV WTR CHION & CLEAN MUD (NO FLUID ENTRY ON TEST). CONT POH. LOST 240 BBLS MUD (TOTAL). TOP CHART: IHP-7095#, IF-880#, ISI-5405#, FF-880#,FSI-5830, FHP-7095#. BTM CHART: IHP-7225#, IF-1050#, ISI-5600#, FF-1050, FSI-5927, FHP-7225#. REC 2000 CC OF CLEAN DRLG MUD IN SAMPLE CHAMBER W/NO GAS. RES OF1.25 @ 68°F 6,800 PPM CHLORIDES. PRESENTLY RIH W/BIT #51 RR.

HAWKS SPRINGS #1-10 WELL HISTORY

12-13-81 16,107' MADE 162' IN SILURIAN/ORDIVICIAN FORMATION. CONT RIH. BREAK CIRC 100 STDS. TWO JETS PLUGGED-UNPLUGGED SAME. FIN RIH. DRLD & SURV TO 16,107'. AVG ROP OF 7'/MIN. PRESENTLY DRLG AHEAD W/NO PROB.

12-14-81 16,282' MADE 175' IN SILURIAN ORDOVICIAN FORMATION. DRLG.

12-15-81 16,406' MADE 124' IN SILURIAN ORDOVICIAN FORMATION. DRLD TO 16,406', AVE ROP 6'/MIN. LOST 400# PMP, PMP SOFT LINE. POH LOOKING FOR HOLE. FOUND HOLE 1" BELOW UPSET ON 119TH STND OF DP KELLEY UP & PRESS, WAS OK. RIH.

12-16-81 16,582' MADE 176' IN SILURIAN ORDOVICIAN FORMATION. PRESENTLY DRLG AHEAD.

12-17-81 16,612' MADE 30' IN SILURIAN ORDOVICIAN FORMATION. MW 8.9, VIS 42, WL 9.7. DRLD TO 16,612'. CIRC & POH. SLM, NO CORRECTION, INSP BHA. LD 2 DC'S. PRESS TEST BOPE RAMS TO 200 PSI & THEN 2,500 PSI. HYDRIL TO 200 & 1,500 PSI, OK. PRESS TEST KELLYCOCKS.

12-18-81 16,637' MADE 25' IN SILURIAN ORDOVICIAN FORMATION. MW 8.9, VIS 47, WL 9.9. FIN TEST KELLY COCK. PU NEW IBS. RIH W/BHA CUT DRL LINE. RIH TO 14,368' CIRC 1 HR. RIH. WASH & REAM 90' TO BTM. DRLG AHEAD, W/NO PROB.

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Marathon Oil (Mike Crugh)

WELL NAME: Hawks Sprinks #1 -10

SECTION 10 TOWNSHIP 10N RANGE 6E COUNTY Rich

VERBAL APPROVAL GIVEN TO PLUG AND ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 16,906'

CASING PROGRAM:

30" @ 80'
20" @ 992'
13 3/8" @ 3997'
10 3/4" @ 11,977'

FORMATION TOPS:

Wasatch	surface
Ankareh	1750'
Thaynes	1900'
Gysprings	3190'
Nuggett	3283
Ankareh	4221'
Thayne	6900'
Woodside	9060'
Dinwoody	10,690'
Phosphonia	11,340'
Weber	11,940'
Brayson	12,800'
Lodgepole	13,701'
Devonia	14.460'
Ordovician	15,290'- TD

PLUGS SET AS FOLLOWS:

1. 14,300 - 14,500'
2. 11,877 - 12,077
3. 3,884 - 4,084
4. 140 - surface

Place 9.2#, 50 vis fresh water gel based abandonment mud between plugs; clean restore and regrade site, erect regulation dryhole marker.

DATE 1-29-82 SIGNED DB (USGS Approval)

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well ☐ gas well ☐ other Drilling well
2. NAME OF OPERATOR: Marathon Oil Company
3. ADDRESS OF OPERATOR: P.O. Box 2659, Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
   AT SURFACE: 2,351' FNL & 703' FWL
   AT TOP PROD. INTERVAL:
   AT TOTAL DEPTH:

5. LEASE: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD OR WILDCAT NAME: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T10N, R6E
12. COUNTY OR PARISH: Rich
13. STATE: Utah
14. API NO.: 43-033-30028
15. ELEVATIONS (SHOW DF, KDB, AND WD): 6,741' GL, 6,771'

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

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

(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

See Attachments

From 1-26-82 To 2-2-82

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

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

SIGNED M E Krugh TITLE Drilling Superintendent DATE 2-16-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

HAWKS SPRINGS #1-10

1-26-82 MOVE IN & RIG UP. ALL EQUIP ON LOCATION. PREPARING TO RIG UP CSG JACKS & WORKOVER RIG TO RETRIEVE 10-3/4" CSG.

1-27-81 N/D WELL HEAD & WELD ON LIFT JT. SET CSG JACKS, ATTEMPT TO PULL SLIPS, PULLED TO 800,000# WOULDN'T MOVE.

1-28-82 RD CSG JACKS, NU HYDRIL MAKE UP HALLIB BRAZA JET TOOL, RIH W/2-7/8" TBG.

1-29-82 PU TBG & RIH. CUT OFF CSG @ 3,950' GL IN 20 MINS.

1-30-82 PULL SLIPS W/CSG JACKS & 310,000# PULL. SET NEW SLIPS W/200,000#. RIG CSG TOOLS & LD MACHINE.

1-31-82 PULL 6 JTS 10-3/4" CSG W/JACKS. START PULLING W/RIG #23 JT HUNG UP. PULLING 10 TO 15,000# OVER WHEN STICKS, SUSPECT JUMK TO BE PART OF ORIGINAL WELLHEAD SLIPS.

2-1-82 FIN POH. REC 97 JTS 10-3/4" CSG. RIH W/TBG, CIRC. PREPARING TO SET CMT PLUG.

2-2-82 SET 200' CMT PLUG F/4050-3850, 175 SX CLASS G W/2% CACL2. POH, LD TBG. SET CMT PLUG F/GROUND LEVEL TO 100' W/87 SX CLASS G W/2% CACL2, SET DRY HOLE MARKER & RIG DOWN. RIG RELEASED @ 6 PM, 2-1-82.

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

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

February 17, 1982

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

Re: Well No. Hawk Springs 1-10
Sec. 10, T. 10N, R. 6E
Rich County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

STATE OF UTAH
NATURAL RESOURCES & ENERGY
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4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 17, 1982

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

Logs & DST's have been sent Feb 17, 1982

Re: Well No. Hawk Springs 1-10
Sec. 10, T. 10N, R. 6E
Rich County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

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Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Cari: Please see attached
Thanks
Walt West
MOC

RECEIVED
FEB 22 1982
CASPER DISTRICT
OPERATIONS
ACCOUNTING SECTION

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE (Other instructions on reverse side)

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other Abandoned

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: 2,351' FNL & 703' FWL SWNW
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-25115
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Hawk Springs
9. WELL NO.: 1-10
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10, T10N, R6E

14. PERMIT NO.: 43-033-30028 | DATE ISSUED: 10-17-80
12. COUNTY OR PARISH: Rich | 13. STATE: Utah

15. DATE SPUDDED: 5-2-81 | 16. DATE T.D. REACHED: 12-20-81 | 17. DATE COMPL. (*Ready to prod.*): P & A | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 6,741' GL, 6,771' KB | 19. ELEV. CASINGHEAD: -

20. TOTAL DEPTH, MD & TVD: 16,906' Driller 16,909' Log | 21. PLUG, BACK T.D., MD & TVD: - | 22. IF MULTIPLE COMPL., HOW MANY*: - | 23. INTERVALS DRILLED BY: → | ROTARY TOOLS: 0'-16,906' | CABLE TOOLS: -

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
WELL PLUGGED AND ABANDONED

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: CNL/FDC, DLL, BHC Sonic, DIL, Dipmeter

27. WAS WELL CORED: No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	68# & 61#	3,997.35'	17-1/2"	6,690 Sacks	None
10-3/4"	55.5#	11,977.42'	12-1/4"	750 Sacks	3,925'

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		NA		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
	NA	

31. PERFORATION RECORD (*Interval, size and number*)
Did Not Perforate

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	NA

33.* PRODUCTION

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

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
See Reverse side for Plugging

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS
ALL LOGS AND DST's HAVE BEEN MAILED TO MMS AND STATE OF UTAH

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

SIGNED: Dale Cobby TITLE: District Operations Manager DATE: 3-4-82

*(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.)

Plugging: Set 200' cement plug f/4,050'-3,850', 175 sacks Class G w/2% $CaCl_2$. POH, LD tubing. Set cement plug f/Ground Level to 100' w/87 sacks Class G w/2% $CaCl_2$.

DRY HOLE MARKER SET

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Wasatch	Surface	1,575'	
Pruess	1,575'	1,650'	
Twin Creek	1,650'	3,276'	
Nugget	3,276'	4,212'	
Ankareh	4,212'	6,770'	
Thaynes	6,770'	8,963'	
Woodside	8,963'	10,690'	
Dinwoody	10,690'	11,268'	
Phosphoria	11,268'	11,925'	
Weber	11,925'	12,500'	
Brazer	12,500'	13,792'	
Lodgepole	13,792'	14,463'	
Three Forks	14,463'	14,865'	
Jefferson	14,865'	15,275'	
Bighorn	15,275'	16,300'	
Cambrian	16,300'	16,909' TD	

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Wasatch	Surface	
Pruess	1,575'	
Twin Creek	1,650'	
Nugget	3,276'	
Ankareh	4,212'	
Thaynes	6,770'	
Woodside	8,963'	
Dinwoody	10,690'	
Phosphoria	11,268'	
Weber	11,925'	
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Cambrian	16,300'	

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-780-680/VIII-238

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH
06/22/81

RECEIVED
JUL 05
DIVISION OF
OIL, GAS & MINING

43-033-30028

INTERVAL 996.0 TO 4006.0
RUN RLAC 68.
ENGINEER OBULANEY MATTEUCCI MAG DEC 16.

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*                                               *
*                                               *
*     4     0     0     0     0                 *
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1008.0	8.00	23.8	297	N 63 W	100	0.8	323	N 37 W
1010.0	8.00	1.3	314	N 46 W	100	0.6	345	N 15 W
1012.0	8.00	1.5	306	N 54 W	85	0.2	346	N 14 W
1014.0	8.00	1.7	303	N 57 W	99	0.2	345	N 15 W
1016.0	8.00	1.3	311	N 49 W	100	0.2	344	N 16 W
1018.0	8.00	1.5	302	N 58 W	69	0.2	343	N 17 W
1020.0	8.00	1.3	306	N 54 W	95	0.2	340	N 20 W
1022.0	8.00	1.1	305	N 55 W	100	0.2	336	N 24 W
1024.0	8.00	26.7	86	N 86 E	82	0.2	337	N 23 W
1026.0	8.00	22.5	88	N 88 E	92	0.1	337	N 23 W
1028.0	8.00	28.1	108	S 72 E	68	0.1	336	N 24 W
1030.0	8.00	14.7	184	S 4 W	47	0.1	337	N 23 W
1032.0	8.00	22.0	167	S 13 E	52	0.1	337	N 23 W
1034.0	8.00	1.3	297	N 63 W	100	0.1	337	N 23 W
1036.0	8.00	1.2	315	N 45 W	88	0.1	338	N 22 W
1038.0	8.00	1.2	307	N 53 W	71	0.2	339	N 21 W
1040.0	8.00	1.3	138	S 42 E	100	0.2	339	N 21 W
1042.0	8.00	18.4	305	N 55 W	81	0.2	340	N 20 W
1044.0	8.00	1.5	132	S 48 E	100	0.2	342	N 18 W
1046.0	8.00	1.4	299	N 61 W	100	0.2	341	N 19 W
1048.0	8.00	1.3	305	N 55 W	88	0.2	342	N 18 W
1050.0	8.00	1.1	301	N 59 W	100	0.2	341	N 19 W
1052.0	8.00	1.3	306	N 54 W	100	0.2	342	N 18 W
1054.0	8.00	1.0	315	N 45 W	100	0.2	342	N 18 W
1056.0	8.00	1.0	305	N 55 W	71	0.1	343	N 17 W
1060.0	8.00	21.8	337	N 23 W	79	0.1	345	N 15 W
1062.0	8.00	28.7	309	N 51 W	74	0.1	344	N 16 W
1064.0	8.00	33.4	91	S 89 E	100	0.1	344	N 16 W
1066.0	8.00	27.2	123	S 57 E	86	0.1	344	N 16 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1068.0	8.00	41.5	121	S 59 E	37	0.1	344	N 16 W
1070.0	8.00	3.4	14	N 14 E	36	0.1	343	N 17 W
1074.0	8.00	1.5	301	N 59 W	100	0.2	344	N 16 W
1076.0	8.00	1.5	302	N 58 W	95	0.2	341	N 19 W
1078.0	8.00	1.4	300	N 60 W	100	0.3	341	N 19 W
1080.0	8.00	1.2	299	N 61 W	100	0.4	342	N 18 W
1082.0	8.00	1.1	313	N 47 W	100	0.3	335	N 25 W
1084.0	8.00	0.9	317	N 43 W	100	0.2	334	N 26 W
1086.0	8.00	0.8	318	N 42 W	100	0.2	334	N 26 W
1088.0	8.00	1.3	313	N 47 W	89	0.0	350	N 10 W
1090.0	8.00	0.7	318	N 42 W	81	0.1	352	N 8 W
1092.0	8.00	1.4	310	N 50 W	100	0.1	340	N 20 W
1094.0	8.00	0.9	134	S 46 E	66	0.0	337	N 23 W
1096.0	8.00	0.4	125	S 55 E	100	0.1	333	N 27 W
1098.0	8.00	1.2	308	N 52 W	81	0.1	334	N 26 W
1100.0	8.00	0.8	305	N 55 W	100	0.3	336	N 24 W
1102.0	8.00	0.8	303	N 57 W	100	0.4	338	N 22 W
1104.0	8.00	0.9	307	N 53 W	100	0.4	336	N 24 W
1106.0	8.00	0.5	303	N 57 W	100	0.3	339	N 21 W
1108.0	8.00	1.6	135	S 45 E	100	0.3	339	N 21 W
1110.0	8.00	1.6	135	S 45 E	100	0.2	338	N 22 W
1112.0	8.00	1.6	136	S 44 E	53	0.1	339	N 21 W
1114.0	8.00	1.6	127	S 53 E	100	0.0	341	N 19 W
1116.0	8.00	1.6	126	S 54 E	100	0.0	341	N 19 W
1118.0	8.00	1.6	134	S 46 E	100	0.1	340	N 20 W
1120.0	8.00	1.3	298	N 62 W	100	0.1	338	N 22 W
1122.0	8.00	1.1	296	N 64 W	100	0.1	338	N 22 W
1124.0	8.00	1.3	297	N 63 W	100	0.1	336	N 24 W
1126.0	8.00	1.2	293	N 67 W	88	0.1	334	N 26 W
1128.0	8.00	0.4	261	S 81 W	100	0.1	331	N 29 W
1132.0	8.00	1.5	108	S 72 E	100	0.1	330	N 30 W
1134.0	8.00	1.5	117	S 63 E	100	0.1	330	N 30 W
1136.0	8.00	53.3	117	S 63 E	79	0.1	330	N 30 W
1142.0	8.00	54.4	101	S 79 E	59	0.1	333	N 27 W
1144.0	8.00	59.5	290	N 70 W	66	0.1	326	N 34 W
1146.0	8.00	51.6	92	S 88 E	35	0.2	329	N 31 W
1148.0	8.00	59.0	110	S 70 E	20	0.2	329	N 31 W
1150.0	8.00	17.5	288	N 72 W	32	0.1	329	N 31 W
1152.0	8.00	16.9	288	N 72 W	40	0.1	329	N 31 W
1154.0	8.00	0.1	142	S 38 E	100	0.1	327	N 33 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1156.0	8.00	0.4	113	S 67 E	86	0.1	326	N 34 W
1158.0	8.00	21.3	195	S 15 W	90	0.2	326	N 34 W
1160.0	8.00	0.8	118	S 62 E	88	0.2	325	N 35 W
1164.0	8.00	33.5	16	N 16 E	55	0.1	322	N 38 W
1172.0	8.00	49.3	191	S 11 W	61	0.1	312	N 48 W
1174.0	8.00	1.5	281	N 79 W	73	0.1	312	N 48 W
1176.0	8.00	23.7	98	S 82 E	86	0.1	317	N 43 W
1178.0	8.00	10.7	276	N 84 W	99	0.1	314	N 46 W
1184.0	8.00	47.9	93	S 87 E	100	0.1	312	N 48 W
1186.0	8.00	49.1	272	N 88 W	77	0.3	311	N 49 W
1188.0	8.00	33.9	274	N 86 W	64	0.5	308	N 52 W
1190.0	8.00	1.2	273	N 87 W	72	0.4	305	N 55 W
1192.0	8.00	44.0	236	S 56 W	33	0.3	298	N 62 W
1194.0	8.00	43.9	227	S 47 W	54	0.3	303	N 57 W
1196.0	8.00	8.0	317	N 43 W	77	0.4	302	N 58 W
1198.0	8.00	10.6	219	S 39 W	60	0.4	298	N 62 W
1200.0	8.00	60.2	78	N 78 E	57	0.4	297	N 63 W
1202.0	8.00	60.0	79	N 79 E	56	0.4	293	N 67 W
1204.0	8.00	14.2	260	S 80 W	90	0.4	295	N 65 W
1206.0	8.00	1.8	85	N 85 E	91	0.4	297	N 63 W
1208.0	8.00	10.3	285	N 75 W	100	0.5	297	N 63 W
1210.0	8.00	10.3	286	N 74 W	83	0.4	296	N 64 W
1212.0	8.00	11.5	80	N 80 E	100	0.4	294	N 66 W
1214.0	8.00	10.8	259	S 79 W	100	0.4	293	N 67 W
1216.0	8.00	9.5	267	S 87 W	100	0.4	292	N 68 W
1218.0	8.00	8.1	258	S 78 W	100	0.4	292	N 68 W
1220.0	8.00	0.7	253	S 73 W	100	0.4	293	N 67 W
1222.0	8.00	0.7	110	S 70 E	100	0.4	291	N 69 W
1224.0	8.00	0.7	110	S 70 E	71	0.5	294	N 66 W
1226.0	8.00	0.6	110	S 70 E	100	0.5	295	N 65 W
1228.0	8.00	0.3	127	S 53 E	100	0.5	297	N 63 W
1230.0	8.00	0.6	232	S 52 W	100	0.5	295	N 65 W
1232.0	8.00	0.4	214	S 34 W	100	0.5	293	N 67 W
1234.0	8.00	0.3	178	S 2 E	100	0.5	291	N 69 W
1236.0	8.00	35.3	72	N 72 E	100	0.5	290	N 70 W
1238.0	8.00	43.1	72	N 72 E	61	0.5	288	N 72 W
1242.0	8.00	27.8	249	S 69 W	57	0.6	290	N 70 W
1244.0	8.00	15.7	285	N 75 W	98	0.6	291	N 69 W
1246.0	8.00	0.9	217	S 37 W	100	0.6	290	N 70 W
1248.0	8.00	0.3	191	S 11 W	100	0.6	288	N 72 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1250.0	8.00	0.4	184	S 4 W	100	0.6	286	N 74 W
1252.0	8.00	0.5	139	S 41 E	100	0.6	288	N 72 W
1254.0	8.00	0.7	107	S 73 E	100	0.7	287	N 73 W
1256.0	8.00	0.6	110	S 70 E	100	0.7	287	N 73 W
1258.0	8.00	0.2	111	S 69 E	100	0.6	287	N 73 W
1260.0	8.00	1.4	64	N 64 E	92	0.6	286	N 74 W
1262.0	8.00	0.9	213	S 33 W	83	0.6	287	N 73 W
1266.0	8.00	0.7	274	N 86 W	60	0.5	283	N 77 W
1268.0	8.00	0.3	81	N 81 E	86	0.5	282	N 78 W
1270.0	8.00	0.4	116	S 64 E	100	0.5	286	N 74 W
1272.0	8.00	0.4	187	S 7 W	100	0.5	285	N 75 W
1274.0	8.00	0.6	209	S 29 W	16	0.5	284	N 76 W
1276.0	8.00	53.1	145	S 35 E	19	0.5	286	N 74 W
1278.0	8.00	48.4	113	S 67 E	17	0.5	287	N 73 W
1280.0	8.00	52.1	113	S 67 E	26	0.5	287	N 73 W
1282.0	8.00	47.1	166	S 14 E	31	0.5	286	N 74 W
1284.0	8.00	47.0	167	S 13 E	50	0.5	286	N 74 W
1286.0	8.00	60.7	164	S 16 E	7	0.4	282	N 78 W
1288.0	8.00	54.0	151	S 29 E	46	0.4	283	N 77 W
1290.0	8.00	55.0	156	S 24 E	33	0.3	284	N 76 W
1292.0	8.00	51.4	145	S 35 E	34	0.3	284	N 76 W
1294.0	8.00	50.4	97	S 83 E	21	0.3	285	N 75 W
1296.0	8.00	48.9	105	S 75 E	27	0.3	285	N 75 W
1298.0	8.00	54.1	161	S 19 E	17	0.3	279	N 81 W
1300.0	8.00	18.3	190	S 10 W	8	0.3	278	N 82 W
1302.0	8.00	12.9	194	S 14 W	54	0.3	277	N 83 W
1304.0	8.00	49.2	95	S 85 E	100	0.3	276	N 84 W
1306.0	8.00	14.6	161	S 19 E	100	0.3	276	N 84 W
1308.0	8.00	35.6	152	S 28 E	100	0.3	276	N 84 W
1310.0	8.00	62.7	20	N 20 E	50	0.3	276	N 84 W
1314.0	8.00	19.2	305	N 55 W	45	0.4	277	N 83 W
1316.0	8.00	37.6	136	S 44 E	29	0.3	276	N 84 W
1318.0	8.00	57.0	78	N 78 E	60	0.3	275	N 85 W
1322.0	8.00	13.0	161	S 19 E	100	0.3	272	N 88 W
1324.0	8.00	14.2	167	S 13 E	100	0.3	275	N 85 W
1326.0	8.00	21.8	167	S 13 E	100	0.3	275	N 85 W
1328.0	8.00	25.5	175	S 5 E	100	0.3	276	N 84 W
1330.0	8.00	46.7	171	S 9 E	71	0.3	277	N 83 W
1332.0	8.00	49.7	114	S 66 E	88	0.4	278	N 82 W
1334.0	8.00	53.6	259	S 79 W	82	0.3	278	N 82 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1336.0	8.00	6.8	256	S 76 W	64	0.3	280	N 80 W
1338.0	8.00	21.4	254	S 74 W	48	0.3	287	N 73 W
1342.0	8.00	64.4	294	N 66 W	20	0.4	284	N 76 W
1344.0	8.00	63.3	234	S 54 W	50	0.5	281	N 79 W
1348.0	8.00	61.3	161	S 19 E	29	0.7	275	N 85 W
1350.0	8.00	49.6	148	S 32 E	39	0.5	277	N 83 W
1352.0	8.00	50.2	301	N 59 W	67	0.3	276	N 84 W
1354.0	8.00	48.4	165	S 15 E	88	0.3	285	N 75 W
1358.0	8.00	48.3	222	S 42 W	65	0.3	279	N 81 W
1360.0	8.00	47.1	222	S 42 W	57	0.3	277	N 83 W
1362.0	8.00	49.5	48	N 48 E	86	0.4	274	N 86 W
1364.0	8.00	50.7	47	N 47 E	89	0.4	276	N 84 W
1366.0	8.00	41.1	57	N 57 E	92	0.5	280	N 80 W
1368.0	8.00	1.8	60	N 60 E	75	0.7	283	N 77 W
1370.0	8.00	1.3	190	S 10 W	66	0.7	289	N 71 W
1372.0	8.00	1.6	60	N 60 E	100	0.6	288	N 72 W
1374.0	8.00	1.2	190	S 10 W	100	0.7	279	N 81 W
1378.0	8.00	1.7	53	N 53 E	98	0.6	276	N 84 W
1380.0	8.00	1.6	46	N 46 E	77	0.5	275	N 85 W
1382.0	8.00	4.4	33	N 33 E	100	0.3	281	N 79 W
1384.0	8.00	16.1	227	S 47 W	60	0.3	280	N 80 W
1386.0	8.00	27.8	209	S 29 W	72	0.3	283	N 77 W
1390.0	8.00	55.6	261	S 81 W	79	0.3	275	N 85 W
1392.0	8.00	57.2	269	S 89 W	75	0.3	275	N 85 W
1394.0	8.00	53.5	283	N 77 W	55	0.4	273	N 87 W
1396.0	8.00	60.8	252	S 72 W	64	0.5	272	N 88 W
1400.0	8.00	39.8	19	N 19 E	91	0.8	276	N 84 W
1402.0	8.00	43.1	17	N 17 E	100	0.7	271	N 89 W
1404.0	8.00	29.1	16	N 16 E	100	0.5	273	N 87 W
1408.0	8.00	28.8	190	S 10 W	63	0.5	273	N 87 W
1410.0	8.00	56.5	177	S 3 E	55	0.6	269	S 89 W
1412.0	8.00	57.1	289	N 71 W	59	0.6	278	N 82 W
1414.0	8.00	20.2	146	S 34 E	63	0.6	277	N 83 W
1416.0	8.00	17.0	232	S 52 W	100	0.7	273	N 87 W
1418.0	8.00	1.3	15	N 15 E	100	0.8	271	N 89 W
1420.0	8.00	0.7	94	S 86 E	100	0.9	271	N 89 W
1422.0	8.00	0.7	82	N 82 E	100	0.9	271	N 89 W
1424.0	8.00	1.1	99	S 81 E	100	0.9	281	N 79 W
1426.0	8.00	1.8	110	S 70 E	100	1.0	283	N 77 W
1432.0	8.00	44.3	309	N 51 W	30	0.9	278	N 82 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1434.0	8.00	54.9	296	N 64 W	51	0.9	279	N 81 W
1438.0	8.00	54.8	138	S 42 E	70	1.0	278	N 82 W
1440.0	8.00	0.6	358	N 2 W	100	0.8	276	N 84 W
1442.0	8.00	0.5	347	N 13 W	100	0.6	277	N 83 W
1444.0	8.00	0.5	118	S 62 E	100	0.6	273	N 87 W
1446.0	8.00	0.5	104	S 76 E	86	0.6	273	N 87 W
1448.0	8.00	1.0	336	N 24 W	100	0.6	273	N 87 W
1450.0	8.00	1.5	125	S 55 E	90	0.5	272	N 88 W
1452.0	8.00	1.7	124	S 56 E	100	0.5	272	N 88 W
1454.0	8.00	1.7	125	S 55 E	100	0.6	271	N 89 W
1456.0	8.00	1.6	126	S 54 E	100	0.6	270	N 90 W
1458.0	8.00	43.1	310	N 50 W	84	0.5	269	S 89 W
1460.0	8.00	34.7	130	S 50 E	70	0.5	267	S 87 W
1462.0	8.00	24.0	304	N 56 W	90	0.5	264	S 84 W
1464.0	8.00	23.8	299	N 61 W	100	0.6	264	S 84 W
1466.0	8.00	24.0	298	N 62 W	94	0.6	263	S 83 W
1468.0	8.00	50.1	116	S 64 E	56	0.4	272	N 88 W
1470.0	8.00	4.6	112	S 68 E	85	0.4	271	N 89 W
1472.0	8.00	7.5	110	S 70 E	100	0.3	268	S 88 W
1474.0	8.00	4.6	106	S 74 E	100	0.4	266	S 86 W
1476.0	8.00	4.7	103	S 77 E	100	0.5	266	S 86 W
1478.0	8.00	4.9	100	S 80 E	100	0.7	264	S 84 W
1480.0	8.00	52.9	329	N 31 W	65	0.8	262	S 82 W
1482.0	8.00	2.2	93	S 87 E	72	0.9	267	S 87 W
1484.0	8.00	2.0	90	N 90 E	84	0.8	264	S 84 W
1486.0	8.00	33.9	91	S 89 E	63	0.7	266	S 86 W
1488.0	8.00	2.1	87	N 87 E	88	0.8	264	S 84 W
1490.0	8.00	5.3	86	N 86 E	77	1.0	262	S 82 W
1492.0	8.00	53.3	308	N 52 W	100	0.9	266	S 86 W
1494.0	8.00	59.4	293	N 67 W	100	0.8	266	S 86 W
1496.0	8.00	39.4	253	S 73 W	100	0.8	263	S 83 W
1498.0	8.00	2.3	75	N 75 E	100	0.9	262	S 82 W
1500.0	8.00	2.3	75	N 75 E	100	0.9	262	S 82 W
1502.0	8.00	11.2	71	N 71 E	100	0.9	265	S 85 W
1504.0	8.00	2.1	85	N 85 E	89	0.9	270	N 90 W
1506.0	8.00	2.3	73	N 73 E	95	0.9	266	S 86 W
1508.0	8.00	2.1	78	N 78 E	100	0.9	266	S 86 W
1510.0	8.00	0.3	207	S 27 W	100	0.8	262	S 82 W
1512.0	8.00	1.8	67	N 67 E	100	0.8	259	S 79 W
1514.0	8.00	0.2	188	S 8 W	100	0.8	261	S 81 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
1516.0	8.00	2.0	71	N 71 E	100	0.8	262	S 82 W
1518.0	8.00	2.2	68	N 68 E	75	0.8	262	S 82 W
1520.0	8.00	4.4	83	N 83 E	85	0.8	262	S 82 W
1522.0	8.00	0.8	211	S 31 W	85	0.8	262	S 82 W
1524.0	8.00	2.1	66	N 66 E	43	0.8	262	S 82 W
1526.0	8.00	2.1	66	N 66 E	75	0.8	261	S 81 W
1528.0	8.00	2.1	65	N 65 E	65	0.8	260	S 80 W
1532.0	8.00	2.3	66	N 66 E	79	0.9	262	S 82 W
1534.0	8.00	2.3	65	N 65 E	76	0.9	259	S 79 W
1536.0	8.00	2.3	65	N 65 E	87	0.9	258	S 78 W
1538.0	8.00	0.6	199	S 19 W	91	0.9	255	S 75 W
1540.0	8.00	0.6	204	S 24 W	100	0.9	252	S 72 W
1542.0	8.00	0.4	208	S 28 W	100	0.9	245	S 65 W
1544.0	8.00	34.8	233	S 53 W	58	0.7	246	S 66 W
1546.0	8.00	0.6	219	S 39 W	88	0.7	248	S 68 W
1548.0	8.00	0.3	223	S 43 W	100	0.6	247	S 67 W
1550.0	8.00	1.5	61	N 61 E	97	0.7	248	S 68 W
1552.0	8.00	0.8	65	N 65 E	100	0.8	248	S 68 W
1554.0	8.00	0.8	68	N 68 E	100	0.9	246	S 66 W
1556.0	8.00	0.7	66	N 66 E	100	0.9	247	S 67 W
1558.0	8.00	0.8	72	N 72 E	100	0.9	247	S 67 W
1560.0	8.00	0.9	63	N 63 E	100	1.0	247	S 67 W
1562.0	8.00	0.9	70	N 70 E	100	0.9	249	S 69 W
1564.0	8.00	0.8	66	N 66 E	100	0.8	244	S 64 W
1566.0	8.00	0.8	71	N 71 E	100	0.8	248	S 68 W
1568.0	8.00	0.9	78	N 78 E	100	0.8	250	S 70 W
1570.0	8.00	1.0	73	N 73 E	90	0.9	251	S 71 W
1574.0	8.00	60.3	226	S 46 W	26	0.9	234	S 54 W
1576.0	8.00	40.2	148	S 32 E	100	0.6	247	S 67 W
1578.0	8.00	49.8	114	S 66 E	51	0.7	249	S 69 W
1580.0	8.00	35.2	13	N 13 E	40	0.8	244	S 64 W
1582.0	8.00	32.7	348	N 12 W	24	0.8	240	S 60 W
1584.0	8.00	39.3	304	N 56 W	25	0.7	237	S 57 W
1586.0	8.00	56.5	44	N 44 E	22	0.8	257	S 77 W
1588.0	8.00	56.4	52	N 52 E	69	0.8	251	S 71 W
1590.0	8.00	52.9	69	N 69 E	38	0.9	236	S 56 W
1592.0	8.00	57.1	64	N 64 E	57	1.0	235	S 55 W
1594.0	8.00	48.3	39	N 39 E	32	1.0	266	S 86 W
1596.0	8.00	58.8	58	N 58 E	11	0.8	239	S 59 W
1598.0	8.00	39.1	36	N 36 E	67	1.0	253	S 73 W

MARATHON OIL COMPANY
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WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1600.0	8.00	64.1	229	S 49 W	37	0.8	251	S 71 W
1602.0	8.00	59.1	215	S 35 W	34	0.9	250	S 70 W
1606.0	8.00	55.3	160	S 20 E	84	0.8	245	S 65 W
1608.0	8.00	58.3	351	N 9 W	16	1.0	245	S 65 W
1610.0	8.00	59.3	355	N 5 W	25	1.0	253	S 73 W
1612.0	8.00	61.4	4	N 4 E	42	0.8	240	S 60 W
1614.0	8.00	44.1	229	S 49 W	23	0.6	250	S 70 W
1616.0	8.00	49.0	234	S 54 W	35	0.6	251	S 71 W
1618.0	8.00	48.2	229	S 49 W	41	0.6	250	S 70 W
1624.0	8.00	50.5	340	N 20 W	9	0.9	247	S 67 W
1628.0	8.00	59.3	339	N 21 W	53	0.7	245	S 65 W
1630.0	8.00	35.0	334	N 26 W	60	0.6	244	S 64 W
1632.0	8.00	35.5	334	N 26 W	43	0.6	244	S 64 W
1640.0	8.00	53.4	53	N 53 E	76	1.2	247	S 67 W
1642.0	8.00	46.8	344	N 16 W	55	1.1	242	S 62 W
1644.0	8.00	28.6	95	S 85 E	49	1.1	243	S 63 W
1646.0	8.00	59.5	286	N 74 W	41	1.3	244	S 64 W
1648.0	8.00	50.8	4	N 4 E	51	1.2	239	S 59 W
1654.0	8.00	63.2	205	S 25 W	98	1.5	247	S 67 W
1656.0	8.00	49.8	288	N 72 W	71	1.8	261	S 81 W
1658.0	8.00	56.0	266	S 86 W	56	1.8	249	S 69 W
1660.0	8.00	57.6	264	S 84 W	34	1.4	249	S 69 W
1662.0	8.00	44.8	280	N 80 W	90	1.3	251	S 71 W
1666.0	8.00	45.2	207	S 27 W	68	1.1	253	S 73 W
1668.0	8.00	45.9	204	S 24 W	54	1.2	250	S 70 W
1670.0	8.00	39.7	204	S 24 W	43	1.1	253	S 73 W
1672.0	8.00	38.9	263	S 83 W	43	1.0	250	S 70 W
1674.0	8.00	40.2	320	N 40 W	65	1.1	262	S 82 W
1676.0	8.00	42.4	264	S 84 W	58	1.2	273	N 87 W
1678.0	8.00	55.9	288	N 72 W	100	1.4	235	S 55 W
1680.0	8.00	56.1	275	N 85 W	68	1.5	236	S 56 W
1682.0	8.00	55.8	269	S 89 W	50	1.6	250	S 70 W
1684.0	8.00	30.4	101	S 79 E	66	1.8	259	S 79 W
1686.0	8.00	43.7	43	N 43 E	79	1.8	266	S 86 W
1688.0	8.00	60.7	321	N 39 W	4	1.7	235	S 55 W
1690.0	8.00	51.8	255	S 75 W	14	1.5	232	S 52 W
1692.0	8.00	55.4	241	S 61 W	60	1.4	243	S 63 W
1694.0	8.00	44.7	285	N 75 W	20	1.6	242	S 62 W
1696.0	8.00	14.7	335	N 25 W	82	1.6	242	S 62 W
1698.0	8.00	57.2	295	N 65 W	94	1.3	223	S 43 W

MARATHON OIL COMPANY
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1700.0	8.00	56.2	290	N 70 W	93	1.3	236	S 56 W
1704.0	8.00	26.0	217	S 37 W	46	0.9	240	S 60 W
1706.0	8.00	46.4	319	N 41 W	64	0.9	239	S 59 W
1708.0	8.00	52.3	314	N 46 W	56	0.9	243	S 63 W
1710.0	8.00	62.9	147	S 33 E	57	0.8	249	S 69 W
1712.0	8.00	33.4	190	S 10 W	40	0.9	250	S 70 W
1714.0	8.00	46.9	80	N 80 E	69	0.9	252	S 72 W
1716.0	8.00	37.4	201	S 21 W	55	0.9	254	S 74 W
1718.0	8.00	58.5	218	S 38 W	73	0.9	256	S 76 W
1720.0	8.00	50.9	351	N 9 W	11	1.0	259	S 79 W
1722.0	8.00	55.5	223	S 43 W	25	1.1	257	S 77 W
1724.0	8.00	55.0	230	S 50 W	28	1.0	257	S 77 W
1726.0	8.00	50.9	80	N 80 E	71	0.9	259	S 79 W
1728.0	8.00	35.4	15	N 15 E	44	0.8	252	S 72 W
1732.0	8.00	31.4	357	N 3 W	69	0.8	249	S 69 W
1734.0	8.00	50.0	161	S 19 E	92	0.7	245	S 65 W
1736.0	8.00	47.2	163	S 17 E	84	0.5	251	S 71 W
1742.0	8.00	48.4	159	S 21 E	82	0.5	258	S 78 W
1744.0	8.00	51.2	257	S 77 W	51	0.5	259	S 79 W
1746.0	8.00	36.3	285	N 75 W	90	0.6	259	S 79 W
1748.0	8.00	46.4	49	N 49 E	78	0.5	257	S 77 W
1750.0	8.00	53.9	120	S 60 E	36	0.5	259	S 79 W
1752.0	8.00	46.3	256	S 76 W	58	0.5	260	S 80 W
1754.0	8.00	61.7	95	S 85 E	58	0.6	260	S 80 W
1756.0	8.00	58.3	70	N 70 E	13	0.6	259	S 79 W
1758.0	8.00	27.5	257	S 77 W	19	0.7	257	S 77 W
1760.0	8.00	56.2	56	N 56 E	33	0.8	257	S 77 W
1762.0	8.00	28.5	235	S 55 W	69	0.9	257	S 77 W
1764.0	8.00	14.2	284	N 76 W	92	0.9	257	S 77 W
1766.0	8.00	46.2	9	N 9 E	17	0.8	254	S 74 W
1768.0	8.00	37.4	280	N 80 W	59	0.6	252	S 72 W
1770.0	8.00	55.6	351	N 9 W	56	0.5	259	S 79 W
1774.0	8.00	37.5	319	N 41 W	32	0.5	261	S 81 W
1776.0	8.00	52.9	37	N 37 E	47	0.5	262	S 82 W
1778.0	8.00	53.0	40	N 40 E	51	0.5	262	S 82 W
1782.0	8.00	59.8	226	S 46 W	17	0.7	259	S 79 W
1784.0	8.00	59.5	227	S 47 W	8	0.9	260	S 80 W
1788.0	8.00	63.7	134	S 46 E	70	0.6	263	S 83 W
1790.0	8.00	54.9	293	N 67 W	50	0.4	264	S 84 W
1792.0	8.00	42.0	52	N 52 E	55	0.3	259	S 79 W

MARATHON OIL COMPANY
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
1794.0	8.00	58.4	153 S 27 E	36	0.4	258 S 78 W
1796.0	8.00	47.8	131 S 49 E	70	0.4	256 S 76 W
1798.0	8.00	45.9	5 N 5 E	56	0.4	258 S 78 W
1804.0	8.00	32.7	202 S 22 W	20	0.4	262 S 82 W
1806.0	8.00	61.7	215 S 35 W	16	0.3	261 S 81 W
1808.0	8.00	62.4	172 S 8 E	60	0.4	261 S 81 W
1810.0	8.00	46.2	209 S 29 W	42	0.5	262 S 82 W
1812.0	8.00	25.0	294 N 66 W	31	0.6	263 S 83 W
1814.0	8.00	23.8	203 S 23 W	28	0.8	262 S 82 W
1818.0	8.00	53.0	275 N 85 W	78	0.5	266 S 86 W
1820.0	8.00	53.2	271 N 89 W	71	0.3	277 N 83 W
1822.0	8.00	36.8	182 S 2 W	67	0.2	277 N 83 W
1824.0	8.00	37.7	182 S 2 W	100	0.0	268 S 88 W
1826.0	8.00	49.7	49 N 49 E	56	0.4	227 S 47 W
1828.0	8.00	46.7	105 S 75 E	50	0.1	275 N 85 W
1830.0	8.00	47.3	94 S 86 E	40	0.1	269 S 89 W
1832.0	8.00	53.4	73 N 73 E	62	0.1	276 N 84 W
1834.0	8.00	58.3	66 N 66 E	33	0.1	284 N 76 W
1836.0	8.00	60.9	296 N 64 W	30	0.2	282 N 78 W
1838.0	8.00	54.0	161 S 19 E	51	0.2	278 N 82 W
1840.0	8.00	55.4	168 S 12 E	72	0.1	279 N 81 W
1842.0	8.00	61.1	171 S 9 E	50	0.0	282 N 78 W
1846.0	8.00	32.9	34 N 34 E	50	0.1	280 N 80 W
1848.0	8.00	53.0	13 N 13 E	44	0.1	276 N 84 W
1854.0	8.00	20.4	52 N 52 E	35	0.2	272 N 88 W
1856.0	8.00	7.3	161 S 19 E	20	0.1	271 N 89 W
1862.0	8.00	26.6	307 N 53 W	35	0.1	269 S 89 W
1864.0	8.00	62.7	81 N 81 E	23	0.1	268 S 88 W
1868.0	8.00	64.9	259 S 79 W	39	0.1	265 S 85 W
1870.0	8.00	64.1	254 S 74 W	41	0.3	264 S 84 W
1872.0	8.00	63.8	254 S 74 W	51	0.4	263 S 83 W
1874.0	8.00	59.0	83 N 83 E	96	0.1	262 S 82 W
1876.0	8.00	52.1	80 N 80 E	45	0.1	259 S 79 W
1878.0	8.00	7.9	305 N 55 W	67	0.1	258 S 78 W
1880.0	8.00	58.2	171 S 9 E	57	0.1	254 S 74 W
1882.0	8.00	62.0	56 N 56 E	12	0.2	252 S 72 W
1884.0	8.00	57.4	60 N 60 E	16	0.6	250 S 70 W
1886.0	8.00	53.4	71 N 71 E	16	0.4	249 S 69 W
1890.0	8.00	53.9	24 N 24 E	24	0.4	256 S 76 W
1894.0	8.00	44.6	299 N 61 W	20	0.3	264 S 84 W

MARATHON OIL COMPANY
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WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1896.0	8.00	1.2	111	S 69 E	54	0.2	288	N 72 W
1898.0	8.00	1.3	303	N 57 W	54	0.2	292	N 68 W
1900.0	8.00	0.6	137	S 43 E	18	0.4	293	N 67 W
1902.0	8.00	0.8	90	N 90 E	72	0.5	305	N 55 W
1904.0	8.00	46.6	109	S 71 E	81	0.7	317	N 43 W
1906.0	8.00	46.8	288	N 72 W	61	0.8	338	N 22 W
1908.0	8.00	54.7	288	N 72 W	59	0.9	15	N 15 E
1910.0	8.00	60.1	249	S 69 W	49	0.9	29	N 29 E
1912.0	8.00	63.0	268	S 88 W	39	0.8	76	N 76 E
1918.0	8.00	36.9	326	N 34 W	39	0.4	95	S 85 E
1920.0	8.00	45.9	357	N 3 W	75	0.3	97	S 83 E
1924.0	8.00	0.5	89	N 89 E	58	0.2	71	N 71 E
1928.0	8.00	0.6	64	N 64 E	76	0.4	54	N 54 E
1930.0	8.00	51.6	189	S 9 W	44	0.4	48	N 48 E
1934.0	8.00	50.0	83	N 83 E	13	0.3	75	N 75 E
1936.0	8.00	60.8	19	N 19 E	28	0.3	74	N 74 E
1938.0	8.00	30.7	83	N 83 E	38	0.3	76	N 76 E
1940.0	8.00	52.5	59	N 59 E	39	0.3	88	N 88 E
1942.0	8.00	4.1	136	S 44 E	23	0.2	96	S 84 E
1944.0	8.00	63.6	298	N 62 W	41	0.2	97	S 83 E
1946.0	8.00	56.3	292	N 68 W	41	0.2	97	S 83 E
1948.0	8.00	62.8	299	N 61 W	59	0.2	96	S 84 E
1950.0	8.00	63.2	290	N 70 W	55	0.1	95	S 85 E
1952.0	8.00	43.4	253	S 73 W	25	0.0	94	S 86 E
1954.0	8.00	41.7	73	N 73 E	37	0.1	93	S 87 E
1956.0	8.00	1.5	263	S 83 W	31	0.2	94	S 86 E
1958.0	8.00	0.5	60	N 60 E	93	0.3	93	S 87 E
1960.0	8.00	0.1	27	N 27 E	77	0.2	94	S 86 E
1962.0	8.00	0.5	81	N 81 E	69	0.2	92	S 88 E
1964.0	8.00	46.8	97	S 83 E	19	0.1	88	N 88 E
1968.0	8.00	15.8	251	S 71 W	63	0.1	90	N 90 E
1970.0	8.00	12.5	253	S 73 W	53	0.2	93	S 87 E
1972.0	8.00	1.2	76	N 76 E	49	0.2	96	S 84 E
1974.0	8.00	56.2	164	S 16 E	23	0.3	99	S 81 E
1976.0	8.00	2.3	258	S 78 W	49	0.3	92	S 88 E
1978.0	8.00	1.8	260	S 80 W	56	0.3	87	N 87 E
1980.0	8.00	2.2	269	S 89 W	80	0.3	87	N 87 E
1984.0	8.00	4.1	209	S 29 W	54	0.4	86	N 86 E
1986.0	8.00	1.6	273	N 87 W	100	0.4	85	N 85 E
1990.0	8.00	0.3	244	S 64 W	100	0.3	92	S 88 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
1992.0	8.00	1.0	263	S 83 W	100	0.3	92	S 88 E
1994.0	8.00	1.6	274	N 86 W	90	0.4	92	S 88 E
1996.0	8.00	0.7	281	N 79 W	100	0.4	94	S 86 E
1998.0	8.00	0.7	296	N 64 W	92	0.5	106	S 74 E
2000.0	8.00	0.5	304	N 56 W	100	0.4	108	S 72 E
2002.0	8.00	0.4	298	N 62 W	100	0.5	114	S 66 E
2004.0	8.00	0.5	298	N 62 W	100	0.6	115	S 65 E
2006.0	8.00	0.6	292	N 68 W	100	0.7	117	S 63 E
2008.0	8.00	0.8	294	N 66 W	100	0.8	120	S 60 E
2020.0	8.00	1.7	294	N 66 W	100	1.2	112	S 68 E
2022.0	8.00	1.6	295	N 65 W	97	0.9	112	S 68 E
2024.0	8.00	1.2	303	N 57 W	100	0.8	115	S 65 E
2026.0	8.00	30.5	138	S 42 E	39	0.8	113	S 67 E
2028.0	8.00	28.9	345	N 15 W	61	0.7	110	S 70 E
2030.0	8.00	54.2	87	N 87 E	43	0.6	110	S 70 E
2032.0	8.00	34.8	174	S 6 E	68	0.6	111	S 69 E
2034.0	8.00	37.2	338	N 22 W	46	0.6	112	S 68 E
2036.0	8.00	37.7	338	N 22 W	33	0.7	113	S 67 E
2038.0	8.00	65.8	307	N 53 W	22	0.7	114	S 66 E
2040.0	8.00	1.0	258	S 78 W	64	0.8	115	S 65 E
2042.0	8.00	0.7	83	N 83 E	46	0.9	116	S 64 E
2044.0	8.00	0.8	289	N 71 W	100	0.9	115	S 65 E
2046.0	8.00	1.8	303	N 57 W	90	1.0	111	S 69 E
2052.0	8.00	37.7	323	N 37 W	86	1.0	111	S 69 E
2054.0	8.00	44.5	312	N 48 W	94	0.9	110	S 70 E
2056.0	8.00	46.3	309	N 51 W	19	0.8	114	S 66 E
2060.0	8.00	47.2	10	N 10 E	53	0.7	112	S 68 E
2062.0	8.00	47.2	10	N 10 E	67	0.7	112	S 68 E
2064.0	8.00	45.9	7	N 7 E	32	0.7	110	S 70 E
2066.0	8.00	53.7	323	N 37 W	60	0.7	114	S 66 E
2070.0	8.00	6.0	234	S 54 W	21	0.8	121	S 59 E
2074.0	8.00	52.9	193	S 13 W	23	0.9	121	S 59 E
2076.0	8.00	42.4	320	N 40 W	45	0.8	120	S 60 E
2078.0	8.00	53.3	173	S 7 E	37	0.7	119	S 61 E
2080.0	8.00	39.3	178	S 2 E	80	0.7	119	S 61 E
2082.0	8.00	57.6	344	N 16 W	86	0.7	122	S 58 E
2084.0	8.00	57.7	344	N 16 W	100	0.7	123	S 57 E
2086.0	8.00	1.2	284	N 76 W	94	0.7	123	S 57 E
2088.0	8.00	0.9	43	N 43 E	75	0.7	123	S 57 E
2090.0	8.00	0.7	38	N 38 E	72	0.8	125	S 55 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2094.0	8.00	51.6	165	S 15 E	70	0.8	125	S 55 E
2098.0	8.00	1.1	43	N 43 E	99	0.9	125	S 55 E
2100.0	8.00	2.1	282	N 78 W	92	1.0	131	S 49 E
2102.0	8.00	2.2	282	N 78 W	100	1.1	122	S 58 E
2104.0	8.00	9.8	266	S 86 W	60	1.2	124	S 56 E
2106.0	8.00	9.7	270	N 90 W	52	1.2	118	S 62 E
2108.0	8.00	1.3	318	N 42 W	100	1.1	116	S 64 E
2110.0	8.00	1.5	308	N 52 W	100	1.0	116	S 64 E
2118.0	8.00	2.2	273	N 87 W	71	1.0	113	S 67 E
2120.0	8.00	47.7	346	N 14 W	75	1.0	116	S 64 E
2122.0	8.00	44.3	345	N 15 W	81	1.0	116	S 64 E
2124.0	8.00	54.6	335	N 25 W	98	1.0	117	S 63 E
2126.0	8.00	43.8	344	N 16 W	100	1.1	116	S 64 E
2128.0	8.00	43.5	343	N 17 W	74	1.2	115	S 65 E
2130.0	8.00	22.4	118	S 62 E	61	1.2	109	S 71 E
2134.0	8.00	7.9	246	S 66 W	55	1.0	102	S 78 E
2138.0	8.00	51.6	341	N 19 W	61	0.9	108	S 72 E
2140.0	8.00	61.8	215	S 35 W	90	0.9	104	S 76 E
2142.0	8.00	61.7	212	S 32 W	86	0.8	101	S 79 E
2144.0	8.00	16.5	212	S 32 W	69	0.8	104	S 76 E
2146.0	8.00	60.2	332	N 28 W	75	0.8	101	S 79 E
2148.0	8.00	45.1	265	S 85 W	37	0.8	101	S 79 E
2150.0	8.00	44.7	315	N 45 W	41	0.8	102	S 78 E
2152.0	8.00	32.5	338	N 22 W	26	0.8	107	S 73 E
2154.0	8.00	34.0	333	N 27 W	64	0.7	105	S 75 E
2156.0	8.00	33.1	327	N 33 W	69	0.7	102	S 78 E
2158.0	8.00	33.4	327	N 33 W	91	0.6	108	S 72 E
2160.0	8.00	40.1	331	N 29 W	93	0.6	110	S 70 E
2162.0	8.00	40.5	330	N 30 W	65	0.6	111	S 69 E
2164.0	8.00	51.8	310	N 50 W	65	0.6	114	S 66 E
2166.0	8.00	50.6	301	N 59 W	40	0.6	110	S 70 E
2170.0	8.00	60.1	67	N 67 E	60	0.7	116	S 64 E
2174.0	8.00	1.5	212	S 32 W	95	0.8	114	S 66 E
2176.0	8.00	1.3	213	S 33 W	89	0.9	116	S 64 E
2180.0	8.00	37.4	348	N 12 W	100	0.9	115	S 65 E
2182.0	8.00	51.8	44	N 44 E	80	1.0	121	S 59 E
2184.0	8.00	40.5	312	N 48 W	100	0.9	118	S 62 E
2186.0	8.00	64.9	199	S 19 W	71	0.9	121	S 59 E
2188.0	8.00	64.3	195	S 15 W	98	0.9	121	S 59 E
2190.0	8.00	54.9	216	S 36 W	65	0.9	119	S 61 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2192.0	8.00	47.5	182	S 2 W	78	0.9	118	S 62 E
2194.0	8.00	62.3	224	S 44 W	99	0.8	145	S 35 E
2196.0	8.00	54.4	151	S 29 E	64	0.7	118	S 62 E
2198.0	8.00	55.5	138	S 42 E	63	0.6	116	S 64 E
2200.0	8.00	54.8	149	S 31 E	47	0.6	116	S 64 E
2202.0	8.00	63.6	134	S 46 E	55	0.5	111	S 69 E
2208.0	8.00	19.2	150	S 30 E	91	0.4	109	S 71 E
2210.0	8.00	2.0	323	N 37 W	83	0.3	113	S 67 E
2212.0	8.00	1.2	157	S 23 E	73	0.3	115	S 65 E
2214.0	8.00	48.1	148	S 32 E	91	0.3	114	S 66 E
2216.0	8.00	47.9	148	S 32 E	84	0.2	114	S 66 E
2218.0	8.00	41.8	328	N 32 W	36	0.2	119	S 61 E
2220.0	8.00	42.9	329	N 31 W	51	0.2	119	S 61 E
2222.0	8.00	55.4	143	S 37 E	92	0.2	119	S 61 E
2224.0	8.00	54.7	323	N 37 W	70	0.2	122	S 58 E
2230.0	8.00	32.3	319	N 41 W	70	0.2	131	S 49 E
2232.0	8.00	36.5	139	S 41 E	43	0.2	131	S 49 E
2234.0	8.00	23.1	317	N 43 W	91	0.2	130	S 50 E
2236.0	8.00	23.2	317	N 43 W	99	0.2	131	S 49 E
2238.0	8.00	27.2	346	N 14 W	92	0.2	130	S 50 E
2240.0	8.00	35.5	330	N 30 W	100	0.2	132	S 48 E
2242.0	8.00	38.2	330	N 30 W	100	0.2	133	S 47 E
2244.0	8.00	38.8	327	N 33 W	76	0.1	133	S 47 E
2246.0	8.00	32.5	325	N 35 W	82	0.1	138	S 42 E
2248.0	8.00	1.8	311	N 49 W	59	0.1	139	S 41 E
2250.0	8.00	16.7	30	N 30 E	72	0.1	138	S 42 E
2252.0	8.00	38.2	334	N 26 W	100	0.1	138	S 42 E
2254.0	8.00	34.8	333	N 27 W	100	0.1	137	S 43 E
2256.0	8.00	36.9	334	N 26 W	100	0.1	137	S 43 E
2260.0	8.00	35.6	330	N 30 W	100	0.1	140	S 40 E
2262.0	8.00	35.6	330	N 30 W	71	0.1	140	S 40 E
2264.0	8.00	35.6	331	N 29 W	79	0.1	138	S 42 E
2266.0	8.00	60.4	127	S 53 E	58	0.1	139	S 41 E
2268.0	8.00	1.6	124	S 56 E	83	0.1	141	S 39 E
2270.0	8.00	1.6	126	S 54 E	97	0.1	140	S 40 E
2272.0	8.00	1.6	127	S 53 E	100	0.1	141	S 39 E
2274.0	8.00	1.7	309	N 51 W	100	0.1	140	S 40 E
2276.0	8.00	1.7	309	N 51 W	85	0.0	141	S 39 E
2278.0	8.00	1.8	307	N 53 W	92	0.0	141	S 39 E
2280.0	8.00	1.6	124	S 56 E	58	0.0	145	S 35 E

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2284.0	8.00	36.0	307	N 53 W	77	0.1	145	S 35 E
2286.0	8.00	40.2	319	N 41 W	100	0.3	144	S 36 E
2288.0	8.00	36.2	335	N 25 W	100	0.5	143	S 37 E
2290.0	8.00	35.9	335	N 25 W	100	0.7	143	S 37 E
2292.0	8.00	56.8	329	N 31 W	53	1.0	146	S 34 E
2294.0	8.00	34.7	346	N 14 W	71	1.0	141	S 39 E
2296.0	8.00	55.7	350	N 10 W	74	1.0	146	S 34 E
2298.0	8.00	59.3	339	N 21 W	42	0.9	142	S 38 E
2300.0	8.00	31.0	357	N 3 W	35	0.9	146	S 34 E
2302.0	8.00	56.7	11	N 11 E	70	1.0	155	S 25 E
2304.0	8.00	36.2	3	N 3 E	55	1.2	109	S 71 E
2306.0	8.00	37.5	20	N 20 E	52	1.1	147	S 33 E
2308.0	8.00	28.8	11	N 11 E	88	0.6	129	S 51 E
2310.0	8.00	39.9	36	N 36 E	58	0.4	140	S 40 E
2312.0	8.00	50.1	18	N 18 E	60	0.2	144	S 36 E
2314.0	8.00	30.4	359	N 1 W	81	0.2	147	S 33 E
2316.0	8.00	30.8	3	N 3 E	97	0.3	148	S 32 E
2318.0	8.00	31.8	0	N 0 E	93	0.4	151	S 29 E
2320.0	8.00	31.7	358	N 2 W	65	0.5	152	S 28 E
2322.0	8.00	29.0	348	N 12 W	92	0.6	156	S 24 E
2324.0	8.00	28.1	346	N 14 W	100	0.7	155	S 25 E
2326.0	8.00	28.3	345	N 15 W	58	0.8	155	S 25 E
2328.0	8.00	29.8	341	N 19 W	63	1.0	154	S 26 E
2330.0	8.00	28.1	349	N 11 W	77	1.1	153	S 27 E
2332.0	8.00	28.8	352	N 8 W	75	1.2	154	S 26 E
2334.0	8.00	31.8	348	N 12 W	100	1.4	155	S 25 E
2336.0	8.00	33.0	353	N 7 W	100	1.5	154	S 26 E
2338.0	8.00	33.8	353	N 7 W	100	1.6	153	S 27 E
2340.0	8.00	34.7	354	N 6 W	84	1.6	157	S 23 E
2342.0	8.00	36.5	336	N 24 W	53	1.6	154	S 26 E
2344.0	8.00	41.4	35	N 35 E	56	1.6	154	S 26 E
2348.0	8.00	48.7	48	N 48 E	40	1.6	156	S 24 E
2350.0	8.00	49.0	331	N 29 W	55	1.5	158	S 22 E
2354.0	8.00	10.7	192	S 12 W	100	1.4	159	S 21 E
2356.0	8.00	14.6	197	S 17 W	100	1.5	162	S 18 E
2358.0	8.00	4.9	154	S 26 E	100	1.4	162	S 18 E
2360.0	8.00	0.8	75	N 75 E	100	1.4	160	S 20 E
2362.0	8.00	39.1	27	N 27 E	74	1.5	166	S 14 E
2364.0	8.00	37.9	24	N 24 E	86	1.5	167	S 13 E
2366.0	8.00	35.1	20	N 20 E	91	1.6	167	S 13 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2368.0	8.00	36.0	32	N 32 E	100	1.7	168	S 12 E
2370.0	8.00	35.3	41	N 41 E	28	1.7	169	S 11 E
2372.0	8.00	52.0	85	N 85 E	48	1.8	169	S 11 E
2374.0	8.00	46.9	84	N 84 E	17	1.8	169	S 11 E
2378.0	8.00	60.7	187	S 7 W	58	1.7	169	S 11 E
2384.0	8.00	12.4	43	N 43 E	82	1.8	171	S 9 E
2386.0	8.00	19.0	13	N 13 E	57	1.9	174	S 6 E
2388.0	8.00	35.3	17	N 17 E	89	2.1	172	S 8 E
2390.0	8.00	51.5	19	N 19 E	100	2.1	172	S 8 E
2392.0	8.00	26.2	347	N 13 W	92	1.9	173	S 7 E
2394.0	8.00	27.8	354	N 6 W	94	1.9	175	S 5 E
2396.0	8.00	27.4	356	N 4 W	35	1.9	174	S 6 E
2398.0	8.00	22.3	38	N 38 E	47	1.9	174	S 6 E
2402.0	8.00	1.2	53	N 53 E	99	1.9	171	S 9 E
2404.0	8.00	2.1	214	S 34 W	100	1.8	171	S 9 E
2406.0	8.00	2.3	210	S 30 W	88	1.8	171	S 9 E
2408.0	8.00	4.6	162	S 18 E	65	1.8	171	S 9 E
2410.0	8.00	40.3	341	N 19 W	57	1.8	172	S 8 E
2412.0	8.00	49.6	292	N 68 W	96	1.8	173	S 7 E
2414.0	8.00	46.4	296	N 64 W	76	1.8	174	S 6 E
2416.0	8.00	56.9	82	N 82 E	38	1.8	174	S 6 E
2418.0	8.00	55.9	112	S 68 E	59	1.8	177	S 3 E
2420.0	8.00	52.8	89	N 89 E	51	1.8	176	S 4 E
2422.0	8.00	31.9	292	N 68 W	52	1.8	176	S 4 E
2426.0	8.00	32.2	300	N 60 W	57	1.9	173	S 7 E
2428.0	8.00	59.5	121	S 59 E	53	1.9	172	S 8 E
2430.0	8.00	40.3	296	N 64 W	64	2.0	173	S 7 E
2434.0	8.00	71.3	285	N 75 W	34	2.0	174	S 6 E
2436.0	8.00	55.0	1	N 1 E	63	1.9	173	S 7 E
2438.0	8.00	64.5	239	S 59 W	49	1.9	172	S 8 E
2440.0	8.00	16.6	56	N 56 E	47	1.9	174	S 6 E
2442.0	8.00	19.9	71	N 71 E	49	1.8	173	S 7 E
2444.0	8.00	33.2	337	N 23 W	45	1.8	175	S 5 E
2446.0	8.00	37.9	356	N 4 W	75	1.8	177	S 3 E
2448.0	8.00	39.2	0	N 0 E	35	1.8	178	S 2 E
2450.0	8.00	53.1	324	N 36 W	69	1.8	178	S 2 E
2452.0	8.00	59.6	11	N 11 E	70	1.7	180	S 0 E
2454.0	8.00	67.6	309	N 51 W	50	1.8	180	S 0 E
2456.0	8.00	25.9	335	N 25 W	75	1.8	181	S 1 W
2458.0	8.00	27.1	337	N 23 W	90	1.8	181	S 1 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2460.0	8.00	27.5	338	N 22 W	74	1.9	181	S 1 W
2462.0	8.00	26.4	322	N 38 W	85	1.8	181	S 1 W
2464.0	8.00	46.9	78	N 78 E	100	1.8	180	S 0 E
2466.0	8.00	46.8	187	S 7 W	82	1.8	181	S 1 W
2468.0	8.00	32.8	312	N 48 W	69	1.7	181	S 1 W
2470.0	8.00	38.6	275	N 85 W	56	1.7	180	S 0 E
2472.0	8.00	45.0	341	N 19 W	66	1.7	179	S 1 E
2474.0	8.00	43.7	316	N 44 W	66	1.7	177	S 3 E
2476.0	8.00	62.7	138	S 42 E	54	1.7	179	S 1 E
2478.0	8.00	51.4	293	N 67 W	74	1.8	180	S 0 E
2480.0	8.00	40.1	325	N 35 W	98	1.8	182	S 2 W
2482.0	8.00	28.1	319	N 41 W	100	1.8	183	S 3 W
2484.0	8.00	53.7	301	N 59 W	100	1.8	182	S 2 W
2486.0	8.00	48.0	268	S 88 W	83	1.7	183	S 3 W
2488.0	8.00	44.3	161	S 19 E	100	1.7	183	S 3 W
2490.0	8.00	3.7	128	S 52 E	95	1.7	180	S 0 E
2492.0	8.00	5.6	99	S 81 E	47	1.8	184	S 4 W
2494.0	8.00	1.2	75	N 75 E	78	1.8	184	S 4 W
2496.0	8.00	41.2	179	S 1 E	76	1.7	184	S 4 W
2498.0	8.00	59.7	25	N 25 E	100	1.6	184	S 4 W
2502.0	8.00	54.7	66	N 66 E	45	1.8	181	S 1 W
2504.0	8.00	32.1	324	N 36 W	44	1.8	176	S 4 E
2506.0	8.00	52.8	269	S 89 W	59	1.8	176	S 4 E
2508.0	8.00	33.4	328	N 32 W	34	1.8	175	S 5 E
2510.0	8.00	34.3	326	N 34 W	95	1.8	175	S 5 E
2514.0	8.00	1.0	57	N 57 E	100	1.7	176	S 4 E
2516.0	8.00	5.3	96	S 84 E	100	1.7	177	S 3 E
2518.0	8.00	22.4	155	S 25 E	94	1.7	176	S 4 E
2520.0	8.00	52.9	147	S 33 E	91	1.7	178	S 2 E
2522.0	8.00	19.9	143	S 37 E	57	1.8	178	S 2 E
2524.0	8.00	1.1	60	N 60 E	27	1.8	177	S 3 E
2526.0	8.00	1.0	52	N 52 E	57	1.8	178	S 2 E
2530.0	8.00	51.5	82	N 82 E	21	1.9	179	S 1 E
2534.0	8.00	67.0	310	N 50 W	35	1.8	127	S 53 E
2536.0	8.00	29.4	142	S 38 E	82	1.8	346	N 14 W
2538.0	8.00	30.3	281	N 79 W	73	1.7	122	S 58 E
2540.0	8.00	24.4	348	N 12 W	48	1.7	162	S 18 E
2542.0	8.00	21.0	343	N 17 W	60	1.6	182	S 2 W
2544.0	8.00	32.6	333	N 27 W	77	1.6	179	S 1 E
2546.0	8.00	28.3	16	N 16 E	96	1.6	182	S 2 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
2548.0	8.00	58.2	1	N 1 E	86	1.6	182	S 2 W	
2550.0	8.00	42.1	10	N 10 E	54	1.6	183	S 3 W	
2552.0	8.00	51.5	118	S 62 E	69	1.6	183	S 3 W	
2554.0	8.00	39.1	304	N 56 W	29	1.7	183	S 3 W	
2556.0	8.00	17.9	166	S 14 E	38	1.7	182	S 2 W	
2560.0	8.00	41.8	325	N 35 W	60	1.7	182	S 2 W	
2562.0	8.00	58.2	72	N 72 E	46	1.8	180	S 0 E	
2564.0	8.00	53.3	67	N 67 E	38	1.7	179	S 1 E	
2566.0	8.00	34.7	320	N 40 W	100	1.8	177	S 3 E	
2568.0	8.00	37.2	317	N 43 W	96	1.8	178	S 2 E	
2570.0	8.00	17.1	323	N 37 W	100	1.7	180	S 0 E	
2572.0	8.00	16.9	320	N 40 W	83	1.7	179	S 1 E	
2574.0	8.00	2.0	234	S 54 W	75	1.7	175	S 5 E	
2576.0	8.00	3.8	278	N 82 W	45	1.7	174	S 6 E	
2578.0	8.00	21.9	131	S 49 E	60	1.7	175	S 5 E	
2580.0	8.00	1.3	65	N 65 E	55	1.7	175	S 5 E	
2582.0	8.00	57.3	129	S 51 E	21	1.7	174	S 6 E	
2584.0	8.00	1.3	49	N 49 E	56	1.7	173	S 7 E	
2586.0	8.00	1.2	36	N 36 E	65	1.5	174	S 6 E	
2588.0	8.00	52.5	129	S 51 E	66	1.6	174	S 6 E	
2590.0	8.00	61.9	118	S 62 E	73	1.6	174	S 6 E	
2592.0	8.00	37.7	114	S 66 E	100	1.6	170	S 10 E	
2594.0	8.00	31.0	322	N 38 W	97	1.6	172	S 8 E	
2596.0	8.00	30.2	104	S 76 E	89	1.6	173	S 7 E	
2598.0	8.00	18.6	117	S 63 E	68	1.6	173	S 7 E	
2600.0	8.00	15.7	43	N 43 E	73	1.6	172	S 8 E	
2602.0	8.00	22.4	51	N 51 E	89	1.6	171	S 9 E	
2604.0	8.00	23.1	1	N 1 E	100	1.6	170	S 10 E	
2606.0	8.00	27.4	357	N 3 W	100	1.6	174	S 6 E	
2608.0	8.00	27.4	354	N 6 W	100	1.6	171	S 9 E	
2610.0	8.00	31.0	344	N 16 W	80	1.6	170	S 10 E	
2612.0	8.00	24.5	57	N 57 E	63	1.6	169	S 11 E	
2614.0	8.00	19.5	66	N 66 E	83	1.5	168	S 12 E	
2616.0	8.00	16.4	324	N 36 W	57	1.5	168	S 12 E	
2618.0	8.00	31.7	336	N 24 W	76	1.5	167	S 13 E	
2620.0	8.00	31.9	332	N 28 W	80	1.5	169	S 11 E	
2622.0	8.00	30.5	334	N 26 W	100	1.5	169	S 11 E	
2624.0	8.00	30.3	335	N 25 W	100	1.5	170	S 10 E	
2626.0	8.00	35.3	341	N 19 W	100	1.5	169	S 11 E	
2628.0	8.00	26.9	332	N 28 W	100	1.5	170	S 10 E	

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2630.0	8.00	30.6	350	N 10 W	100	1.5	172	S 8 E
2632.0	8.00	30.8	347	N 13 W	100	1.5	174	S 6 E
2634.0	8.00	31.2	344	N 16 W	100	1.5	172	S 8 E
2636.0	8.00	32.8	339	N 21 W	100	1.4	170	S 10 E
2638.0	8.00	34.5	342	N 18 W	100	1.4	169	S 11 E
2640.0	8.00	33.7	339	N 21 W	85	1.4	167	S 13 E
2642.0	8.00	31.7	339	N 21 W	69	1.4	165	S 15 E
2644.0	8.00	25.5	342	N 18 W	34	1.3	165	S 15 E
2646.0	8.00	29.6	333	N 27 W	100	1.3	165	S 15 E
2648.0	8.00	27.8	347	N 13 W	100	1.3	165	S 15 E
2650.0	8.00	2.8	316	N 44 W	100	1.3	165	S 15 E
2652.0	8.00	1.4	61	N 61 E	100	1.3	166	S 14 E
2654.0	8.00	2.8	315	N 45 W	100	1.3	167	S 13 E
2656.0	8.00	2.9	315	N 45 W	62	1.4	167	S 13 E
2658.0	8.00	75.4	225	S 45 W	77	1.4	169	S 11 E
2660.0	8.00	56.9	299	N 61 W	47	1.4	168	S 12 E
2664.0	8.00	60.6	5	N 5 E	48	1.5	168	S 12 E
2668.0	8.00	61.9	322	N 38 W	61	1.6	163	S 17 E
2670.0	8.00	59.7	327	N 33 W	100	1.6	160	S 20 E
2672.0	8.00	34.7	264	S 84 W	97	1.5	156	S 24 E
2674.0	8.00	1.5	30	N 30 E	47	1.4	154	S 26 E
2676.0	8.00	52.1	169	S 11 E	65	1.4	155	S 25 E
2678.0	8.00	53.4	172	S 8 E	84	1.4	153	S 27 E
2680.0	8.00	53.7	178	S 2 E	84	1.4	154	S 26 E
2682.0	8.00	46.7	175	S 5 E	88	1.4	153	S 27 E
2684.0	8.00	34.8	337	N 23 W	61	1.3	151	S 29 E
2686.0	8.00	2.4	286	N 74 W	88	1.2	156	S 24 E
2690.0	8.00	2.0	33	N 33 E	62	1.3	157	S 23 E
2694.0	8.00	61.9	247	S 67 W	66	1.2	161	S 19 E
2696.0	8.00	2.4	31	N 31 E	60	1.2	159	S 21 E
2700.0	8.00	7.9	36	N 36 E	92	1.2	163	S 17 E
2702.0	8.00	31.1	340	N 20 W	91	1.3	162	S 18 E
2704.0	8.00	32.5	343	N 17 W	100	1.4	160	S 20 E
2706.0	8.00	26.7	338	N 22 W	95	1.4	156	S 24 E
2708.0	8.00	26.9	335	N 25 W	70	1.4	157	S 23 E
2710.0	8.00	26.8	334	N 26 W	45	1.3	157	S 23 E
2712.0	8.00	58.6	288	N 72 W	64	1.3	156	S 24 E
2718.0	8.00	22.7	308	N 52 W	45	1.4	147	S 33 E
2720.0	8.00	32.7	343	N 17 W	80	1.4	145	S 35 E
2722.0	8.00	32.9	340	N 20 W	79	1.4	143	S 37 E

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HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2724.0	8.00	32.9	338	N 22 W	85	1.4	140	S 40 E
2726.0	8.00	31.3	340	N 20 W	100	1.4	139	S 41 E
2728.0	8.00	32.7	341	N 19 W	85	1.3	137	S 43 E
2730.0	8.00	32.8	340	N 20 W	100	1.3	135	S 45 E
2732.0	8.00	32.3	338	N 22 W	100	1.3	137	S 43 E
2734.0	8.00	35.4	358	N 2 W	100	1.3	136	S 44 E
2736.0	8.00	35.8	356	N 4 W	100	1.2	135	S 45 E
2740.0	8.00	39.1	96	S 84 E	88	1.2	136	S 44 E
2742.0	8.00	33.0	338	N 22 W	100	1.1	136	S 44 E
2748.0	8.00	32.4	346	N 14 W	100	1.1	136	S 44 E
2750.0	8.00	32.8	344	N 16 W	100	1.1	135	S 45 E
2752.0	8.00	31.4	355	N 5 W	94	1.1	133	S 47 E
2754.0	8.00	22.0	185	S 5 W	38	1.1	131	S 49 E
2756.0	8.00	60.7	353	N 7 W	44	1.1	130	S 50 E
2758.0	8.00	36.1	267	S 87 W	64	1.0	129	S 51 E
2760.0	8.00	32.3	340	N 20 W	56	1.0	129	S 51 E
2762.0	8.00	35.5	321	N 39 W	72	0.9	127	S 53 E
2764.0	8.00	30.2	331	N 29 W	72	0.9	126	S 54 E
2766.0	8.00	30.3	338	N 22 W	87	0.9	126	S 54 E
2770.0	8.00	57.2	111	S 69 E	52	0.9	126	S 54 E
2776.0	8.00	32.0	340	N 20 W	62	1.0	128	S 52 E
2778.0	8.00	32.2	340	N 20 W	100	1.0	129	S 51 E
2780.0	8.00	32.6	337	N 23 W	100	1.0	126	S 54 E
2782.0	8.00	26.4	342	N 18 W	81	1.0	129	S 51 E
2784.0	8.00	31.6	338	N 22 W	59	1.0	129	S 51 E
2786.0	8.00	32.5	338	N 22 W	68	1.0	128	S 52 E
2788.0	8.00	31.6	336	N 24 W	86	1.0	128	S 52 E
2790.0	8.00	31.3	338	N 22 W	100	0.9	127	S 53 E
2792.0	8.00	30.3	337	N 23 W	100	0.9	128	S 52 E
2794.0	8.00	32.1	335	N 25 W	100	0.8	129	S 51 E
2796.0	8.00	35.9	330	N 30 W	100	0.8	128	S 52 E
2798.0	8.00	28.0	344	N 16 W	100	0.8	128	S 52 E
2800.0	8.00	28.2	339	N 21 W	100	0.7	128	S 52 E
2802.0	8.00	27.6	343	N 17 W	61	0.7	131	S 49 E
2804.0	8.00	25.2	337	N 23 W	62	0.7	133	S 47 E
2806.0	8.00	25.1	336	N 24 W	58	0.6	139	S 41 E
2808.0	8.00	20.1	334	N 26 W	77	0.6	140	S 40 E
2810.0	8.00	44.2	167	S 13 E	73	0.7	141	S 39 E
2812.0	8.00	21.0	338	N 22 W	100	0.7	140	S 40 E
2814.0	8.00	30.5	338	N 22 W	100	0.7	143	S 37 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2816.0	8.00	28.6	338	N 22 W	93	0.8	143	S 37 E
2818.0	8.00	31.3	339	N 21 W	86	0.9	143	S 37 E
2820.0	8.00	30.5	338	N 22 W	61	0.9	144	S 36 E
2822.0	8.00	31.1	339	N 21 W	83	1.0	141	S 39 E
2824.0	8.00	31.9	339	N 21 W	100	1.1	137	S 43 E
2826.0	8.00	32.0	339	N 21 W	100	1.1	135	S 45 E
2828.0	8.00	32.1	340	N 20 W	100	1.1	134	S 46 E
2830.0	8.00	31.9	341	N 19 W	100	1.0	135	S 45 E
2832.0	8.00	22.6	339	N 21 W	100	0.9	131	S 49 E
2834.0	8.00	25.7	335	N 25 W	100	0.9	131	S 49 E
2836.0	8.00	25.1	334	N 26 W	100	0.9	131	S 49 E
2838.0	8.00	18.8	343	N 17 W	91	0.8	129	S 51 E
2840.0	8.00	32.5	344	N 16 W	98	0.8	129	S 51 E
2842.0	8.00	31.1	343	N 17 W	87	0.8	129	S 51 E
2844.0	8.00	31.8	340	N 20 W	61	0.8	130	S 50 E
2846.0	8.00	32.3	337	N 23 W	65	0.9	134	S 46 E
2848.0	8.00	37.1	62	N 62 E	94	0.9	138	S 42 E
2850.0	8.00	34.4	41	N 41 E	100	0.8	134	S 46 E
2852.0	8.00	45.4	0	N 0 E	100	0.7	137	S 43 E
2854.0	8.00	28.2	329	N 31 W	93	0.6	146	S 34 E
2856.0	8.00	46.0	355	N 5 W	73	0.5	150	S 30 E
2858.0	8.00	34.4	5	N 5 E	100	0.5	145	S 35 E
2860.0	8.00	32.7	1	N 1 E	86	0.5	143	S 37 E
2862.0	8.00	43.5	8	N 8 E	59	0.6	138	S 42 E
2864.0	8.00	43.2	9	N 9 E	62	0.7	141	S 39 E
2866.0	8.00	53.7	200	S 20 W	60	0.7	137	S 43 E
2868.0	8.00	48.3	145	S 35 E	47	0.8	134	S 46 E
2870.0	8.00	55.9	144	S 36 E	43	0.8	136	S 44 E
2872.0	8.00	62.8	102	S 78 E	39	0.8	133	S 47 E
2874.0	8.00	54.4	205	S 25 W	20	0.9	126	S 54 E
2876.0	8.00	52.6	78	N 78 E	78	0.9	125	S 55 E
2878.0	8.00	35.9	338	N 22 W	92	0.9	126	S 54 E
2880.0	8.00	34.6	337	N 23 W	100	0.8	126	S 54 E
2882.0	8.00	36.5	336	N 24 W	86	0.8	130	S 50 E
2884.0	8.00	59.4	334	N 26 W	54	0.8	129	S 51 E
2888.0	8.00	1.7	335	N 25 W	100	0.8	132	S 48 E
2890.0	8.00	1.1	249	S 69 W	100	0.7	128	S 52 E
2892.0	8.00	1.2	295	N 65 W	100	0.7	130	S 50 E
2894.0	8.00	0.3	226	S 46 W	100	0.7	130	S 50 E
2896.0	8.00	1.2	307	N 53 W	100	0.7	131	S 49 E

MARATHON OIL COMPANY
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
2898.0	8.00	1.3	330	N 30 W	100	0.7	132	S 48 E
2900.0	8.00	1.4	305	N 55 W	100	0.7	133	S 47 E
2902.0	8.00	1.5	313	N 47 W	100	0.7	132	S 48 E
2904.0	8.00	2.0	310	N 50 W	37	0.9	132	S 48 E
2906.0	8.00	2.2	322	N 38 W	34	1.0	130	S 50 E
2908.0	8.00	54.0	256	S 76 W	37	1.0	131	S 49 E
2910.0	8.00	52.8	236	S 56 W	45	1.0	132	S 48 E
2914.0	8.00	61.1	331	N 29 W	73	0.9	135	S 45 E
2916.0	8.00	61.1	333	N 27 W	60	0.8	133	S 47 E
2918.0	8.00	55.0	343	N 17 W	70	0.8	129	S 51 E
2920.0	8.00	55.5	345	N 15 W	79	0.9	131	S 49 E
2922.0	8.00	46.4	335	N 25 W	79	0.9	133	S 47 E
2924.0	8.00	30.7	336	N 24 W	100	0.9	133	S 47 E
2926.0	8.00	30.0	335	N 25 W	100	0.9	134	S 46 E
2928.0	8.00	29.0	336	N 24 W	59	0.9	134	S 46 E
2930.0	8.00	29.3	337	N 23 W	100	0.9	133	S 47 E
2932.0	8.00	28.6	339	N 21 W	93	0.9	133	S 47 E
2934.0	8.00	29.3	336	N 24 W	100	0.9	132	S 48 E
2936.0	8.00	28.7	336	N 24 W	74	0.9	131	S 49 E
2938.0	8.00	33.4	336	N 24 W	68	0.9	126	S 54 E
2940.0	8.00	35.7	337	N 23 W	92	0.9	132	S 48 E
2942.0	8.00	2.4	328	N 32 W	59	0.8	135	S 45 E
2944.0	8.00	2.3	327	N 33 W	52	0.8	132	S 48 E
2946.0	8.00	28.1	334	N 26 W	83	0.8	132	S 48 E
2948.0	8.00	28.1	333	N 27 W	76	0.8	133	S 47 E
2952.0	8.00	32.1	329	N 31 W	79	0.7	135	S 45 E
2956.0	8.00	2.3	324	N 36 W	59	0.7	138	S 42 E
2958.0	8.00	30.5	336	N 24 W	83	0.8	141	S 39 E
2960.0	8.00	30.5	337	N 23 W	96	0.8	143	S 37 E
2962.0	8.00	59.4	150	S 30 E	57	0.8	140	S 40 E
2964.0	8.00	30.9	334	N 26 W	100	0.8	140	S 40 E
2966.0	8.00	0.4	105	S 75 E	63	0.8	140	S 40 E
2968.0	8.00	32.7	334	N 26 W	97	0.9	141	S 39 E
2970.0	8.00	30.7	336	N 24 W	100	0.9	141	S 39 E
2972.0	8.00	32.0	333	N 27 W	100	0.9	141	S 39 E
2974.0	8.00	31.8	335	N 25 W	100	1.0	142	S 38 E
2976.0	8.00	31.0	337	N 23 W	100	1.0	141	S 39 E
2978.0	8.00	31.0	339	N 21 W	99	1.1	141	S 39 E
2980.0	8.00	30.0	341	N 19 W	100	1.1	140	S 40 E
2982.0	8.00	29.1	341	N 19 W	83	1.1	140	S 40 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
2984.0	8.00	31.2	335	N 25 W	85	1.1	140	S 40 E
2986.0	8.00	31.1	336	N 24 W	77	1.1	140	S 40 E
2988.0	8.00	30.8	337	N 23 W	42	1.1	140	S 40 E
2990.0	8.00	29.4	337	N 23 W	69	1.1	141	S 39 E
2994.0	8.00	38.8	330	N 30 W	78	1.0	142	S 38 E
2996.0	8.00	33.4	332	N 28 W	89	1.0	141	S 39 E
2998.0	8.00	32.0	333	N 27 W	100	1.0	143	S 37 E
3000.0	8.00	30.6	332	N 28 W	100	1.1	145	S 35 E
3002.0	8.00	30.5	332	N 28 W	100	1.1	145	S 35 E
3004.0	8.00	33.2	331	N 29 W	67	1.3	150	S 30 E
3006.0	8.00	55.2	335	N 25 W	61	1.4	152	S 28 E
3008.0	8.00	40.7	6	N 6 E	38	1.4	148	S 32 E
3010.0	8.00	50.8	291	N 69 W	55	1.8	153	S 27 E
3012.0	8.00	49.4	326	N 34 W	70	2.1	170	S 10 E
3014.0	8.00	42.3	352	N 8 W	95	1.8	177	S 3 E
3016.0	8.00	40.3	346	N 14 W	100	1.3	155	S 25 E
3018.0	8.00	26.7	344	N 16 W	90	1.6	153	S 27 E
3020.0	8.00	52.5	324	N 36 W	65	1.5	162	S 18 E
3022.0	8.00	35.8	324	N 36 W	41	1.4	157	S 23 E
3026.0	8.00	38.3	340	N 20 W	88	1.2	153	S 27 E
3028.0	8.00	38.9	341	N 19 W	100	1.2	153	S 27 E
3030.0	8.00	40.8	346	N 14 W	100	1.2	153	S 27 E
3032.0	8.00	40.9	345	N 15 W	100	1.2	153	S 27 E
3034.0	8.00	43.0	341	N 19 W	100	1.1	151	S 29 E
3036.0	8.00	40.9	342	N 18 W	65	1.0	150	S 30 E
3038.0	8.00	2.6	337	N 23 W	92	1.0	150	S 30 E
3040.0	8.00	0.6	184	S 4 W	100	1.0	150	S 30 E
3042.0	8.00	0.3	277	N 83 W	100	1.0	151	S 29 E
3044.0	8.00	0.5	194	S 14 W	100	1.1	152	S 28 E
3046.0	8.00	0.4	197	S 17 W	100	1.1	153	S 27 E
3048.0	8.00	0.4	214	S 34 W	100	1.2	154	S 26 E
3050.0	8.00	0.5	210	S 30 W	66	1.2	154	S 26 E
3052.0	8.00	0.4	235	S 55 W	100	1.2	153	S 27 E
3054.0	8.00	2.5	343	N 17 W	100	1.3	151	S 29 E
3056.0	8.00	2.3	339	N 21 W	100	1.3	150	S 30 E
3064.0	8.00	0.6	262	S 82 W	100	1.4	153	S 27 E
3066.0	8.00	0.4	249	S 69 W	100	1.3	155	S 25 E
3068.0	8.00	0.2	258	S 78 W	100	1.3	156	S 24 E
3070.0	8.00	0.3	288	N 72 W	100	1.3	152	S 28 E
3076.0	8.00	0.3	192	S 12 W	100	1.0	153	S 27 E

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HAWK SPRINGS 1-10
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
3078.0	8.00	0.5	192	S 12 W	100	1.0	154	S 26 E
3080.0	8.00	20.2	341	N 19 W	45	1.0	152	S 28 E
3082.0	8.00	22.3	331	N 29 W	52	1.0	148	S 32 E
3084.0	8.00	2.0	335	N 25 W	44	1.0	145	S 35 E
3086.0	8.00	1.8	332	N 28 W	80	1.0	145	S 35 E
3088.0	8.00	1.8	334	N 26 W	100	1.0	146	S 34 E
3090.0	8.00	1.6	333	N 27 W	100	1.0	147	S 33 E
3092.0	8.00	0.4	251	S 71 W	100	1.0	149	S 31 E
3094.0	8.00	0.5	198	S 18 W	100	1.0	150	S 30 E
3096.0	8.00	0.5	211	S 31 W	100	1.0	152	S 28 E
3098.0	8.00	0.7	204	S 24 W	73	1.0	154	S 26 E
3100.0	8.00	42.8	182	S 2 W	36	1.0	154	S 26 E
3102.0	8.00	14.4	347	N 13 W	92	1.1	153	S 27 E
3104.0	8.00	0.6	230	S 50 W	98	1.1	154	S 26 E
3106.0	8.00	0.8	262	S 82 W	100	1.2	155	S 25 E
3108.0	8.00	1.1	293	N 67 W	98	1.2	154	S 26 E
3110.0	8.00	0.9	316	N 44 W	100	1.3	156	S 24 E
3112.0	8.00	1.2	319	N 41 W	100	1.4	159	S 21 E
3114.0	8.00	58.5	347	N 13 W	69	1.7	158	S 22 E
3116.0	8.00	57.9	348	N 12 W	99	2.0	158	S 22 E
3118.0	8.00	56.0	347	N 13 W	100	1.8	154	S 26 E
3120.0	8.00	58.1	325	N 35 W	60	1.5	151	S 29 E
3122.0	8.00	57.2	342	N 18 W	47	1.4	154	S 26 E
3124.0	8.00	57.5	88	N 88 E	11	1.1	159	S 21 E
3126.0	8.00	65.4	339	N 21 W	32	1.1	159	S 21 E
3128.0	8.00	46.7	352	N 8 W	51	1.2	158	S 22 E
3130.0	8.00	49.9	328	N 32 W	51	1.3	158	S 22 E
3132.0	8.00	24.9	358	N 2 W	76	1.4	158	S 22 E
3134.0	8.00	45.3	359	N 1 W	100	1.4	159	S 21 E
3136.0	8.00	19.8	359	N 1 W	87	1.4	159	S 21 E
3138.0	8.00	18.6	2	N 2 E	100	1.4	159	S 21 E
3140.0	8.00	18.3	2	N 2 E	89	1.4	159	S 21 E
3142.0	8.00	32.6	7	N 7 E	63	1.4	159	S 21 E
3144.0	8.00	31.7	355	N 5 W	100	1.4	159	S 21 E
3146.0	8.00	2.4	333	N 27 W	79	1.3	159	S 21 E
3154.0	8.00	1.9	344	N 16 W	100	1.4	165	S 15 E
3156.0	8.00	15.3	1	N 1 E	100	1.4	165	S 15 E
3158.0	8.00	40.5	325	N 35 W	100	1.4	165	S 15 E
3160.0	8.00	2.8	351	N 9 W	100	1.4	163	S 17 E
3162.0	8.00	0.6	317	N 43 W	100	1.5	165	S 15 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
3164.0	8.00	1.0	308	N 52 W	100	1.6	164	S 16 E
3170.0	8.00	8.8	205	S 25 W	91	1.8	163	S 17 E
3174.0	8.00	47.9	87	N 87 E	19	1.7	161	S 19 E
3176.0	8.00	54.0	7	N 7 E	23	2.0	155	S 25 E
3178.0	8.00	22.0	25	N 25 E	31	2.2	156	S 24 E
3180.0	8.00	55.3	12	N 12 E	38	2.4	161	S 19 E
3182.0	8.00	54.4	18	N 18 E	58	2.3	167	S 13 E
3192.0	8.00	46.2	340	N 20 W	66	1.6	161	S 19 E
3194.0	8.00	46.2	341	N 19 W	65	1.6	163	S 17 E
3196.0	8.00	25.5	337	N 23 W	81	1.6	162	S 18 E
3200.0	8.00	21.9	192	S 12 W	61	1.8	166	S 14 E
3202.0	8.00	45.6	44	N 44 E	61	1.7	163	S 17 E
3204.0	8.00	49.9	336	N 24 W	54	2.1	160	S 20 E
3206.0	8.00	47.8	338	N 22 W	100	2.4	156	S 24 E
3208.0	8.00	36.0	17	N 17 E	70	2.4	161	S 19 E
3210.0	8.00	58.9	87	N 87 E	60	1.8	145	S 35 E
3212.0	8.00	35.6	18	N 18 E	58	1.6	151	S 29 E
3214.0	8.00	53.6	19	N 19 E	55	1.4	151	S 29 E
3216.0	8.00	55.0	55	N 55 E	51	1.4	153	S 27 E
3218.0	8.00	43.9	298	N 62 W	51	1.3	169	S 11 E
3220.0	8.00	42.5	325	N 35 W	93	1.5	154	S 26 E
3222.0	8.00	50.5	328	N 32 W	100	1.5	156	S 24 E
3224.0	8.00	53.8	303	N 57 W	73	1.3	157	S 23 E
3226.0	8.00	53.5	304	N 56 W	58	1.1	159	S 21 E
3228.0	8.00	45.4	215	S 35 W	50	1.0	161	S 19 E
3230.0	8.00	46.8	251	S 71 W	46	1.0	160	S 20 E
3232.0	8.00	47.4	245	S 65 W	56	1.2	158	S 22 E
3234.0	8.00	46.9	242	S 62 W	56	1.4	155	S 25 E
3236.0	8.00	46.9	243	S 63 W	41	1.5	160	S 20 E
3244.0	8.00	60.3	19	N 19 E	23	1.3	158	S 22 E
3246.0	8.00	60.4	22	N 22 E	51	1.3	157	S 23 E
3248.0	8.00	45.9	333	N 27 W	17	1.3	153	S 27 E
3250.0	8.00	54.5	13	N 13 E	17	1.2	155	S 25 E
3252.0	8.00	41.7	317	N 43 W	54	1.0	157	S 23 E
3256.0	8.00	30.1	66	N 66 E	36	1.2	162	S 18 E
3258.0	8.00	21.6	79	N 79 E	60	1.1	162	S 18 E
3260.0	8.00	38.3	262	S 82 W	75	1.0	161	S 19 E
3262.0	8.00	20.6	298	N 62 W	76	0.9	165	S 15 E
3264.0	8.00	32.4	335	N 25 W	100	1.0	169	S 11 E
3266.0	8.00	51.5	352	N 8 W	72	0.8	169	S 11 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
3268.0	8.00	49.5	303	N 57 W	9	0.6	166	S 14 E
3270.0	8.00	51.7	37	N 37 E	70	0.7	172	S 8 E
3280.0	8.00	41.1	345	N 15 W	90	0.3	187	S 7 W
3282.0	8.00	41.5	330	N 30 W	68	0.3	187	S 7 W
3300.0	8.00	59.6	37	N 37 E	20	0.5	159	S 21 E
3302.0	8.00	42.2	358	N 2 W	64	0.5	158	S 22 E
3306.0	8.00	60.1	10	N 10 E	28	0.3	167	S 13 E
3308.0	8.00	61.7	9	N 9 E	27	0.3	167	S 13 E
3310.0	8.00	57.7	323	N 37 W	59	0.3	164	S 16 E
3312.0	8.00	63.2	304	N 56 W	7	0.2	166	S 14 E
3314.0	8.00	55.3	101	S 79 E	22	0.2	174	S 6 E
3318.0	8.00	38.9	98	S 82 E	28	0.2	177	S 3 E
3320.0	8.00	20.0	131	S 49 E	18	0.2	177	S 3 E
3322.0	8.00	17.0	157	S 23 E	39	0.1	186	S 6 W
3328.0	8.00	45.5	19	N 19 E	22	0.3	191	S 11 W
3334.0	8.00	44.2	271	N 89 W	56	0.7	194	S 14 W
3336.0	8.00	44.5	295	N 65 W	65	0.8	194	S 14 W
3340.0	8.00	48.0	238	S 58 W	20	1.1	187	S 7 W
3342.0	8.00	0.7	350	N 10 W	100	0.9	167	S 13 E
3344.0	8.00	0.8	16	N 16 E	100	0.7	194	S 14 W
3346.0	8.00	48.0	5	N 5 E	63	0.9	192	S 12 W
3348.0	8.00	18.7	63	N 63 E	41	1.2	182	S 2 W
3350.0	8.00	8.8	272	N 88 W	83	1.6	190	S 10 W
3356.0	8.00	41.0	343	N 17 W	54	1.5	177	S 3 E
3358.0	8.00	43.5	346	N 14 W	56	1.3	169	S 11 E
3364.0	8.00	58.7	315	N 45 W	50	1.4	198	S 18 W
3366.0	8.00	51.0	232	S 52 W	63	1.5	193	S 13 W
3370.0	8.00	14.1	228	S 48 W	52	1.6	188	S 8 W
3376.0	8.00	42.2	216	S 36 W	70	2.0	182	S 2 W
3378.0	8.00	37.5	209	S 29 W	82	2.2	173	S 7 E
3380.0	8.00	38.9	205	S 25 W	76	2.2	177	S 3 E
3382.0	8.00	25.8	143	S 37 E	53	2.2	177	S 3 E
3386.0	8.00	48.9	308	N 52 W	42	3.1	172	S 8 E
3390.0	8.00	45.6	349	N 11 W	43	3.0	184	S 4 W
3392.0	8.00	45.7	117	S 63 E	31	2.6	183	S 3 W
3394.0	8.00	53.4	201	S 21 W	76	2.5	185	S 5 W
3396.0	8.00	50.9	277	N 83 W	93	2.5	184	S 4 W
3398.0	8.00	19.6	253	S 73 W	94	2.5	185	S 5 W
3400.0	8.00	62.8	105	S 75 E	60	2.5	185	S 5 W
3402.0	8.00	61.9	101	S 79 E	58	2.6	181	S 1 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
3404.0	8.00	46.7	66	N 66 E	28	2.4	191	S 11 W
3406.0	8.00	39.9	162	S 18 E	44	2.2	191	S 11 W
3410.0	8.00	60.1	119	S 61 E	54	2.3	190	S 10 W
3412.0	8.00	61.0	128	S 52 E	52	2.3	194	S 14 W
3414.0	8.00	2.5	176	S 4 E	14	2.4	191	S 11 W
3416.0	8.00	51.0	192	S 12 W	39	2.5	195	S 15 W
3418.0	8.00	49.4	203	S 23 W	16	2.6	196	S 16 W
3422.0	8.00	52.5	245	S 65 W	81	2.6	195	S 15 W
3424.0	8.00	54.6	244	S 64 W	61	2.6	191	S 11 W
3428.0	8.00	54.0	36	N 36 E	9	2.6	196	S 16 W
3430.0	8.00	62.3	27	N 27 E	50	2.8	196	S 16 W
3434.0	8.00	38.2	290	N 70 W	88	3.1	200	S 20 W
3438.0	8.00	58.1	66	N 66 E	49	3.3	196	S 16 W
3440.0	8.00	56.6	68	N 68 E	62	3.3	195	S 15 W
3444.0	8.00	55.0	10	N 10 E	88	3.4	193	S 13 W
3448.0	8.00	49.9	9	N 9 E	64	3.5	191	S 11 W
3452.0	8.00	49.3	78	N 78 E	62	3.5	194	S 14 W
3454.0	8.00	40.0	99	S 81 E	65	3.5	195	S 15 W
3456.0	8.00	30.4	69	N 69 E	86	3.5	196	S 16 W
3462.0	8.00	28.9	196	S 16 W	61	3.6	201	S 21 W
3466.0	8.00	6.8	248	S 68 W	72	3.5	195	S 15 W
3468.0	8.00	12.3	261	S 81 W	65	3.5	199	S 19 W
3472.0	8.00	62.5	14	N 14 E	66	3.6	197	S 17 W
3474.0	8.00	65.5	326	N 34 W	10	3.6	200	S 20 W
3476.0	8.00	65.5	11	N 11 E	42	3.7	199	S 19 W
3478.0	8.00	43.8	281	N 79 W	81	3.7	198	S 18 W
3480.0	8.00	51.8	37	N 37 E	73	3.7	198	S 18 W
3482.0	8.00	35.3	216	S 36 W	95	3.6	198	S 18 W
3484.0	8.00	36.2	217	S 37 W	48	3.6	198	S 18 W
3486.0	8.00	36.9	48	N 48 E	48	3.6	197	S 17 W
3496.0	8.00	39.6	52	N 52 E	56	3.7	200	S 20 W
3498.0	8.00	39.5	6	N 6 E	58	3.7	199	S 19 W
3502.0	8.00	61.1	310	N 50 W	5	3.7	197	S 17 W
3504.0	8.00	55.5	155	S 25 E	44	3.7	201	S 21 W
3506.0	8.00	55.6	26	N 26 E	62	3.7	201	S 21 W
3508.0	8.00	54.5	11	N 11 E	82	3.6	202	S 22 W
3510.0	8.00	56.4	352	N 8 W	100	3.6	204	S 24 W
3514.0	8.00	64.2	10	N 10 E	68	3.5	200	S 20 W
3516.0	8.00	56.4	160	S 20 E	38	3.6	201	S 21 W
3518.0	8.00	40.7	246	S 66 W	44	3.8	197	S 17 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
3520.0	8.00	58.8	331	N 29 W	22	3.9	201	S 21 W
3522.0	8.00	57.6	330	N 30 W	76	4.0	200	S 20 W
3524.0	8.00	43.3	156	S 24 E	61	3.9	201	S 21 W
3528.0	8.00	11.0	168	S 12 E	94	3.8	201	S 21 W
3530.0	8.00	43.6	278	N 82 W	100	3.9	203	S 23 W
3532.0	8.00	44.5	278	N 82 W	92	4.0	204	S 24 W
3534.0	8.00	57.7	177	S 3 E	57	4.1	204	S 24 W
3536.0	8.00	51.7	126	S 54 E	23	4.1	203	S 23 W
3538.0	8.00	46.8	225	S 45 W	25	4.0	201	S 21 W
3540.0	8.00	43.9	284	N 76 W	84	4.0	199	S 19 W
3542.0	8.00	44.1	287	N 73 W	100	4.1	200	S 20 W
3544.0	8.00	32.8	306	N 54 W	55	4.4	199	S 19 W
3548.0	8.00	61.1	22	N 22 E	50	4.8	192	S 12 W
3554.0	8.00	60.6	12	N 12 E	16	3.5	201	S 21 W
3556.0	8.00	15.4	68	N 68 E	90	3.6	196	S 16 W
3566.0	8.00	63.4	23	N 23 E	36	4.1	207	S 27 W
3568.0	8.00	61.8	103	S 77 E	28	3.9	206	S 26 W
3572.0	8.00	41.0	358	N 2 W	78	4.0	208	S 28 W
3574.0	8.00	18.8	20	N 20 E	59	3.9	198	S 18 W
3576.0	8.00	62.4	349	N 11 W	45	4.0	203	S 23 W
3580.0	8.00	12.2	176	S 4 E	6	3.9	75	N 75 E
3584.0	8.00	3.4	187	S 7 W	7	3.3	21	N 21 E
3586.0	8.00	50.7	266	S 86 W	27	2.7	179	S 1 E
3588.0	8.00	51.9	267	S 87 W	39	2.0	119	S 61 E
3590.0	8.00	50.7	236	S 56 W	30	1.6	53	N 53 E
3592.0	8.00	52.0	235	S 55 W	20	2.1	73	N 73 E
3594.0	8.00	58.2	62	N 62 E	2	3.3	133	S 47 E
3596.0	8.00	52.3	254	S 74 W	51	3.9	168	S 12 E
3598.0	8.00	61.5	352	N 8 W	14	3.9	204	S 24 W
3600.0	8.00	54.7	257	S 77 W	27	4.0	205	S 25 W
3602.0	8.00	45.6	239	S 59 W	58	4.1	206	S 26 W
3604.0	8.00	56.4	241	S 61 W	53	4.0	206	S 26 W
3606.0	8.00	45.0	228	S 48 W	66	3.6	204	S 24 W
3608.0	8.00	31.2	170	S 10 E	65	3.5	206	S 26 W
3610.0	8.00	49.7	347	N 13 W	37	3.7	201	S 21 W
3612.0	8.00	52.1	342	N 18 W	27	3.7	206	S 26 W
3614.0	8.00	52.8	334	N 26 W	10	3.9	194	S 14 W
3616.0	8.00	65.2	10	N 10 E	52	4.2	196	S 16 W
3618.0	8.00	57.0	359	N 1 W	59	4.2	62	N 62 E
3620.0	8.00	62.9	355	N 5 W	53	4.0	201	S 21 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
3622.0	8.00	49.8	37	N 37 E	30	3.6	201	S 21 W
3624.0	8.00	55.4	244	S 64 W	19	3.5	197	S 17 W
3626.0	8.00	44.6	183	S 3 W	62	3.6	196	S 16 W
3628.0	8.00	50.5	212	S 32 W	79	3.7	201	S 21 W
3630.0	8.00	62.6	172	S 8 E	73	3.8	199	S 19 W
3632.0	8.00	48.2	316	N 44 W	83	3.8	205	S 25 W
3636.0	8.00	51.9	179	S 1 E	21	3.7	201	S 21 W
3638.0	8.00	48.2	232	S 52 W	96	3.6	294	N 66 W
3642.0	8.00	51.9	303	N 57 W	48	3.7	321	N 39 W
3644.0	8.00	56.1	291	N 69 W	49	3.7	200	S 20 W
3648.0	8.00	28.3	120	S 60 E	56	3.6	95	S 85 E
3654.0	8.00	26.3	284	N 76 W	92	4.0	198	S 18 W
3656.0	8.00	33.0	193	S 13 W	74	4.1	201	S 21 W
3662.0	8.00	66.6	30	N 30 E	65	3.9	208	S 28 W
3664.0	8.00	66.9	27	N 27 E	16	4.0	207	S 27 W
3666.0	8.00	50.7	226	S 46 W	41	4.0	205	S 25 W
3668.0	8.00	59.3	287	N 73 W	78	3.9	203	S 23 W
3672.0	8.00	34.7	127	S 53 E	69	3.5	202	S 22 W
3674.0	8.00	54.6	275	N 85 W	53	3.6	202	S 22 W
3676.0	8.00	52.2	238	S 58 W	40	3.7	201	S 21 W
3678.0	8.00	63.0	115	S 65 E	22	3.6	198	S 18 W
3680.0	8.00	61.8	51	N 51 E	53	3.5	203	S 23 W
3682.0	8.00	60.9	54	N 54 E	59	3.5	202	S 22 W
3688.0	8.00	54.4	59	N 59 E	100	3.4	201	S 21 W
3692.0	8.00	51.2	56	N 56 E	100	3.5	201	S 21 W
3694.0	8.00	53.5	53	N 53 E	84	3.5	208	S 28 W
3696.0	8.00	41.7	71	N 71 E	100	3.4	203	S 23 W
3698.0	8.00	32.7	78	N 78 E	100	3.4	202	S 22 W
3704.0	8.00	21.3	35	N 35 E	61	3.5	200	S 20 W
3718.0	8.00	10.9	307	N 53 W	66	3.2	198	S 18 W
3720.0	8.00	11.6	356	N 4 W	29	3.3	200	S 20 W
3722.0	8.00	25.3	353	N 7 W	16	3.3	202	S 22 W
3726.0	8.00	42.0	279	N 81 W	30	3.3	199	S 19 W
3728.0	8.00	43.7	282	N 78 W	20	3.3	200	S 20 W
3730.0	8.00	43.6	280	N 80 W	22	3.3	200	S 20 W
3734.0	8.00	58.8	207	S 27 W	6	3.3	199	S 19 W
3736.0	8.00	45.2	353	N 7 W	80	3.3	202	S 22 W
3738.0	8.00	41.6	6	N 6 E	71	3.3	203	S 23 W
3740.0	8.00	43.4	331	N 29 W	85	3.2	201	S 21 W
3742.0	8.00	61.7	155	S 25 E	23	3.2	201	S 21 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
3744.0	8.00	63.1	145	S 35 E	81	3.2	198	S 18 W
3746.0	8.00	58.7	140	S 40 E	28	3.3	200	S 20 W
3748.0	8.00	44.5	253	S 73 W	68	3.3	200	S 20 W
3750.0	8.00	54.9	81	N 81 E	45	3.4	201	S 21 W
3752.0	8.00	54.5	172	S 8 E	23	3.3	203	S 23 W
3758.0	8.00	49.8	326	N 34 W	53	3.5	203	S 23 W
3760.0	8.00	49.3	211	S 31 W	37	3.6	203	S 23 W
3762.0	8.00	60.2	333	N 27 W	68	3.7	204	S 24 W
3764.0	8.00	56.0	351	N 9 W	100	3.7	201	S 21 W
3766.0	8.00	46.9	9	N 9 E	91	3.6	198	S 18 W
3770.0	8.00	54.8	37	N 37 E	76	3.8	198	S 18 W
3772.0	8.00	57.1	350	N 10 W	42	3.8	192	S 12 W
3778.0	8.00	58.3	59	N 59 E	31	3.6	207	S 27 W
3780.0	8.00	63.2	79	N 79 E	29	3.7	211	S 31 W
3782.0	8.00	52.3	91	S 89 E	46	3.8	213	S 33 W
3786.0	8.00	67.0	53	N 53 E	11	4.3	205	S 25 W
3788.0	8.00	35.6	138	S 42 E	70	4.5	209	S 29 W
3790.0	8.00	34.8	136	S 44 E	88	4.4	204	S 24 W
3792.0	8.00	19.8	194	S 14 W	85	4.3	198	S 18 W
3794.0	8.00	60.7	202	S 22 W	43	4.4	197	S 17 W
3800.0	8.00	63.1	135	S 45 E	36	4.5	204	S 24 W
3802.0	8.00	43.0	88	N 88 E	72	4.6	200	S 20 W
3804.0	8.00	48.0	64	N 64 E	69	4.9	194	S 14 W
3806.0	8.00	26.9	30	N 30 E	100	5.0	199	S 19 W
3808.0	8.00	26.1	23	N 23 E	100	4.7	195	S 15 W
3812.0	8.00	52.4	18	N 18 E	65	4.5	196	S 16 W
3814.0	8.00	39.1	305	N 55 W	100	4.4	193	S 13 W
3816.0	8.00	51.4	296	N 64 W	75	4.3	197	S 17 W
3818.0	8.00	50.4	288	N 72 W	68	4.3	202	S 22 W
3820.0	8.00	58.3	272	N 88 W	57	4.4	205	S 25 W
3822.0	8.00	53.6	287	N 73 W	95	4.4	201	S 21 W
3826.0	8.00	70.0	68	N 68 E	40	4.4	199	S 19 W
3828.0	8.00	48.9	308	N 52 W	68	4.4	198	S 18 W
3832.0	8.00	40.1	281	N 79 W	54	4.4	202	S 22 W
3840.0	8.00	48.0	321	N 39 W	60	4.4	197	S 17 W
3842.0	8.00	46.5	310	N 50 W	37	4.5	194	S 14 W
3846.0	8.00	42.3	174	S 6 E	93	4.4	195	S 15 W
3848.0	8.00	57.2	96	S 84 E	60	4.4	196	S 16 W
3850.0	8.00	55.8	80	N 80 E	85	4.4	193	S 13 W
3852.0	8.00	57.5	77	N 77 E	46	4.4	197	S 17 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
3854.0	8.00	38.7	262	S 82 W	21	4.4	200	S 20 W
3856.0	8.00	51.7	12	N 12 E	54	4.3	201	S 21 W
3858.0	8.00	57.8	237	S 57 W	63	4.3	202	S 22 W
3862.0	8.00	31.1	27	N 27 E	64	4.4	195	S 15 W
3864.0	8.00	34.1	247	S 67 W	90	4.2	194	S 14 W
3866.0	8.00	32.7	247	S 67 W	76	4.1	195	S 15 W
3876.0	8.00	19.4	342	N 18 W	63	4.2	195	S 15 W
3878.0	8.00	61.1	16	N 16 E	68	4.1	199	S 19 W
3886.0	8.00	48.5	266	S 86 W	21	4.3	193	S 13 W
3888.0	8.00	43.5	60	N 60 E	89	4.3	197	S 17 W
3894.0	8.00	59.9	127	S 53 E	57	4.6	196	S 16 W
3896.0	8.00	63.7	316	N 44 W	58	4.6	196	S 16 W
3898.0	8.00	9.3	172	S 8 E	47	4.4	195	S 15 W
3900.0	8.00	9.7	171	S 9 E	42	4.4	193	S 13 W
3902.0	8.00	53.8	279	N 81 W	57	4.4	197	S 17 W
3904.0	8.00	51.1	280	N 80 W	70	4.4	196	S 16 W
3906.0	8.00	52.0	287	N 73 W	65	4.4	195	S 15 W
3908.0	8.00	55.3	263	S 83 W	17	4.5	191	S 11 W
3910.0	8.00	40.4	228	S 48 W	68	4.5	195	S 15 W
3914.0	8.00	43.9	194	S 14 W	88	4.1	196	S 16 W
3916.0	8.00	53.6	208	S 28 W	54	4.1	193	S 13 W
3920.0	8.00	66.1	60	N 60 E	60	4.1	193	S 13 W
3922.0	8.00	49.3	273	N 87 W	43	4.2	194	S 14 W
3924.0	8.00	54.6	262	S 82 W	29	4.2	191	S 11 W
3926.0	8.00	61.3	243	S 63 W	34	4.1	191	S 11 W
3928.0	8.00	61.4	253	S 73 W	69	4.2	189	S 9 W
3930.0	8.00	58.0	145	S 35 E	24	4.2	190	S 10 W
3932.0	8.00	65.2	72	N 72 E	37	4.4	193	S 13 W
3934.0	8.00	48.6	254	S 74 W	30	4.5	191	S 11 W
3936.0	8.00	59.0	10	N 10 E	56	4.7	192	S 12 W
3938.0	8.00	53.1	255	S 75 W	49	5.2	194	S 14 W
3940.0	8.00	46.4	257	S 77 W	70	5.2	192	S 12 W
3942.0	8.00	51.3	260	S 80 W	73	5.1	192	S 12 W
3944.0	8.00	55.2	258	S 78 W	100	4.7	189	S 9 W
3946.0	8.00	53.6	239	S 59 W	56	4.8	187	S 7 W
3948.0	8.00	54.1	257	S 77 W	99	4.9	187	S 7 W
3950.0	8.00	62.1	108	S 72 E	29	5.0	189	S 9 W
3952.0	8.00	55.2	256	S 76 W	96	5.0	189	S 9 W
3954.0	8.00	48.2	173	S 7 E	87	5.0	189	S 9 W
3956.0	8.00	43.9	234	S 54 W	100	4.9	182	S 2 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
06/22/81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
3958.0	8.00	39.6	181	S 1 W	96	4.7	181	S 1 W	
3962.0	8.00	38.1	252	S 72 W	25	4.4	186	S 6 W	
3964.0	8.00	60.5	244	S 64 W	56	4.3	185	S 5 W	
3966.0	8.00	53.7	218	S 38 W	61	4.1	186	S 6 W	
3968.0	8.00	26.8	177	S 3 E	46	4.1	184	S 4 W	
3970.0	8.00	47.2	299	N 61 W	63	4.1	186	S 6 W	
3972.0	8.00	49.8	299	N 61 W	64	4.0	183	S 3 W	
3974.0	8.00	58.4	265	S 85 W	76	4.0	179	S 1 E	
3976.0	8.00	48.9	291	N 69 W	28	4.0	187	S 7 W	
3984.0	8.00	27.7	161	S 19 E	74	4.2	183	S 3 W	
3986.0	8.00	51.5	229	S 49 W	62	4.2	184	S 4 W	
3988.0	8.00	52.2	226	S 46 W	37	4.2	182	S 2 W	
3994.0	8.00	55.0	349	N 11 W	98	4.3	182	S 2 W	
3998.0	8.00	48.0	346	N 14 W	23	4.3	182	S 2 W	

Dresser Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

INTERVAL 3980.0 TO 10280.0
RUN RLAC 81.
ENGINEER PAULSON MAG DEC 15.

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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
3984.0	8.00	59.0	267	S 87 W	17	3.7	188	S 8 W	
3986.0	8.00	61.2	274	N 86 W	56	3.6	185	S 5 W	
3990.0	8.00	54.8	117	S 63 E	50	3.2	179	S 1 E	
3996.0	8.00	53.0	162	S 18 E	59	3.3	176	S 4 E	
3998.0	8.00	55.8	137	S 43 E	83	3.3	309	N 51 W	
4000.0	8.00	47.0	305	N 55 W	28	3.3	143	S 37 E	
4004.0	8.00	41.4	322	N 38 W	18	3.4	162	S 18 E	
4006.0	8.00	37.5	239	S 59 W	24	3.5	157	S 23 E	
4008.0	8.00	33.1	280	N 80 W	78	3.7	151	S 29 E	
4010.0	8.00	43.1	229	S 49 W	100	3.8	155	S 25 E	
4012.0	8.00	38.5	176	S 4 E	100	3.8	156	S 24 E	
4014.0	8.00	30.3	172	S 8 E	70	3.8	159	S 21 E	
4016.0	8.00	57.0	119	S 61 E	12	3.8	159	S 21 E	
4018.0	8.00	73.3	330	N 30 W	11	3.7	160	S 20 E	
4020.0	8.00	71.1	214	S 34 W	51	3.7	157	S 23 E	
4022.0	8.00	60.0	172	S 8 E	30	3.6	158	S 22 E	
4024.0	8.00	69.2	216	S 36 W	41	3.6	160	S 20 E	
4026.0	8.00	63.6	233	S 53 W	28	3.4	158	S 22 E	
4028.0	8.00	60.8	180	S 0 E	17	3.3	158	S 22 E	
4030.0	8.00	62.1	70	N 70 E	19	3.3	157	S 23 E	
4032.0	8.00	56.1	141	S 39 E	18	3.3	157	S 23 E	
4034.0	8.00	46.7	206	S 26 W	16	3.2	158	S 22 E	
4036.0	8.00	55.8	92	S 88 E	25	3.2	155	S 25 E	
4038.0	8.00	49.8	125	S 55 E	17	3.1	157	S 23 E	
4040.0	8.00	56.2	64	N 64 E	6	3.0	156	S 24 E	
4042.0	8.00	56.3	64	N 64 E	20	2.9	155	S 25 E	
4044.0	8.00	57.3	345	N 15 W	16	2.9	156	S 24 E	
4048.0	8.00	60.1	162	S 18 E	45	2.9	154	S 26 E	
4050.0	8.00	43.3	208	S 28 W	40	2.9	154	S 26 E	

DresserAtlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4052.0	8.00	44.4	217	S 37 W	43	2.9	154	S 26 E
4054.0	8.00	49.4	222	S 42 W	22	3.0	154	S 26 E
4056.0	8.00	56.9	20	N 20 E	8	3.2	109	S 71 E
4058.0	8.00	52.0	27	N 27 E	5	3.2	165	S 15 E
4062.0	8.00	27.1	352	N 8 W	8	3.2	173	S 7 E
4064.0	8.00	39.4	306	N 54 W	21	3.2	173	S 7 E
4066.0	8.00	62.0	154	S 26 E	23	3.1	171	S 9 E
4068.0	8.00	62.1	155	S 25 E	37	3.2	171	S 9 E
4070.0	8.00	61.9	158	S 22 E	61	3.1	169	S 11 E
4072.0	8.00	58.9	68	N 68 E	36	3.1	170	S 10 E
4074.0	8.00	65.6	286	N 74 W	45	3.2	169	S 11 E
4076.0	8.00	66.5	283	N 77 W	36	3.2	167	S 13 E
4082.0	8.00	28.4	295	N 65 W	4	3.2	166	S 14 E
4084.0	8.00	42.4	170	S 10 E	46	3.3	167	S 13 E
4086.0	8.00	54.1	29	N 29 E	18	3.3	166	S 14 E
4088.0	8.00	51.8	104	S 76 E	16	3.3	168	S 12 E
4090.0	8.00	66.1	359	N 1 W	50	3.3	169	S 11 E
4092.0	8.00	67.9	356	N 4 W	50	3.3	169	S 11 E
4094.0	8.00	59.9	146	S 34 E	18	3.4	169	S 11 E
4096.0	8.00	49.6	325	N 35 W	36	3.4	169	S 11 E
4098.0	8.00	56.3	346	N 14 W	20	3.4	170	S 10 E
4100.0	8.00	64.5	306	N 54 W	18	3.4	169	S 11 E
4102.0	8.00	66.4	200	S 20 W	47	3.3	166	S 14 E
4104.0	8.00	55.7	353	N 7 W	90	3.3	166	S 14 E
4108.0	8.00	34.7	82	N 82 E	42	3.3	168	S 12 E
4110.0	8.00	55.7	5	N 5 E	28	3.4	169	S 11 E
4112.0	8.00	34.9	17	N 17 E	36	3.4	170	S 10 E
4114.0	8.00	34.6	18	N 18 E	30	3.4	170	S 10 E
4116.0	8.00	34.4	11	N 11 E	23	3.6	165	S 15 E
4118.0	8.00	52.3	130	S 50 E	53	3.7	152	S 28 E
4120.0	8.00	61.6	123	S 57 E	35	3.7	154	S 26 E
4124.0	8.00	57.9	76	N 76 E	13	3.8	155	S 25 E
4128.0	8.00	61.1	95	S 85 E	24	3.8	153	S 27 E
4130.0	8.00	57.9	272	N 88 W	51	3.8	153	S 27 E
4132.0	8.00	63.1	322	N 38 W	47	3.7	156	S 24 E
4134.0	8.00	66.6	322	N 38 W	50	3.7	155	S 25 E
4136.0	8.00	52.1	188	S 8 W	62	3.7	153	S 27 E
4138.0	8.00	63.6	315	N 45 W	62	3.7	154	S 26 E
4140.0	8.00	47.8	332	N 28 W	72	3.7	153	S 27 E
4142.0	8.00	42.5	345	N 15 W	43	3.7	152	S 28 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4144.0	8.00	54.7	300	N 60 W	56	3.8	153	S 27 E
4146.0	8.00	64.6	136	S 44 E	12	3.8	154	S 26 E
4148.0	8.00	53.2	107	S 73 E	9	3.8	153	S 27 E
4152.0	8.00	46.4	154	S 26 E	46	3.7	153	S 27 E
4154.0	8.00	46.6	152	S 28 E	59	3.7	152	S 28 E
4156.0	8.00	43.3	168	S 12 E	76	3.7	151	S 29 E
4158.0	8.00	35.1	248	S 68 W	96	3.7	153	S 27 E
4160.0	8.00	42.9	97	S 83 E	32	3.8	148	S 32 E
4162.0	8.00	56.7	88	N 88 E	17	3.8	151	S 29 E
4164.0	8.00	60.7	273	N 87 W	12	3.8	149	S 31 E
4166.0	8.00	67.0	238	S 58 W	38	3.9	149	S 31 E
4168.0	8.00	75.8	304	N 56 W	34	3.8	150	S 30 E
4170.0	8.00	72.1	331	N 29 W	40	3.9	150	S 30 E
4172.0	8.00	63.0	127	S 53 E	30	3.8	146	S 34 E
4174.0	8.00	59.8	204	S 24 W	36	3.9	148	S 32 E
4176.0	8.00	41.6	223	S 43 W	49	3.9	147	S 33 E
4178.0	8.00	47.8	146	S 34 E	49	3.8	148	S 32 E
4180.0	8.00	39.4	355	N 5 W	21	3.9	146	S 34 E
4182.0	8.00	45.0	5	N 5 E	100	3.9	147	S 33 E
4184.0	8.00	37.1	358	N 2 W	100	3.9	149	S 31 E
4186.0	8.00	36.5	357	N 3 W	100	3.9	148	S 32 E
4188.0	8.00	37.2	359	N 1 W	93	3.9	149	S 31 E
4190.0	8.00	35.9	313	N 47 W	67	3.9	146	S 34 E
4192.0	8.00	36.3	315	N 45 W	100	3.9	147	S 33 E
4194.0	8.00	35.3	316	N 44 W	100	4.0	147	S 33 E
4198.0	8.00	40.3	345	N 15 W	41	4.0	146	S 34 E
4200.0	8.00	60.6	160	S 20 E	10	4.0	143	S 37 E
4202.0	8.00	65.7	190	S 10 W	33	4.2	134	S 46 E
4208.0	8.00	50.0	226	S 46 W	65	4.0	143	S 37 E
4210.0	8.00	49.1	222	S 42 W	73	4.0	145	S 35 E
4212.0	8.00	57.0	228	S 48 W	14	4.1	142	S 38 E
4214.0	8.00	72.1	33	N 33 E	24	4.1	142	S 38 E
4216.0	8.00	35.3	256	S 76 W	47	4.1	145	S 35 E
4218.0	8.00	33.4	264	S 84 W	40	4.0	150	S 30 E
4220.0	8.00	62.8	338	N 22 W	24	4.0	146	S 34 E
4222.0	8.00	49.7	3	N 3 E	35	4.1	146	S 34 E
4224.0	8.00	69.8	261	S 81 W	13	4.1	146	S 34 E
4228.0	8.00	64.9	33	N 33 E	56	4.8	143	S 37 E
4230.0	8.00	51.3	207	S 27 W	60	4.4	144	S 36 E
4232.0	8.00	50.7	228	S 48 W	65	4.2	142	S 38 E

EnseeAtlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4234.0	8.00	39.4	154	S 26 E	42	3.9	141	S 39 E
4238.0	8.00	57.4	128	S 52 E	23	4.1	135	S 45 E
4240.0	8.00	53.6	82	N 82 E	20	4.2	131	S 49 E
4242.0	8.00	27.5	171	S 9 E	19	4.2	136	S 44 E
4244.0	8.00	46.1	19	N 19 E	35	4.5	142	S 38 E
4246.0	8.00	43.0	170	S 10 E	43	5.0	135	S 45 E
4248.0	8.00	41.8	198	S 18 W	55	4.8	138	S 42 E
4250.0	8.00	44.6	190	S 10 W	36	4.3	136	S 44 E
4252.0	8.00	46.5	244	S 64 W	22	4.3	139	S 41 E
4254.0	8.00	62.3	262	S 82 W	8	4.3	144	S 36 E
4256.0	8.00	56.7	26	N 26 E	55	4.2	145	S 35 E
4258.0	8.00	55.8	34	N 34 E	26	4.2	149	S 31 E
4260.0	8.00	61.4	94	S 86 E	58	4.3	150	S 30 E
4262.0	8.00	7.5	50	N 50 E	74	4.1	138	S 42 E
4264.0	8.00	61.4	39	N 39 E	65	4.4	127	S 53 E
4268.0	8.00	22.2	64	N 64 E	40	4.5	139	S 41 E
4270.0	8.00	62.4	91	S 89 E	11	4.3	138	S 42 E
4274.0	8.00	69.3	336	N 24 W	16	4.3	141	S 39 E
4276.0	8.00	49.2	331	N 29 W	28	4.3	141	S 39 E
4278.0	8.00	75.1	343	N 17 W	29	4.3	140	S 40 E
4282.0	8.00	50.8	86	N 86 E	34	4.3	141	S 39 E
4290.0	8.00	68.3	183	S 3 W	23	4.2	135	S 45 E
4292.0	8.00	11.1	88	N 88 E	45	4.2	134	S 46 E
4294.0	8.00	9.0	66	N 66 E	43	4.2	132	S 48 E
4296.0	8.00	62.8	224	S 44 W	39	4.2	131	S 49 E
4298.0	8.00	60.6	218	S 38 W	16	4.2	131	S 49 E
4300.0	8.00	64.0	294	N 66 W	22	4.4	132	S 48 E
4304.0	8.00	46.1	7	N 7 E	47	4.1	133	S 47 E
4310.0	8.00	69.0	311	N 49 W	19	4.1	135	S 45 E
4312.0	8.00	45.7	289	N 71 W	39	4.1	135	S 45 E
4314.0	8.00	48.1	305	N 55 W	40	4.1	139	S 41 E
4316.0	8.00	55.0	72	N 72 E	23	4.2	137	S 43 E
4318.0	8.00	65.7	346	N 14 W	49	4.4	134	S 46 E
4320.0	8.00	63.9	348	N 12 W	42	4.5	124	S 56 E
4322.0	8.00	59.0	75	N 75 E	7	4.4	138	S 42 E
4324.0	8.00	51.4	116	S 64 E	16	4.0	133	S 47 E
4326.0	8.00	46.9	83	N 83 E	5	4.0	130	S 50 E
4334.0	8.00	39.3	69	N 69 E	39	4.1	135	S 45 E
4340.0	8.00	57.7	270	N 90 W	29	4.3	135	S 45 E
4342.0	8.00	69.9	355	N 5 W	39	4.3	134	S 46 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4344.0	8.00	70.1	355	N 5 W	35	4.2	136	S 44 E
4346.0	8.00	37.2	10	N 10 E	54	4.2	138	S 42 E
4348.0	8.00	39.8	12	N 12 E	34	4.1	134	S 46 E
4350.0	8.00	59.9	336	N 24 W	36	4.2	132	S 48 E
4354.0	8.00	62.1	348	N 12 W	31	4.2	134	S 46 E
4356.0	8.00	53.1	271	N 89 W	55	4.1	133	S 47 E
4362.0	8.00	64.7	188	S 8 W	24	3.9	134	S 46 E
4364.0	8.00	31.1	245	S 65 W	46	3.9	134	S 46 E
4366.0	8.00	31.2	243	S 63 W	67	3.9	133	S 47 E
4368.0	8.00	33.6	239	S 59 W	89	3.9	137	S 43 E
4370.0	8.00	16.5	284	N 76 W	79	4.1	137	S 43 E
4372.0	8.00	35.5	126	S 54 E	26	4.4	135	S 45 E
4380.0	8.00	76.7	339	N 21 W	19	4.1	133	S 47 E
4382.0	8.00	52.0	153	S 27 E	19	4.2	130	S 50 E
4384.0	8.00	57.3	88	N 88 E	66	4.5	136	S 44 E
4386.0	8.00	71.2	163	S 17 E	41	4.1	137	S 43 E
4392.0	8.00	57.7	119	S 61 E	28	3.9	134	S 46 E
4394.0	8.00	45.8	102	S 78 E	45	3.8	140	S 40 E
4396.0	8.00	61.2	100	S 80 E	63	3.9	161	S 19 E
4398.0	8.00	52.3	98	S 82 E	83	4.3	138	S 42 E
4400.0	8.00	47.4	129	S 51 E	64	3.9	137	S 43 E
4408.0	8.00	75.4	14	N 14 E	14	4.3	139	S 41 E
4412.0	8.00	51.4	36	N 36 E	20	4.4	137	S 43 E
4414.0	8.00	50.9	33	N 33 E	46	4.1	134	S 46 E
4416.0	8.00	39.6	26	N 26 E	39	4.2	135	S 45 E
4418.0	8.00	47.3	13	N 13 E	71	4.2	137	S 43 E
4420.0	8.00	47.5	7	N 7 E	85	4.2	140	S 40 E
4422.0	8.00	48.4	7	N 7 E	38	4.2	138	S 42 E
4424.0	8.00	58.9	200	S 20 W	46	4.2	135	S 45 E
4426.0	8.00	63.2	9	N 9 E	30	4.3	134	S 46 E
4428.0	8.00	60.5	13	N 13 E	34	4.2	136	S 44 E
4430.0	8.00	51.0	179	S 1 E	50	4.2	137	S 43 E
4432.0	8.00	62.4	174	S 6 E	46	4.2	135	S 45 E
4434.0	8.00	62.6	175	S 5 E	45	4.3	137	S 43 E
4436.0	8.00	60.2	177	S 3 E	56	4.3	137	S 43 E
4438.0	8.00	63.1	0	N 0 E	61	4.2	138	S 42 E
4440.0	8.00	58.4	1	N 1 E	46	4.3	139	S 41 E
4442.0	8.00	59.7	0	N 0 E	89	4.3	139	S 41 E
4444.0	8.00	63.5	2	N 2 E	100	4.3	139	S 41 E
4446.0	8.00	64.0	1	N 1 E	100	4.3	139	S 41 E

DresserAtlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4448.0	8.00	63.5	3	N 3 E	56	4.2	139	S 41 E
4450.0	8.00	64.2	1	N 1 E	66	4.2	139	S 41 E
4452.0	8.00	63.8	0	N 0 E	50	4.3	139	S 41 E
4454.0	8.00	62.9	2	N 2 E	75	4.2	138	S 42 E
4456.0	8.00	62.5	2	N 2 E	75	4.2	138	S 42 E
4458.0	8.00	59.8	2	N 2 E	51	4.3	137	S 43 E
4462.0	8.00	14.5	353	N 7 W	51	4.3	137	S 43 E
4464.0	8.00	11.6	350	N 10 W	54	4.3	136	S 44 E
4466.0	8.00	12.1	350	N 10 W	91	4.3	140	S 40 E
4468.0	8.00	13.2	348	N 12 W	70	4.3	139	S 41 E
4470.0	8.00	13.3	344	N 16 W	43	4.3	138	S 42 E
4474.0	8.00	52.0	209	S 29 W	58	4.2	139	S 41 E
4476.0	8.00	28.9	333	N 27 W	51	4.2	139	S 41 E
4478.0	8.00	53.3	134	S 46 E	17	4.2	141	S 39 E
4480.0	8.00	68.0	324	N 36 W	18	4.3	143	S 37 E
4482.0	8.00	68.4	299	N 61 W	19	4.3	144	S 36 E
4484.0	8.00	53.2	16	N 16 E	13	4.3	141	S 39 E
4486.0	8.00	15.0	273	N 87 W	17	4.4	145	S 35 E
4488.0	8.00	65.3	349	N 11 W	13	4.4	142	S 38 E
4490.0	8.00	52.9	19	N 19 E	19	4.6	141	S 39 E
4494.0	8.00	66.1	20	N 20 E	32	4.4	143	S 37 E
4496.0	8.00	64.0	354	N 6 W	66	4.5	145	S 35 E
4500.0	8.00	45.0	134	S 46 E	40	4.4	139	S 41 E
4504.0	8.00	62.0	41	N 41 E	19	4.5	137	S 43 E
4506.0	8.00	55.3	178	S 2 E	13	4.5	135	S 45 E
4508.0	8.00	50.6	357	N 3 W	74	4.5	141	S 39 E
4510.0	8.00	55.9	199	S 19 W	35	4.3	137	S 43 E
4512.0	8.00	27.8	327	N 33 W	21	4.1	143	S 37 E
4514.0	8.00	12.4	286	N 74 W	7	4.0	141	S 39 E
4516.0	8.00	61.8	1	N 1 E	20	4.0	143	S 37 E
4520.0	8.00	38.7	242	S 62 W	58	4.4	144	S 36 E
4522.0	8.00	58.2	274	N 86 W	15	4.9	124	S 56 E
4524.0	8.00	67.4	348	N 12 W	22	4.7	145	S 35 E
4526.0	8.00	55.8	280	N 80 W	33	4.6	143	S 37 E
4528.0	8.00	64.9	334	N 26 W	37	4.7	142	S 38 E
4536.0	8.00	57.3	76	N 76 E	51	4.5	144	S 36 E
4538.0	8.00	42.5	150	S 30 E	53	4.6	143	S 37 E
4540.0	8.00	44.2	147	S 33 E	44	4.5	141	S 39 E
4542.0	8.00	35.1	255	S 75 W	46	4.5	141	S 39 E
4544.0	8.00	59.6	350	N 10 W	32	4.5	143	S 37 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4546.0	8.00	40.5	31	N 31 E	58	4.5	142	S 38 E
4548.0	8.00	50.5	6	N 6 E	34	4.5	143	S 37 E
4550.0	8.00	59.4	353	N 7 W	31	4.6	142	S 38 E
4552.0	8.00	35.5	250	S 70 W	5	4.6	141	S 39 E
4554.0	8.00	64.2	349	N 11 W	13	4.6	142	S 38 E
4556.0	8.00	53.4	337	N 23 W	16	4.5	143	S 37 E
4558.0	8.00	53.6	336	N 24 W	27	4.4	144	S 36 E
4560.0	8.00	55.2	138	S 42 E	33	4.4	140	S 40 E
4562.0	8.00	52.0	77	N 77 E	23	4.4	142	S 38 E
4566.0	8.00	33.9	186	S 6 W	100	4.3	142	S 38 E
4568.0	8.00	34.8	186	S 6 W	85	4.3	130	S 50 E
4570.0	8.00	38.0	55	N 55 E	100	4.4	144	S 36 E
4572.0	8.00	37.4	152	S 28 E	100	3.9	139	S 41 E
4574.0	8.00	40.7	328	N 32 W	100	3.6	127	S 53 E
4576.0	8.00	34.2	76	N 76 E	100	3.4	128	S 52 E
4578.0	8.00	21.0	228	S 48 W	100	4.5	180	S 0 E
4580.0	8.00	25.9	339	N 21 W	94	5.1	153	S 27 E
4582.0	8.00	72.1	336	N 24 W	67	4.9	130	S 50 E
4584.0	8.00	36.4	342	N 18 W	51	4.3	134	S 46 E
4586.0	8.00	44.0	227	S 47 W	49	4.4	140	S 40 E
4590.0	8.00	46.3	181	S 1 W	77	4.5	139	S 41 E
4594.0	8.00	65.9	322	N 38 W	48	4.7	144	S 36 E
4596.0	8.00	56.6	304	N 56 W	21	4.7	142	S 38 E
4602.0	8.00	61.6	237	S 57 W	63	5.0	142	S 38 E
4604.0	8.00	69.0	333	N 27 W	48	4.8	143	S 37 E
4606.0	8.00	54.1	220	S 40 W	57	5.3	137	S 43 E
4608.0	8.00	35.5	245	S 65 W	33	5.1	140	S 40 E
4610.0	8.00	57.2	127	S 53 E	51	4.7	134	S 46 E
4612.0	8.00	38.9	302	N 58 W	100	4.8	152	S 28 E
4614.0	8.00	13.4	23	N 23 E	30	4.8	144	S 36 E
4616.0	8.00	75.6	330	N 30 W	7	5.1	141	S 39 E
4620.0	8.00	45.9	51	N 51 E	57	5.2	141	S 39 E
4622.0	8.00	58.7	21	N 21 E	12	5.3	148	S 32 E
4624.0	8.00	37.9	154	S 26 E	51	5.3	149	S 31 E
4626.0	8.00	37.4	27	N 27 E	16	4.9	144	S 36 E
4628.0	8.00	48.3	140	S 40 E	51	4.6	146	S 34 E
4632.0	8.00	32.0	165	S 15 E	20	4.6	149	S 31 E
4636.0	8.00	33.0	2	N 2 E	69	4.6	144	S 36 E
4638.0	8.00	35.5	51	N 51 E	81	4.5	147	S 33 E
4640.0	8.00	59.6	13	N 13 E	21	4.6	146	S 34 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4642.0	8.00	57.9	53	N 53 E	28	4.6	142	S 38 E
4644.0	8.00	58.6	56	N 56 E	14	4.6	144	S 36 E
4646.0	8.00	74.5	326	N 34 W	6	4.6	144	S 36 E
4648.0	8.00	74.5	325	N 35 W	6	4.6	142	S 38 E
4654.0	8.00	52.2	58	N 58 E	67	4.5	144	S 36 E
4656.0	8.00	51.5	52	N 52 E	59	4.5	144	S 36 E
4658.0	8.00	52.5	53	N 53 E	60	4.4	142	S 38 E
4660.0	8.00	52.3	52	N 52 E	66	4.4	146	S 34 E
4662.0	8.00	58.9	122	S 58 E	62	4.4	147	S 33 E
4664.0	8.00	58.7	122	S 58 E	92	4.4	143	S 37 E
4666.0	8.00	48.5	227	S 47 W	37	4.4	144	S 36 E
4668.0	8.00	49.9	330	N 30 W	15	4.4	147	S 33 E
4670.0	8.00	46.6	48	N 48 E	28	4.6	147	S 33 E
4672.0	8.00	46.6	207	S 27 W	19	4.8	148	S 32 E
4674.0	8.00	54.3	90	N 90 E	24	4.6	139	S 41 E
4676.0	8.00	58.5	76	N 76 E	30	4.5	137	S 43 E
4678.0	8.00	46.6	39	N 39 E	70	4.3	136	S 44 E
4680.0	8.00	58.1	33	N 33 E	45	4.3	142	S 38 E
4682.0	8.00	54.4	23	N 23 E	38	4.3	142	S 38 E
4684.0	8.00	37.3	105	S 75 E	13	4.4	142	S 38 E
4686.0	8.00	51.9	175	S 5 E	42	4.5	142	S 38 E
4688.0	8.00	52.8	178	S 2 E	34	4.4	142	S 38 E
4690.0	8.00	61.6	253	S 73 W	13	4.4	141	S 39 E
4692.0	8.00	47.4	93	S 87 E	33	4.5	142	S 38 E
4694.0	8.00	47.5	90	N 90 E	33	4.7	142	S 38 E
4696.0	8.00	54.9	12	N 12 E	29	4.8	142	S 38 E
4698.0	8.00	54.0	16	N 16 E	29	4.7	147	S 33 E
4704.0	8.00	35.1	76	N 76 E	24	4.4	144	S 36 E
4706.0	8.00	79.1	323	N 37 W	18	4.4	145	S 35 E
4708.0	8.00	29.3	55	N 55 E	45	4.5	146	S 34 E
4710.0	8.00	41.9	84	N 84 E	77	4.5	143	S 37 E
4712.0	8.00	42.4	81	N 81 E	72	4.5	142	S 38 E
4718.0	8.00	65.0	12	N 12 E	78	4.7	156	S 24 E
4720.0	8.00	53.8	48	N 48 E	19	4.5	145	S 35 E
4726.0	8.00	49.9	43	N 43 E	23	4.6	147	S 33 E
4728.0	8.00	48.1	18	N 18 E	46	4.6	150	S 30 E
4730.0	8.00	65.7	351	N 9 W	36	4.7	148	S 32 E
4732.0	8.00	50.2	206	S 26 W	42	4.7	154	S 26 E
4734.0	8.00	57.9	224	S 44 W	39	4.8	143	S 37 E
4736.0	8.00	60.8	213	S 33 W	58	4.7	148	S 32 E

DresserAtlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
4738.0	8.00	61.0	213	S 33 W	42	4.7	149	S 31 E	
4740.0	8.00	57.8	185	S 5 W	50	4.9	147	S 33 E	
4742.0	8.00	62.7	150	S 30 E	68	5.0	144	S 36 E	
4744.0	8.00	61.1	6	N 6 E	100	4.7	146	S 34 E	
4746.0	8.00	59.4	7	N 7 E	100	4.7	146	S 34 E	
4748.0	8.00	52.8	200	S 20 W	78	4.8	147	S 33 E	
4750.0	8.00	68.2	356	N 4 W	93	4.8	147	S 33 E	
4752.0	8.00	70.5	352	N 8 W	78	4.8	149	S 31 E	
4754.0	8.00	38.4	141	S 39 E	96	4.9	154	S 26 E	
4756.0	8.00	39.5	138	S 42 E	60	5.1	149	S 31 E	
4758.0	8.00	40.8	146	S 34 E	55	4.8	153	S 27 E	
4760.0	8.00	40.2	136	S 44 E	53	4.9	150	S 30 E	
4766.0	8.00	51.9	41	N 41 E	68	5.2	147	S 33 E	
4768.0	8.00	26.1	221	S 41 W	57	5.3	144	S 36 E	
4770.0	8.00	22.8	223	S 43 W	94	5.3	151	S 29 E	
4772.0	8.00	23.1	227	S 47 W	58	5.1	158	S 22 E	
4774.0	8.00	33.1	87	N 87 E	94	5.1	151	S 29 E	
4776.0	8.00	60.3	110	S 70 E	74	5.2	152	S 28 E	
4778.0	8.00	54.4	111	S 69 E	99	5.3	152	S 28 E	
4780.0	8.00	62.9	123	S 57 E	92	5.5	149	S 31 E	
4786.0	8.00	56.4	17	N 17 E	30	5.2	146	S 34 E	
4788.0	8.00	56.0	186	S 6 W	16	5.0	150	S 30 E	
4790.0	8.00	53.8	21	N 21 E	6	5.0	149	S 31 E	
4792.0	8.00	70.6	349	N 11 W	19	5.1	149	S 31 E	
4794.0	8.00	75.3	351	N 9 W	11	5.0	155	S 25 E	
4796.0	8.00	72.2	330	N 30 W	19	5.0	151	S 29 E	
4798.0	8.00	71.7	330	N 30 W	29	5.0	154	S 26 E	
4802.0	8.00	59.2	37	N 37 E	17	5.1	152	S 28 E	
4804.0	8.00	79.1	324	N 36 W	63	5.1	148	S 32 E	
4810.0	8.00	43.9	155	S 25 E	43	5.1	152	S 28 E	
4812.0	8.00	61.8	323	N 37 W	34	5.0	154	S 26 E	
4814.0	8.00	55.2	274	N 86 W	39	5.1	150	S 30 E	
4816.0	8.00	63.8	327	N 33 W	55	5.1	149	S 31 E	
4824.0	8.00	41.4	121	S 59 E	20	5.0	152	S 28 E	
4826.0	8.00	33.0	89	N 89 E	45	5.1	155	S 25 E	
4830.0	8.00	51.6	145	S 35 E	18	5.0	150	S 30 E	
4838.0	8.00	56.9	326	N 34 W	77	5.0	150	S 30 E	
4840.0	8.00	62.5	300	N 60 W	20	5.0	147	S 33 E	
4842.0	8.00	47.3	145	S 35 E	70	5.2	145	S 35 E	
4844.0	8.00	58.8	189	S 9 W	35	5.2	151	S 29 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
4850.0	8.00	47.6	149	S 31 E	44	5.2	147	S 33 E
4860.0	8.00	58.2	279	N 81 W	32	5.6	153	S 27 E
4862.0	8.00	61.9	256	S 76 W	22	5.9	153	S 27 E
4864.0	8.00	67.5	351	N 9 W	42	5.1	152	S 28 E
4866.0	8.00	58.8	162	S 18 E	19	5.2	149	S 31 E
4868.0	8.00	50.3	152	S 28 E	65	5.1	151	S 29 E
4872.0	8.00	61.1	76	N 76 E	17	5.1	154	S 26 E
4874.0	8.00	48.9	262	S 82 W	30	5.1	154	S 26 E
4878.0	8.00	70.2	349	N 11 W	52	5.3	155	S 25 E
4880.0	8.00	65.1	50	N 50 E	20	5.1	149	S 31 E
4882.0	8.00	68.3	346	N 14 W	35	5.1	156	S 24 E
4884.0	8.00	69.2	8	N 8 E	9	5.1	152	S 28 E
4886.0	8.00	67.6	307	N 53 W	7	5.1	154	S 26 E
4890.0	8.00	67.6	258	S 78 W	16	5.1	155	S 25 E
4892.0	8.00	52.3	60	N 60 E	18	5.1	155	S 25 E
4894.0	8.00	54.7	56	N 56 E	18	5.1	153	S 27 E
4896.0	8.00	46.9	184	S 4 W	34	5.2	154	S 26 E
4898.0	8.00	47.1	189	S 9 W	52	5.2	157	S 23 E
4902.0	8.00	46.6	207	S 27 W	32	5.2	154	S 26 E
4904.0	8.00	58.9	299	N 61 W	27	5.2	155	S 25 E
4908.0	8.00	43.9	90	N 90 E	23	5.2	155	S 25 E
4910.0	8.00	64.4	318	N 42 W	9	5.2	158	S 22 E
4914.0	8.00	67.9	244	S 64 W	7	5.1	153	S 27 E
4916.0	8.00	68.1	246	S 66 W	2	5.1	156	S 24 E
4924.0	8.00	62.5	348	N 12 W	5	5.1	156	S 24 E
4926.0	8.00	62.4	353	N 7 W	5	5.1	156	S 24 E
4928.0	8.00	62.3	2	N 2 E	5	5.1	153	S 27 E
4938.0	8.00	8.4	215	S 35 W	19	5.2	156	S 24 E
4946.0	8.00	63.6	75	N 75 E	26	5.1	159	S 21 E
4948.0	8.00	60.9	172	S 8 E	10	5.1	151	S 29 E
4950.0	8.00	60.5	145	S 35 E	6	5.1	154	S 26 E
4952.0	8.00	52.4	182	S 2 W	16	5.2	157	S 23 E
4954.0	8.00	52.4	185	S 5 W	16	5.2	160	S 20 E
4956.0	8.00	61.1	132	S 48 E	27	5.2	157	S 23 E
4958.0	8.00	59.4	134	S 46 E	11	5.3	157	S 23 E
4960.0	8.00	57.4	95	S 85 E	12	5.4	156	S 24 E
4962.0	8.00	61.8	93	S 87 E	11	5.3	157	S 23 E
4968.0	8.00	49.2	107	S 73 E	31	5.1	157	S 23 E
4970.0	8.00	61.0	147	S 33 E	20	5.1	154	S 26 E
4972.0	8.00	59.4	154	S 26 E	25	5.2	161	S 19 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
4974.0	8.00	58.2	155	S 25 E	37	5.2	162	S 18 E	
4976.0	8.00	53.0	354	N 6 W	7	5.2	152	S 28 E	
4978.0	8.00	62.3	280	N 80 W	8	5.3	158	S 22 E	
4980.0	8.00	57.3	198	S 18 W	19	5.3	151	S 29 E	
4982.0	8.00	70.4	336	N 24 W	36	5.4	151	S 29 E	
4984.0	8.00	50.6	49	N 49 E	27	5.2	154	S 26 E	
4986.0	8.00	53.7	83	N 83 E	63	5.2	158	S 22 E	
4988.0	8.00	54.3	85	N 85 E	27	5.2	157	S 23 E	
4990.0	8.00	54.8	86	N 86 E	15	5.2	158	S 22 E	
4992.0	8.00	34.6	252	S 72 W	54	5.2	155	S 25 E	
4994.0	8.00	23.7	114	S 66 E	27	5.2	161	S 19 E	
4996.0	8.00	52.4	290	N 70 W	45	5.1	161	S 19 E	
4998.0	8.00	54.9	285	N 75 W	59	5.2	155	S 25 E	
5000.0	8.00	44.8	237	S 57 W	49	5.2	156	S 24 E	
5002.0	8.00	46.0	234	S 54 W	14	5.3	155	S 25 E	
5004.0	8.00	66.5	46	N 46 E	15	5.3	162	S 18 E	
5006.0	8.00	65.5	231	S 51 W	22	5.4	158	S 22 E	
5008.0	8.00	64.1	236	S 56 W	22	5.3	156	S 24 E	
5010.0	8.00	47.0	179	S 1 E	43	5.3	156	S 24 E	
5012.0	8.00	67.3	235	S 55 W	29	5.3	157	S 23 E	
5014.0	8.00	64.7	240	S 60 W	23	5.4	158	S 22 E	
5016.0	8.00	62.6	277	N 83 W	33	5.8	156	S 24 E	
5018.0	8.00	61.3	274	N 86 W	15	5.9	156	S 24 E	
5020.0	8.00	70.6	331	N 29 W	58	5.6	161	S 19 E	
5026.0	8.00	50.4	278	N 82 W	45	5.6	156	S 24 E	
5028.0	8.00	58.5	283	N 77 W	42	5.6	164	S 16 E	
5030.0	8.00	57.8	268	S 88 W	67	5.4	162	S 18 E	
5034.0	8.00	53.4	199	S 19 W	23	6.3	154	S 26 E	
5036.0	8.00	59.2	356	N 4 W	62	7.0	165	S 15 E	
5038.0	8.00	58.1	338	N 22 W	68	6.8	170	S 10 E	
5040.0	8.00	54.1	166	S 14 E	16	5.5	147	S 33 E	
5042.0	8.00	53.6	323	N 37 W	35	5.6	158	S 22 E	
5044.0	8.00	29.6	316	N 44 W	61	5.4	161	S 19 E	
5046.0	8.00	29.4	328	N 32 W	100	5.3	173	S 7 E	
5048.0	8.00	30.9	325	N 35 W	100	5.3	178	S 2 E	
5050.0	8.00	31.6	325	N 35 W	99	5.3	178	S 2 E	
5052.0	8.00	33.8	328	N 32 W	26	5.5	179	S 1 E	
5056.0	8.00	33.5	294	N 66 W	62	5.3	169	S 11 E	
5062.0	8.00	47.2	225	S 45 W	54	5.2	175	S 5 E	
5064.0	8.00	47.7	224	S 44 W	44	5.3	174	S 6 E	

PLOTCAMPS

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
5066.0	8.00	62.7	354	N 6 W	22	5.3	171	S 9 E	
5070.0	8.00	71.6	8	N 8 E	34	5.4	172	S 8 E	
5072.0	8.00	54.2	30	N 30 E	36	5.1	178	S 2 E	
5076.0	8.00	49.6	248	S 68 W	36	5.2	174	S 6 E	
5078.0	8.00	69.0	35	N 35 E	25	5.2	174	S 6 E	
5080.0	8.00	54.7	254	S 74 W	18	5.3	176	S 4 E	
5082.0	8.00	52.1	292	N 68 W	23	5.2	177	S 3 E	
5084.0	8.00	57.1	184	S 4 W	41	5.1	179	S 1 E	
5086.0	8.00	55.3	165	S 15 E	22	5.0	181	S 1 W	
5088.0	8.00	55.8	185	S 5 W	42	5.0	178	S 2 E	
5098.0	8.00	65.2	37	N 37 E	6	4.9	172	S 8 E	
5100.0	8.00	60.5	126	S 54 E	33	5.0	172	S 8 E	
5102.0	8.00	60.5	98	S 82 E	40	5.1	181	S 1 W	
5104.0	8.00	45.5	157	S 23 E	30	5.4	171	S 9 E	
5106.0	8.00	63.6	144	S 36 E	4	4.9	334	N 26 W	
5110.0	8.00	46.7	194	S 14 W	59	4.8	177	S 3 E	
5112.0	8.00	49.4	295	N 65 W	32	4.9	182	S 2 W	
5114.0	8.00	53.0	297	N 63 W	25	5.0	177	S 3 E	
5116.0	8.00	44.7	287	N 73 W	26	5.1	177	S 3 E	
5118.0	8.00	53.0	36	N 36 E	59	5.4	177	S 3 E	
5128.0	8.00	35.2	151	S 29 E	100	3.8	194	S 14 W	
5130.0	8.00	31.5	149	S 31 E	100	3.8	145	S 35 E	
5132.0	8.00	34.0	153	S 27 E	100	4.3	193	S 13 W	
5134.0	8.00	65.8	182	S 2 W	76	5.3	178	S 2 E	
5136.0	8.00	52.0	58	N 58 E	48	5.4	177	S 3 E	
5138.0	8.00	38.5	10	N 10 E	75	5.1	116	S 64 E	
5140.0	8.00	40.8	150	S 30 E	22	5.0	240	S 60 W	
5142.0	8.00	42.8	64	N 64 E	55	5.3	171	S 9 E	
5144.0	8.00	62.7	200	S 20 W	15	5.5	163	S 17 E	
5148.0	8.00	55.7	264	S 84 W	37	5.7	187	S 7 W	
5150.0	8.00	56.7	234	S 54 W	60	6.5	166	S 14 E	
5152.0	8.00	35.4	243	S 63 W	74	6.8	188	S 8 W	
5154.0	8.00	51.3	239	S 59 W	72	5.9	174	S 6 E	
5156.0	8.00	62.9	338	N 22 W	28	6.2	105	S 75 E	
5162.0	8.00	53.6	356	N 4 W	27	5.0	173	S 7 E	
5164.0	8.00	48.0	117	S 63 E	67	5.4	162	S 18 E	
5168.0	8.00	8.9	279	N 81 W	61	5.7	162	S 18 E	
5172.0	8.00	56.7	113	S 67 E	38	5.3	157	S 23 E	
5176.0	8.00	63.8	282	N 78 W	8	5.2	173	S 7 E	
5178.0	8.00	62.9	48	N 48 E	6	5.4	176	S 4 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5182.0	8.00	52.8	234	S 54 W	21	5.4	173	S 7 E
5184.0	8.00	55.3	200	S 20 W	25	5.3	138	S 42 E
5186.0	8.00	59.9	322	N 38 W	26	5.3	174	S 6 E
5188.0	8.00	76.7	302	N 58 W	31	5.3	174	S 6 E
5196.0	8.00	71.7	292	N 68 W	47	6.1	156	S 24 E
5198.0	8.00	68.8	292	N 68 W	23	5.8	156	S 24 E
5200.0	8.00	67.1	291	N 69 W	6	5.6	162	S 18 E
5204.0	8.00	64.6	177	S 3 E	18	5.7	155	S 25 E
5206.0	8.00	63.9	171	S 9 E	19	5.8	158	S 22 E
5208.0	8.00	61.4	115	S 65 E	15	5.9	160	S 20 E
5210.0	8.00	61.4	317	N 43 W	6	5.7	155	S 25 E
5212.0	8.00	70.9	286	N 74 W	3	5.8	156	S 24 E
5214.0	8.00	66.0	318	N 42 W	12	5.9	156	S 24 E
5216.0	8.00	68.7	19	N 19 E	18	5.9	160	S 20 E
5218.0	8.00	56.8	64	N 64 E	17	5.8	157	S 23 E
5220.0	8.00	55.6	66	N 66 E	15	5.9	161	S 19 E
5222.0	8.00	55.7	68	N 68 E	11	5.8	155	S 25 E
5224.0	8.00	61.1	64	N 64 E	9	5.9	155	S 25 E
5226.0	8.00	63.2	51	N 51 E	31	6.0	161	S 19 E
5228.0	8.00	55.0	165	S 15 E	9	6.3	158	S 22 E
5230.0	8.00	66.2	281	N 79 W	20	5.8	161	S 19 E
5232.0	8.00	16.2	71	N 71 E	19	5.7	156	S 24 E
5234.0	8.00	67.5	342	N 18 W	11	5.7	157	S 23 E
5236.0	8.00	18.0	353	N 7 W	15	5.7	156	S 24 E
5240.0	8.00	30.3	317	N 43 W	42	5.6	153	S 27 E
5242.0	8.00	72.6	321	N 39 W	21	5.7	154	S 26 E
5244.0	8.00	59.7	246	S 66 W	32	5.7	164	S 16 E
5246.0	8.00	63.0	262	S 82 W	36	5.7	159	S 21 E
5248.0	8.00	69.9	35	N 35 E	45	5.7	151	S 29 E
5250.0	8.00	73.4	17	N 17 E	25	5.8	154	S 26 E
5252.0	8.00	57.8	113	S 67 E	16	5.8	158	S 22 E
5254.0	8.00	70.7	275	N 85 W	17	5.9	154	S 26 E
5256.0	8.00	51.8	293	N 67 W	39	5.9	154	S 26 E
5258.0	8.00	39.1	296	N 64 W	55	5.8	157	S 23 E
5260.0	8.00	38.8	295	N 65 W	59	5.7	155	S 25 E
5262.0	8.00	39.9	319	N 41 W	44	5.5	165	S 15 E
5264.0	8.00	47.4	165	S 15 E	27	5.8	162	S 18 E
5266.0	8.00	47.8	158	S 22 E	39	5.9	177	S 3 E
5268.0	8.00	50.4	320	N 40 W	5	6.1	159	S 21 E
5270.0	8.00	32.8	90	N 90 E	49	5.9	159	S 21 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5272.0	8.00	50.3	1	N 1 E	23	5.9	156	S 24 E
5274.0	8.00	47.0	2	N 2 E	20	5.9	157	S 23 E
5278.0	8.00	68.1	99	S 81 E	6	5.9	157	S 23 E
5288.0	8.00	29.1	27	N 27 E	9	5.9	159	S 21 E
5290.0	8.00	30.0	121	S 59 E	26	5.9	156	S 24 E
5292.0	8.00	30.9	105	S 75 E	45	5.9	155	S 25 E
5294.0	8.00	23.6	98	S 82 E	36	5.9	155	S 25 E
5296.0	8.00	56.1	241	S 61 W	25	5.9	154	S 26 E
5300.0	8.00	42.7	221	S 41 W	64	6.0	156	S 24 E
5302.0	8.00	67.4	344	N 16 W	61	6.1	155	S 25 E
5304.0	8.00	72.2	29	N 29 E	50	6.4	156	S 24 E
5312.0	8.00	57.8	222	S 42 W	45	6.0	153	S 27 E
5314.0	8.00	68.7	34	N 34 E	59	6.1	152	S 28 E
5316.0	8.00	71.8	310	N 50 W	53	6.2	154	S 26 E
5318.0	8.00	72.5	314	N 46 W	66	6.1	153	S 27 E
5320.0	8.00	69.1	322	N 38 W	19	5.9	157	S 23 E
5324.0	8.00	55.5	236	S 56 W	42	6.2	154	S 26 E
5326.0	8.00	56.1	249	S 69 W	47	6.4	148	S 32 E
5328.0	8.00	60.6	242	S 62 W	44	6.1	142	S 38 E
5330.0	8.00	59.3	287	N 73 W	42	6.1	157	S 23 E
5332.0	8.00	58.6	291	N 69 W	60	6.6	169	S 11 E
5334.0	8.00	58.9	272	N 88 W	33	5.6	171	S 9 E
5348.0	8.00	63.7	54	N 54 E	30	6.1	153	S 27 E
5350.0	8.00	64.4	235	S 55 W	70	6.3	154	S 26 E
5358.0	8.00	61.3	139	S 41 E	30	6.3	151	S 29 E
5360.0	8.00	62.2	347	N 13 W	49	6.3	144	S 36 E
5362.0	8.00	50.7	109	S 71 E	45	6.1	269	S 89 W
5364.0	8.00	54.2	42	N 42 E	40	6.7	185	S 5 W
5366.0	8.00	44.7	311	N 49 W	21	6.9	347	N 13 W
5368.0	8.00	69.2	86	N 86 E	17	6.7	181	S 1 W
5370.0	8.00	62.9	177	S 3 E	10	6.5	171	S 9 E
5372.0	8.00	62.4	177	S 3 E	12	7.2	172	S 8 E
5380.0	8.00	40.6	161	S 19 E	15	5.2	74	N 74 E
5384.0	8.00	61.8	26	N 26 E	13	5.1	176	S 4 E
5388.0	8.00	64.7	197	S 17 W	3	6.1	170	S 10 E
5392.0	8.00	40.0	171	S 9 E	16	6.3	150	S 30 E
5400.0	8.00	12.8	332	N 28 W	99	6.3	145	S 35 E
5402.0	8.00	10.9	214	S 34 W	100	6.3	154	S 26 E
5404.0	8.00	22.8	276	N 84 W	100	6.1	151	S 29 E
5408.0	8.00	33.9	114	S 66 E	63	6.0	173	S 7 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5412.0	8.00	67.0	326	N 34 W	70	6.5	146	S 34 E
5414.0	8.00	58.3	337	N 23 W	13	6.4	155	S 25 E
5418.0	8.00	66.5	281	N 79 W	27	5.9	144	S 36 E
5422.0	8.00	69.8	316	N 44 W	36	5.8	166	S 14 E
5424.0	8.00	71.4	304	N 56 W	50	5.8	167	S 13 E
5426.0	8.00	70.4	5	N 5 E	26	5.9	165	S 15 E
5434.0	8.00	41.8	166	S 14 E	53	6.4	171	S 9 E
5436.0	8.00	54.8	300	N 60 W	50	6.9	166	S 14 E
5442.0	8.00	53.9	205	S 25 W	67	6.4	155	S 25 E
5444.0	8.00	59.6	188	S 8 W	39	6.4	156	S 24 E
5446.0	8.00	59.3	183	S 3 W	83	6.6	157	S 23 E
5448.0	8.00	75.2	318	N 42 W	6	6.6	155	S 25 E
5450.0	8.00	58.5	48	N 48 E	56	6.6	152	S 28 E
5452.0	8.00	56.7	47	N 47 E	39	6.5	151	S 29 E
5456.0	8.00	59.8	53	N 53 E	51	6.0	160	S 20 E
5458.0	8.00	72.3	358	N 2 W	49	6.3	168	S 12 E
5460.0	8.00	22.9	336	N 24 W	64	6.7	163	S 17 E
5462.0	8.00	51.9	7	N 7 E	46	6.7	2	N 2 E
5464.0	8.00	38.1	147	S 33 E	76	7.0	159	S 21 E
5468.0	8.00	67.4	273	N 87 W	58	7.3	167	S 13 E
5470.0	8.00	50.7	156	S 24 E	42	6.3	164	S 16 E
5472.0	8.00	15.6	129	S 51 E	30	6.4	159	S 21 E
5476.0	8.00	20.0	111	S 69 E	66	6.6	166	S 14 E
5478.0	8.00	19.7	134	S 46 E	29	6.4	173	S 7 E
5480.0	8.00	12.0	109	S 71 E	54	6.6	162	S 18 E
5486.0	8.00	54.6	38	N 38 E	66	6.6	170	S 10 E
5490.0	8.00	57.2	53	N 53 E	31	6.6	166	S 14 E
5492.0	8.00	55.7	68	N 68 E	16	6.4	167	S 13 E
5498.0	8.00	63.6	47	N 47 E	75	6.6	164	S 16 E
5500.0	8.00	50.6	76	N 76 E	69	6.5	169	S 11 E
5502.0	8.00	68.5	311	N 49 W	19	6.5	165	S 15 E
5504.0	8.00	44.8	72	N 72 E	52	6.5	166	S 14 E
5506.0	8.00	68.4	311	N 49 W	72	6.4	165	S 15 E
5508.0	8.00	8.4	174	S 6 E	72	6.4	165	S 15 E
5514.0	8.00	66.6	24	N 24 E	50	6.6	164	S 16 E
5520.0	8.00	54.4	71	N 71 E	72	6.1	154	S 26 E
5522.0	8.00	51.4	66	N 66 E	100	6.4	152	S 28 E
5524.0	8.00	52.1	47	N 47 E	10	6.3	168	S 12 E
5526.0	8.00	47.7	80	N 80 E	74	6.2	165	S 15 E
5528.0	8.00	48.6	161	S 19 E	23	6.4	167	S 13 E

Prosser Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
5530.0	8.00	46.8	175	S 5 E	56	6.6	167	S 13 E	
5532.0	8.00	47.0	175	S 5 E	44	6.6	165	S 15 E	
5534.0	8.00	42.1	167	S 13 E	49	6.6	164	S 16 E	
5538.0	8.00	50.4	131	S 49 E	31	6.6	168	S 12 E	
5540.0	8.00	74.0	351	N 9 W	8	6.6	165	S 15 E	
5542.0	8.00	62.9	257	S 77 W	11	6.6	168	S 12 E	
5544.0	8.00	26.5	90	N 90 E	64	6.2	169	S 11 E	
5546.0	8.00	25.9	86	N 86 E	83	6.2	170	S 10 E	
5548.0	8.00	23.6	87	N 87 E	91	6.2	169	S 11 E	
5550.0	8.00	51.5	105	S 75 E	41	6.2	166	S 14 E	
5552.0	8.00	43.8	47	N 47 E	86	6.2	166	S 14 E	
5554.0	8.00	54.4	97	S 83 E	64	6.1	166	S 14 E	
5556.0	8.00	44.3	50	N 50 E	88	6.1	167	S 13 E	
5558.0	8.00	59.6	87	N 87 E	100	6.1	166	S 14 E	
5560.0	8.00	59.2	84	N 84 E	100	6.2	166	S 14 E	
5562.0	8.00	57.4	171	S 9 E	88	6.2	168	S 12 E	
5564.0	8.00	58.5	171	S 9 E	83	6.2	168	S 12 E	
5566.0	8.00	65.1	86	N 86 E	57	6.2	165	S 15 E	
5568.0	8.00	60.0	157	S 23 E	25	6.2	168	S 12 E	
5570.0	8.00	51.4	242	S 62 W	26	6.2	167	S 13 E	
5572.0	8.00	51.8	210	S 30 W	14	6.2	167	S 13 E	
5574.0	8.00	54.7	171	S 9 E	23	6.1	167	S 13 E	
5576.0	8.00	66.5	75	N 75 E	6	6.1	171	S 9 E	
5578.0	8.00	51.8	260	S 80 W	33	6.1	176	S 4 E	
5580.0	8.00	63.3	86	N 86 E	54	6.2	168	S 12 E	
5582.0	8.00	65.9	85	N 85 E	62	6.2	168	S 12 E	
5584.0	8.00	59.1	171	S 9 E	61	6.2	167	S 13 E	
5586.0	8.00	62.6	262	S 82 W	71	6.3	170	S 10 E	
5588.0	8.00	72.1	349	N 11 W	80	6.4	171	S 9 E	
5590.0	8.00	73.9	3	N 3 E	24	6.3	168	S 12 E	
5592.0	8.00	73.3	4	N 4 E	5	6.3	170	S 10 E	
5598.0	8.00	81.8	341	N 19 W	10	6.5	167	S 13 E	
5600.0	8.00	52.1	317	N 43 W	46	6.7	175	S 5 E	
5604.0	8.00	13.3	139	S 41 E	74	6.2	166	S 14 E	
5606.0	8.00	68.0	286	N 74 W	30	6.1	169	S 11 E	
5608.0	8.00	56.3	99	S 81 E	45	6.2	173	S 7 E	
5610.0	8.00	57.9	309	N 51 W	9	6.4	173	S 7 E	
5612.0	8.00	41.3	358	N 2 W	18	6.6	168	S 12 E	
5614.0	8.00	52.8	355	N 5 W	10	6.4	170	S 10 E	
5616.0	8.00	70.6	328	N 32 W	26	6.4	173	S 7 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
5618.0	8.00	56.4	113	S 67 E	17	6.3	171	S 9 E
5620.0	8.00	57.7	106	S 74 E	65	6.3	174	S 6 E
5622.0	8.00	65.3	327	N 33 W	76	6.4	173	S 7 E
5624.0	8.00	64.1	328	N 32 W	67	6.3	180	S 0 E
5626.0	8.00	50.9	4	N 4 E	19	6.4	165	S 15 E
5628.0	8.00	61.5	88	N 88 E	50	6.7	164	S 16 E
5630.0	8.00	55.9	29	N 29 E	81	6.5	170	S 10 E
5632.0	8.00	73.7	343	N 17 W	51	6.4	172	S 8 E
5634.0	8.00	61.9	79	N 79 E	96	6.3	169	S 11 E
5638.0	8.00	42.5	204	S 24 W	63	6.3	170	S 10 E
5644.0	8.00	60.3	32	N 32 E	54	6.2	171	S 9 E
5646.0	8.00	57.8	31	N 31 E	47	6.3	169	S 11 E
5650.0	8.00	52.5	101	S 79 E	8	6.3	169	S 11 E
5654.0	8.00	48.8	187	S 7 W	18	6.4	168	S 12 E
5656.0	8.00	52.7	104	S 76 E	18	5.8	173	S 7 E
5658.0	8.00	53.8	112	S 68 E	36	5.0	181	S 1 W
5660.0	8.00	60.9	92	S 88 E	50	3.6	187	S 7 W
5662.0	8.00	35.9	78	N 78 E	57	1.5	189	S 9 W
5664.0	8.00	59.0	144	S 36 E	16	0.1	220	S 40 W
5666.0	8.00	62.1	138	S 42 E	25	1.4	195	S 15 W
5668.0	8.00	65.5	89	N 89 E	74	2.0	164	S 16 E
5670.0	8.00	60.8	99	S 81 E	67	1.6	289	N 71 W
5672.0	8.00	63.9	92	S 88 E	89	0.5	84	N 84 E
5676.0	8.00	72.1	357	N 3 W	7	3.9	181	S 1 W
5678.0	8.00	39.7	285	N 75 W	67	6.4	217	S 37 W
5680.0	8.00	72.4	20	N 20 E	7	6.4	166	S 14 E
5696.0	8.00	50.0	295	N 65 W	64	6.9	167	S 13 E
5698.0	8.00	58.5	289	N 71 W	50	6.7	151	S 29 E
5700.0	8.00	57.9	289	N 71 W	48	6.9	144	S 36 E
5702.0	8.00	62.1	72	N 72 E	21	7.5	145	S 35 E
5704.0	8.00	34.3	204	S 24 W	19	6.5	169	S 11 E
5706.0	8.00	56.3	341	N 19 W	33	6.5	168	S 12 E
5708.0	8.00	64.3	325	N 35 W	18	6.5	171	S 9 E
5712.0	8.00	53.8	125	S 55 E	23	6.5	168	S 12 E
5714.0	8.00	69.7	348	N 12 W	25	6.5	180	S 0 E
5716.0	8.00	65.6	353	N 7 W	18	6.4	168	S 12 E
5718.0	8.00	64.2	355	N 5 W	44	6.5	170	S 10 E
5726.0	8.00	67.8	303	N 57 W	16	6.6	169	S 11 E
5728.0	8.00	41.1	203	S 23 W	29	6.8	170	S 10 E
5730.0	8.00	66.9	55	N 55 E	30	7.0	171	S 9 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5732.0	8.00	60.1	328	N 32 W	23	6.9	169	S 11 E
5738.0	8.00	68.0	53	N 53 E	29	6.5	174	S 6 E
5740.0	8.00	54.6	53	N 53 E	52	6.6	161	S 19 E
5744.0	8.00	41.0	160	S 20 E	10	6.5	170	S 10 E
5746.0	8.00	55.8	26	N 26 E	68	6.5	171	S 9 E
5754.0	8.00	58.0	278	N 82 W	18	6.8	153	S 27 E
5760.0	8.00	59.8	114	S 66 E	50	6.9	155	S 25 E
5762.0	8.00	62.0	133	S 47 E	60	6.8	152	S 28 E
5764.0	8.00	57.0	109	S 71 E	48	6.8	152	S 28 E
5766.0	8.00	50.6	138	S 42 E	37	6.8	153	S 27 E
5768.0	8.00	55.8	44	N 44 E	44	6.8	153	S 27 E
5770.0	8.00	34.6	307	N 53 W	36	6.8	153	S 27 E
5772.0	8.00	62.6	44	N 44 E	33	6.7	150	S 30 E
5776.0	8.00	66.6	344	N 16 W	21	6.5	170	S 10 E
5778.0	8.00	30.5	273	N 87 W	82	6.6	169	S 11 E
5780.0	8.00	71.8	352	N 8 W	8	6.6	166	S 14 E
5784.0	8.00	59.3	66	N 66 E	86	7.0	23	N 23 E
5786.0	8.00	61.8	199	S 19 W	81	7.1	173	S 7 E
5788.0	8.00	59.5	196	S 16 W	38	6.5	180	S 0 E
5790.0	8.00	58.9	198	S 18 W	97	6.5	170	S 10 E
5792.0	8.00	61.2	195	S 15 W	80	6.6	165	S 15 E
5796.0	8.00	40.9	171	S 9 E	45	6.8	167	S 13 E
5798.0	8.00	58.3	302	N 58 W	100	6.8	171	S 9 E
5800.0	8.00	58.9	312	N 48 W	66	6.8	176	S 4 E
5804.0	8.00	54.7	99	S 81 E	23	6.7	167	S 13 E
5810.0	8.00	60.2	14	N 14 E	26	6.6	170	S 10 E
5814.0	8.00	52.2	20	N 20 E	31	6.7	167	S 13 E
5816.0	8.00	44.3	154	S 26 E	37	7.0	174	S 6 E
5820.0	8.00	56.9	322	N 38 W	16	7.5	173	S 7 E
5824.0	8.00	60.1	307	N 53 W	31	7.5	177	S 3 E
5826.0	8.00	61.2	314	N 46 W	34	7.4	181	S 1 W
5828.0	8.00	79.1	348	N 12 W	52	7.4	169	S 11 E
5830.0	8.00	70.2	11	N 11 E	26	7.4	171	S 9 E
5842.0	8.00	66.7	69	N 69 E	23	7.3	158	S 22 E
5844.0	8.00	61.4	30	N 30 E	53	7.5	173	S 7 E
5846.0	8.00	52.8	177	S 3 E	61	7.7	179	S 1 E
5848.0	8.00	64.9	196	S 16 W	56	7.9	152	S 28 E
5850.0	8.00	55.5	314	N 46 W	63	8.1	153	S 27 E
5852.0	8.00	33.1	178	S 2 E	15	8.1	151	S 29 E
5854.0	8.00	72.0	20	N 20 E	6	7.9	155	S 25 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5856.0	8.00	28.2	281	N 79 W	41	7.9	161	S 19 E
5858.0	8.00	14.5	16	N 16 E	38	7.6	256	S 76 W
5860.0	8.00	13.2	335	N 25 W	62	7.8	178	S 2 E
5862.0	8.00	61.3	225	S 45 W	14	7.7	165	S 15 E
5866.0	8.00	19.5	184	S 4 W	35	7.4	317	N 43 W
5868.0	8.00	42.0	242	S 62 W	16	7.6	172	S 8 E
5870.0	8.00	8.9	290	N 70 W	77	7.7	182	S 2 W
5872.0	8.00	6.1	324	N 36 W	33	7.8	177	S 3 E
5874.0	8.00	64.2	14	N 14 E	23	8.0	180	S 0 E
5876.0	8.00	56.8	335	N 25 W	14	7.5	174	S 6 E
5878.0	8.00	53.1	336	N 24 W	22	7.2	181	S 1 W
5880.0	8.00	34.1	206	S 26 W	59	6.7	172	S 8 E
5882.0	8.00	2.1	331	N 29 W	56	6.1	164	S 16 E
5884.0	8.00	45.9	102	S 78 E	36	6.6	205	S 25 W
5886.0	8.00	42.1	176	S 4 E	45	7.7	188	S 8 W
5888.0	8.00	35.5	183	S 3 W	53	8.0	173	S 7 E
5890.0	8.00	55.4	126	S 54 E	71	8.1	173	S 7 E
5892.0	8.00	57.1	91	S 89 E	55	7.9	173	S 7 E
5894.0	8.00	51.0	160	S 20 E	26	8.3	173	S 7 E
5896.0	8.00	51.8	150	S 30 E	21	7.7	178	S 2 E
5898.0	8.00	42.4	224	S 44 W	16	7.6	177	S 3 E
5900.0	8.00	47.7	103	S 77 E	17	7.6	174	S 6 E
5902.0	8.00	17.1	74	N 74 E	29	7.6	176	S 4 E
5908.0	8.00	47.5	255	S 75 W	21	7.9	176	S 4 E
5912.0	8.00	60.0	293	N 67 W	5	6.9	178	S 2 E
5914.0	8.00	66.7	324	N 36 W	28	6.6	165	S 15 E
5918.0	8.00	69.4	29	N 29 E	3	6.8	175	S 5 E
5926.0	8.00	75.8	8	N 8 E	8	7.0	147	S 33 E
5928.0	8.00	61.9	147	S 33 E	14	7.7	164	S 16 E
5930.0	8.00	46.0	63	N 63 E	26	7.4	176	S 4 E
5932.0	8.00	60.8	349	N 11 W	17	7.4	175	S 5 E
5936.0	8.00	42.6	202	S 22 W	70	7.4	172	S 8 E
5938.0	8.00	42.4	192	S 12 W	76	7.4	177	S 3 E
5940.0	8.00	39.6	220	S 40 W	50	7.4	178	S 2 E
5942.0	8.00	37.6	216	S 36 W	5	7.5	172	S 8 E
5944.0	8.00	52.2	123	S 57 E	19	7.5	176	S 4 E
5946.0	8.00	68.0	99	S 81 E	26	7.5	179	S 1 E
5948.0	8.00	67.7	99	S 81 E	41	7.6	173	S 7 E
5952.0	8.00	63.3	332	N 28 W	32	7.6	174	S 6 E
5954.0	8.00	72.6	345	N 15 W	73	7.6	178	S 2 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
5956.0	8.00	55.4	108	S 72 E	61	7.6	176	S 4 E
5958.0	8.00	54.3	107	S 73 E	75	7.7	174	S 6 E
5962.0	8.00	59.5	106	S 74 E	14	7.5	174	S 6 E
5968.0	8.00	62.2	203	S 23 W	18	7.5	181	S 1 W
5970.0	8.00	48.9	190	S 10 W	26	7.5	177	S 3 E
5972.0	8.00	45.5	183	S 3 W	25	7.6	167	S 13 E
5976.0	8.00	53.4	144	S 36 E	9	7.6	169	S 11 E
5978.0	8.00	59.7	238	S 58 W	29	7.9	177	S 3 E
5982.0	8.00	61.8	239	S 59 W	39	7.9	159	S 21 E
5984.0	8.00	61.9	249	S 69 W	13	7.8	160	S 20 E
5986.0	8.00	61.2	248	S 68 W	2	7.7	174	S 6 E
5988.0	8.00	78.8	317	N 43 W	3	7.7	176	S 4 E
5994.0	8.00	61.0	152	S 28 E	3	7.8	174	S 6 E
5996.0	8.00	57.5	168	S 12 E	42	7.8	172	S 8 E
6000.0	8.00	38.2	276	N 84 W	25	7.6	177	S 3 E
6002.0	8.00	47.4	135	S 45 E	22	7.5	176	S 4 E
6010.0	8.00	64.1	357	N 3 W	11	7.7	173	S 7 E
6012.0	8.00	67.5	12	N 12 E	59	7.7	173	S 7 E
6014.0	8.00	68.3	12	N 12 E	88	7.8	175	S 5 E
6016.0	8.00	62.3	127	S 53 E	12	7.9	177	S 3 E
6018.0	8.00	61.2	351	N 9 W	17	7.7	174	S 6 E
6020.0	8.00	26.5	354	N 6 W	11	7.6	177	S 3 E
6022.0	8.00	34.0	100	S 80 E	32	7.6	173	S 7 E
6024.0	8.00	61.1	57	N 57 E	22	7.3	171	S 9 E
6026.0	8.00	68.3	93	S 87 E	61	7.0	186	S 6 W
6028.0	8.00	64.3	93	S 87 E	61	7.2	154	S 26 E
6030.0	8.00	55.4	129	S 51 E	22	7.7	164	S 16 E
6032.0	8.00	50.1	110	S 70 E	16	7.3	156	S 24 E
6038.0	8.00	18.7	225	S 45 W	3	7.8	154	S 26 E
6040.0	8.00	60.3	207	S 27 W	15	7.4	166	S 14 E
6042.0	8.00	40.5	248	S 68 W	30	6.7	150	S 30 E
6044.0	8.00	65.7	211	S 31 W	34	5.6	169	S 11 E
6046.0	8.00	47.4	252	S 72 W	43	4.0	184	S 4 W
6052.0	8.00	56.3	251	S 71 W	53	0.2	190	S 10 W
6054.0	8.00	54.4	271	N 89 W	33	0.5	96	S 84 E
6056.0	8.00	35.5	0	N 0 E	67	0.4	195	S 15 W
6058.0	8.00	4.1	343	N 17 W	33	0.3	260	S 80 W
6060.0	8.00	46.9	345	N 15 W	49	1.0	251	S 71 W
6062.0	8.00	58.6	52	N 52 E	15	1.0	149	S 31 E
6064.0	8.00	57.7	43	N 43 E	19	0.6	240	S 60 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6066.0	8.00	43.1	316	N 44 W	13	0.2	128	S 52 E
6068.0	8.00	13.3	266	S 86 W	51	1.2	126	S 54 E
6072.0	8.00	16.9	320	N 40 W	10	1.2	224	S 44 W
6074.0	8.00	16.2	339	N 21 W	11	1.1	62	N 62 E
6078.0	8.00	28.4	352	N 8 W	18	1.6	223	S 43 W
6080.0	8.00	15.5	41	N 41 E	48	1.4	203	S 23 W
6086.0	8.00	36.0	301	N 59 W	62	0.2	205	S 25 W
6098.0	8.00	67.3	31	N 31 E	11	8.0	207	S 27 W
6100.0	8.00	34.7	106	S 74 E	28	8.7	134	S 46 E
6102.0	8.00	51.7	72	N 72 E	34	9.1	196	S 16 W
6104.0	8.00	52.5	49	N 49 E	82	7.7	172	S 8 E
6106.0	8.00	55.2	53	N 53 E	100	7.6	172	S 8 E
6108.0	8.00	58.4	55	N 55 E	91	7.5	179	S 1 E
6110.0	8.00	39.0	78	N 78 E	85	7.5	174	S 6 E
6112.0	8.00	37.6	77	N 77 E	81	7.6	157	S 23 E
6114.0	8.00	27.7	216	S 36 W	19	7.8	168	S 12 E
6116.0	8.00	34.2	188	S 8 W	26	8.2	182	S 2 W
6118.0	8.00	44.0	83	N 83 E	14	8.5	172	S 8 E
6120.0	8.00	21.9	125	S 55 E	34	8.9	173	S 7 E
6134.0	8.00	35.8	189	S 9 W	89	8.2	173	S 7 E
6136.0	8.00	21.9	124	S 56 E	95	8.6	169	S 11 E
6138.0	8.00	67.9	45	N 45 E	97	8.9	183	S 3 W
6140.0	8.00	66.7	42	N 42 E	100	8.3	170	S 10 E
6142.0	8.00	61.1	65	N 65 E	56	8.0	170	S 10 E
6144.0	8.00	61.9	124	S 56 E	52	8.1	170	S 10 E
6146.0	8.00	55.0	80	N 80 E	71	8.2	176	S 4 E
6148.0	8.00	26.0	103	S 77 E	82	8.1	173	S 7 E
6150.0	8.00	27.7	97	S 83 E	79	8.0	174	S 6 E
6152.0	8.00	30.9	92	S 88 E	48	8.0	174	S 6 E
6154.0	8.00	33.6	107	S 73 E	100	7.9	176	S 4 E
6156.0	8.00	63.8	12	N 12 E	35	7.7	169	S 11 E
6158.0	8.00	49.8	223	S 43 W	36	7.7	174	S 6 E
6160.0	8.00	22.7	119	S 61 E	50	7.7	175	S 5 E
6162.0	8.00	62.4	232	S 52 W	47	7.7	176	S 4 E
6164.0	8.00	44.7	88	N 88 E	66	7.7	178	S 2 E
6166.0	8.00	26.5	53	N 53 E	39	7.7	176	S 4 E
6168.0	8.00	23.0	61	N 61 E	75	7.8	177	S 3 E
6172.0	8.00	56.4	112	S 68 E	43	7.9	175	S 5 E
6174.0	8.00	32.8	140	S 40 E	16	7.8	171	S 9 E
6176.0	8.00	47.4	97	S 83 E	20	7.9	176	S 4 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
6178.0	8.00	51.5	93	S 87 E	28	8.1	177	S 3 E	
6180.0	8.00	61.9	306	N 54 W	72	8.2	178	S 2 E	
6182.0	8.00	66.5	99	S 81 E	65	7.9	178	S 2 E	
6184.0	8.00	53.0	185	S 5 W	15	7.7	176	S 4 E	
6186.0	8.00	50.2	132	S 48 E	29	7.7	177	S 3 E	
6188.0	8.00	34.2	152	S 28 E	32	7.7	177	S 3 E	
6190.0	8.00	49.8	133	S 47 E	27	7.8	178	S 2 E	
6194.0	8.00	39.4	132	S 48 E	23	7.7	178	S 2 E	
6196.0	8.00	39.5	70	N 70 E	34	7.8	178	S 2 E	
6198.0	8.00	34.2	69	N 69 E	21	7.9	177	S 3 E	
6200.0	8.00	38.3	73	N 73 E	65	8.0	178	S 2 E	
6202.0	8.00	42.4	64	N 64 E	15	8.0	178	S 2 E	
6204.0	8.00	30.2	62	N 62 E	46	7.7	180	S 0 E	
6206.0	8.00	39.1	347	N 13 W	38	7.8	178	S 2 E	
6208.0	8.00	52.0	276	N 84 W	34	7.9	179	S 1 E	
6210.0	8.00	37.6	255	S 75 W	31	7.9	178	S 2 E	
6212.0	8.00	41.5	244	S 64 W	17	7.8	179	S 1 E	
6214.0	8.00	39.4	246	S 66 W	32	7.7	186	S 6 W	
6216.0	8.00	50.7	251	S 71 W	14	7.8	180	S 0 E	
6218.0	8.00	36.6	263	S 83 W	20	7.8	180	S 0 E	
6226.0	8.00	66.0	102	S 78 E	10	7.9	179	S 1 E	
6228.0	8.00	59.6	185	S 5 W	9	7.8	180	S 0 E	
6230.0	8.00	63.4	197	S 17 W	19	7.7	177	S 3 E	
6232.0	8.00	63.3	193	S 13 W	17	7.8	179	S 1 E	
6238.0	8.00	46.0	29	N 29 E	59	7.8	186	S 6 W	
6240.0	8.00	55.7	176	S 4 E	36	7.8	179	S 1 E	
6242.0	8.00	55.0	173	S 7 E	39	7.7	179	S 1 E	
6244.0	8.00	45.4	160	S 20 E	63	7.7	183	S 3 W	
6246.0	8.00	46.5	154	S 26 E	68	7.7	185	S 5 W	
6250.0	8.00	23.0	110	S 70 E	57	7.9	178	S 2 E	
6252.0	8.00	26.8	77	N 77 E	62	8.1	190	S 10 W	
6254.0	8.00	44.2	55	N 55 E	55	8.3	181	S 1 W	
6258.0	8.00	63.9	108	S 72 E	31	7.8	180	S 0 E	
6260.0	8.00	64.0	110	S 70 E	37	7.8	182	S 2 W	
6262.0	8.00	64.4	109	S 71 E	37	8.0	182	S 2 W	
6268.0	8.00	58.4	80	N 80 E	5	7.9	182	S 2 W	
6272.0	8.00	60.4	70	N 70 E	15	7.7	181	S 1 W	
6274.0	8.00	64.1	108	S 72 E	29	7.7	190	S 10 W	
6280.0	8.00	33.1	15	N 15 E	12	7.7	183	S 3 W	
6282.0	8.00	43.3	293	N 67 W	27	7.7	181	S 1 W	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6284.0	8.00	61.1	26	N 26 E	8	7.8	182	S 2 W
6286.0	8.00	59.3	27	N 27 E	24	7.9	184	S 4 W
6288.0	8.00	59.4	14	N 14 E	49	8.0	181	S 1 W
6290.0	8.00	73.5	1	N 1 E	23	8.0	180	S 0 E
6292.0	8.00	69.1	355	N 5 W	22	8.0	179	S 1 E
6296.0	8.00	56.9	140	S 40 E	12	8.2	183	S 3 W
6298.0	8.00	65.0	259	S 79 W	13	8.4	185	S 5 W
6300.0	8.00	54.2	244	S 64 W	15	8.1	186	S 6 W
6302.0	8.00	56.4	220	S 40 W	21	8.0	181	S 1 W
6304.0	8.00	49.0	264	S 84 W	12	8.1	185	S 5 W
6306.0	8.00	15.0	263	S 83 W	30	8.3	183	S 3 W
6308.0	8.00	16.4	253	S 73 W	35	8.4	185	S 5 W
6312.0	8.00	42.6	81	N 81 E	40	8.3	185	S 5 W
6314.0	8.00	43.3	72	N 72 E	36	8.0	184	S 4 W
6316.0	8.00	72.9	13	N 13 E	14	8.0	188	S 8 W
6318.0	8.00	68.8	77	N 77 E	22	8.1	189	S 9 W
6320.0	8.00	66.5	185	S 5 W	14	8.3	192	S 12 W
6322.0	8.00	26.5	198	S 18 W	97	8.4	186	S 6 W
6324.0	8.00	63.7	186	S 6 W	46	8.0	186	S 6 W
6326.0	8.00	35.7	52	N 52 E	67	8.0	185	S 5 W
6328.0	8.00	35.3	51	N 51 E	76	8.1	187	S 7 W
6330.0	8.00	33.7	82	N 82 E	100	8.2	186	S 6 W
6332.0	8.00	34.6	80	N 80 E	100	8.3	188	S 8 W
6338.0	8.00	35.8	248	S 68 W	100	8.0	185	S 5 W
6340.0	8.00	55.2	59	N 59 E	59	8.1	185	S 5 W
6342.0	8.00	62.4	71	N 71 E	30	8.0	186	S 6 W
6344.0	8.00	65.6	43	N 43 E	76	8.1	187	S 7 W
6346.0	8.00	37.7	83	N 83 E	91	8.1	185	S 5 W
6348.0	8.00	55.9	357	N 3 W	34	8.1	187	S 7 W
6350.0	8.00	28.0	77	N 77 E	70	8.1	186	S 6 W
6352.0	8.00	57.3	358	N 2 W	61	8.1	186	S 6 W
6356.0	8.00	19.5	278	N 82 W	21	8.1	188	S 8 W
6358.0	8.00	45.5	56	N 56 E	44	8.1	186	S 6 W
6360.0	8.00	64.7	256	S 76 W	39	8.1	186	S 6 W
6364.0	8.00	49.6	66	N 66 E	76	8.1	187	S 7 W
6366.0	8.00	65.9	224	S 44 W	44	8.1	186	S 6 W
6368.0	8.00	43.4	79	N 79 E	87	8.1	186	S 6 W
6370.0	8.00	43.2	84	N 84 E	100	8.0	187	S 7 W
6372.0	8.00	41.3	92	S 88 E	100	8.1	187	S 7 W
6374.0	8.00	48.6	68	N 68 E	100	8.0	186	S 6 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6376.0	8.00	43.1	57	N 57 E	63	8.1	187	S 7 W
6380.0	8.00	57.4	241	S 61 W	15	8.1	188	S 8 W
6382.0	8.00	57.2	241	S 61 W	16	8.1	188	S 8 W
6390.0	8.00	51.7	287	N 73 W	22	8.3	188	S 8 W
6396.0	8.00	57.8	174	S 6 E	27	8.2	185	S 5 W
6398.0	8.00	59.4	113	S 67 E	24	8.2	193	S 13 W
6400.0	8.00	57.7	191	S 11 W	10	8.3	189	S 9 W
6402.0	8.00	62.6	105	S 75 E	24	8.3	189	S 9 W
6404.0	8.00	35.8	315	N 45 W	15	8.5	189	S 9 W
6406.0	8.00	68.1	45	N 45 E	45	8.8	189	S 9 W
6408.0	8.00	73.1	38	N 38 E	68	9.2	188	S 8 W
6410.0	8.00	36.2	33	N 33 E	72	9.2	188	S 8 W
6412.0	8.00	54.2	233	S 53 W	53	9.2	191	S 11 W
6414.0	8.00	42.1	48	N 48 E	18	9.1	187	S 7 W
6416.0	8.00	25.3	90	N 90 E	16	8.9	186	S 6 W
6418.0	8.00	52.2	86	N 86 E	63	8.6	197	S 17 W
6420.0	8.00	52.5	87	N 87 E	69	8.8	189	S 9 W
6424.0	8.00	39.7	179	S 1 E	5	8.8	189	S 9 W
6426.0	8.00	19.2	273	N 87 W	21	8.5	191	S 11 W
6428.0	8.00	16.3	7	N 7 E	40	8.6	193	S 13 W
6430.0	8.00	64.4	178	S 2 E	13	8.7	189	S 9 W
6432.0	8.00	62.7	104	S 76 E	46	8.6	193	S 13 W
6434.0	8.00	65.0	104	S 76 E	56	8.7	189	S 9 W
6436.0	8.00	31.7	106	S 74 E	17	8.6	189	S 9 W
6438.0	8.00	51.7	158	S 22 E	11	8.6	190	S 10 W
6440.0	8.00	69.7	107	S 73 E	15	8.6	191	S 11 W
6442.0	8.00	46.3	86	N 86 E	52	8.6	193	S 13 W
6444.0	8.00	31.3	103	S 77 E	44	8.6	193	S 13 W
6446.0	8.00	56.2	76	N 76 E	78	8.6	191	S 11 W
6448.0	8.00	67.8	100	S 80 E	60	8.6	192	S 12 W
6450.0	8.00	50.7	67	N 67 E	100	8.6	192	S 12 W
6452.0	8.00	49.4	66	N 66 E	69	8.6	192	S 12 W
6454.0	8.00	25.5	48	N 48 E	85	8.6	191	S 11 W
6456.0	8.00	45.3	65	N 65 E	80	8.6	193	S 13 W
6458.0	8.00	17.8	260	S 80 W	63	8.6	192	S 12 W
6460.0	8.00	44.2	74	N 74 E	34	8.6	192	S 12 W
6462.0	8.00	42.2	76	N 76 E	43	8.6	190	S 10 W
6466.0	8.00	64.3	5	N 5 E	66	8.6	191	S 11 W
6468.0	8.00	64.4	3	N 3 E	43	8.7	191	S 11 W
6470.0	8.00	28.8	51	N 51 E	67	8.6	192	S 12 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6472.0	8.00	55.7	308	N 52 W	16	8.6	192	S 12 W
6474.0	8.00	65.2	282	N 78 W	37	8.7	191	S 11 W
6484.0	8.00	68.7	306	N 54 W	17	8.6	190	S 10 W
6486.0	8.00	71.5	27	N 27 E	11	8.7	198	S 18 W
6488.0	8.00	52.8	218	S 38 W	18	8.7	194	S 14 W
6490.0	8.00	54.5	223	S 43 W	29	8.8	190	S 10 W
6492.0	8.00	58.4	91	S 89 E	4	8.6	193	S 13 W
6494.0	8.00	71.8	86	N 86 E	11	8.7	185	S 5 W
6496.0	8.00	75.4	75	N 75 E	19	8.7	191	S 11 W
6498.0	8.00	75.8	75	N 75 E	22	8.7	191	S 11 W
6500.0	8.00	23.6	53	N 53 E	69	8.8	192	S 12 W
6502.0	8.00	73.7	18	N 18 E	60	8.8	191	S 11 W
6504.0	8.00	65.8	22	N 22 E	59	8.8	192	S 12 W
6506.0	8.00	72.7	22	N 22 E	47	8.7	192	S 12 W
6508.0	8.00	68.6	62	N 62 E	27	8.7	192	S 12 W
6512.0	8.00	60.3	269	S 89 W	28	8.7	192	S 12 W
6514.0	8.00	64.7	3	N 3 E	59	8.7	191	S 11 W
6518.0	8.00	54.6	121	S 59 E	57	8.7	192	S 12 W
6522.0	8.00	60.0	225	S 45 W	21	9.1	192	S 12 W
6524.0	8.00	49.7	304	N 56 W	12	9.2	193	S 13 W
6528.0	8.00	54.0	203	S 23 W	8	9.1	192	S 12 W
6534.0	8.00	43.0	84	N 84 E	44	9.3	194	S 14 W
6536.0	8.00	41.8	85	N 85 E	36	9.3	195	S 15 W
6540.0	8.00	42.4	224	S 44 W	59	9.2	195	S 15 W
6544.0	8.00	40.3	215	S 35 W	54	9.4	194	S 14 W
6546.0	8.00	23.4	41	N 41 E	25	9.2	197	S 17 W
6548.0	8.00	31.2	63	N 63 E	32	9.1	204	S 24 W
6550.0	8.00	32.8	65	N 65 E	82	9.0	190	S 10 W
6552.0	8.00	54.0	49	N 49 E	47	9.1	190	S 10 W
6554.0	8.00	76.8	18	N 18 E	14	9.0	195	S 15 W
6556.0	8.00	62.7	63	N 63 E	36	9.1	193	S 13 W
6558.0	8.00	76.5	18	N 18 E	30	9.1	194	S 14 W
6560.0	8.00	65.6	71	N 71 E	46	9.2	194	S 14 W
6562.0	8.00	30.1	94	S 86 E	47	9.3	196	S 16 W
6564.0	8.00	55.6	42	N 42 E	64	9.1	195	S 15 W
6566.0	8.00	43.5	164	S 16 E	15	9.1	196	S 16 W
6568.0	8.00	53.3	72	N 72 E	63	9.1	196	S 16 W
6570.0	8.00	54.8	49	N 49 E	49	9.2	195	S 15 W
6572.0	8.00	56.5	159	S 21 E	22	9.3	193	S 13 W
6574.0	8.00	77.6	28	N 28 E	66	9.4	197	S 17 W

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MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6576.0	8.00	65.6	35	N 35 E	84	9.4	195	S 15 W
6578.0	8.00	64.5	37	N 37 E	98	9.1	192	S 12 W
6580.0	8.00	51.3	27	N 27 E	58	9.1	195	S 15 W
6582.0	8.00	56.7	258	S 78 W	86	9.1	196	S 16 W
6584.0	8.00	51.1	236	S 56 W	95	9.2	196	S 16 W
6586.0	8.00	46.4	223	S 43 W	100	9.2	197	S 17 W
6588.0	8.00	46.5	224	S 44 W	70	9.2	196	S 16 W
6590.0	8.00	66.5	55	N 55 E	53	9.2	195	S 15 W
6592.0	8.00	25.8	50	N 50 E	57	9.3	196	S 16 W
6594.0	8.00	55.3	243	S 63 W	41	9.3	197	S 17 W
6596.0	8.00	42.5	55	N 55 E	39	9.3	196	S 16 W
6598.0	8.00	43.5	54	N 54 E	75	9.3	198	S 18 W
6600.0	8.00	55.0	245	S 65 W	31	9.2	197	S 17 W
6602.0	8.00	57.0	357	N 3 W	10	9.2	197	S 17 W
6604.0	8.00	59.9	262	S 82 W	27	9.2	197	S 17 W
6606.0	8.00	62.4	282	N 78 W	47	9.2	197	S 17 W
6608.0	8.00	75.4	35	N 35 E	52	9.1	204	S 24 W
6610.0	8.00	72.7	77	N 77 E	56	9.2	195	S 15 W
6612.0	8.00	73.1	35	N 35 E	64	9.2	196	S 16 W
6614.0	8.00	38.8	71	N 71 E	8	9.2	195	S 15 W
6618.0	8.00	39.0	10	N 10 E	58	9.3	198	S 18 W
6620.0	8.00	42.1	271	N 89 W	29	9.3	198	S 18 W
6622.0	8.00	53.7	251	S 71 W	36	9.3	198	S 18 W
6624.0	8.00	40.8	174	S 6 E	31	9.3	198	S 18 W
6626.0	8.00	46.6	130	S 50 E	16	9.4	198	S 18 W
6628.0	8.00	45.1	19	N 19 E	41	9.4	198	S 18 W
6630.0	8.00	45.3	20	N 20 E	39	9.4	198	S 18 W
6632.0	8.00	44.6	22	N 22 E	55	9.3	198	S 18 W
6634.0	8.00	57.9	209	S 29 W	27	9.4	198	S 18 W
6636.0	8.00	49.2	33	N 33 E	14	9.4	198	S 18 W
6638.0	8.00	21.1	182	S 2 W	54	9.4	198	S 18 W
6640.0	8.00	57.9	150	S 30 E	24	9.4	198	S 18 W
6642.0	8.00	22.6	55	N 55 E	100	9.4	198	S 18 W
6650.0	8.00	51.2	171	S 9 E	23	9.5	199	S 19 W
6652.0	8.00	52.9	147	S 33 E	17	9.5	198	S 18 W
6654.0	8.00	51.1	158	S 22 E	72	9.5	198	S 18 W
6656.0	8.00	51.7	160	S 20 E	100	9.6	205	S 25 W
6658.0	8.00	52.1	358	N 2 W	44	9.4	197	S 17 W
6660.0	8.00	56.0	7	N 7 E	87	9.0	198	S 18 W
6662.0	8.00	68.3	71	N 71 E	55	8.7	196	S 16 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
6664.0	8.00	51.6	108	S 72 E	40	8.4	191	S 11 W
6666.0	8.00	37.4	143	S 37 E	14	7.9	192	S 12 W
6668.0	8.00	58.7	184	S 4 W	4	7.5	204	S 24 W
6670.0	8.00	21.9	91	S 89 E	19	7.2	221	S 41 W
6676.0	8.00	19.8	166	S 14 E	27	10.9	158	S 22 E
6680.0	8.00	43.7	187	S 7 W	16	9.1	193	S 13 W
6682.0	8.00	66.2	313	N 47 W	27	9.2	197	S 17 W
6684.0	8.00	45.6	271	N 89 W	58	9.3	196	S 16 W
6688.0	8.00	9.3	4	N 4 E	54	9.4	188	S 8 W
6690.0	8.00	15.3	330	N 30 W	30	9.7	193	S 13 W
6692.0	8.00	16.4	56	N 56 E	9	9.5	187	S 7 W
6696.0	8.00	29.1	214	S 34 W	18	9.6	195	S 15 W
6698.0	8.00	71.3	42	N 42 E	54	9.6	197	S 17 W
6700.0	8.00	30.8	64	N 64 E	52	9.6	198	S 18 W
6702.0	8.00	77.7	12	N 12 E	37	9.6	198	S 18 W
6706.0	8.00	19.1	190	S 10 W	92	9.7	197	S 17 W
6710.0	8.00	69.3	40	N 40 E	26	9.8	196	S 16 W
6712.0	8.00	51.1	178	S 2 E	21	9.8	203	S 23 W
6714.0	8.00	55.8	275	N 85 W	38	9.9	208	S 28 W
6718.0	8.00	47.1	274	N 86 W	46	9.7	195	S 15 W
6720.0	8.00	62.7	144	S 36 E	33	9.7	197	S 17 W
6726.0	8.00	51.9	168	S 12 E	33	9.9	198	S 18 W
6728.0	8.00	51.7	242	S 62 W	30	10.0	197	S 17 W
6730.0	8.00	66.0	40	N 40 E	32	10.1	195	S 15 W
6732.0	8.00	31.2	255	S 75 W	37	10.3	201	S 21 W
6734.0	8.00	44.8	138	S 42 E	48	10.5	196	S 16 W
6738.0	8.00	19.8	62	N 62 E	34	10.4	188	S 8 W
6740.0	8.00	50.4	69	N 69 E	16	10.2	199	S 19 W
6744.0	8.00	60.0	116	S 64 E	55	10.0	200	S 20 W
6746.0	8.00	55.6	312	N 48 W	64	10.0	205	S 25 W
6748.0	8.00	71.7	4	N 4 E	9	9.7	201	S 21 W
6750.0	8.00	14.8	311	N 49 W	60	9.7	198	S 18 W
6752.0	8.00	69.9	91	S 89 E	56	9.7	198	S 18 W
6754.0	8.00	42.5	144	S 36 E	62	9.7	198	S 18 W
6756.0	8.00	78.8	9	N 9 E	34	9.8	196	S 16 W
6758.0	8.00	27.6	39	N 39 E	62	9.9	198	S 18 W
6760.0	8.00	9.9	256	S 76 W	75	10.1	200	S 20 W
6762.0	8.00	29.0	39	N 39 E	73	10.2	198	S 18 W
6764.0	8.00	80.8	35	N 35 E	55	10.1	198	S 18 W
6766.0	8.00	33.5	271	N 89 W	67	9.9	193	S 13 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6770.0	8.00	7.6	241	S 61 W	67	9.7	197	S 17 W
6776.0	8.00	54.9	59	N 59 E	71	9.6	195	S 15 W
6780.0	8.00	65.9	35	N 35 E	72	9.6	198	S 18 W
6782.0	8.00	43.6	83	N 83 E	94	9.6	195	S 15 W
6784.0	8.00	67.7	21	N 21 E	64	9.6	196	S 16 W
6786.0	8.00	54.3	66	N 66 E	97	9.6	197	S 17 W
6788.0	8.00	43.7	61	N 61 E	99	9.7	196	S 16 W
6790.0	8.00	27.4	30	N 30 E	100	9.7	199	S 19 W
6794.0	8.00	20.0	91	S 89 E	44	9.7	197	S 17 W
6796.0	8.00	54.8	198	S 18 W	34	9.7	199	S 19 W
6798.0	8.00	54.4	198	S 18 W	35	9.7	193	S 13 W
6802.0	8.00	33.8	220	S 40 W	61	9.6	199	S 19 W
6804.0	8.00	30.6	21	N 21 E	75	9.5	197	S 17 W
6806.0	8.00	48.1	117	S 63 E	25	9.5	196	S 16 W
6808.0	8.00	63.3	17	N 17 E	65	9.5	197	S 17 W
6810.0	8.00	71.4	65	N 65 E	80	9.4	199	S 19 W
6812.0	8.00	66.8	8	N 8 E	80	9.4	198	S 18 W
6814.0	8.00	67.8	69	N 69 E	77	9.4	199	S 19 W
6816.0	8.00	42.1	97	S 83 E	56	9.5	198	S 18 W
6818.0	8.00	68.2	30	N 30 E	36	9.5	198	S 18 W
6820.0	8.00	55.6	191	S 11 W	37	9.5	197	S 17 W
6822.0	8.00	65.0	244	S 64 W	42	9.5	197	S 17 W
6824.0	8.00	54.8	204	S 24 W	12	9.5	197	S 17 W
6832.0	8.00	7.9	171	S 9 E	55	9.5	198	S 18 W
6834.0	8.00	6.1	172	S 8 E	86	9.5	198	S 18 W
6836.0	8.00	6.4	202	S 22 W	100	9.5	197	S 17 W
6838.0	8.00	24.6	74	N 74 E	86	9.5	197	S 17 W
6840.0	8.00	26.0	76	N 76 E	78	9.5	199	S 19 W
6842.0	8.00	40.3	173	S 7 E	65	9.5	199	S 19 W
6844.0	8.00	40.9	174	S 6 E	84	9.5	201	S 21 W
6848.0	8.00	29.4	77	N 77 E	39	9.5	199	S 19 W
6850.0	8.00	37.5	60	N 60 E	18	9.5	199	S 19 W
6852.0	8.00	37.1	61	N 61 E	42	9.5	200	S 20 W
6854.0	8.00	35.6	59	N 59 E	87	9.5	201	S 21 W
6856.0	8.00	21.5	61	N 61 E	95	9.6	198	S 18 W
6858.0	8.00	23.8	39	N 39 E	100	9.6	199	S 19 W
6860.0	8.00	23.6	40	N 40 E	98	9.6	199	S 19 W
6862.0	8.00	23.6	40	N 40 E	75	9.6	198	S 18 W
6864.0	8.00	22.6	44	N 44 E	30	9.5	201	S 21 W
6866.0	8.00	41.9	75	N 75 E	18	9.6	201	S 21 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6868.0	8.00	8.5	223	S 43 W	67	9.6	198	S 18 W
6870.0	8.00	7.7	225	S 45 W	100	9.6	198	S 18 W
6880.0	8.00	39.6	77	N 77 E	85	9.6	199	S 19 W
6882.0	8.00	38.7	62	N 62 E	85	9.6	200	S 20 W
6884.0	8.00	41.3	190	S 10 W	48	9.6	202	S 22 W
6886.0	8.00	47.0	239	S 59 W	36	9.6	203	S 23 W
6888.0	8.00	47.3	242	S 62 W	45	9.6	201	S 21 W
6890.0	8.00	47.8	245	S 65 W	72	9.6	200	S 20 W
6892.0	8.00	55.3	207	S 27 W	48	9.7	200	S 20 W
6896.0	8.00	51.9	104	S 76 E	57	9.7	201	S 21 W
6900.0	8.00	37.0	94	S 86 E	38	9.7	199	S 19 W
6902.0	8.00	67.0	61	N 61 E	8	9.7	198	S 18 W
6904.0	8.00	52.8	253	S 73 W	17	9.7	201	S 21 W
6906.0	8.00	51.6	313	N 47 W	20	9.7	199	S 19 W
6908.0	8.00	81.2	5	N 5 E	4	9.7	201	S 21 W
6910.0	8.00	67.8	54	N 54 E	38	9.7	198	S 18 W
6912.0	8.00	56.4	67	N 67 E	72	9.7	197	S 17 W
6914.0	8.00	65.3	15	N 15 E	71	9.6	199	S 19 W
6916.0	8.00	62.8	229	S 49 W	35	9.6	200	S 20 W
6918.0	8.00	63.1	228	S 48 W	32	9.6	200	S 20 W
6920.0	8.00	58.3	163	S 17 E	35	9.6	200	S 20 W
6922.0	8.00	57.8	158	S 22 E	42	9.6	200	S 20 W
6924.0	8.00	58.2	258	S 78 W	50	9.6	200	S 20 W
6926.0	8.00	60.1	233	S 53 W	35	9.6	201	S 21 W
6928.0	8.00	50.0	278	N 82 W	15	9.7	201	S 21 W
6930.0	8.00	49.2	237	S 57 W	13	9.7	195	S 15 W
6932.0	8.00	25.5	21	N 21 E	84	9.7	200	S 20 W
6940.0	8.00	21.0	224	S 44 W	49	9.5	201	S 21 W
6942.0	8.00	48.5	60	N 60 E	49	9.5	200	S 20 W
6944.0	8.00	56.0	216	S 36 W	45	9.5	202	S 22 W
6946.0	8.00	48.6	62	N 62 E	33	9.6	199	S 19 W
6948.0	8.00	49.1	59	N 59 E	77	9.5	200	S 20 W
6950.0	8.00	41.5	67	N 67 E	82	9.6	199	S 19 W
6952.0	8.00	43.6	73	N 73 E	83	9.6	200	S 20 W
6954.0	8.00	30.5	30	N 30 E	38	9.7	190	S 10 W
6956.0	8.00	27.5	16	N 16 E	41	9.8	195	S 15 W
6958.0	8.00	63.0	292	N 68 W	28	9.9	195	S 15 W
6962.0	8.00	78.3	50	N 50 E	56	10.6	200	S 20 W
6964.0	8.00	78.0	51	N 51 E	29	11.1	198	S 18 W
6966.0	8.00	69.7	317	N 43 W	64	10.7	198	S 18 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
6968.0	8.00	72.0	328	N 32 W	49	10.9	196	S 16 W
6970.0	8.00	63.3	307	N 53 W	10	11.6	196	S 16 W
6972.0	8.00	45.1	22	N 22 E	14	11.4	196	S 16 W
6974.0	8.00	43.6	324	N 36 W	53	10.1	200	S 20 W
6976.0	8.00	44.6	329	N 31 W	50	10.3	200	S 20 W
6978.0	8.00	56.9	30	N 30 E	51	10.2	199	S 19 W
6980.0	8.00	57.4	314	N 46 W	58	9.6	199	S 19 W
6982.0	8.00	61.1	312	N 48 W	67	9.6	196	S 16 W
6984.0	8.00	56.5	217	S 37 W	71	9.6	194	S 14 W
6986.0	8.00	55.7	203	S 23 W	76	9.7	194	S 14 W
6988.0	8.00	53.8	299	N 61 W	55	9.8	197	S 17 W
6990.0	8.00	66.2	26	N 26 E	100	9.9	198	S 18 W
6992.0	8.00	69.1	29	N 29 E	95	10.0	197	S 17 W
6994.0	8.00	57.5	105	S 75 E	64	10.0	147	S 33 E
6996.0	8.00	69.1	100	S 80 E	64	10.1	212	S 32 W
7008.0	8.00	60.6	61	N 61 E	18	9.8	332	N 28 W
7012.0	8.00	56.6	357	N 3 W	11	9.7	195	S 15 W
7014.0	8.00	54.8	357	N 3 W	9	9.7	201	S 21 W
7016.0	8.00	53.5	356	N 4 W	23	9.7	198	S 18 W
7022.0	8.00	17.5	289	N 71 W	59	9.3	113	S 67 E
7024.0	8.00	14.2	329	N 31 W	33	9.3	183	S 3 W
7026.0	8.00	40.5	314	N 46 W	23	9.4	183	S 3 W
7028.0	8.00	41.4	321	N 39 W	18	9.5	189	S 9 W
7030.0	8.00	56.0	208	S 28 W	13	9.6	24	N 24 E
7040.0	8.00	59.2	178	S 2 E	20	9.4	185	S 5 W
7044.0	8.00	70.8	142	S 38 E	15	9.6	46	N 46 E
7046.0	8.00	66.0	102	S 78 E	56	9.7	204	S 24 W
7050.0	8.00	37.3	269	S 89 W	53	9.7	198	S 18 W
7052.0	8.00	40.3	277	N 83 W	34	9.8	200	S 20 W
7062.0	8.00	53.6	13	N 13 E	7	9.4	185	S 5 W
7064.0	8.00	22.8	221	S 41 W	5	9.4	184	S 4 W
7066.0	8.00	24.5	221	S 41 W	7	9.4	185	S 5 W
7070.0	8.00	51.2	130	S 50 E	31	9.7	263	S 83 W
7072.0	8.00	54.2	153	S 27 E	9	9.9	201	S 21 W
7074.0	8.00	52.5	155	S 25 E	31	9.8	199	S 19 W
7076.0	8.00	48.0	151	S 29 E	27	9.7	200	S 20 W
7078.0	8.00	2.8	12	N 12 E	68	9.4	197	S 17 W
7080.0	8.00	69.2	277	N 83 W	57	9.6	183	S 3 W
7082.0	8.00	77.8	284	N 76 W	22	9.9	54	N 54 E
7084.0	8.00	60.4	200	S 20 W	21	9.9	199	S 19 W

Dresser/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
7086.0	8.00	45.0	22	N 22 E	3	9.9	177	S 3 E
7092.0	8.00	39.5	312	N 48 W	44	9.8	204	S 24 W
7098.0	8.00	7.0	199	S 19 W	39	9.9	199	S 19 W
7100.0	8.00	68.9	79	N 79 E	13	9.9	201	S 21 W
7104.0	8.00	45.8	223	S 43 W	25	9.6	224	S 44 W
7106.0	8.00	58.3	195	S 15 W	15	9.9	341	N 19 W
7108.0	8.00	45.3	354	N 6 W	35	10.1	71	N 71 E
7110.0	8.00	42.2	88	N 88 E	100	9.8	121	S 59 E
7112.0	8.00	45.8	303	N 57 W	57	9.7	183	S 3 W
7114.0	8.00	62.8	88	N 88 E	48	9.8	203	S 23 W
7116.0	8.00	73.7	14	N 14 E	38	9.6	184	S 4 W
7118.0	8.00	60.5	251	S 71 W	32	9.5	179	S 1 E
7120.0	8.00	71.2	356	N 4 W	76	9.5	176	S 4 E
7122.0	8.00	57.9	158	S 22 E	30	9.7	183	S 3 W
7124.0	8.00	59.8	129	S 51 E	27	10.1	200	S 20 W
7126.0	8.00	58.2	134	S 46 E	29	10.2	198	S 18 W
7128.0	8.00	57.6	132	S 48 E	43	10.1	202	S 22 W
7130.0	8.00	66.6	15	N 15 E	13	10.0	198	S 18 W
7132.0	8.00	77.0	336	N 24 W	13	10.1	200	S 20 W
7134.0	8.00	67.5	9	N 9 E	35	10.1	194	S 14 W
7138.0	8.00	50.5	339	N 21 W	62	9.7	21	N 21 E
7140.0	8.00	67.3	340	N 20 W	62	9.7	184	S 4 W
7142.0	8.00	77.7	319	N 41 W	27	9.7	180	S 0 E
7144.0	8.00	57.2	124	S 56 E	4	9.9	197	S 17 W
7146.0	8.00	53.1	242	S 62 W	21	10.2	29	N 29 E
7148.0	8.00	34.8	249	S 69 W	13	10.2	238	S 58 W
7150.0	8.00	41.2	21	N 21 E	7	10.0	182	S 2 W
7152.0	8.00	42.1	26	N 26 E	7	10.2	202	S 22 W
7156.0	8.00	43.4	263	S 83 W	17	10.7	146	S 34 E
7160.0	8.00	52.5	95	S 85 E	19	10.3	202	S 22 W
7162.0	8.00	51.4	94	S 86 E	32	10.3	199	S 19 W
7164.0	8.00	61.0	141	S 39 E	14	10.3	200	S 20 W
7166.0	8.00	58.1	146	S 34 E	15	10.3	200	S 20 W
7168.0	8.00	74.0	327	N 33 W	12	10.2	195	S 15 W
7170.0	8.00	55.4	248	S 68 W	21	10.3	195	S 15 W
7172.0	8.00	70.1	292	N 68 W	5	10.3	196	S 16 W
7174.0	8.00	55.6	248	S 68 W	19	10.3	198	S 18 W
7176.0	8.00	75.8	42	N 42 E	30	10.3	197	S 17 W
7178.0	8.00	72.4	39	N 39 E	30	10.2	168	S 12 E
7180.0	8.00	38.2	277	N 83 W	12	10.4	197	S 17 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
7182.0	8.00	34.3	25	N 25 E	18	10.4	199	S 19 W
7188.0	8.00	66.5	133	S 47 E	7	10.4	200	S 20 W
7192.0	8.00	34.1	145	S 35 E	37	10.4	205	S 25 W
7194.0	8.00	35.4	134	S 46 E	42	10.4	199	S 19 W
7196.0	8.00	49.2	120	S 60 E	9	10.5	204	S 24 W
7200.0	8.00	44.7	32	N 32 E	20	10.5	201	S 21 W
7202.0	8.00	17.3	6	N 6 E	33	10.5	200	S 20 W
7204.0	8.00	67.9	342	N 18 W	28	10.5	202	S 22 W
7206.0	8.00	61.4	30	N 30 E	18	10.5	201	S 21 W
7208.0	8.00	63.3	304	N 56 W	41	10.5	201	S 21 W
7210.0	8.00	52.9	330	N 30 W	64	10.5	198	S 18 W
7214.0	8.00	63.1	289	N 71 W	95	10.3	15	N 15 E
7216.0	8.00	60.0	169	S 11 E	34	10.4	192	S 12 W
7218.0	8.00	59.0	205	S 25 W	81	10.6	101	S 79 E
7220.0	8.00	64.1	36	N 36 E	23	10.6	200	S 20 W
7224.0	8.00	15.2	340	N 20 W	26	10.5	202	S 22 W
7226.0	8.00	47.0	162	S 18 E	32	10.3	204	S 24 W
7228.0	8.00	40.4	264	S 84 W	63	10.4	89	N 89 E
7230.0	8.00	66.2	311	N 49 W	20	10.5	200	S 20 W
7232.0	8.00	27.0	278	N 82 W	63	10.7	201	S 21 W
7234.0	8.00	61.1	105	S 75 E	10	10.6	197	S 17 W
7236.0	8.00	73.6	354	N 6 W	44	10.3	184	S 4 W
7238.0	8.00	53.7	7	N 7 E	62	10.3	180	S 0 E
7240.0	8.00	81.1	345	N 15 W	13	10.3	185	S 5 W
7242.0	8.00	81.2	358	N 2 W	17	10.5	197	S 17 W
7244.0	8.00	40.8	29	N 29 E	11	10.7	89	N 89 E
7246.0	8.00	50.3	60	N 60 E	33	10.8	199	S 19 W
7248.0	8.00	50.2	62	N 62 E	33	10.8	201	S 21 W
7250.0	8.00	62.9	113	S 67 E	9	10.7	198	S 18 W
7252.0	8.00	68.0	117	S 63 E	9	10.6	7	N 7 E
7254.0	8.00	60.2	140	S 40 E	9	10.8	236	S 56 W
7256.0	8.00	11.8	180	S 0 E	5	11.1	201	S 21 W
7260.0	8.00	24.8	253	S 73 W	12	10.9	198	S 18 W
7266.0	8.00	75.2	291	N 69 W	22	10.7	138	S 42 E
7270.0	8.00	50.5	286	N 74 W	42	10.5	183	S 3 W
7274.0	8.00	68.8	64	N 64 E	16	10.7	197	S 17 W
7276.0	8.00	76.3	99	S 81 E	36	10.5	321	N 39 W
7278.0	8.00	67.6	53	N 53 E	6	10.4	184	S 4 W
7280.0	8.00	71.6	84	N 84 E	48	10.4	206	S 26 W
7282.0	8.00	49.4	95	S 85 E	26	10.0	295	N 65 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
7284.0	8.00	43.3	131	S 49 E	52	9.5	262	S 82 W
7286.0	8.00	54.7	93	S 87 E	30	9.4	358	N 2 W
7292.0	8.00	69.8	65	N 65 E	16	11.0	199	S 19 W
7294.0	8.00	56.5	82	N 82 E	10	11.0	197	S 17 W
7296.0	8.00	29.8	228	S 48 W	50	11.0	200	S 20 W
7312.0	8.00	71.1	350	N 10 W	12	11.1	201	S 21 W
7314.0	8.00	72.7	346	N 14 W	9	11.0	183	S 3 W
7316.0	8.00	30.0	16	N 16 E	6	11.1	200	S 20 W
7318.0	8.00	28.2	306	N 54 W	7	11.1	200	S 20 W
7320.0	8.00	50.7	109	S 71 E	21	10.8	188	S 8 W
7322.0	8.00	71.6	34	N 34 E	20	10.6	293	N 67 W
7324.0	8.00	57.9	258	S 78 W	19	10.5	198	S 18 W
7328.0	8.00	36.7	329	N 31 W	18	10.7	301	N 59 W
7330.0	8.00	33.5	84	N 84 E	32	10.6	184	S 4 W
7332.0	8.00	40.0	207	S 27 W	23	10.7	202	S 22 W
7334.0	8.00	37.7	215	S 35 W	75	10.8	201	S 21 W
7338.0	8.00	40.0	208	S 28 W	37	10.6	204	S 24 W
7372.0	8.00	53.3	309	N 51 W	15	10.9	203	S 23 W
7378.0	8.00	54.4	112	S 68 E	5	11.0	204	S 24 W
7382.0	8.00	20.3	346	N 14 W	26	10.9	209	S 29 W
7388.0	8.00	52.4	171	S 9 E	41	10.8	203	S 23 W
7390.0	8.00	28.2	315	N 45 W	49	10.8	200	S 20 W
7394.0	8.00	64.6	236	S 56 W	30	11.1	197	S 17 W
7396.0	8.00	61.5	239	S 59 W	32	11.2	202	S 22 W
7398.0	8.00	63.6	230	S 50 W	29	11.1	207	S 27 W
7402.0	8.00	28.7	328	N 32 W	37	11.0	199	S 19 W
7404.0	8.00	57.9	132	S 48 E	19	11.1	181	S 1 W
7406.0	8.00	23.9	313	N 47 W	17	11.4	215	S 35 W
7434.0	8.00	24.1	349	N 11 W	33	11.2	269	S 89 W
7436.0	8.00	37.2	337	N 23 W	19	11.1	191	S 11 W
7438.0	8.00	35.4	341	N 19 W	19	11.1	207	S 27 W
7440.0	8.00	53.8	297	N 63 W	7	11.2	52	N 52 E
7444.0	8.00	31.5	137	S 43 E	69	11.3	194	S 14 W
7446.0	8.00	39.3	148	S 32 E	61	11.2	341	N 19 W
7452.0	8.00	34.0	179	S 1 E	22	11.3	172	S 8 E
7460.0	8.00	39.1	299	N 61 W	14	11.3	198	S 18 W
7464.0	8.00	56.3	32	N 32 E	15	11.1	5	N 5 E
7466.0	8.00	76.2	98	S 82 E	48	11.0	228	S 48 W
7468.0	8.00	79.8	352	N 8 W	21	11.0	186	S 6 W
7470.0	8.00	62.4	184	S 4 W	26	11.0	186	S 6 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
7474.0	8.00	50.5	146	S 34 E	9	11.0	188	S 8 W	
7476.0	8.00	51.5	141	S 39 E	4	11.1	192	S 12 W	
7490.0	8.00	26.6	0	N 0 E	10	11.5	200	S 20 W	
7492.0	8.00	78.1	16	N 16 E	22	11.5	200	S 20 W	
7504.0	8.00	67.5	46	N 46 E	7	11.3	205	S 25 W	
7506.0	8.00	46.2	280	N 80 W	8	11.2	258	S 78 W	
7508.0	8.00	52.2	284	N 76 W	8	11.1	224	S 44 W	
7512.0	8.00	5.8	81	N 81 E	8	11.1	206	S 26 W	
7514.0	8.00	52.2	213	S 33 W	3	11.1	225	S 45 W	
7516.0	8.00	61.2	291	N 69 W	19	11.1	241	S 61 W	
7518.0	8.00	60.5	278	N 82 W	44	11.2	286	N 74 W	
7520.0	8.00	61.4	282	N 78 W	54	11.2	255	S 75 W	
7526.0	8.00	22.6	70	N 70 E	50	11.2	128	S 52 E	
7528.0	8.00	14.0	139	S 41 E	10	11.1	271	N 89 W	
7532.0	8.00	52.3	224	S 44 W	14	11.1	243	S 63 W	
7538.0	8.00	73.0	229	S 49 W	20	11.2	26	N 26 E	
7548.0	8.00	40.3	230	S 50 W	21	11.3	26	N 26 E	
7552.0	8.00	68.5	305	N 55 W	38	11.1	106	S 74 E	
7556.0	8.00	13.8	93	S 87 E	38	11.1	207	S 27 W	
7558.0	8.00	60.8	342	N 18 W	19	11.1	62	N 62 E	
7560.0	8.00	55.1	342	N 18 W	13	11.1	30	N 30 E	
7564.0	8.00	61.2	116	S 64 E	60	11.0	14	N 14 E	
7566.0	8.00	69.7	140	S 40 E	14	10.9	262	S 82 W	
7568.0	8.00	47.2	87	N 87 E	29	11.0	174	S 6 E	
7570.0	8.00	60.1	83	N 83 E	30	11.2	180	S 0 E	
7572.0	8.00	44.7	111	S 69 E	35	11.4	182	S 2 W	
7574.0	8.00	51.9	264	S 84 W	17	11.7	179	S 1 E	
7576.0	8.00	6.8	237	S 57 W	20	11.2	182	S 2 W	
7578.0	8.00	4.2	51	N 51 E	9	11.1	184	S 4 W	
7580.0	8.00	1.1	34	N 34 E	4	11.0	182	S 2 W	
7582.0	8.00	74.7	359	N 1 W	11	11.0	188	S 8 W	
7588.0	8.00	43.8	196	S 16 W	11	10.9	183	S 3 W	
7590.0	8.00	43.8	191	S 11 W	20	10.9	185	S 5 W	
7592.0	8.00	41.4	139	S 41 E	36	11.0	182	S 2 W	
7594.0	8.00	42.2	137	S 43 E	63	11.0	186	S 6 W	
7596.0	8.00	54.9	127	S 53 E	38	11.0	185	S 5 W	
7598.0	8.00	37.1	117	S 63 E	42	11.0	186	S 6 W	
7600.0	8.00	53.9	230	S 50 W	32	11.0	187	S 7 W	
7606.0	8.00	74.6	25	N 25 E	30	11.0	187	S 7 W	
7608.0	8.00	65.6	28	N 28 E	15	11.0	185	S 5 W	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
7610.0	8.00	73.2	26	N 26 E	10	11.0	188	S 8 W	
7616.0	8.00	49.9	74	N 74 E	9	11.0	186	S 6 W	
7620.0	8.00	69.1	106	S 74 E	9	11.0	185	S 5 W	
7622.0	8.00	55.7	193	S 13 W	16	11.0	185	S 5 W	
7624.0	8.00	56.2	132	S 48 E	8	11.0	185	S 5 W	
7626.0	8.00	56.4	131	S 49 E	8	11.0	186	S 6 W	
7628.0	8.00	56.4	132	S 48 E	8	11.0	186	S 6 W	
7632.0	8.00	49.5	107	S 73 E	46	11.0	185	S 5 W	
7634.0	8.00	53.8	237	S 57 W	23	11.0	185	S 5 W	
7636.0	8.00	52.8	236	S 56 W	36	11.0	185	S 5 W	
7650.0	8.00	58.4	236	S 56 W	30	11.0	185	S 5 W	
7652.0	8.00	52.4	137	S 43 E	21	10.9	185	S 5 W	
7662.0	8.00	45.0	91	S 89 E	46	11.0	186	S 6 W	
7664.0	8.00	47.5	255	S 75 W	83	10.9	185	S 5 W	
7670.0	8.00	43.4	320	N 40 W	53	10.9	187	S 7 W	
7672.0	8.00	70.8	298	N 62 W	56	10.9	185	S 5 W	
7674.0	8.00	70.4	298	N 62 W	56	11.0	188	S 8 W	
7676.0	8.00	20.3	38	N 38 E	71	11.0	183	S 3 W	
7678.0	8.00	20.4	42	N 42 E	62	11.0	189	S 9 W	
7680.0	8.00	11.4	300	N 60 W	88	10.9	187	S 7 W	
7682.0	8.00	12.4	300	N 60 W	100	10.9	185	S 5 W	
7684.0	8.00	13.8	297	N 63 W	94	10.8	184	S 4 W	
7686.0	8.00	14.3	302	N 58 W	100	10.8	183	S 3 W	
7688.0	8.00	17.2	295	N 65 W	80	10.9	185	S 5 W	
7690.0	8.00	35.0	264	S 84 W	26	10.9	187	S 7 W	
7692.0	8.00	13.6	304	N 56 W	17	10.8	185	S 5 W	
7698.0	8.00	22.2	39	N 39 E	8	10.8	185	S 5 W	
7700.0	8.00	22.6	41	N 41 E	24	10.8	188	S 8 W	
7702.0	8.00	15.1	288	N 72 W	22	10.9	185	S 5 W	
7706.0	8.00	57.9	348	N 12 W	24	10.9	185	S 5 W	
7708.0	8.00	56.5	348	N 12 W	9	10.8	185	S 5 W	
7710.0	8.00	56.6	334	N 26 W	25	10.8	185	S 5 W	
7712.0	8.00	58.1	335	N 25 W	33	10.8	185	S 5 W	
7714.0	8.00	62.9	296	N 64 W	31	10.8	185	S 5 W	
7716.0	8.00	58.8	338	N 22 W	34	10.8	187	S 7 W	
7718.0	8.00	21.4	193	S 13 W	24	10.8	183	S 3 W	
7720.0	8.00	21.0	30	N 30 E	6	10.7	185	S 5 W	
7722.0	8.00	20.7	28	N 28 E	6	10.7	182	S 2 W	
7724.0	8.00	22.0	37	N 37 E	7	10.8	190	S 10 W	
7728.0	8.00	41.6	99	S 81 E	9	10.9	187	S 7 W	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
7732.0	8.00	59.0	204	S 24 W	11	10.9	186	S 6 W
7734.0	8.00	51.1	315	N 45 W	19	10.9	185	S 5 W
7736.0	8.00	47.0	315	N 45 W	10	10.8	186	S 6 W
7738.0	8.00	38.3	314	N 46 W	14	10.8	182	S 2 W
7740.0	8.00	37.2	311	N 49 W	14	10.8	185	S 5 W
7746.0	8.00	66.4	68	N 68 E	13	10.8	185	S 5 W
7748.0	8.00	66.4	68	N 68 E	17	10.9	185	S 5 W
7752.0	8.00	52.6	101	S 79 E	29	10.8	185	S 5 W
7754.0	8.00	67.3	88	N 88 E	27	10.8	187	S 7 W
7762.0	8.00	70.7	67	N 67 E	44	10.9	185	S 5 W
7764.0	8.00	61.1	33	N 33 E	54	10.9	185	S 5 W
7766.0	8.00	79.6	28	N 28 E	51	10.9	186	S 6 W
7768.0	8.00	77.4	27	N 27 E	54	10.8	184	S 4 W
7774.0	8.00	72.4	356	N 4 W	17	10.6	191	S 11 W
7776.0	8.00	59.1	23	N 23 E	10	10.3	202	S 22 W
7778.0	8.00	57.4	25	N 25 E	10	10.0	166	S 14 E
7780.0	8.00	62.4	0	N 0 E	9	10.4	199	S 19 W
7784.0	8.00	40.3	108	S 72 E	13	11.0	182	S 2 W
7786.0	8.00	61.4	41	N 41 E	59	10.7	180	S 0 E
7788.0	8.00	47.9	37	N 37 E	32	10.8	188	S 8 W
7790.0	8.00	35.6	46	N 46 E	3	10.9	184	S 4 W
7792.0	8.00	68.0	51	N 51 E	5	10.8	188	S 8 W
7804.0	8.00	51.5	110	S 70 E	13	10.6	186	S 6 W
7806.0	8.00	51.4	123	S 57 E	13	10.4	198	S 18 W
7814.0	8.00	70.6	56	N 56 E	13	11.6	161	S 19 E
7816.0	8.00	74.5	51	N 51 E	31	10.9	179	S 1 E
7818.0	8.00	62.7	328	N 32 W	26	11.2	189	S 9 W
7820.0	8.00	57.4	110	S 70 E	13	11.5	191	S 11 W
7828.0	8.00	44.8	56	N 56 E	10	10.5	190	S 10 W
7830.0	8.00	36.7	81	N 81 E	14	10.6	180	S 0 E
7832.0	8.00	38.1	85	N 85 E	19	10.6	181	S 1 W
7834.0	8.00	60.9	56	N 56 E	11	10.6	186	S 6 W
7836.0	8.00	61.2	46	N 46 E	19	10.7	187	S 7 W
7838.0	8.00	47.6	54	N 54 E	55	10.9	186	S 6 W
7840.0	8.00	27.3	260	S 80 W	47	10.7	180	S 0 E
7842.0	8.00	73.2	350	N 10 W	5	10.7	182	S 2 W
7844.0	8.00	41.4	197	S 17 W	53	10.7	177	S 3 E
7850.0	8.00	53.1	214	S 34 W	57	10.8	179	S 1 E
7852.0	8.00	53.1	211	S 31 W	46	10.9	185	S 5 W
7854.0	8.00	70.3	41	N 41 E	9	10.7	187	S 7 W

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
7856.0	8.00	52.5	279	N 81 W	24	10.5	184	S 4 W
7858.0	8.00	66.5	35	N 35 E	23	10.3	184	S 4 W
7860.0	8.00	62.6	119	S 61 E	12	10.4	192	S 12 W
7862.0	8.00	64.0	111	S 69 E	11	10.5	180	S 0 E
7864.0	8.00	61.8	113	S 67 E	11	10.3	181	S 1 W
7866.0	8.00	56.3	112	S 68 E	23	10.3	195	S 15 W
7868.0	8.00	49.2	68	N 68 E	41	10.1	171	S 9 E
7872.0	8.00	67.5	333	N 27 W	18	11.0	186	S 6 W
7874.0	8.00	77.6	25	N 25 E	30	10.9	185	S 5 W
7878.0	8.00	17.2	33	N 33 E	50	10.9	182	S 2 W
7880.0	8.00	18.5	34	N 34 E	54	11.0	186	S 6 W
7882.0	8.00	65.4	59	N 59 E	65	10.9	185	S 5 W
7884.0	8.00	16.3	281	N 79 W	66	10.9	180	S 0 E
7886.0	8.00	15.0	285	N 75 W	64	10.9	185	S 5 W
7890.0	8.00	19.3	55	N 55 E	59	10.8	188	S 8 W
7892.0	8.00	17.7	52	N 52 E	92	10.7	180	S 0 E
7894.0	8.00	30.7	269	S 89 W	82	10.7	185	S 5 W
7896.0	8.00	39.4	291	N 69 W	70	10.9	188	S 8 W
7898.0	8.00	58.7	263	S 83 W	48	10.9	177	S 3 E
7900.0	8.00	43.3	255	S 75 W	54	11.1	180	S 0 E
7902.0	8.00	57.3	271	N 89 W	21	11.0	181	S 1 W
7904.0	8.00	15.7	257	S 77 W	24	10.9	185	S 5 W
7906.0	8.00	16.5	234	S 54 W	19	10.8	185	S 5 W
7920.0	8.00	16.7	279	N 81 W	68	11.2	183	S 3 W
7922.0	8.00	57.0	55	N 55 E	37	10.9	184	S 4 W
7924.0	8.00	57.8	246	S 66 W	20	10.8	182	S 2 W
7926.0	8.00	16.8	268	S 88 W	52	10.8	186	S 6 W
7928.0	8.00	21.3	271	N 89 W	38	10.8	183	S 3 W
7930.0	8.00	61.0	299	N 61 W	29	10.8	184	S 4 W
7932.0	8.00	68.5	103	S 77 E	15	10.7	185	S 5 W
7934.0	8.00	68.9	103	S 77 E	20	10.7	186	S 6 W
7940.0	8.00	47.8	262	S 82 W	6	10.7	185	S 5 W
7952.0	8.00	14.3	277	N 83 W	30	10.7	185	S 5 W
7956.0	8.00	42.4	285	N 75 W	25	10.7	185	S 5 W
7960.0	8.00	55.6	241	S 61 W	28	10.7	183	S 3 W
7962.0	8.00	23.7	273	N 87 W	43	10.6	196	S 16 W
7964.0	8.00	52.6	251	S 71 W	29	10.6	182	S 2 W
7966.0	8.00	62.6	285	N 75 W	33	10.7	183	S 3 W
7968.0	8.00	67.8	280	N 80 W	24	10.6	183	S 3 W
7970.0	8.00	10.9	284	N 76 W	18	10.6	183	S 3 W

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
7972.0	8.00	38.1	245	S 65 W	26	10.6	184	S 4 W	
7974.0	8.00	22.4	35	N 35 E	46	10.6	184	S 4 W	
7976.0	8.00	22.7	34	N 34 E	26	10.6	183	S 3 W	
7990.0	8.00	12.4	5	N 5 E	56	10.6	182	S 2 W	
7992.0	8.00	12.4	6	N 6 E	58	10.6	182	S 2 W	
7994.0	8.00	13.5	275	N 85 W	16	10.6	183	S 3 W	
7996.0	8.00	14.2	273	N 87 W	17	10.6	183	S 3 W	
7998.0	8.00	21.7	257	S 77 W	11	10.6	182	S 2 W	
8010.0	8.00	11.9	272	N 88 W	54	10.6	185	S 5 W	
8012.0	8.00	22.0	35	N 35 E	72	10.6	184	S 4 W	
8014.0	8.00	48.3	48	N 48 E	91	10.6	184	S 4 W	
8016.0	8.00	49.2	47	N 47 E	48	10.6	184	S 4 W	
8018.0	8.00	42.5	80	N 80 E	31	10.6	184	S 4 W	
8026.0	8.00	58.3	250	S 70 W	4	10.5	179	S 1 E	
8028.0	8.00	46.3	328	N 32 W	36	10.5	185	S 5 W	
8042.0	8.00	50.8	291	N 69 W	34	10.4	181	S 1 W	
8044.0	8.00	66.7	283	N 77 W	34	10.5	180	S 0 E	
8046.0	8.00	41.4	162	S 18 E	36	10.5	183	S 3 W	
8048.0	8.00	24.4	181	S 1 W	27	10.5	183	S 3 W	
8052.0	8.00	21.5	35	N 35 E	57	10.5	184	S 4 W	
8054.0	8.00	21.5	34	N 34 E	64	10.5	184	S 4 W	
8056.0	8.00	71.3	53	N 53 E	47	10.5	184	S 4 W	
8058.0	8.00	71.1	281	N 79 W	50	10.5	183	S 3 W	
8060.0	8.00	71.1	280	N 80 W	18	10.5	183	S 3 W	
8062.0	8.00	56.9	237	S 57 W	40	10.5	183	S 3 W	
8064.0	8.00	18.1	34	N 34 E	30	10.5	181	S 1 W	
8066.0	8.00	50.1	338	N 22 W	31	10.4	183	S 3 W	
8068.0	8.00	12.8	272	N 88 W	74	10.4	183	S 3 W	
8070.0	8.00	20.8	31	N 31 E	58	10.4	184	S 4 W	
8072.0	8.00	14.2	271	N 89 W	54	10.4	183	S 3 W	
8074.0	8.00	20.7	33	N 33 E	88	10.3	184	S 4 W	
8076.0	8.00	21.4	35	N 35 E	77	10.3	188	S 8 W	
8078.0	8.00	20.9	35	N 35 E	37	10.4	185	S 5 W	
8080.0	8.00	20.7	34	N 34 E	16	10.4	185	S 5 W	
8110.0	8.00	19.7	37	N 37 E	14	10.3	183	S 3 W	
8112.0	8.00	19.8	38	N 38 E	18	10.2	186	S 6 W	
8138.0	8.00	71.9	7	N 7 E	41	10.2	186	S 6 W	
8140.0	8.00	20.0	34	N 34 E	33	10.2	185	S 5 W	
8142.0	8.00	20.0	34	N 34 E	33	10.1	185	S 5 W	
8144.0	8.00	20.8	35	N 35 E	8	10.1	185	S 5 W	

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
8172.0	8.00	50.0	127	S 53 E	7	10.1	181	S 1 W
8174.0	8.00	56.9	219	S 39 W	36	10.1	185	S 5 W
8176.0	8.00	70.8	288	N 72 W	5	10.0	182	S 2 W
8178.0	8.00	71.1	287	N 73 W	7	10.0	180	S 0 E
8188.0	8.00	61.4	73	N 73 E	12	9.9	189	S 9 W
8216.0	8.00	17.8	4	N 4 E	16	10.0	183	S 3 W
8218.0	8.00	11.7	18	N 18 E	30	9.9	184	S 4 W
8222.0	8.00	45.7	117	S 63 E	30	9.9	182	S 2 W
8224.0	8.00	38.7	135	S 45 E	30	9.9	178	S 2 E
8226.0	8.00	51.5	177	S 3 E	26	9.8	182	S 2 W
8230.0	8.00	44.1	127	S 53 E	71	9.8	181	S 1 W
8234.0	8.00	57.8	339	N 21 W	27	9.7	183	S 3 W
8236.0	8.00	17.2	234	S 54 W	30	9.6	182	S 2 W
8242.0	8.00	67.7	42	N 42 E	28	9.6	182	S 2 W
8244.0	8.00	69.3	35	N 35 E	32	9.4	179	S 1 E
8246.0	8.00	83.2	2	N 2 E	25	9.3	181	S 1 W
8248.0	8.00	80.4	357	N 3 W	40	9.0	185	S 5 W
8250.0	8.00	65.1	101	S 79 E	6	8.5	172	S 8 E
8252.0	8.00	62.9	184	S 4 W	19	8.0	197	S 17 W
8254.0	8.00	55.1	195	S 15 W	18	8.0	171	S 9 E
8256.0	8.00	59.1	196	S 16 W	4	9.0	171	S 9 E
8266.0	8.00	63.1	72	N 72 E	30	10.4	179	S 1 E
8270.0	8.00	52.1	120	S 60 E	9	10.4	188	S 8 W
8274.0	8.00	50.1	105	S 75 E	13	9.9	185	S 5 W
8284.0	8.00	57.9	106	S 74 E	8	9.9	185	S 5 W
8290.0	8.00	47.8	212	S 32 W	5	9.9	179	S 1 E
8294.0	8.00	49.7	88	N 88 E	18	9.9	182	S 2 W
8302.0	8.00	44.3	251	S 71 W	9	9.8	182	S 2 W
8304.0	8.00	44.5	251	S 71 W	9	9.8	180	S 0 E
8306.0	8.00	44.0	245	S 65 W	9	9.8	179	S 1 E
8308.0	8.00	42.5	325	N 35 W	17	9.3	183	S 3 W
8310.0	8.00	43.9	330	N 30 W	17	9.0	177	S 3 E
8314.0	8.00	55.5	121	S 59 E	22	8.7	200	S 20 W
8316.0	8.00	39.2	249	S 69 W	12	9.1	168	S 12 E
8318.0	8.00	39.5	252	S 72 W	12	9.3	169	S 11 E
8320.0	8.00	51.1	239	S 59 W	16	9.2	196	S 16 W
8322.0	8.00	34.6	257	S 77 W	31	9.4	181	S 1 W
8330.0	8.00	61.8	85	N 85 E	59	9.8	182	S 2 W
8332.0	8.00	61.8	86	N 86 E	59	9.7	183	S 3 W
8334.0	8.00	50.6	154	S 26 E	39	9.7	178	S 2 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
8340.0	8.00	41.7	291	N 69 W	6	9.8	183	S 3 W
8342.0	8.00	40.6	289	N 71 W	6	9.9	184	S 4 W
8344.0	8.00	41.8	293	N 67 W	6	9.6	180	S 0 E
8346.0	8.00	41.8	291	N 69 W	6	9.7	179	S 1 E
8350.0	8.00	63.8	353	N 7 W	25	9.6	184	S 4 W
8352.0	8.00	64.6	352	N 8 W	25	9.7	180	S 0 E
8354.0	8.00	64.9	347	N 13 W	25	9.7	178	S 2 E
8356.0	8.00	64.2	346	N 14 W	25	9.6	185	S 5 W
8360.0	8.00	75.1	59	N 59 E	2	9.8	186	S 6 W
8382.0	8.00	61.6	256	S 76 W	8	9.5	182	S 2 W
8386.0	8.00	44.8	79	N 79 E	6	9.5	182	S 2 W
8388.0	8.00	38.0	325	N 35 W	22	9.5	184	S 4 W
8390.0	8.00	38.2	325	N 35 W	29	9.5	184	S 4 W
8392.0	8.00	37.4	323	N 37 W	28	9.5	184	S 4 W
8394.0	8.00	60.1	290	N 70 W	17	9.4	184	S 4 W
8398.0	8.00	46.7	213	S 33 W	59	9.4	183	S 3 W
8400.0	8.00	47.0	223	S 43 W	74	9.4	182	S 2 W
8402.0	8.00	50.6	219	S 39 W	65	9.4	176	S 4 E
8410.0	8.00	70.9	346	N 14 W	14	9.4	183	S 3 W
8414.0	8.00	43.8	327	N 33 W	12	9.4	181	S 1 W
8416.0	8.00	56.6	173	S 7 E	24	9.4	182	S 2 W
8418.0	8.00	58.0	171	S 9 E	54	9.4	182	S 2 W
8420.0	8.00	58.0	170	S 10 E	35	9.4	185	S 5 W
8422.0	8.00	58.6	171	S 9 E	40	9.3	186	S 6 W
8424.0	8.00	65.2	297	N 63 W	7	9.3	183	S 3 W
8428.0	8.00	78.4	352	N 8 W	3	9.3	182	S 2 W
8430.0	8.00	68.1	79	N 79 E	20	9.3	182	S 2 W
8434.0	8.00	79.7	348	N 12 W	4	9.2	184	S 4 W
8436.0	8.00	79.8	348	N 12 W	4	9.2	185	S 5 W
8438.0	8.00	79.0	348	N 12 W	4	9.3	184	S 4 W
8442.0	8.00	57.4	293	N 67 W	7	9.2	183	S 3 W
8444.0	8.00	46.9	129	S 51 E	4	9.3	179	S 1 E
8446.0	8.00	70.5	344	N 16 W	23	9.3	184	S 4 W
8448.0	8.00	70.1	343	N 17 W	51	9.3	187	S 7 W
8450.0	8.00	50.1	145	S 35 E	36	9.4	188	S 8 W
8452.0	8.00	41.3	175	S 5 E	16	9.4	183	S 3 W
8454.0	8.00	41.9	178	S 2 E	17	9.5	187	S 7 W
8456.0	8.00	51.6	152	S 28 E	42	9.8	185	S 5 W
8458.0	8.00	72.1	70	N 70 E	41	10.0	185	S 5 W
8460.0	8.00	70.1	71	N 71 E	35	9.7	187	S 7 W

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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
8462.0	8.00	58.4	336	N 24 W	55	9.3	185	S 5 W	
8464.0	8.00	45.8	172	S 8 E	29	9.3	180	S 0 E	
8466.0	8.00	57.5	332	N 28 W	19	9.3	184	S 4 W	
8472.0	8.00	50.1	253	S 73 W	37	9.2	180	S 0 E	
8474.0	8.00	66.7	14	N 14 E	14	9.2	183	S 3 W	
8476.0	8.00	56.9	63	N 63 E	15	9.1	184	S 4 W	
8478.0	8.00	67.8	23	N 23 E	42	9.1	183	S 3 W	
8480.0	8.00	57.5	24	N 24 E	36	9.2	191	S 11 W	
8482.0	8.00	62.2	131	S 49 E	9	9.3	175	S 5 E	
8484.0	8.00	57.8	94	S 86 E	27	9.3	186	S 6 W	
8486.0	8.00	53.0	224	S 44 W	22	9.3	185	S 5 W	
8490.0	8.00	59.5	62	N 62 E	16	9.3	183	S 3 W	
8492.0	8.00	56.3	41	N 41 E	21	9.1	185	S 5 W	
8494.0	8.00	64.3	258	S 78 W	26	9.0	187	S 7 W	
8496.0	8.00	34.1	226	S 46 W	37	9.0	187	S 7 W	
8498.0	8.00	43.1	195	S 15 W	36	9.0	186	S 6 W	
8500.0	8.00	43.6	184	S 4 W	18	9.0	186	S 6 W	
8502.0	8.00	42.1	180	S 0 E	28	9.0	187	S 7 W	
8504.0	8.00	31.2	157	S 23 E	44	9.0	185	S 5 W	
8508.0	8.00	70.3	45	N 45 E	51	9.0	191	S 11 W	
8510.0	8.00	59.5	52	N 52 E	36	9.0	190	S 10 W	
8512.0	8.00	69.0	323	N 37 W	30	9.0	187	S 7 W	
8514.0	8.00	78.1	343	N 17 W	44	9.0	189	S 9 W	
8516.0	8.00	58.6	68	N 68 E	43	9.0	189	S 9 W	
8518.0	8.00	36.0	72	N 72 E	25	8.9	190	S 10 W	
8522.0	8.00	40.5	104	S 76 E	39	9.0	188	S 8 W	
8524.0	8.00	40.5	106	S 74 E	58	9.0	188	S 8 W	
8526.0	8.00	48.1	134	S 46 E	18	8.9	189	S 9 W	
8528.0	8.00	13.2	219	S 39 W	27	8.9	189	S 9 W	
8532.0	8.00	66.0	77	N 77 E	13	8.9	188	S 8 W	
8534.0	8.00	23.4	244	S 64 W	25	8.8	189	S 9 W	
8536.0	8.00	43.8	242	S 62 W	17	8.8	189	S 9 W	
8538.0	8.00	45.9	148	S 32 E	13	8.8	191	S 11 W	
8540.0	8.00	46.2	148	S 32 E	19	8.8	190	S 10 W	
8544.0	8.00	55.2	107	S 73 E	12	8.8	185	S 5 W	
8546.0	8.00	56.5	108	S 72 E	23	8.8	194	S 14 W	
8548.0	8.00	56.2	107	S 73 E	15	8.8	189	S 9 W	
8550.0	8.00	55.3	111	S 69 E	21	8.8	191	S 11 W	
8552.0	8.00	26.8	115	S 65 E	58	8.8	190	S 10 W	
8554.0	8.00	72.0	67	N 67 E	36	8.8	192	S 12 W	

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
8556.0	8.00	72.4	68	N 68 E	9	8.8	191	S 11 W
8560.0	8.00	74.0	341	N 19 W	13	8.8	191	S 11 W
8562.0	8.00	28.4	341	N 19 W	9	8.8	191	S 11 W
8568.0	8.00	34.3	77	N 77 E	65	8.8	197	S 17 W
8570.0	8.00	29.4	144	S 36 E	24	8.8	192	S 12 W
8572.0	8.00	37.9	160	S 20 E	51	8.7	193	S 13 W
8574.0	8.00	26.0	99	S 81 E	45	8.7	194	S 14 W
8576.0	8.00	24.9	101	S 79 E	74	8.7	193	S 13 W
8578.0	8.00	52.7	102	S 78 E	96	8.7	192	S 12 W
8580.0	8.00	27.6	100	S 80 E	65	8.7	192	S 12 W
8582.0	8.00	26.6	109	S 71 E	70	8.7	193	S 13 W
8584.0	8.00	26.8	118	S 62 E	71	8.7	193	S 13 W
8586.0	8.00	27.0	118	S 62 E	73	8.7	192	S 12 W
8588.0	8.00	25.1	115	S 65 E	56	8.7	193	S 13 W
8590.0	8.00	48.5	87	N 87 E	59	8.7	193	S 13 W
8592.0	8.00	28.4	108	S 72 E	53	8.7	193	S 13 W
8598.0	8.00	6.7	213	S 33 W	48	8.7	195	S 15 W
8600.0	8.00	23.5	122	S 58 E	91	8.7	196	S 16 W
8604.0	8.00	57.5	111	S 69 E	24	8.7	195	S 15 W
8606.0	8.00	51.5	123	S 57 E	36	8.6	195	S 15 W
8608.0	8.00	51.4	124	S 56 E	19	8.6	195	S 15 W
8612.0	8.00	73.6	343	N 17 W	40	8.5	196	S 16 W
8616.0	8.00	19.9	155	S 25 E	4	8.5	195	S 15 W
8620.0	8.00	62.0	284	N 76 W	16	8.5	195	S 15 W
8622.0	8.00	50.8	37	N 37 E	22	8.5	195	S 15 W
8624.0	8.00	48.6	125	S 55 E	32	8.5	197	S 17 W
8626.0	8.00	57.1	192	S 12 W	41	8.5	199	S 19 W
8628.0	8.00	36.9	116	S 64 E	100	8.4	199	S 19 W
8630.0	8.00	33.6	119	S 61 E	100	8.4	196	S 16 W
8632.0	8.00	33.9	120	S 60 E	100	8.5	197	S 17 W
8634.0	8.00	34.3	120	S 60 E	100	8.4	197	S 17 W
8636.0	8.00	36.7	120	S 60 E	34	8.4	197	S 17 W
8638.0	8.00	44.5	130	S 50 E	29	8.4	197	S 17 W
8640.0	8.00	57.8	178	S 2 E	24	8.4	197	S 17 W
8644.0	8.00	52.6	89	N 89 E	18	8.4	197	S 17 W
8646.0	8.00	10.7	160	S 20 E	61	8.4	198	S 18 W
8648.0	8.00	10.1	170	S 10 E	59	8.4	195	S 15 W
8650.0	8.00	64.0	28	N 28 E	42	8.4	197	S 17 W
8652.0	8.00	10.3	164	S 16 E	57	8.4	198	S 18 W
8654.0	8.00	35.8	29	N 29 E	37	8.4	196	S 16 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
8656.0	8.00	61.9	47	N 47 E	78	8.3	198	S 18 W
8658.0	8.00	40.2	55	N 55 E	22	8.3	199	S 19 W
8664.0	8.00	11.9	81	N 81 E	46	8.4	198	S 18 W
8666.0	8.00	19.3	87	N 87 E	41	8.4	197	S 17 W
8672.0	8.00	14.9	109	S 71 E	15	8.3	201	S 21 W
8674.0	8.00	64.4	72	N 72 E	20	8.4	201	S 21 W
8676.0	8.00	48.4	97	S 83 E	12	8.4	202	S 22 W
8682.0	8.00	46.8	220	S 40 W	10	8.3	199	S 19 W
8684.0	8.00	46.5	221	S 41 W	17	8.3	201	S 21 W
8686.0	8.00	42.9	127	S 53 E	18	8.3	196	S 16 W
8694.0	8.00	83.7	13	N 13 E	41	8.3	201	S 21 W
8712.0	8.00	14.5	0	N 0 E	25	8.2	202	S 22 W
8716.0	8.00	57.2	353	N 7 W	5	8.1	198	S 18 W
8722.0	8.00	60.6	8	N 8 E	31	7.5	214	S 34 W
8726.0	8.00	66.5	0	N 0 E	24	7.6	214	S 34 W
8728.0	8.00	61.8	345	N 15 W	32	7.7	189	S 9 W
8734.0	8.00	46.9	349	N 11 W	37	8.2	197	S 17 W
8740.0	8.00	42.1	266	S 86 W	20	8.2	199	S 19 W
8744.0	8.00	46.9	249	S 69 W	14	8.2	195	S 15 W
8746.0	8.00	37.2	122	S 58 E	28	8.2	203	S 23 W
8748.0	8.00	40.0	203	S 23 W	19	8.2	197	S 17 W
8762.0	8.00	53.7	200	S 20 W	15	8.2	197	S 17 W
8764.0	8.00	59.2	218	S 38 W	10	8.2	199	S 19 W
8768.0	8.00	53.5	197	S 17 W	4	8.3	195	S 15 W
8772.0	8.00	34.1	314	N 46 W	9	8.5	197	S 17 W
8774.0	8.00	32.8	316	N 44 W	9	8.4	199	S 19 W
8776.0	8.00	42.1	347	N 13 W	13	8.2	198	S 18 W
8778.0	8.00	50.4	182	S 2 W	21	8.2	196	S 16 W
8796.0	8.00	75.3	17	N 17 E	18	8.1	195	S 15 W
8804.0	8.00	54.9	39	N 39 E	12	8.3	198	S 18 W
8806.0	8.00	55.2	40	N 40 E	12	8.3	201	S 21 W
8832.0	8.00	40.8	157	S 23 E	6	8.1	195	S 15 W
8838.0	8.00	66.2	284	N 76 W	15	8.1	200	S 20 W
8844.0	8.00	27.9	156	S 24 E	27	8.0	201	S 21 W
8846.0	8.00	47.3	97	S 83 E	46	8.0	199	S 19 W
8848.0	8.00	27.7	106	S 74 E	18	8.1	197	S 17 W
8856.0	8.00	50.3	259	S 79 W	32	8.1	200	S 20 W
8858.0	8.00	50.5	261	S 81 W	20	8.0	202	S 22 W
8870.0	8.00	6.3	295	N 65 W	81	8.1	200	S 20 W
8872.0	8.00	6.7	297	N 63 W	81	8.1	200	S 20 W

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
8876.0	8.00	25.2	270	N 90 W	15	8.3	201	S 21 W
8882.0	8.00	69.2	57	N 57 E	8	8.1	199	S 19 W
8886.0	8.00	45.6	292	N 68 W	14	7.9	198	S 18 W
8892.0	8.00	54.0	260	S 80 W	13	7.9	208	S 28 W
8894.0	8.00	55.9	259	S 79 W	13	8.0	190	S 10 W
8896.0	8.00	37.9	67	N 67 E	38	8.1	206	S 26 W
8898.0	8.00	36.1	67	N 67 E	48	8.2	202	S 22 W
8900.0	8.00	47.3	172	S 8 E	18	8.2	200	S 20 W
8902.0	8.00	49.9	138	S 42 E	41	8.1	204	S 24 W
8916.0	8.00	25.3	177	S 3 E	34	7.9	198	S 18 W
8918.0	8.00	42.1	126	S 54 E	14	8.0	198	S 18 W
8920.0	8.00	62.0	123	S 57 E	25	8.0	199	S 19 W
8922.0	8.00	57.2	74	N 74 E	44	8.1	199	S 19 W
8924.0	8.00	40.6	127	S 53 E	62	8.0	200	S 20 W
8926.0	8.00	52.5	156	S 24 E	73	7.9	200	S 20 W
8928.0	8.00	12.5	289	N 71 W	82	7.9	200	S 20 W
8930.0	8.00	12.2	288	N 72 W	50	7.9	199	S 19 W
8932.0	8.00	11.7	289	N 71 W	76	7.9	199	S 19 W
8934.0	8.00	50.4	265	S 85 W	70	7.9	199	S 19 W
8936.0	8.00	57.1	75	N 75 E	71	7.9	199	S 19 W
8938.0	8.00	50.8	266	S 86 W	65	7.9	199	S 19 W
8940.0	8.00	67.3	118	S 62 E	18	7.9	199	S 19 W
8946.0	8.00	14.6	278	N 82 W	54	7.8	200	S 20 W
8948.0	8.00	12.1	256	S 76 W	46	7.7	200	S 20 W
8950.0	8.00	19.2	271	N 89 W	35	7.7	200	S 20 W
8952.0	8.00	8.9	285	N 75 W	74	7.7	200	S 20 W
8954.0	8.00	9.6	287	N 73 W	78	7.6	199	S 19 W
8956.0	8.00	9.1	284	N 76 W	67	7.6	200	S 20 W
8958.0	8.00	10.9	290	N 70 W	71	7.6	200	S 20 W
8960.0	8.00	50.7	267	S 87 W	73	7.6	199	S 19 W
8962.0	8.00	15.9	287	N 73 W	77	7.6	201	S 21 W
8964.0	8.00	51.2	269	S 89 W	88	7.6	197	S 17 W
8966.0	8.00	56.0	259	S 79 W	40	7.6	197	S 17 W
8968.0	8.00	61.2	270	N 90 W	27	7.7	197	S 17 W
8970.0	8.00	16.6	62	N 62 E	44	7.6	197	S 17 W
8972.0	8.00	16.6	63	N 63 E	28	7.6	198	S 18 W
8974.0	8.00	17.3	65	N 65 E	98	7.5	197	S 17 W
8976.0	8.00	17.7	66	N 66 E	82	7.5	198	S 18 W
8978.0	8.00	19.5	66	N 66 E	76	7.5	197	S 17 W
8980.0	8.00	20.0	65	N 65 E	75	7.5	197	S 17 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
8982.0	8.00	56.1	81	N 81 E	100	7.6	198	S 18 W
8984.0	8.00	56.1	82	N 82 E	98	7.6	198	S 18 W
8986.0	8.00	15.1	290	N 70 W	69	7.6	198	S 18 W
8988.0	8.00	51.0	273	N 87 W	58	7.6	198	S 18 W
8990.0	8.00	16.0	281	N 79 W	51	7.5	199	S 19 W
8992.0	8.00	5.9	306	N 54 W	59	7.4	199	S 19 W
8994.0	8.00	52.9	274	N 86 W	54	7.4	201	S 21 W
8996.0	8.00	18.5	73	N 73 E	100	7.4	202	S 22 W
8998.0	8.00	18.6	72	N 72 E	94	7.4	200	S 20 W
9000.0	8.00	52.3	279	N 81 W	52	7.4	199	S 19 W
9002.0	8.00	52.3	278	N 82 W	70	7.4	198	S 18 W
9004.0	8.00	52.9	154	S 26 E	14	7.4	198	S 18 W
9006.0	8.00	53.0	154	S 26 E	14	7.4	198	S 18 W
9008.0	8.00	66.4	66	N 66 E	11	7.4	197	S 17 W
9010.0	8.00	66.7	142	S 38 E	17	7.3	200	S 20 W
9012.0	8.00	66.6	143	S 37 E	10	7.3	200	S 20 W
9016.0	8.00	13.3	276	N 84 W	51	7.3	196	S 16 W
9018.0	8.00	70.2	1	N 1 E	33	7.3	196	S 16 W
9020.0	8.00	25.1	223	S 43 W	4	7.3	196	S 16 W
9022.0	8.00	73.0	0	N 0 E	23	7.3	195	S 15 W
9024.0	8.00	51.0	199	S 19 W	14	7.4	196	S 16 W
9026.0	8.00	47.3	206	S 26 W	21	7.4	195	S 15 W
9028.0	8.00	47.5	206	S 26 W	21	7.3	197	S 17 W
9030.0	8.00	54.3	170	S 10 E	17	7.2	192	S 12 W
9032.0	8.00	80.8	39	N 39 E	9	7.2	200	S 20 W
9034.0	8.00	80.5	43	N 43 E	8	7.2	196	S 16 W
9036.0	8.00	65.6	27	N 27 E	28	7.1	195	S 15 W
9040.0	8.00	66.0	17	N 17 E	9	7.2	196	S 16 W
9042.0	8.00	66.2	0	N 0 E	38	7.2	197	S 17 W
9044.0	8.00	24.4	299	N 61 W	34	7.2	198	S 18 W
9046.0	8.00	59.2	235	S 55 W	68	7.2	194	S 14 W
9050.0	8.00	51.0	218	S 38 W	18	7.1	193	S 13 W
9052.0	8.00	54.0	215	S 35 W	19	7.2	193	S 13 W
9054.0	8.00	51.3	344	N 16 W	12	7.1	193	S 13 W
9056.0	8.00	33.1	232	S 52 W	13	7.2	195	S 15 W
9058.0	8.00	32.9	233	S 53 W	23	7.2	195	S 15 W
9060.0	8.00	32.3	227	S 47 W	24	7.2	200	S 20 W
9062.0	8.00	33.6	229	S 49 W	12	7.1	185	S 5 W
9064.0	8.00	42.0	0	N 0 E	43	7.1	201	S 21 W
9066.0	8.00	46.7	12	N 12 E	26	7.1	189	S 9 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9068.0	8.00	69.1	321	N 39 W	36	7.1	196	S 16 W
9074.0	8.00	60.0	337	N 23 W	33	7.0	192	S 12 W
9078.0	8.00	54.4	289	N 71 W	43	7.1	193	S 13 W
9082.0	8.00	55.2	288	N 72 W	69	7.1	192	S 12 W
9084.0	8.00	55.7	287	N 73 W	46	7.1	194	S 14 W
9086.0	8.00	34.7	295	N 65 W	37	7.1	192	S 12 W
9088.0	8.00	34.7	292	N 68 W	28	7.1	189	S 9 W
9090.0	8.00	29.1	312	N 48 W	25	7.1	191	S 11 W
9092.0	8.00	33.2	319	N 41 W	41	7.0	197	S 17 W
9094.0	8.00	39.3	330	N 30 W	25	7.1	191	S 11 W
9096.0	8.00	63.8	152	S 28 E	9	7.0	192	S 12 W
9098.0	8.00	63.6	153	S 27 E	23	7.0	192	S 12 W
9100.0	8.00	57.8	108	S 72 E	33	7.0	193	S 13 W
9102.0	8.00	70.9	43	N 43 E	53	7.0	192	S 12 W
9104.0	8.00	71.8	41	N 41 E	58	7.0	191	S 11 W
9106.0	8.00	54.5	287	N 73 W	33	7.0	191	S 11 W
9108.0	8.00	52.8	94	S 86 E	55	7.0	190	S 10 W
9110.0	8.00	57.9	153	S 27 E	18	7.0	190	S 10 W
9114.0	8.00	77.1	59	N 59 E	35	7.0	191	S 11 W
9116.0	8.00	52.3	254	S 74 W	17	7.0	192	S 12 W
9118.0	8.00	52.2	100	S 80 E	12	7.0	199	S 19 W
9120.0	8.00	63.2	114	S 66 E	40	7.0	197	S 17 W
9122.0	8.00	63.0	115	S 65 E	40	7.0	193	S 13 W
9124.0	8.00	50.3	177	S 3 E	3	7.0	191	S 11 W
9130.0	8.00	72.9	257	S 77 W	39	7.0	194	S 14 W
9134.0	8.00	64.1	11	N 11 E	33	7.1	190	S 10 W
9136.0	8.00	63.6	6	N 6 E	45	6.9	196	S 16 W
9138.0	8.00	43.1	196	S 16 W	40	6.9	202	S 22 W
9140.0	8.00	68.1	11	N 11 E	5	6.9	189	S 9 W
9142.0	8.00	48.3	222	S 42 W	14	7.0	198	S 18 W
9144.0	8.00	56.9	139	S 41 E	12	7.0	187	S 7 W
9146.0	8.00	66.1	358	N 2 W	24	7.0	189	S 9 W
9148.0	8.00	66.3	356	N 4 W	22	7.0	190	S 10 W
9150.0	8.00	56.5	190	S 10 W	25	7.0	190	S 10 W
9152.0	8.00	49.8	166	S 14 E	28	7.0	189	S 9 W
9154.0	8.00	42.9	251	S 71 W	18	6.9	190	S 10 W
9156.0	8.00	63.4	5	N 5 E	13	6.9	191	S 11 W
9158.0	8.00	43.7	254	S 74 W	38	6.8	191	S 11 W
9160.0	8.00	44.6	257	S 77 W	20	6.8	186	S 6 W
9162.0	8.00	27.7	285	N 75 W	27	6.9	192	S 12 W

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9164.0	8.00	29.3	285	N 75 W	21	6.9	188	S 8 W
9166.0	8.00	56.9	308	N 52 W	19	6.9	188	S 8 W
9168.0	8.00	56.9	313	N 47 W	22	6.9	188	S 8 W
9170.0	8.00	50.4	296	N 64 W	14	6.9	186	S 6 W
9172.0	8.00	48.3	296	N 64 W	13	6.9	188	S 8 W
9174.0	8.00	72.6	36	N 36 E	30	6.8	188	S 8 W
9180.0	8.00	47.1	264	S 84 W	24	6.1	190	S 10 W
9182.0	8.00	39.9	353	N 7 W	22	5.6	174	S 6 E
9184.0	8.00	60.8	344	N 16 W	32	5.5	203	S 23 W
9186.0	8.00	64.7	37	N 37 E	20	5.7	210	S 30 W
9188.0	8.00	69.4	37	N 37 E	14	6.4	197	S 17 W
9190.0	8.00	66.1	11	N 11 E	50	7.0	173	S 7 E
9192.0	8.00	65.5	12	N 12 E	17	6.8	186	S 6 W
9194.0	8.00	53.4	279	N 81 W	41	6.8	186	S 6 W
9196.0	8.00	18.3	77	N 77 E	34	6.8	186	S 6 W
9198.0	8.00	20.2	71	N 71 E	21	6.9	189	S 9 W
9200.0	8.00	53.9	169	S 11 E	43	6.8	189	S 9 W
9202.0	8.00	65.1	132	S 48 E	10	6.8	185	S 5 W
9204.0	8.00	76.9	36	N 36 E	13	6.8	187	S 7 W
9208.0	8.00	66.8	352	N 8 W	10	6.8	186	S 6 W
9212.0	8.00	19.0	291	N 69 W	63	6.8	185	S 5 W
9214.0	8.00	53.9	278	N 82 W	92	6.8	185	S 5 W
9216.0	8.00	54.0	279	N 81 W	57	6.8	185	S 5 W
9220.0	8.00	38.7	213	S 33 W	21	6.8	184	S 4 W
9222.0	8.00	55.1	280	N 80 W	15	6.8	184	S 4 W
9224.0	8.00	53.0	280	N 80 W	19	6.7	185	S 5 W
9226.0	8.00	52.3	279	N 81 W	19	6.8	187	S 7 W
9228.0	8.00	60.8	259	S 79 W	7	6.8	187	S 7 W
9230.0	8.00	50.8	309	N 51 W	17	6.9	183	S 3 W
9232.0	8.00	49.4	294	N 66 W	23	6.9	188	S 8 W
9234.0	8.00	52.8	332	N 28 W	56	6.7	185	S 5 W
9236.0	8.00	59.6	353	N 7 W	31	6.8	183	S 3 W
9238.0	8.00	61.9	0	N 0 E	20	6.7	185	S 5 W
9240.0	8.00	55.9	311	N 49 W	18	6.7	185	S 5 W
9242.0	8.00	13.5	265	S 85 W	17	6.7	186	S 6 W
9244.0	8.00	39.9	298	N 62 W	19	6.7	184	S 4 W
9246.0	8.00	43.2	212	S 32 W	28	6.7	185	S 5 W
9250.0	8.00	52.7	355	N 5 W	32	6.7	184	S 4 W
9252.0	8.00	40.1	175	S 5 E	23	6.7	184	S 4 W
9254.0	8.00	43.4	22	N 22 E	46	6.7	182	S 2 W

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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
9256.0	8.00	47.9	306 N 54 W	47	6.7	183 S 3 W
9258.0	8.00	34.0	157 S 23 E	45	6.7	184 S 4 W
9260.0	8.00	30.0	345 N 15 W	88	6.8	183 S 3 W
9262.0	8.00	55.6	201 S 21 W	37	6.8	184 S 4 W
9264.0	8.00	57.2	202 S 22 W	29	6.7	183 S 3 W
9266.0	8.00	48.2	223 S 43 W	15	6.7	183 S 3 W
9270.0	8.00	52.0	88 N 88 E	13	6.8	183 S 3 W
9272.0	8.00	62.4	272 N 88 W	15	6.7	183 S 3 W
9274.0	8.00	61.1	277 N 83 W	29	6.8	184 S 4 W
9276.0	8.00	62.2	280 N 80 W	41	6.8	185 S 5 W
9280.0	8.00	28.0	150 S 30 E	32	6.8	183 S 3 W
9282.0	8.00	67.8	299 N 61 W	22	6.8	183 S 3 W
9284.0	8.00	68.0	300 N 60 W	19	6.7	183 S 3 W
9288.0	8.00	32.2	291 N 69 W	29	6.7	182 S 2 W
9290.0	8.00	64.9	278 N 82 W	45	6.8	182 S 2 W
9292.0	8.00	44.5	316 N 44 W	31	6.8	181 S 1 W
9294.0	8.00	48.3	285 N 75 W	73	6.8	182 S 2 W
9296.0	8.00	44.5	288 N 72 W	62	6.7	182 S 2 W
9298.0	8.00	44.7	324 N 36 W	40	6.7	182 S 2 W
9300.0	8.00	74.2	318 N 42 W	26	6.7	181 S 1 W
9302.0	8.00	65.4	322 N 38 W	24	6.7	182 S 2 W
9304.0	8.00	51.7	112 S 68 E	20	6.7	177 S 3 E
9306.0	8.00	50.1	154 S 26 E	37	6.7	178 S 2 E
9308.0	8.00	28.5	335 N 25 W	9	6.8	175 S 5 E
9310.0	8.00	41.9	300 N 60 W	22	6.8	180 S 0 E
9316.0	8.00	51.8	140 S 40 E	52	6.7	179 S 1 E
9320.0	8.00	59.8	322 N 38 W	37	6.7	180 S 0 E
9322.0	8.00	63.3	85 N 85 E	59	6.7	179 S 1 E
9324.0	8.00	38.8	331 N 29 W	52	6.8	180 S 0 E
9328.0	8.00	69.8	75 N 75 E	17	6.7	178 S 2 E
9330.0	8.00	60.0	302 N 58 W	16	6.7	179 S 1 E
9332.0	8.00	67.2	260 S 80 W	24	6.7	178 S 2 E
9334.0	8.00	59.0	295 N 65 W	72	6.6	179 S 1 E
9336.0	8.00	41.7	279 N 81 W	85	6.6	178 S 2 E
9338.0	8.00	42.3	280 N 80 W	86	6.6	179 S 1 E
9340.0	8.00	42.0	280 N 80 W	100	6.6	179 S 1 E
9342.0	8.00	42.3	281 N 79 W	93	6.5	180 S 0 E
9344.0	8.00	43.3	287 N 73 W	100	6.5	178 S 2 E
9348.0	8.00	29.5	290 N 70 W	68	6.5	179 S 1 E
9350.0	8.00	30.9	290 N 70 W	94	6.5	179 S 1 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
9352.0	8.00	30.4	290	N 70 W	82	6.5	179	S 1 E
9354.0	8.00	29.9	292	N 68 W	100	6.5	178	S 2 E
9356.0	8.00	30.2	291	N 69 W	100	6.5	178	S 2 E
9358.0	8.00	29.4	286	N 74 W	63	6.5	175	S 5 E
9360.0	8.00	29.3	288	N 72 W	72	6.5	178	S 2 E
9362.0	8.00	29.3	288	N 72 W	100	6.5	177	S 3 E
9364.0	8.00	28.5	284	N 76 W	89	6.5	177	S 3 E
9366.0	8.00	22.5	294	N 66 W	73	6.5	177	S 3 E
9368.0	8.00	22.6	288	N 72 W	87	6.5	177	S 3 E
9370.0	8.00	23.3	288	N 72 W	72	6.5	176	S 4 E
9372.0	8.00	14.1	303	N 57 W	48	6.5	176	S 4 E
9374.0	8.00	25.0	287	N 73 W	54	6.4	173	S 7 E
9376.0	8.00	30.4	285	N 75 W	39	6.3	175	S 5 E
9380.0	8.00	29.8	293	N 67 W	29	6.0	175	S 5 E
9382.0	8.00	41.3	289	N 71 W	28	6.0	174	S 6 E
9384.0	8.00	41.7	289	N 71 W	29	6.0	175	S 5 E
9386.0	8.00	37.2	294	N 66 W	36	6.1	174	S 6 E
9388.0	8.00	62.3	73	N 73 E	38	6.1	174	S 6 E
9390.0	8.00	37.7	296	N 64 W	100	6.1	173	S 7 E
9392.0	8.00	42.6	292	N 68 W	100	6.1	174	S 6 E
9394.0	8.00	25.7	333	N 27 W	81	6.0	173	S 7 E
9396.0	8.00	43.1	292	N 68 W	91	6.1	171	S 9 E
9398.0	8.00	49.8	302	N 58 W	27	6.1	171	S 9 E
9400.0	8.00	35.5	325	N 35 W	26	6.1	173	S 7 E
9402.0	8.00	47.3	291	N 69 W	16	6.1	172	S 8 E
9404.0	8.00	43.1	337	N 23 W	38	6.1	173	S 7 E
9406.0	8.00	42.3	307	N 53 W	62	6.1	171	S 9 E
9408.0	8.00	47.0	290	N 70 W	77	6.0	173	S 7 E
9410.0	8.00	47.7	295	N 65 W	100	6.0	174	S 6 E
9412.0	8.00	47.9	293	N 67 W	82	6.0	175	S 5 E
9414.0	8.00	48.8	292	N 68 W	82	6.0	171	S 9 E
9416.0	8.00	47.1	298	N 62 W	50	6.0	172	S 8 E
9418.0	8.00	34.8	245	S 65 W	10	0.0	15	N 15 E
9420.0	8.00	53.4	286	N 74 W	83	6.6	175	S 5 E
9422.0	8.00	54.1	285	N 75 W	68	6.6	175	S 5 E
9424.0	8.00	64.8	151	S 29 E	23	6.6	174	S 6 E
9426.0	8.00	53.6	284	N 76 W	97	6.6	174	S 6 E
9428.0	8.00	51.9	287	N 73 W	74	6.6	174	S 6 E
9430.0	8.00	44.7	286	N 74 W	68	6.6	175	S 5 E
9432.0	8.00	61.5	284	N 76 W	68	6.6	174	S 6 E

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9434.0	8.00	19.0	109	S 71 E	28	6.6	175	S 5 E
9436.0	8.00	19.0	107	S 73 E	38	6.6	174	S 6 E
9444.0	8.00	24.4	288	N 72 W	37	6.2	189	S 9 W
9446.0	8.00	20.5	325	N 35 W	43	6.1	188	S 8 W
9448.0	8.00	44.1	157	S 23 E	40	6.1	188	S 8 W
9450.0	8.00	60.0	38	N 38 E	27	6.2	188	S 8 W
9452.0	8.00	51.4	47	N 47 E	34	6.1	187	S 7 W
9454.0	8.00	62.2	130	S 50 E	55	6.1	187	S 7 W
9456.0	8.00	67.9	111	S 69 E	18	6.2	188	S 8 W
9458.0	8.00	66.5	111	S 69 E	30	6.3	188	S 8 W
9460.0	8.00	68.0	101	S 79 E	21	6.6	176	S 4 E
9462.0	8.00	60.5	89	N 89 E	26	6.6	177	S 3 E
9466.0	8.00	73.4	289	N 71 W	12	6.5	174	S 6 E
9468.0	8.00	60.7	205	S 25 W	46	6.5	172	S 8 E
9470.0	8.00	35.6	325	N 35 W	21	6.4	194	S 14 W
9472.0	8.00	60.5	355	N 5 W	35	6.2	301	N 59 W
9480.0	8.00	64.5	80	N 80 E	19	6.0	186	S 6 W
9484.0	8.00	24.3	188	S 8 W	19	6.0	187	S 7 W
9486.0	8.00	41.0	95	S 85 E	13	6.0	186	S 6 W
9488.0	8.00	36.1	223	S 43 W	13	6.0	186	S 6 W
9492.0	8.00	65.1	302	N 58 W	29	6.1	186	S 6 W
9496.0	8.00	63.0	297	N 63 W	20	6.4	174	S 6 E
9500.0	8.00	67.3	95	S 85 E	37	6.4	169	S 11 E
9502.0	8.00	55.2	275	N 85 W	22	6.4	167	S 13 E
9504.0	8.00	44.8	99	S 81 E	22	6.4	170	S 10 E
9506.0	8.00	40.6	320	N 40 W	22	6.4	174	S 6 E
9508.0	8.00	35.9	303	N 57 W	53	6.4	174	S 6 E
9510.0	8.00	39.8	292	N 68 W	32	6.4	174	S 6 E
9512.0	8.00	43.2	285	N 75 W	100	6.4	174	S 6 E
9518.0	8.00	44.0	288	N 72 W	39	6.3	178	S 2 E
9520.0	8.00	70.6	342	N 18 W	12	6.3	175	S 5 E
9522.0	8.00	41.9	283	N 77 W	60	6.3	174	S 6 E
9524.0	8.00	40.7	281	N 79 W	92	6.3	172	S 8 E
9526.0	8.00	31.3	256	S 76 W	50	6.3	171	S 9 E
9528.0	8.00	58.6	315	N 45 W	23	6.2	168	S 12 E
9530.0	8.00	59.2	317	N 43 W	33	6.2	168	S 12 E
9532.0	8.00	53.2	177	S 3 E	33	6.0	166	S 14 E
9536.0	8.00	4.8	347	N 13 W	100	4.9	168	S 12 E
9538.0	8.00	6.1	164	S 16 E	100	4.8	16	N 16 E
9540.0	8.00	9.5	199	S 19 W	100	4.8	14	N 14 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9542.0	8.00	4.5	204	S 24 W	100	4.9	13	N 13 E
9544.0	8.00	7.7	201	S 21 W	100	4.8	19	N 19 E
9546.0	8.00	9.8	200	S 20 W	100	4.9	18	N 18 E
9548.0	8.00	9.5	190	S 10 W	100	4.9	15	N 15 E
9554.0	8.00	5.6	134	S 46 E	100	4.9	12	N 12 E
9556.0	8.00	6.2	111	S 69 E	100	5.0	14	N 14 E
9562.0	8.00	0.1	245	S 65 W	100	5.2	15	N 15 E
9564.0	8.00	9.7	193	S 13 W	100	5.2	14	N 14 E
9574.0	8.00	1.8	180	S 0 E	79	5.2	15	N 15 E
9576.0	8.00	82.9	345	N 15 W	69	5.2	16	N 16 E
9578.0	8.00	80.2	27	N 27 E	30	5.3	17	N 17 E
9580.0	8.00	60.6	320	N 40 W	26	5.5	31	N 31 E
9582.0	8.00	39.7	305	N 55 W	54	5.5	180	S 0 E
9584.0	8.00	42.2	288	N 72 W	75	5.5	181	S 1 W
9586.0	8.00	42.2	289	N 71 W	92	5.6	181	S 1 W
9588.0	8.00	35.2	209	S 29 W	42	5.6	182	S 2 W
9590.0	8.00	33.1	183	S 3 W	50	5.9	161	S 19 E
9594.0	8.00	53.8	176	S 4 E	22	6.0	183	S 3 W
9598.0	8.00	71.2	346	N 14 W	45	5.5	178	S 2 E
9600.0	8.00	40.6	87	N 87 E	46	5.5	178	S 2 E
9602.0	8.00	25.1	284	N 76 W	25	5.5	177	S 3 E
9604.0	8.00	25.0	282	N 78 W	30	5.5	178	S 2 E
9608.0	8.00	25.7	281	N 79 W	15	5.4	177	S 3 E
9610.0	8.00	24.6	281	N 79 W	36	5.4	177	S 3 E
9612.0	8.00	24.0	281	N 79 W	41	5.4	178	S 2 E
9614.0	8.00	24.5	283	N 77 W	53	5.4	179	S 1 E
9616.0	8.00	23.9	284	N 76 W	47	5.4	178	S 2 E
9618.0	8.00	29.5	313	N 47 W	45	5.5	179	S 1 E
9620.0	8.00	58.5	294	N 66 W	85	5.7	168	S 12 E
9622.0	8.00	65.0	284	N 76 W	77	5.7	160	S 20 E
9628.0	8.00	67.5	358	N 2 W	18	5.3	152	S 28 E
9630.0	8.00	57.7	308	N 52 W	29	5.4	176	S 4 E
9632.0	8.00	57.5	302	N 58 W	49	5.4	177	S 3 E
9634.0	8.00	59.5	289	N 71 W	52	5.3	178	S 2 E
9638.0	8.00	52.8	292	N 68 W	72	5.4	178	S 2 E
9640.0	8.00	53.4	292	N 68 W	26	5.3	178	S 2 E
9642.0	8.00	63.5	294	N 66 W	16	5.3	178	S 2 E
9644.0	8.00	37.9	244	S 64 W	28	5.3	177	S 3 E
9646.0	8.00	62.7	37	N 37 E	27	5.2	177	S 3 E
9650.0	8.00	60.4	75	N 75 E	29	5.3	177	S 3 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
9652.0	8.00	66.4	85	N 85 E	66	5.3	174	S 6 E	
9654.0	8.00	66.1	84	N 84 E	32	5.2	174	S 6 E	
9656.0	8.00	74.1	91	S 89 E	25	5.3	176	S 4 E	
9660.0	8.00	35.8	296	N 64 W	33	5.3	174	S 6 E	
9662.0	8.00	61.5	308	N 52 W	29	5.3	176	S 4 E	
9664.0	8.00	50.9	290	N 70 W	23	5.3	176	S 4 E	
9668.0	8.00	57.4	15	N 15 E	23	5.2	176	S 4 E	
9670.0	8.00	13.6	97	S 83 E	38	5.2	176	S 4 E	
9672.0	8.00	64.3	62	N 62 E	9	5.2	176	S 4 E	
9674.0	8.00	42.1	228	S 48 W	34	5.2	176	S 4 E	
9676.0	8.00	27.9	273	N 87 W	25	5.2	177	S 3 E	
9678.0	8.00	18.1	210	S 30 W	37	5.2	176	S 4 E	
9680.0	8.00	14.6	335	N 25 W	89	5.2	177	S 3 E	
9682.0	8.00	60.3	89	N 89 E	68	5.1	177	S 3 E	
9686.0	8.00	64.6	353	N 7 W	63	5.2	171	S 9 E	
9688.0	8.00	72.3	275	N 85 W	60	5.2	173	S 7 E	
9690.0	8.00	39.3	294	N 66 W	18	5.2	172	S 8 E	
9692.0	8.00	39.9	289	N 71 W	25	5.2	173	S 7 E	
9694.0	8.00	37.7	298	N 62 W	37	5.3	173	S 7 E	
9698.0	8.00	25.5	160	S 20 E	71	5.3	172	S 8 E	
9700.0	8.00	11.4	290	N 70 W	100	5.2	172	S 8 E	
9704.0	8.00	46.2	312	N 48 W	77	5.2	172	S 8 E	
9706.0	8.00	57.6	296	N 64 W	49	5.2	173	S 7 E	
9708.0	8.00	56.1	299	N 61 W	28	5.2	173	S 7 E	
9710.0	8.00	57.7	298	N 62 W	12	5.2	175	S 5 E	
9714.0	8.00	61.3	187	S 7 W	37	5.1	171	S 9 E	
9722.0	8.00	66.0	311	N 49 W	18	5.2	172	S 8 E	
9724.0	8.00	58.5	293	N 67 W	32	5.2	171	S 9 E	
9726.0	8.00	50.6	350	N 10 W	26	5.2	172	S 8 E	
9728.0	8.00	56.0	327	N 33 W	39	5.2	171	S 9 E	
9730.0	8.00	45.6	311	N 49 W	29	5.2	171	S 9 E	
9732.0	8.00	43.7	311	N 49 W	24	5.1	171	S 9 E	
9734.0	8.00	53.4	312	N 48 W	24	5.1	170	S 10 E	
9736.0	8.00	53.1	312	N 48 W	35	5.1	172	S 8 E	
9738.0	8.00	59.3	113	S 67 E	52	5.2	171	S 9 E	
9740.0	8.00	56.2	77	N 77 E	6	5.2	170	S 10 E	
9746.0	8.00	30.8	73	N 73 E	67	5.1	172	S 8 E	
9748.0	8.00	30.7	72	N 72 E	79	5.1	171	S 9 E	
9750.0	8.00	31.0	70	N 70 E	79	5.2	169	S 11 E	
9752.0	8.00	24.6	269	S 89 W	34	5.2	171	S 9 E	

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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9754.0	8.00	22.3	258	S 78 W	44	5.1	170	S 10 E
9756.0	8.00	24.5	281	N 79 W	43	5.1	171	S 9 E
9758.0	8.00	48.0	289	N 71 W	42	5.1	170	S 10 E
9766.0	8.00	30.1	127	S 53 E	36	5.1	169	S 11 E
9768.0	8.00	32.3	148	S 32 E	34	5.1	169	S 11 E
9770.0	8.00	64.8	300	N 60 W	20	5.0	169	S 11 E
9772.0	8.00	65.3	299	N 61 W	17	5.0	167	S 13 E
9774.0	8.00	60.8	308	N 52 W	47	5.1	167	S 13 E
9776.0	8.00	65.0	306	N 54 W	17	5.1	166	S 14 E
9778.0	8.00	57.9	81	N 81 E	21	4.9	168	S 12 E
9780.0	8.00	50.6	23	N 23 E	32	4.7	169	S 11 E
9782.0	8.00	75.4	8	N 8 E	12	5.0	9	N 9 E
9784.0	8.00	58.2	343	N 17 W	28	5.2	169	S 11 E
9790.0	8.00	10.3	298	N 62 W	34	5.1	168	S 12 E
9792.0	8.00	63.0	220	S 40 W	20	5.1	168	S 12 E
9796.0	8.00	56.5	108	S 72 E	17	5.1	169	S 11 E
9798.0	8.00	58.4	108	S 72 E	33	5.1	169	S 11 E
9800.0	8.00	30.3	308	N 52 W	63	5.2	167	S 13 E
9804.0	8.00	54.1	359	N 1 W	36	5.1	167	S 13 E
9806.0	8.00	53.4	301	N 59 W	27	5.1	167	S 13 E
9808.0	8.00	73.7	277	N 83 W	34	5.2	168	S 12 E
9810.0	8.00	66.6	314	N 46 W	41	5.2	167	S 13 E
9812.0	8.00	46.2	281	N 79 W	15	5.1	167	S 13 E
9814.0	8.00	52.1	262	S 82 W	14	5.2	168	S 12 E
9816.0	8.00	33.8	230	S 50 W	19	5.1	168	S 12 E
9818.0	8.00	62.0	216	S 36 W	42	5.2	167	S 13 E
9820.0	8.00	63.4	148	S 32 E	37	5.2	169	S 11 E
9822.0	8.00	67.6	76	N 76 E	63	5.2	168	S 12 E
9824.0	8.00	60.1	55	N 55 E	19	5.2	167	S 13 E
9826.0	8.00	63.8	83	N 83 E	12	5.2	171	S 9 E
9828.0	8.00	67.1	72	N 72 E	36	5.2	171	S 9 E
9834.0	8.00	9.8	81	N 81 E	100	5.1	166	S 14 E
9836.0	8.00	16.8	176	S 4 E	28	5.1	164	S 16 E
9838.0	8.00	58.9	169	S 11 E	14	5.2	164	S 16 E
9840.0	8.00	56.7	210	S 30 W	14	5.2	166	S 14 E
9842.0	8.00	69.0	6	N 6 E	4	5.2	165	S 15 E
9844.0	8.00	64.5	239	S 59 W	42	5.3	164	S 16 E
9846.0	8.00	62.5	253	S 73 W	11	5.4	167	S 13 E
9848.0	8.00	66.9	273	N 87 W	12	5.3	171	S 9 E
9852.0	8.00	59.6	27	N 27 E	5	5.3	165	S 15 E

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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
9858.0	8.00	60.1	149	S 31 E	14	5.8	166	S 14 E
9862.0	8.00	31.4	131	S 49 E	67	5.3	164	S 16 E
9866.0	8.00	41.6	272	N 88 W	57	5.2	163	S 17 E
9868.0	8.00	27.0	296	N 64 W	38	5.2	162	S 18 E
9870.0	8.00	30.4	292	N 68 W	96	5.2	162	S 18 E
9872.0	8.00	29.0	293	N 67 W	100	5.1	161	S 19 E
9874.0	8.00	53.0	298	N 62 W	68	5.2	161	S 19 E
9876.0	8.00	61.8	255	S 75 W	17	5.2	160	S 20 E
9878.0	8.00	51.6	78	N 78 E	14	5.3	160	S 20 E
9880.0	8.00	65.4	22	N 22 E	6	5.3	158	S 22 E
9882.0	8.00	16.3	305	N 55 W	56	5.2	161	S 19 E
9884.0	8.00	14.2	309	N 51 W	52	5.1	161	S 19 E
9888.0	8.00	42.5	224	S 44 W	21	5.2	158	S 22 E
9890.0	8.00	40.5	261	S 81 W	41	5.2	160	S 20 E
9892.0	8.00	42.7	273	N 87 W	90	5.2	158	S 22 E
9894.0	8.00	50.1	127	S 53 E	49	5.3	160	S 20 E
9896.0	8.00	35.9	142	S 38 E	52	5.3	161	S 19 E
9898.0	8.00	56.9	190	S 10 W	26	5.3	161	S 19 E
9900.0	8.00	71.5	330	N 30 W	23	5.2	157	S 23 E
9902.0	8.00	69.5	269	S 89 W	40	5.2	157	S 23 E
9904.0	8.00	20.1	269	S 89 W	42	5.2	157	S 23 E
9906.0	8.00	64.8	294	N 66 W	51	5.2	157	S 23 E
9908.0	8.00	24.4	296	N 64 W	55	5.2	158	S 22 E
9910.0	8.00	18.7	260	S 80 W	75	5.2	158	S 22 E
9914.0	8.00	65.8	316	N 44 W	44	5.3	154	S 26 E
9916.0	8.00	56.8	292	N 68 W	100	5.5	155	S 25 E
9918.0	8.00	56.9	301	N 59 W	66	5.5	155	S 25 E
9920.0	8.00	42.6	320	N 40 W	56	5.3	155	S 25 E
9924.0	8.00	18.2	248	S 68 W	47	5.2	157	S 23 E
9926.0	8.00	19.6	249	S 69 W	96	5.2	155	S 25 E
9928.0	8.00	19.1	249	S 69 W	89	5.2	156	S 24 E
9932.0	8.00	15.5	138	S 42 E	24	5.2	157	S 23 E
9936.0	8.00	30.3	304	N 56 W	61	5.2	153	S 27 E
9938.0	8.00	6.5	338	N 22 W	100	5.0	154	S 26 E
9940.0	8.00	4.9	334	N 26 W	100	4.9	153	S 27 E
9944.0	8.00	6.8	208	S 28 W	100	4.9	19	N 19 E
9946.0	8.00	6.9	202	S 22 W	100	4.8	18	N 18 E
9948.0	8.00	6.5	199	S 19 W	100	4.8	18	N 18 E
9950.0	8.00	7.2	160	S 20 E	100	4.8	17	N 17 E
9954.0	8.00	7.6	145	S 35 E	100	5.0	11	N 11 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
9958.0	8.00	5.6	199	S 19 W	100	5.0	14	N 14 E
9962.0	8.00	6.0	204	S 24 W	100	4.9	14	N 14 E
9964.0	8.00	6.8	200	S 20 W	100	4.9	19	N 19 E
9966.0	8.00	7.2	209	S 29 W	100	5.0	14	N 14 E
9968.0	8.00	8.9	215	S 35 W	100	5.0	19	N 19 E
9970.0	8.00	85.0	333	N 27 W	56	5.0	19	N 19 E
9972.0	8.00	89.5	320	N 40 W	10	5.1	16	N 16 E
9974.0	8.00	66.9	25	N 25 E	14	5.3	21	N 21 E
9976.0	8.00	51.5	317	N 43 W	48	5.5	149	S 31 E
9978.0	8.00	34.5	52	N 52 E	37	5.6	149	S 31 E
9980.0	8.00	59.2	278	N 82 W	4	5.5	152	S 28 E
9982.0	8.00	48.5	46	N 46 E	33	5.4	152	S 28 E
9986.0	8.00	50.2	226	S 46 W	55	5.5	150	S 30 E
9988.0	8.00	35.2	226	S 46 W	71	5.7	147	S 33 E
9992.0	8.00	61.0	58	N 58 E	17	5.4	154	S 26 E
9994.0	8.00	71.6	53	N 53 E	9	5.5	147	S 33 E
9996.0	8.00	71.5	230	S 50 W	42	5.5	153	S 27 E
9998.0	8.00	72.1	230	S 50 W	28	5.4	149	S 31 E
10002.0	8.00	47.2	127	S 53 E	27	5.6	148	S 32 E
10006.0	8.00	59.1	44	N 44 E	31	5.4	148	S 32 E
10008.0	8.00	57.1	57	N 57 E	37	5.4	152	S 28 E
10010.0	8.00	49.4	53	N 53 E	57	5.4	149	S 31 E
10016.0	8.00	64.1	272	N 88 W	4	5.7	147	S 33 E
10018.0	8.00	62.2	270	N 90 W	8	5.7	142	S 38 E
10022.0	8.00	55.9	31	N 31 E	27	5.5	147	S 33 E
10024.0	8.00	41.1	129	S 51 E	20	5.6	144	S 36 E
10026.0	8.00	44.7	129	S 51 E	13	5.6	151	S 29 E
10028.0	8.00	51.8	130	S 50 E	14	5.6	147	S 33 E
10030.0	8.00	48.1	101	S 79 E	28	5.6	146	S 34 E
10036.0	8.00	65.6	43	N 43 E	42	5.6	147	S 33 E
10038.0	8.00	51.9	335	N 25 W	69	5.7	144	S 36 E
10040.0	8.00	50.8	14	N 14 E	36	5.6	145	S 35 E
10042.0	8.00	68.4	11	N 11 E	8	5.5	148	S 32 E
10044.0	8.00	62.1	16	N 16 E	15	5.6	142	S 38 E
10046.0	8.00	58.2	348	N 12 W	13	5.5	147	S 33 E
10048.0	8.00	19.5	52	N 52 E	20	5.5	144	S 36 E
10050.0	8.00	59.8	79	N 79 E	31	5.5	146	S 34 E
10052.0	8.00	46.1	69	N 69 E	31	5.6	147	S 33 E
10054.0	8.00	65.7	42	N 42 E	20	5.6	145	S 35 E
10076.0	8.00	62.7	125	S 55 E	1	5.7	144	S 36 E

MARATHON OIL COMPANY
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		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
10078.0	8.00	62.6	122	S 58 E	1	5.8	144	S 36 E
10080.0	8.00	62.6	120	S 60 E	1	5.7	140	S 40 E
10082.0	8.00	62.9	117	S 63 E	1	5.8	146	S 34 E
10090.0	8.00	50.5	58	N 58 E	29	6.0	144	S 36 E
10114.0	8.00	54.4	293	N 67 W	9	5.9	135	S 45 E
10116.0	8.00	48.4	234	S 54 W	35	5.9	135	S 45 E
10118.0	8.00	44.1	240	S 60 W	47	6.1	143	S 37 E
10120.0	8.00	41.8	248	S 68 W	35	6.3	144	S 36 E
10122.0	8.00	36.9	254	S 74 W	38	6.2	140	S 40 E
10126.0	8.00	67.7	327	N 33 W	28	5.9	140	S 40 E
10128.0	8.00	63.8	46	N 46 E	59	6.0	141	S 39 E
10130.0	8.00	71.2	20	N 20 E	32	6.0	141	S 39 E
10132.0	8.00	48.9	261	S 81 W	17	6.0	140	S 40 E
10134.0	8.00	62.4	119	S 61 E	7	6.1	142	S 38 E
10138.0	8.00	48.9	324	N 36 W	45	6.6	138	S 42 E
10140.0	8.00	6.2	108	S 72 E	5	6.3	139	S 41 E
10142.0	8.00	7.1	109	S 71 E	5	6.2	142	S 38 E
10146.0	8.00	59.6	125	S 55 E	14	6.1	128	S 52 E
10148.0	8.00	64.4	309	N 51 W	6	6.4	133	S 47 E
10150.0	8.00	34.5	322	N 38 W	9	6.0	141	S 39 E
10152.0	8.00	59.2	191	S 11 W	40	6.0	138	S 42 E
10156.0	8.00	60.3	192	S 12 W	13	6.1	133	S 47 E
10158.0	8.00	46.8	171	S 9 E	28	6.1	137	S 43 E
10160.0	8.00	63.8	8	N 8 E	16	6.1	137	S 43 E
10162.0	8.00	62.9	6	N 6 E	29	6.1	137	S 43 E
10164.0	8.00	47.3	177	S 3 E	33	6.2	135	S 45 E
10166.0	8.00	63.6	1	N 1 E	34	6.4	138	S 42 E
10168.0	8.00	64.5	358	N 2 W	15	6.7	151	S 29 E
10170.0	8.00	53.1	358	N 2 W	15	6.9	131	S 49 E
10174.0	8.00	66.1	357	N 3 W	11	6.1	137	S 43 E
10176.0	8.00	50.5	358	N 2 W	14	6.1	135	S 45 E
10180.0	8.00	64.8	30	N 30 E	63	6.1	133	S 47 E
10182.0	8.00	52.8	134	S 46 E	17	6.1	130	S 50 E
10184.0	8.00	52.1	125	S 55 E	23	6.3	134	S 46 E
10188.0	8.00	53.4	342	N 18 W	69	6.4	135	S 45 E
10190.0	8.00	9.6	277	N 83 W	52	6.0	129	S 51 E
10192.0	8.00	39.4	172	S 8 E	91	6.1	140	S 40 E
10194.0	8.00	58.9	324	N 36 W	22	5.8	128	S 52 E
10196.0	8.00	65.3	23	N 23 E	20	5.4	120	S 60 E
10200.0	8.00	47.8	223	S 43 W	29	6.4	145	S 35 E

Dresser/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10 RUN THREE
WILDCAT
RICH UTAH
09-03-81

		FORMATION DIP				****BOREHOLE*****		
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING
10202.0	8.00	59.1	47	N 47 E	2	6.6	134	S 46 E
10204.0	8.00	61.9	195	S 15 W	33	6.6	133	S 47 E
10206.0	8.00	58.6	203	S 23 W	21	6.6	134	S 46 E
10208.0	8.00	57.5	190	S 10 W	20	6.7	134	S 46 E
10210.0	8.00	41.7	108	S 72 E	58	6.3	130	S 50 E
10212.0	8.00	41.4	118	S 62 E	78	6.3	136	S 44 E
10218.0	8.00	41.0	299	N 61 W	12	6.8	132	S 48 E
10220.0	8.00	59.9	272	N 88 W	5	7.2	121	S 59 E
10224.0	8.00	42.6	93	S 87 E	23	6.3	127	S 53 E
10226.0	8.00	27.7	62	N 62 E	21	6.4	137	S 43 E
10228.0	8.00	56.0	9	N 9 E	21	6.5	142	S 38 E
10230.0	8.00	49.6	315	N 45 W	27	6.5	134	S 46 E
10232.0	8.00	49.3	312	N 48 W	24	6.7	132	S 48 E
10234.0	8.00	61.9	324	N 36 W	16	7.0	131	S 49 E
10236.0	8.00	53.6	249	S 69 W	54	6.8	134	S 46 E
10238.0	8.00	32.0	225	S 45 W	23	7.2	132	S 48 E
10240.0	8.00	41.8	314	N 46 W	61	6.9	134	S 46 E
10242.0	8.00	49.7	313	N 47 W	19	7.2	132	S 48 E
10246.0	8.00	50.8	9	N 9 E	15	7.9	124	S 56 E
10248.0	8.00	49.3	192	S 12 W	14	7.0	136	S 44 E
10254.0	8.00	16.8	207	S 27 W	71	6.6	133	S 47 E
10256.0	8.00	14.1	86	N 86 E	45	6.2	126	S 54 E
10258.0	8.00	16.8	113	S 67 E	55	6.2	129	S 51 E
10260.0	8.00	10.9	152	S 28 E	23	6.7	4	N 4 E

Prescott/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

INTERVAL 13700.0 TO 16910.0
RUN 6 RLAC 956.
ENGINEER RALL MAG DEC 16.

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		FORMATION DIP				****BOREHOLE*****			
DEPTH	WL	ANG	AZ	BEARING	GRADE	DA	DAZ	BEARING	
13712.0	8.00	7.1	316	N 44 W	23	16.9	127	S 53 E	
13716.0	8.00	44.5	314	N 46 W	33	16.8	124	S 56 E	
13718.0	8.00	39.9	313	N 47 W	43	17.1	124	S 56 E	
13720.0	8.00	12.9	172	S 8 E	38	16.9	128	S 52 E	
13722.0	8.00	35.5	310	N 50 W	14	16.9	126	S 54 E	
13728.0	8.00	43.7	327	N 33 W	42	17.0	121	S 59 E	
13730.0	8.00	27.0	280	N 80 W	77	17.1	122	S 58 E	
13732.0	8.00	36.4	293	N 67 W	44	16.9	123	S 57 E	
13734.0	8.00	23.4	216	S 36 W	58	17.1	122	S 58 E	
13736.0	8.00	35.3	309	N 51 W	45	17.0	124	S 56 E	
13738.0	8.00	27.0	206	S 26 W	49	17.0	121	S 59 E	
13740.0	8.00	40.7	278	N 82 W	39	17.1	122	S 58 E	
13742.0	8.00	40.8	278	N 82 W	81	17.1	121	S 59 E	
13744.0	8.00	42.6	279	N 81 W	100	17.1	122	S 58 E	
13746.0	8.00	41.9	282	N 78 W	100	16.9	121	S 59 E	
13748.0	8.00	41.2	282	N 78 W	31	16.9	124	S 56 E	
13750.0	8.00	27.9	251	S 71 W	23	16.9	129	S 51 E	
13752.0	8.00	15.0	172	S 8 E	25	16.9	125	S 55 E	
13754.0	8.00	34.2	288	N 72 W	97	16.8	123	S 57 E	
13756.0	8.00	36.9	286	N 74 W	100	16.9	124	S 56 E	
13758.0	8.00	42.8	285	N 75 W	66	16.9	124	S 56 E	
13760.0	8.00	36.6	286	N 74 W	100	16.9	124	S 56 E	
13762.0	8.00	39.2	285	N 75 W	100	16.9	124	S 56 E	
13764.0	8.00	41.0	288	N 72 W	100	16.8	124	S 56 E	
13766.0	8.00	40.8	288	N 72 W	100	16.9	123	S 57 E	
13768.0	8.00	40.5	288	N 72 W	100	16.9	123	S 57 E	
13770.0	8.00	8.8	22	N 22 E	100	17.1	124	S 56 E	
13772.0	8.00	38.2	290	N 70 W	76	17.1	124	S 56 E	
13774.0	8.00	43.5	288	N 72 W	23	17.0	125	S 55 E	

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
13776.0	8.00	26.0	233	S 53 W	41	17.0	124	S 56 E
13778.0	8.00	20.8	76	N 76 E	19	17.0	124	S 56 E
13780.0	8.00	16.4	69	N 69 E	13	16.9	124	S 56 E
13782.0	8.00	23.1	233	S 53 W	37	17.0	124	S 56 E
13784.0	8.00	26.7	201	S 21 W	13	16.9	126	S 54 E
13790.0	8.00	9.9	266	S 86 W	19	17.1	122	S 58 E
13794.0	8.00	31.7	317	N 43 W	57	17.2	123	S 57 E
13796.0	8.00	25.2	23	N 23 E	28	17.3	123	S 57 E
13798.0	8.00	23.8	24	N 24 E	27	17.4	120	S 60 E
13800.0	8.00	35.8	229	S 49 W	22	17.6	121	S 59 E
13802.0	8.00	35.5	230	S 50 W	30	17.1	122	S 58 E
13804.0	8.00	31.2	327	N 33 W	65	16.8	120	S 60 E
13806.0	8.00	40.4	338	N 22 W	35	16.6	125	S 55 E
13810.0	8.00	18.1	7	N 7 E	68	16.3	124	S 56 E
13812.0	8.00	11.6	125	S 55 E	70	16.9	114	S 66 E
13814.0	8.00	12.6	109	S 71 E	43	17.4	119	S 61 E
13818.0	8.00	29.6	10	N 10 E	23	17.1	119	S 61 E
13820.0	8.00	30.9	55	N 55 E	35	17.5	120	S 60 E
13822.0	8.00	29.8	7	N 7 E	28	17.3	117	S 63 E
13830.0	8.00	31.7	269	S 89 W	11	17.2	121	S 59 E
13832.0	8.00	43.5	352	N 8 W	19	17.2	119	S 61 E
13834.0	8.00	46.2	354	N 6 W	18	17.1	119	S 61 E
13836.0	8.00	44.7	353	N 7 W	31	16.9	122	S 58 E
13838.0	8.00	43.1	352	N 8 W	25	16.9	122	S 58 E
13840.0	8.00	26.8	242	S 62 W	35	17.1	124	S 56 E
13842.0	8.00	21.4	203	S 23 W	39	17.3	121	S 59 E
13844.0	8.00	31.0	282	N 78 W	53	17.3	117	S 63 E
13846.0	8.00	22.7	203	S 23 W	54	17.0	122	S 58 E
13848.0	8.00	29.7	284	N 76 W	78	17.0	126	S 54 E
13850.0	8.00	23.1	291	N 69 W	100	17.4	120	S 60 E
13852.0	8.00	24.2	295	N 65 W	100	17.3	125	S 55 E
13854.0	8.00	41.2	308	N 52 W	62	17.3	124	S 56 E
13856.0	8.00	15.2	321	N 39 W	39	17.3	123	S 57 E
13860.0	8.00	24.2	11	N 11 E	50	17.2	122	S 58 E
13862.0	8.00	48.7	347	N 13 W	31	17.4	122	S 58 E
13866.0	8.00	35.0	283	N 77 W	96	17.3	124	S 56 E
13868.0	8.00	32.0	285	N 75 W	100	17.4	121	S 59 E
13870.0	8.00	26.9	288	N 72 W	100	17.4	122	S 58 E
13872.0	8.00	26.5	234	S 54 W	100	17.3	68	N 68 E
13874.0	8.00	29.8	290	N 70 W	100	17.3	121	S 59 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
13876.0	8.00	20.7	191	S 11 W	69	17.1	121	S 59 E
13878.0	8.00	33.7	339	N 21 W	16	17.1	118	S 62 E
13880.0	8.00	24.5	202	S 22 W	74	17.5	127	S 53 E
13882.0	8.00	25.7	258	S 78 W	61	17.2	119	S 61 E
13888.0	8.00	38.9	301	N 59 W	17	17.1	123	S 57 E
13892.0	8.00	20.6	222	S 42 W	21	17.4	121	S 59 E
13894.0	8.00	26.7	288	N 72 W	55	17.4	120	S 60 E
13912.0	8.00	53.7	342	N 18 W	9	17.8	124	S 56 E
13914.0	8.00	10.7	3	N 3 E	66	17.1	116	S 64 E
13918.0	8.00	29.3	246	S 66 W	39	17.5	118	S 62 E
13920.0	8.00	32.4	240	S 60 W	29	18.4	115	S 65 E
13922.0	8.00	9.7	161	S 19 E	26	17.9	117	S 63 E
13924.0	8.00	12.5	82	N 82 E	47	17.5	121	S 59 E
13926.0	8.00	2.7	128	S 52 E	70	17.2	118	S 62 E
13946.0	8.00	29.4	21	N 21 E	43	17.7	124	S 56 E
13950.0	8.00	23.9	2	N 2 E	58	17.7	113	S 67 E
13952.0	8.00	18.6	277	N 83 W	59	17.5	116	S 64 E
13958.0	8.00	11.7	84	N 84 E	53	17.6	119	S 61 E
13960.0	8.00	36.4	280	N 80 W	55	17.5	120	S 60 E
13962.0	8.00	36.1	279	N 81 W	95	17.5	119	S 61 E
13964.0	8.00	34.0	281	N 79 W	100	17.5	120	S 60 E
13966.0	8.00	32.4	283	N 77 W	100	17.5	121	S 59 E
13968.0	8.00	30.0	279	N 81 W	100	17.5	121	S 59 E
13970.0	8.00	30.6	281	N 79 W	100	17.7	121	S 59 E
13972.0	8.00	27.9	269	S 89 W	41	17.5	124	S 56 E
13974.0	8.00	30.0	268	S 88 W	48	17.3	116	S 64 E
13976.0	8.00	36.9	284	N 76 W	81	17.5	122	S 58 E
13978.0	8.00	33.0	298	N 62 W	99	17.7	120	S 60 E
13980.0	8.00	34.2	218	S 38 W	30	17.6	119	S 61 E
13982.0	8.00	34.1	276	N 84 W	85	17.7	118	S 62 E
13984.0	8.00	28.4	203	S 23 W	80	17.4	117	S 63 E
13986.0	8.00	25.8	269	S 89 W	39	17.6	116	S 64 E
13988.0	8.00	27.9	265	S 85 W	40	17.6	120	S 60 E
13990.0	8.00	24.8	275	N 85 W	17	17.5	120	S 60 E
13992.0	8.00	47.0	348	N 12 W	47	17.5	121	S 59 E
13996.0	8.00	46.6	351	N 9 W	67	17.5	119	S 61 E
13998.0	8.00	46.7	351	N 9 W	50	17.5	119	S 61 E
14000.0	8.00	38.4	277	N 83 W	81	17.3	124	S 56 E
14002.0	8.00	38.3	273	N 87 W	80	17.2	118	S 62 E
14004.0	8.00	27.9	319	N 41 W	71	17.5	122	S 58 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
14006.0	8.00	32.7	311	N 49 W	73	17.8	119	S 61 E
14022.0	8.00	54.4	291	N 69 W	56	17.5	119	S 61 E
14030.0	8.00	32.0	320	N 40 W	83	17.5	120	S 60 E
14032.0	8.00	24.2	319	N 41 W	58	17.6	118	S 62 E
14034.0	8.00	35.6	321	N 39 W	87	17.7	120	S 60 E
14036.0	8.00	25.8	232	S 52 W	64	17.6	119	S 61 E
14040.0	8.00	33.7	316	N 44 W	43	17.3	120	S 60 E
14042.0	8.00	36.1	322	N 38 W	92	17.5	119	S 61 E
14046.0	8.00	31.7	337	N 23 W	89	17.5	121	S 59 E
14048.0	8.00	43.2	276	N 84 W	65	17.5	121	S 59 E
14050.0	8.00	43.4	272	N 88 W	41	17.4	120	S 60 E
14052.0	8.00	52.3	274	N 86 W	13	17.4	119	S 61 E
14054.0	8.00	36.2	260	S 80 W	56	17.5	119	S 61 E
14058.0	8.00	36.6	261	S 81 W	55	17.4	117	S 63 E
14060.0	8.00	50.8	282	N 78 W	28	17.5	116	S 64 E
14062.0	8.00	52.2	279	N 81 W	55	17.5	116	S 64 E
14064.0	8.00	36.3	349	N 11 W	65	17.5	117	S 63 E
14068.0	8.00	12.8	77	N 77 E	100	17.5	117	S 63 E
14070.0	8.00	32.8	322	N 38 W	66	17.5	118	S 62 E
14072.0	8.00	21.6	232	S 52 W	75	17.6	118	S 62 E
14074.0	8.00	28.6	225	S 45 W	66	17.5	119	S 61 E
14076.0	8.00	20.7	232	S 52 W	56	17.6	118	S 62 E
14078.0	8.00	42.9	344	N 16 W	50	17.6	119	S 61 E
14080.0	8.00	48.3	275	N 85 W	61	17.8	119	S 61 E
14082.0	8.00	45.0	269	S 89 W	75	17.7	118	S 62 E
14084.0	8.00	37.5	203	S 23 W	49	17.6	117	S 63 E
14086.0	8.00	29.1	220	S 40 W	21	17.7	118	S 62 E
14100.0	8.00	41.2	265	S 85 W	38	17.7	116	S 64 E
14102.0	8.00	27.5	227	S 47 W	42	17.5	118	S 62 E
14104.0	8.00	21.9	232	S 52 W	60	17.3	123	S 57 E
14106.0	8.00	40.5	272	N 88 W	100	17.8	114	S 66 E
14108.0	8.00	40.2	272	N 88 W	100	17.8	117	S 63 E
14110.0	8.00	41.2	270	N 90 W	100	17.8	117	S 63 E
14112.0	8.00	39.9	272	N 88 W	100	17.8	117	S 63 E
14116.0	8.00	35.9	296	N 64 W	65	17.8	118	S 62 E
14118.0	8.00	56.3	272	N 88 W	67	17.9	118	S 62 E
14120.0	8.00	50.3	310	N 50 W	66	17.9	118	S 62 E
14130.0	8.00	36.3	333	N 27 W	54	17.9	117	S 63 E
14132.0	8.00	9.4	47	N 47 E	84	18.0	117	S 63 E
14134.0	8.00	43.8	279	N 81 W	49	17.9	118	S 62 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
14136.0	8.00	43.1	337 N 23 W	62	17.9	117 S 63 E
14138.0	8.00	47.0	277 N 83 W	84	18.0	117 S 63 E
14140.0	8.00	51.7	276 N 84 W	61	18.0	118 S 62 E
14144.0	8.00	35.5	277 N 83 W	62	18.0	117 S 63 E
14146.0	8.00	50.4	301 N 59 W	42	17.9	118 S 62 E
14154.0	8.00	26.7	214 S 34 W	37	18.2	116 S 64 E
14156.0	8.00	10.0	70 N 70 E	69	18.0	118 S 62 E
14158.0	8.00	10.5	70 N 70 E	50	18.1	117 S 63 E
14160.0	8.00	45.0	275 N 85 W	100	18.1	118 S 62 E
14172.0	8.00	36.2	278 N 82 W	18	18.1	118 S 62 E
14174.0	8.00	26.8	349 N 11 W	29	18.1	118 S 62 E
14176.0	8.00	14.0	53 N 53 E	26	18.2	117 S 63 E
14178.0	8.00	32.8	292 N 68 W	45	18.3	119 S 61 E
14180.0	8.00	33.1	291 N 69 W	41	18.2	117 S 63 E
14186.0	8.00	38.5	338 N 22 W	74	18.2	119 S 61 E
14188.0	8.00	39.0	332 N 28 W	43	18.2	119 S 61 E
14190.0	8.00	28.7	336 N 24 W	54	18.1	117 S 63 E
14192.0	8.00	46.2	330 N 30 W	61	18.1	118 S 62 E
14194.0	8.00	50.0	271 N 89 W	7	18.1	117 S 63 E
14196.0	8.00	40.4	331 N 29 W	46	18.1	118 S 62 E
14198.0	8.00	41.3	269 S 89 W	85	18.1	117 S 63 E
14200.0	8.00	41.5	270 N 90 W	77	18.2	119 S 61 E
14202.0	8.00	41.1	269 S 89 W	100	18.1	117 S 63 E
14204.0	8.00	41.6	270 N 90 W	100	18.2	119 S 61 E
14206.0	8.00	32.9	253 S 73 W	100	18.2	118 S 62 E
14208.0	8.00	32.5	253 S 73 W	100	18.2	119 S 61 E
14210.0	8.00	28.0	249 S 69 W	61	18.2	117 S 63 E
14212.0	8.00	37.9	276 N 84 W	75	18.2	119 S 61 E
14214.0	8.00	38.9	282 N 78 W	100	18.2	117 S 63 E
14216.0	8.00	37.0	284 N 76 W	98	18.3	119 S 61 E
14218.0	8.00	39.5	282 N 78 W	100	18.2	119 S 61 E
14220.0	8.00	46.7	280 N 80 W	69	18.2	119 S 61 E
14222.0	8.00	43.1	284 N 76 W	100	18.2	119 S 61 E
14224.0	8.00	43.1	285 N 75 W	100	18.2	119 S 61 E
14226.0	8.00	37.6	276 N 84 W	88	18.2	119 S 61 E
14228.0	8.00	37.9	278 N 82 W	99	18.3	118 S 62 E
14230.0	8.00	37.4	280 N 80 W	88	18.4	119 S 61 E
14232.0	8.00	40.4	283 N 77 W	80	18.4	117 S 63 E
14234.0	8.00	37.1	323 N 37 W	84	18.4	121 S 59 E
14236.0	8.00	40.3	283 N 77 W	85	18.1	116 S 64 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
14238.0	8.00	38.9	277 N 83 W	91	18.2	118 S 62 E
14240.0	8.00	38.9	275 N 85 W	100	18.2	117 S 63 E
14242.0	8.00	38.0	275 N 85 W	100	18.3	118 S 62 E
14244.0	8.00	38.3	275 N 85 W	100	18.3	117 S 63 E
14246.0	8.00	37.0	276 N 84 W	100	18.3	117 S 63 E
14248.0	8.00	37.3	278 N 82 W	100	18.2	116 S 64 E
14250.0	8.00	46.2	279 N 81 W	98	18.2	119 S 61 E
14252.0	8.00	45.5	281 N 79 W	100	18.2	117 S 63 E
14254.0	8.00	45.4	281 N 79 W	85	18.4	118 S 62 E
14256.0	8.00	47.3	283 N 77 W	70	18.3	118 S 62 E
14258.0	8.00	43.3	285 N 75 W	67	18.3	118 S 62 E
14262.0	8.00	50.8	287 N 73 W	57	18.3	119 S 61 E
14264.0	8.00	52.0	281 N 79 W	82	18.2	119 S 61 E
14266.0	8.00	52.0	282 N 78 W	68	18.3	120 S 60 E
14268.0	8.00	43.9	285 N 75 W	87	18.2	119 S 61 E
14270.0	8.00	44.4	285 N 75 W	100	18.3	119 S 61 E
14272.0	8.00	43.4	285 N 75 W	47	18.3	118 S 62 E
14274.0	8.00	46.9	286 N 74 W	70	18.3	118 S 62 E
14276.0	8.00	49.0	283 N 77 W	65	18.3	119 S 61 E
14278.0	8.00	49.9	289 N 71 W	33	18.2	118 S 62 E
14280.0	8.00	51.2	285 N 75 W	35	18.3	118 S 62 E
14282.0	8.00	52.6	278 N 82 W	23	18.2	118 S 62 E
14284.0	8.00	46.0	278 N 82 W	24	18.2	118 S 62 E
14286.0	8.00	41.8	315 N 45 W	59	18.4	118 S 62 E
14288.0	8.00	47.5	301 N 59 W	53	18.5	119 S 61 E
14292.0	8.00	49.3	290 N 70 W	75	18.4	119 S 61 E
14302.0	8.00	51.1	294 N 66 W	67	18.3	118 S 62 E
14304.0	8.00	19.9	240 S 60 W	65	18.4	118 S 62 E
14308.0	8.00	44.5	298 N 62 W	51	18.4	119 S 61 E
14310.0	8.00	49.1	293 N 67 W	68	18.4	119 S 61 E
14312.0	8.00	22.4	222 S 42 W	81	18.4	118 S 62 E
14314.0	8.00	52.3	289 N 71 W	100	18.3	118 S 62 E
14316.0	8.00	47.0	282 N 78 W	72	18.3	119 S 61 E
14318.0	8.00	25.2	189 S 9 W	57	18.4	119 S 61 E
14320.0	8.00	25.3	188 S 8 W	56	18.4	120 S 60 E
14324.0	8.00	29.5	195 S 15 W	26	18.5	120 S 60 E
14326.0	8.00	24.5	26 N 26 E	70	18.5	120 S 60 E
14328.0	8.00	26.0	218 S 38 W	62	18.6	120 S 60 E
14330.0	8.00	25.7	217 S 37 W	55	18.5	119 S 61 E
14334.0	8.00	52.0	286 N 74 W	25	18.4	120 S 60 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
14336.0	8.00	36.1	324 N 36 W	33	18.4	121 S 59 E
14344.0	8.00	12.4	77 N 77 E	72	18.5	120 S 60 E
14346.0	8.00	15.9	73 N 73 E	54	18.4	120 S 60 E
14358.0	8.00	38.5	325 N 35 W	48	18.5	120 S 60 E
14362.0	8.00	25.7	229 S 49 W	35	18.5	119 S 61 E
14364.0	8.00	26.6	342 N 18 W	12	18.5	119 S 61 E
14366.0	8.00	54.6	295 N 65 W	22	18.6	119 S 61 E
14372.0	8.00	37.0	324 N 36 W	22	18.6	118 S 62 E
14374.0	8.00	36.7	308 N 52 W	29	18.5	119 S 61 E
14376.0	8.00	22.7	301 N 59 W	40	18.6	119 S 61 E
14382.0	8.00	27.7	204 S 24 W	72	18.6	119 S 61 E
14384.0	8.00	24.0	221 S 41 W	70	18.6	119 S 61 E
14386.0	8.00	49.7	285 N 75 W	55	18.6	119 S 61 E
14390.0	8.00	53.7	294 N 66 W	66	18.8	120 S 60 E
14392.0	8.00	46.6	300 N 60 W	91	18.7	119 S 61 E
14394.0	8.00	23.1	185 S 5 W	69	18.8	119 S 61 E
14396.0	8.00	29.2	221 S 41 W	97	18.8	119 S 61 E
14398.0	8.00	31.6	225 S 45 W	52	18.8	119 S 61 E
14400.0	8.00	23.0	2 N 2 E	99	18.8	119 S 61 E
14402.0	8.00	34.4	201 S 21 W	100	18.8	119 S 61 E
14404.0	8.00	34.5	203 S 23 W	76	18.8	119 S 61 E
14406.0	8.00	31.8	209 S 29 W	95	18.8	119 S 61 E
14408.0	8.00	50.1	282 N 78 W	69	18.8	119 S 61 E
14410.0	8.00	50.2	283 N 77 W	90	18.9	119 S 61 E
14412.0	8.00	49.4	286 N 74 W	72	18.9	119 S 61 E
14414.0	8.00	38.7	262 S 82 W	100	19.0	119 S 61 E
14416.0	8.00	44.5	263 S 83 W	100	18.9	119 S 61 E
14418.0	8.00	16.7	256 S 76 W	98	19.0	119 S 61 E
14420.0	8.00	33.5	307 N 53 W	100	19.0	119 S 61 E
14422.0	8.00	33.6	307 N 53 W	100	19.0	119 S 61 E
14424.0	8.00	11.3	284 N 76 W	68	19.0	119 S 61 E
14426.0	8.00	17.0	291 N 69 W	58	18.9	119 S 61 E
14428.0	8.00	22.4	266 S 86 W	75	19.0	119 S 61 E
14430.0	8.00	48.2	276 N 84 W	68	19.0	119 S 61 E
14432.0	8.00	46.8	279 N 81 W	30	19.0	118 S 62 E
14434.0	8.00	13.7	174 S 6 E	23	19.0	119 S 61 E
14438.0	8.00	54.6	277 N 83 W	47	19.1	119 S 61 E
14446.0	8.00	42.9	323 N 37 W	33	19.1	120 S 60 E
14448.0	8.00	24.6	332 N 28 W	100	19.0	119 S 61 E
14450.0	8.00	25.9	298 N 62 W	100	19.1	118 S 62 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
14452.0	8.00	20.7	342	N 18 W	100	19.0	119	S 61 E
14456.0	8.00	26.6	304	N 56 W	87	19.2	118	S 62 E
14458.0	8.00	39.6	287	N 73 W	43	19.2	118	S 62 E
14460.0	8.00	39.7	292	N 68 W	100	19.1	121	S 59 E
14462.0	8.00	41.2	290	N 70 W	100	19.1	120	S 60 E
14464.0	8.00	43.3	291	N 69 W	100	19.1	119	S 61 E
14466.0	8.00	42.3	291	N 69 W	100	19.0	119	S 61 E
14468.0	8.00	31.4	283	N 77 W	100	19.0	120	S 60 E
14470.0	8.00	31.3	283	N 77 W	85	19.1	120	S 60 E
14472.0	8.00	42.5	295	N 65 W	34	19.0	120	S 60 E
14474.0	8.00	34.2	246	S 66 W	45	19.0	121	S 59 E
14476.0	8.00	37.4	269	S 89 W	20	19.0	121	S 59 E
14488.0	8.00	20.7	354	N 6 W	27	19.0	119	S 61 E
14490.0	8.00	13.5	352	N 8 W	45	19.0	120	S 60 E
14498.0	8.00	23.4	207	S 27 W	52	19.2	118	S 62 E
14500.0	8.00	7.0	275	N 85 W	23	19.2	118	S 62 E
14506.0	8.00	12.9	178	S 2 E	78	19.2	119	S 61 E
14514.0	8.00	8.2	183	S 3 W	31	19.2	119	S 61 E
14518.0	8.00	15.7	192	S 12 W	16	19.2	119	S 61 E
14520.0	8.00	15.1	171	S 9 E	12	19.2	119	S 61 E
14522.0	8.00	32.3	1	N 1 E	3	19.2	119	S 61 E
14524.0	8.00	45.9	321	N 39 W	10	19.2	119	S 61 E
14536.0	8.00	43.1	305	N 55 W	5	19.3	119	S 61 E
14538.0	8.00	41.2	304	N 56 W	40	19.3	120	S 60 E
14540.0	8.00	34.1	320	N 40 W	28	19.3	119	S 61 E
14542.0	8.00	27.7	306	N 54 W	76	19.2	120	S 60 E
14546.0	8.00	21.9	223	S 43 W	24	19.4	120	S 60 E
14548.0	8.00	20.8	58	N 58 E	46	19.4	120	S 60 E
14550.0	8.00	35.1	198	S 18 W	26	19.5	120	S 60 E
14552.0	8.00	19.6	57	N 57 E	54	19.4	121	S 59 E
14558.0	8.00	7.5	246	S 66 W	56	19.4	120	S 60 E
14562.0	8.00	20.5	301	N 59 W	100	19.3	121	S 59 E
14564.0	8.00	21.2	319	N 41 W	100	19.4	120	S 60 E
14566.0	8.00	20.6	301	N 59 W	100	19.4	121	S 59 E
14568.0	8.00	20.5	300	N 60 W	100	19.4	120	S 60 E
14570.0	8.00	20.6	300	N 60 W	89	19.4	120	S 60 E
14572.0	8.00	20.6	299	N 61 W	93	19.4	119	S 61 E
14574.0	8.00	20.7	299	N 61 W	71	19.5	119	S 61 E
14576.0	8.00	51.5	278	N 82 W	35	19.5	120	S 60 E
14578.0	8.00	36.2	244	S 64 W	29	19.4	119	S 61 E

PROGRESS

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
14580.0	8.00	14.7	239 S 59 W	43	19.5	120 S 60 E
14584.0	8.00	10.8	179 S 1 E	33	19.4	120 S 60 E
14590.0	8.00	21.7	352 N 8 W	61	19.5	120 S 60 E
14594.0	8.00	40.6	312 N 48 W	42	19.5	120 S 60 E
14596.0	8.00	14.8	156 S 24 E	61	19.5	119 S 61 E
14600.0	8.00	39.4	262 S 82 W	46	19.6	120 S 60 E
14602.0	8.00	9.1	98 S 82 E	61	19.6	120 S 60 E
14604.0	8.00	7.4	246 S 66 W	71	19.5	119 S 61 E
14606.0	8.00	7.5	247 S 67 W	72	19.5	120 S 60 E
14612.0	8.00	33.7	309 N 51 W	62	19.7	120 S 60 E
14614.0	8.00	36.6	296 N 64 W	68	19.6	121 S 59 E
14616.0	8.00	43.9	301 N 59 W	36	19.6	120 S 60 E
14620.0	8.00	43.7	301 N 59 W	52	19.5	119 S 61 E
14626.0	8.00	42.0	262 S 82 W	47	19.6	119 S 61 E
14628.0	8.00	33.6	307 N 53 W	42	19.7	119 S 61 E
14630.0	8.00	30.7	220 S 40 W	50	19.7	119 S 61 E
14632.0	8.00	14.0	181 S 1 W	42	19.7	120 S 60 E
14636.0	8.00	13.4	192 S 12 W	70	19.6	120 S 60 E
14638.0	8.00	37.8	313 N 47 W	65	19.7	122 S 58 E
14644.0	8.00	33.1	285 N 75 W	81	19.6	120 S 60 E
14646.0	8.00	32.1	326 N 34 W	39	19.6	120 S 60 E
14648.0	8.00	35.6	233 S 53 W	25	19.5	119 S 61 E
14650.0	8.00	35.4	234 S 54 W	20	19.5	120 S 60 E
14652.0	8.00	35.6	234 S 54 W	21	19.6	120 S 60 E
14656.0	8.00	13.8	158 S 22 E	32	19.6	120 S 60 E
14660.0	8.00	46.0	311 N 49 W	3	19.7	119 S 61 E
14664.0	8.00	37.3	280 N 80 W	20	19.6	120 S 60 E
14666.0	8.00	40.9	340 N 20 W	24	19.7	121 S 59 E
14670.0	8.00	6.1	42 N 42 E	27	19.7	120 S 60 E
14672.0	8.00	32.5	342 N 18 W	40	19.7	121 S 59 E
14676.0	8.00	34.9	341 N 19 W	26	19.7	121 S 59 E
14678.0	8.00	30.2	313 N 47 W	39	19.7	120 S 60 E
14680.0	8.00	29.4	316 N 44 W	35	19.8	121 S 59 E
14682.0	8.00	38.7	305 N 55 W	13	19.9	121 S 59 E
14684.0	8.00	12.4	256 S 76 W	39	19.8	120 S 60 E
14686.0	8.00	35.9	297 N 63 W	25	19.7	119 S 61 E
14688.0	8.00	37.8	300 N 60 W	15	19.7	119 S 61 E
14690.0	8.00	23.9	264 S 84 W	49	19.7	120 S 60 E
14694.0	8.00	27.2	213 S 33 W	38	19.7	120 S 60 E
14696.0	8.00	20.2	196 S 16 W	66	19.9	119 S 61 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
14698.0	8.00	33.3	262	S 82 W	17	19.7	119	S 61 E
14700.0	8.00	35.7	263	S 83 W	30	19.8	120	S 60 E
14702.0	8.00	33.9	261	S 81 W	20	19.8	122	S 58 E
14704.0	8.00	31.3	252	S 72 W	46	19.9	121	S 59 E
14706.0	8.00	31.8	252	S 72 W	47	19.9	120	S 60 E
14708.0	8.00	33.8	232	S 52 W	15	19.9	121	S 59 E
14712.0	8.00	35.5	234	S 54 W	42	19.9	121	S 59 E
14714.0	8.00	34.7	235	S 55 W	45	20.0	119	S 61 E
14718.0	8.00	11.8	274	N 86 W	28	19.9	119	S 61 E
14720.0	8.00	26.7	0	N 0 E	15	20.0	118	S 62 E
14722.0	8.00	30.5	9	N 9 E	73	20.1	118	S 62 E
14724.0	8.00	41.4	321	N 39 W	68	20.1	120	S 60 E
14726.0	8.00	39.9	311	N 49 W	58	19.9	115	S 65 E
14728.0	8.00	43.7	311	N 49 W	68	19.6	116	S 64 E
14730.0	8.00	11.0	192	S 12 W	80	20.4	124	S 56 E
14732.0	8.00	10.9	183	S 3 W	100	19.6	122	S 58 E
14734.0	8.00	8.3	184	S 4 W	89	20.8	134	S 46 E
14736.0	8.00	28.2	309	N 51 W	100	16.6	108	S 72 E
14738.0	8.00	29.7	308	N 52 W	97	18.0	109	S 71 E
14740.0	8.00	34.4	249	S 69 W	77	19.4	123	S 57 E
14744.0	8.00	41.2	193	S 13 W	62	20.1	115	S 65 E
14746.0	8.00	47.5	290	N 70 W	21	20.6	126	S 54 E
14748.0	8.00	39.4	192	S 12 W	52	20.2	121	S 59 E
14750.0	8.00	36.4	201	S 21 W	44	20.3	123	S 57 E
14752.0	8.00	23.6	208	S 28 W	67	20.4	125	S 55 E
14754.0	8.00	32.4	187	S 7 W	49	19.7	118	S 62 E
14756.0	8.00	31.5	8	N 8 E	51	19.5	119	S 61 E
14758.0	8.00	25.9	312	N 48 W	85	19.6	129	S 51 E
14764.0	8.00	28.1	264	S 84 W	63	20.2	123	S 57 E
14766.0	8.00	29.0	262	S 82 W	55	20.4	119	S 61 E
14768.0	8.00	12.0	102	S 78 E	50	20.5	122	S 58 E
14770.0	8.00	18.0	227	S 47 W	47	20.4	123	S 57 E
14772.0	8.00	17.7	227	S 47 W	23	20.5	123	S 57 E
14774.0	8.00	25.1	241	S 61 W	50	20.4	123	S 57 E
14778.0	8.00	32.0	239	S 59 W	68	20.4	124	S 56 E
14780.0	8.00	33.7	251	S 71 W	67	20.3	125	S 55 E
14790.0	8.00	37.5	290	N 70 W	46	20.6	123	S 57 E
14794.0	8.00	12.1	216	S 36 W	39	20.4	124	S 56 E
14796.0	8.00	34.1	296	N 64 W	15	20.5	124	S 56 E
14798.0	8.00	8.9	155	S 25 E	57	20.6	124	S 56 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
14800.0	8.00	34.5	355 N 5 W	12	20.6	124 S 56 E
14804.0	8.00	33.5	233 S 53 W	10	20.7	124 S 56 E
14806.0	8.00	11.1	332 N 28 W	26	20.7	125 S 55 E
14808.0	8.00	2.3	92 S 88 E	41	20.7	125 S 55 E
14810.0	8.00	39.1	248 S 68 W	8	20.7	122 S 58 E
14816.0	8.00	35.8	325 N 35 W	21	20.7	123 S 57 E
14818.0	8.00	55.3	327 N 33 W	7	21.0	124 S 56 E
14826.0	8.00	10.4	313 N 47 W	72	20.6	123 S 57 E
14828.0	8.00	6.4	182 S 2 W	16	20.5	123 S 57 E
14832.0	8.00	18.3	265 S 85 W	41	20.6	121 S 59 E
14834.0	8.00	52.8	278 N 82 W	68	20.7	123 S 57 E
14836.0	8.00	49.7	274 N 86 W	93	20.5	123 S 57 E
14838.0	8.00	29.9	2 N 2 E	38	20.4	122 S 58 E
14840.0	8.00	18.0	218 S 38 W	63	20.4	127 S 53 E
14842.0	8.00	25.8	214 S 34 W	60	21.2	119 S 61 E
14844.0	8.00	45.0	290 N 70 W	38	20.9	123 S 57 E
14852.0	8.00	19.5	233 S 53 W	37	21.0	123 S 57 E
14854.0	8.00	13.8	220 S 40 W	53	21.0	125 S 55 E
14858.0	8.00	36.0	346 N 14 W	44	21.0	123 S 57 E
14860.0	8.00	38.3	358 N 2 W	30	21.0	126 S 54 E
14868.0	8.00	38.6	297 N 63 W	38	20.9	126 S 54 E
14872.0	8.00	10.6	186 S 6 W	69	21.0	124 S 56 E
14874.0	8.00	0.9	0 N 0 E	29	21.0	124 S 56 E
14876.0	8.00	28.0	325 N 35 W	94	20.9	124 S 56 E
14878.0	8.00	38.0	308 N 52 W	61	21.0	125 S 55 E
14880.0	8.00	42.7	303 N 57 W	77	21.0	124 S 56 E
14882.0	8.00	35.3	311 N 49 W	55	21.1	124 S 56 E
14884.0	8.00	45.9	348 N 12 W	39	21.1	124 S 56 E
14886.0	8.00	10.8	169 S 11 E	46	21.1	125 S 55 E
14888.0	8.00	15.2	55 N 55 E	51	21.2	125 S 55 E
14890.0	8.00	17.1	31 N 31 E	51	21.1	124 S 56 E
14892.0	8.00	37.3	290 N 70 W	83	21.1	125 S 55 E
14894.0	8.00	40.7	301 N 59 W	77	21.0	125 S 55 E
14896.0	8.00	39.0	296 N 64 W	70	21.2	126 S 54 E
14898.0	8.00	38.8	300 N 60 W	100	21.1	124 S 56 E
14900.0	8.00	22.4	304 N 56 W	100	21.0	124 S 56 E
14904.0	8.00	14.9	294 N 66 W	81	21.0	125 S 55 E
14906.0	8.00	17.4	299 N 61 W	52	21.1	126 S 54 E
14908.0	8.00	17.6	295 N 65 W	48	20.9	122 S 58 E
14916.0	8.00	10.6	156 S 24 E	39	20.8	124 S 56 E

MARATHON OIL COMPANY
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
14918.0	8.00	10.5	147	S 33 E	29	20.9	123	S 57 E
14922.0	8.00	39.7	298	N 62 W	13	20.6	128	S 52 E
14924.0	8.00	44.1	301	N 59 W	19	20.2	121	S 59 E
14926.0	8.00	11.1	216	S 36 W	35	19.7	130	S 50 E
14930.0	8.00	46.4	313	N 47 W	87	20.0	128	S 52 E
14932.0	8.00	8.5	163	S 17 E	36	20.9	122	S 58 E
14936.0	8.00	53.5	332	N 28 W	76	21.1	125	S 55 E
14938.0	8.00	23.5	248	S 68 W	14	20.9	121	S 59 E
14942.0	8.00	51.0	307	N 53 W	26	20.9	119	S 61 E
14944.0	8.00	11.1	218	S 38 W	55	21.0	123	S 57 E
14946.0	8.00	32.0	285	N 75 W	45	21.1	122	S 58 E
14954.0	8.00	49.1	346	N 14 W	3	20.9	123	S 57 E
14956.0	8.00	43.1	324	N 36 W	23	21.0	124	S 56 E
14958.0	8.00	47.2	327	N 33 W	10	20.9	122	S 58 E
14960.0	8.00	7.2	189	S 9 W	12	20.9	124	S 56 E
14962.0	8.00	41.8	315	N 45 W	18	20.7	121	S 59 E
14964.0	8.00	48.8	314	N 46 W	17	20.6	118	S 62 E
14966.0	8.00	36.7	303	N 57 W	36	20.7	124	S 56 E
14968.0	8.00	49.4	305	N 55 W	42	20.4	121	S 59 E
14970.0	8.00	38.1	319	N 41 W	53	20.1	127	S 53 E
14972.0	8.00	45.5	323	N 37 W	54	19.9	117	S 63 E
14976.0	8.00	35.4	299	N 61 W	52	18.8	113	S 67 E
14978.0	8.00	38.7	318	N 42 W	58	19.6	130	S 50 E
14984.0	8.00	39.4	293	N 67 W	22	20.2	120	S 60 E
14986.0	8.00	40.7	298	N 62 W	29	20.0	117	S 63 E
14988.0	8.00	35.4	291	N 69 W	28	20.2	126	S 54 E
14992.0	8.00	35.6	324	N 36 W	46	20.9	124	S 56 E
14994.0	8.00	19.2	334	N 26 W	77	20.8	123	S 57 E
14996.0	8.00	22.7	340	N 20 W	83	20.7	124	S 56 E
14998.0	8.00	26.4	340	N 20 W	76	20.5	120	S 60 E
15000.0	8.00	29.1	343	N 17 W	22	20.5	124	S 56 E
15006.0	8.00	28.6	321	N 39 W	17	20.7	123	S 57 E
15008.0	8.00	21.6	318	N 42 W	15	20.5	123	S 57 E
15010.0	8.00	20.3	272	N 88 W	52	20.5	123	S 57 E
15012.0	8.00	53.3	307	N 53 W	36	20.5	122	S 58 E
15014.0	8.00	46.8	340	N 20 W	55	20.5	123	S 57 E
15016.0	8.00	53.1	307	N 53 W	35	20.4	122	S 58 E
15018.0	8.00	9.1	209	S 29 W	36	20.5	122	S 58 E
15020.0	8.00	22.2	47	N 47 E	27	20.5	122	S 58 E
15024.0	8.00	14.8	199	S 19 W	11	20.7	122	S 58 E

Prosser/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15030.0	8.00	47.0	308	N 52 W	49	20.6	123	S 57 E
15032.0	8.00	12.4	331	N 29 W	81	20.6	123	S 57 E
15036.0	8.00	18.6	345	N 15 W	22	20.7	123	S 57 E
15038.0	8.00	10.2	1	N 1 E	58	20.7	123	S 57 E
15040.0	8.00	18.5	68	N 68 E	54	21.0	119	S 61 E
15042.0	8.00	16.6	93	S 87 E	29	20.8	119	S 61 E
15048.0	8.00	46.5	266	S 86 W	55	20.7	115	S 65 E
15050.0	8.00	44.5	266	S 86 W	51	20.7	120	S 60 E
15064.0	8.00	55.1	293	N 67 W	24	21.0	122	S 58 E
15068.0	8.00	30.7	216	S 36 W	9	21.1	128	S 52 E
15074.0	8.00	52.0	292	N 68 W	17	20.8	124	S 56 E
15080.0	8.00	8.3	227	S 47 W	53	20.5	124	S 56 E
15082.0	8.00	3.7	262	S 82 W	27	20.7	124	S 56 E
15084.0	8.00	10.2	188	S 8 W	27	20.5	118	S 62 E
15086.0	8.00	20.6	43	N 43 E	52	20.9	124	S 56 E
15088.0	8.00	12.4	283	N 77 W	45	20.9	123	S 57 E
15090.0	8.00	26.0	249	S 69 W	25	20.9	121	S 59 E
15094.0	8.00	33.1	312	N 48 W	61	20.3	122	S 58 E
15108.0	8.00	32.0	267	S 87 W	46	20.9	114	S 66 E
15110.0	8.00	35.8	231	S 51 W	63	20.8	114	S 66 E
15112.0	8.00	32.7	233	S 53 W	69	20.7	124	S 56 E
15114.0	8.00	64.7	338	N 22 W	50	20.7	124	S 56 E
15118.0	8.00	32.8	282	N 78 W	95	21.0	121	S 59 E
15120.0	8.00	34.3	281	N 79 W	85	20.8	121	S 59 E
15122.0	8.00	35.7	283	N 77 W	100	20.8	127	S 53 E
15124.0	8.00	36.6	281	N 79 W	95	21.2	124	S 56 E
15126.0	8.00	41.1	303	N 57 W	100	21.3	124	S 56 E
15128.0	8.00	40.8	304	N 56 W	99	21.2	124	S 56 E
15130.0	8.00	19.3	40	N 40 E	51	21.0	123	S 57 E
15132.0	8.00	34.9	309	N 51 W	91	21.0	123	S 57 E
15134.0	8.00	35.1	310	N 50 W	100	20.8	124	S 56 E
15138.0	8.00	27.2	305	N 55 W	100	20.9	121	S 59 E
15140.0	8.00	29.1	222	S 42 W	92	20.9	123	S 57 E
15142.0	8.00	22.3	300	N 60 W	78	20.9	121	S 59 E
15144.0	8.00	5.5	201	S 21 W	100	20.7	129	S 51 E
15146.0	8.00	24.6	24	N 24 E	73	21.0	123	S 57 E
15150.0	8.00	20.7	39	N 39 E	47	21.0	124	S 56 E
15156.0	8.00	31.3	310	N 50 W	25	21.0	122	S 58 E
15160.0	8.00	49.7	313	N 47 W	28	21.0	125	S 55 E
15162.0	8.00	50.1	314	N 46 W	25	20.9	130	S 50 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
15164.0	8.00	50.2	314 N 46 W	29	21.0	123 S 57 E
15166.0	8.00	49.8	313 N 47 W	38	21.0	120 S 60 E
15168.0	8.00	37.6	306 N 54 W	83	20.9	122 S 58 E
15172.0	8.00	45.6	274 N 86 W	57	20.8	123 S 57 E
15178.0	8.00	40.2	288 N 72 W	58	20.7	120 S 60 E
15180.0	8.00	40.7	290 N 70 W	72	20.7	123 S 57 E
15182.0	8.00	38.4	286 N 74 W	6	20.9	123 S 57 E
15184.0	8.00	40.2	288 N 72 W	100	20.8	123 S 57 E
15186.0	8.00	39.1	285 N 75 W	73	20.8	122 S 58 E
15188.0	8.00	38.6	287 N 73 W	78	20.8	123 S 57 E
15190.0	8.00	38.2	288 N 72 W	52	20.7	124 S 56 E
15192.0	8.00	47.7	310 N 50 W	10	20.8	120 S 60 E
15194.0	8.00	45.3	310 N 50 W	28	20.7	122 S 58 E
15198.0	8.00	50.4	330 N 30 W	9	20.6	122 S 58 E
15200.0	8.00	36.0	205 S 25 W	39	20.6	122 S 58 E
15202.0	8.00	35.0	205 S 25 W	30	20.7	126 S 54 E
15204.0	8.00	35.9	206 S 26 W	31	20.5	122 S 58 E
15208.0	8.00	17.0	348 N 12 W	34	20.5	123 S 57 E
15210.0	8.00	42.3	304 N 56 W	20	20.3	124 S 56 E
15212.0	8.00	40.4	297 N 63 W	50	20.1	119 S 61 E
15214.0	8.00	41.4	301 N 59 W	53	20.2	127 S 53 E
15216.0	8.00	40.9	296 N 64 W	59	20.4	119 S 61 E
15218.0	8.00	40.8	299 N 61 W	59	20.6	124 S 56 E
15224.0	8.00	40.1	300 N 60 W	28	20.5	122 S 58 E
15228.0	8.00	40.9	299 N 61 W	60	20.5	123 S 57 E
15230.0	8.00	42.1	343 N 17 W	24	20.4	122 S 58 E
15232.0	8.00	29.6	309 N 51 W	18	20.4	124 S 56 E
15234.0	8.00	41.6	310 N 50 W	26	20.4	121 S 59 E
15236.0	8.00	29.8	297 N 63 W	57	20.4	124 S 56 E
15238.0	8.00	32.2	299 N 61 W	95	20.3	125 S 55 E
15240.0	8.00	34.5	296 N 64 W	84	20.3	123 S 57 E
15242.0	8.00	34.9	295 N 65 W	82	20.3	124 S 56 E
15244.0	8.00	32.8	298 N 62 W	52	20.4	123 S 57 E
15246.0	8.00	34.8	310 N 50 W	40	20.4	124 S 56 E
15248.0	8.00	34.7	310 N 50 W	34	20.5	123 S 57 E
15252.0	8.00	34.6	310 N 50 W	15	20.4	123 S 57 E
15256.0	8.00	35.1	354 N 6 W	13	20.3	125 S 55 E
15258.0	8.00	26.9	303 N 57 W	29	20.4	126 S 54 E
15260.0	8.00	31.2	356 N 4 W	54	20.4	123 S 57 E
15262.0	8.00	32.1	349 N 11 W	46	20.3	124 S 56 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
15264.0	8.00	42.1	264 S 84 W	20	20.2	116 S 64 E
15266.0	8.00	41.4	270 N 90 W	77	20.3	120 S 60 E
15268.0	8.00	40.2	265 S 85 W	57	20.4	116 S 64 E
15270.0	8.00	39.9	265 S 85 W	41	20.4	121 S 59 E
15272.0	8.00	38.3	272 N 88 W	53	20.3	120 S 60 E
15276.0	8.00	18.8	244 S 64 W	35	20.4	119 S 61 E
15278.0	8.00	34.2	308 N 52 W	100	20.4	120 S 60 E
15280.0	8.00	33.4	308 N 52 W	71	20.5	120 S 60 E
15282.0	8.00	34.0	308 N 52 W	100	20.5	119 S 61 E
15286.0	8.00	36.0	299 N 61 W	25	20.2	121 S 59 E
15288.0	8.00	23.7	325 N 35 W	53	20.5	121 S 59 E
15290.0	8.00	26.5	278 N 82 W	80	20.2	122 S 58 E
15292.0	8.00	27.3	325 N 35 W	95	20.2	123 S 57 E
15294.0	8.00	26.0	276 N 84 W	77	20.1	125 S 55 E
15296.0	8.00	36.1	310 N 50 W	71	20.2	121 S 59 E
15300.0	8.00	30.9	347 N 13 W	26	20.5	126 S 54 E
15310.0	8.00	48.2	311 N 49 W	28	20.7	129 S 51 E
15312.0	8.00	40.4	313 N 47 W	42	20.6	119 S 61 E
15314.0	8.00	43.9	288 N 72 W	30	20.8	120 S 60 E
15316.0	8.00	44.7	300 N 60 W	26	20.7	121 S 59 E
15318.0	8.00	38.5	297 N 63 W	7	20.7	121 S 59 E
15320.0	8.00	39.3	277 N 83 W	18	20.5	121 S 59 E
15322.0	8.00	18.7	208 S 28 W	60	20.7	123 S 57 E
15324.0	8.00	34.2	283 N 77 W	89	20.7	122 S 58 E
15326.0	8.00	41.5	291 N 69 W	100	20.7	123 S 57 E
15328.0	8.00	38.2	292 N 68 W	94	20.5	127 S 53 E
15330.0	8.00	37.9	284 N 76 W	51	20.6	125 S 55 E
15332.0	8.00	16.3	215 S 35 W	60	20.8	124 S 56 E
15334.0	8.00	20.4	286 N 74 W	100	20.5	123 S 57 E
15336.0	8.00	19.2	290 N 70 W	100	20.7	127 S 53 E
15340.0	8.00	42.5	312 N 48 W	58	20.5	124 S 56 E
15342.0	8.00	39.6	309 N 51 W	53	20.5	122 S 58 E
15348.0	8.00	29.4	37 N 37 E	62	20.4	127 S 53 E
15350.0	8.00	43.9	306 N 54 W	13	20.4	126 S 54 E
15354.0	8.00	37.4	324 N 36 W	48	20.7	124 S 56 E
15358.0	8.00	36.3	311 N 49 W	24	20.8	123 S 57 E
15364.0	8.00	39.6	288 N 72 W	89	20.7	118 S 62 E
15366.0	8.00	47.5	287 N 73 W	100	20.8	119 S 61 E
15368.0	8.00	48.9	288 N 72 W	74	20.8	124 S 56 E
15370.0	8.00	41.6	300 N 60 W	72	20.7	121 S 59 E

MARATHON OIL COMPANY
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WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15372.0	8.00	36.6	342	N 18 W	89	20.7	120	S 60 E
15374.0	8.00	21.1	351	N 9 W	31	20.5	116	S 64 E
15376.0	8.00	26.4	350	N 10 W	15	20.7	126	S 54 E
15384.0	8.00	40.1	332	N 28 W	41	20.7	124	S 56 E
15386.0	8.00	36.2	343	N 17 W	53	20.6	114	S 66 E
15388.0	8.00	53.8	268	S 88 W	47	20.7	120	S 60 E
15392.0	8.00	56.5	300	N 60 W	23	20.4	120	S 60 E
15400.0	8.00	40.7	304	N 56 W	38	20.2	117	S 63 E
15402.0	8.00	46.4	302	N 58 W	73	20.8	119	S 61 E
15408.0	8.00	52.9	327	N 33 W	33	20.6	118	S 62 E
15410.0	8.00	19.7	319	N 41 W	65	20.7	120	S 60 E
15416.0	8.00	20.6	323	N 37 W	15	20.7	121	S 59 E
15420.0	8.00	29.5	238	S 58 W	52	20.5	112	S 68 E
15422.0	8.00	35.1	305	N 55 W	33	20.5	121	S 59 E
15426.0	8.00	43.2	314	N 46 W	63	20.2	124	S 56 E
15428.0	8.00	44.8	315	N 45 W	79	20.2	121	S 59 E
15430.0	8.00	38.8	300	N 60 W	68	20.7	119	S 61 E
15432.0	8.00	39.7	301	N 59 W	78	20.7	120	S 60 E
15434.0	8.00	31.2	345	N 15 W	43	20.6	123	S 57 E
15440.0	8.00	32.8	345	N 15 W	54	20.7	122	S 58 E
15442.0	8.00	32.4	284	N 76 W	31	20.7	124	S 56 E
15444.0	8.00	17.8	338	N 22 W	28	20.7	126	S 54 E
15446.0	8.00	38.8	324	N 36 W	31	20.7	121	S 59 E
15448.0	8.00	34.5	313	N 47 W	65	20.7	124	S 56 E
15450.0	8.00	15.3	331	N 29 W	59	20.5	119	S 61 E
15452.0	8.00	11.3	319	N 41 W	88	20.5	116	S 64 E
15454.0	8.00	13.6	333	N 27 W	45	20.5	122	S 58 E
15458.0	8.00	33.2	330	N 30 W	50	20.4	124	S 56 E
15460.0	8.00	34.6	321	N 39 W	91	20.1	119	S 61 E
15462.0	8.00	32.4	305	N 55 W	73	20.0	126	S 54 E
15464.0	8.00	31.7	300	N 60 W	75	19.9	117	S 63 E
15470.0	8.00	28.1	326	N 34 W	66	20.3	119	S 61 E
15472.0	8.00	37.6	276	N 84 W	73	20.6	116	S 64 E
15474.0	8.00	34.9	292	N 68 W	100	20.6	121	S 59 E
15476.0	8.00	33.4	296	N 64 W	100	20.6	122	S 58 E
15478.0	8.00	33.3	296	N 64 W	91	20.6	122	S 58 E
15480.0	8.00	32.9	299	N 61 W	94	20.4	124	S 56 E
15482.0	8.00	30.2	295	N 65 W	100	20.3	121	S 59 E
15484.0	8.00	29.7	293	N 67 W	70	20.3	121	S 59 E
15486.0	8.00	44.0	292	N 68 W	24	20.4	124	S 56 E

Pioneer/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
15490.0	8.00	41.1	287 N 73 W	63	20.3	124 S 56 E
15492.0	8.00	8.4	220 S 40 W	61	20.4	124 S 56 E
15494.0	8.00	29.6	297 N 63 W	100	20.2	116 S 64 E
15496.0	8.00	30.3	299 N 61 W	100	20.3	123 S 57 E
15498.0	8.00	28.1	251 S 71 W	32	20.1	121 S 59 E
15500.0	8.00	32.0	298 N 62 W	100	20.3	126 S 54 E
15502.0	8.00	32.0	296 N 64 W	100	20.2	123 S 57 E
15504.0	8.00	32.0	296 N 64 W	100	20.2	123 S 57 E
15506.0	8.00	32.3	297 N 63 W	100	20.3	124 S 56 E
15508.0	8.00	7.5	102 S 78 E	5	20.1	125 S 55 E
15514.0	8.00	36.4	286 N 74 W	27	20.2	125 S 55 E
15516.0	8.00	35.7	290 N 70 W	25	20.2	131 S 49 E
15518.0	8.00	36.9	334 N 26 W	5	20.1	125 S 55 E
15522.0	8.00	25.3	237 S 57 W	43	20.1	126 S 54 E
15524.0	8.00	33.9	271 N 89 W	47	20.0	125 S 55 E
15526.0	8.00	35.4	275 N 85 W	76	19.8	126 S 54 E
15528.0	8.00	44.6	346 N 14 W	11	19.7	123 S 57 E
15530.0	8.00	38.4	274 N 86 W	20	19.7	128 S 52 E
15532.0	8.00	53.6	343 N 17 W	39	20.1	124 S 56 E
15534.0	8.00	56.5	342 N 18 W	41	20.0	125 S 55 E
15536.0	8.00	56.2	344 N 16 W	22	20.1	126 S 54 E
15538.0	8.00	33.0	323 N 37 W	17	20.1	122 S 58 E
15544.0	8.00	41.9	278 N 82 W	20	20.1	121 S 59 E
15546.0	8.00	30.7	236 S 56 W	14	20.0	118 S 62 E
15548.0	8.00	25.8	242 S 62 W	39	20.0	121 S 59 E
15550.0	8.00	24.9	232 S 52 W	69	20.0	121 S 59 E
15554.0	8.00	28.5	1 N 1 E	34	20.0	119 S 61 E
15556.0	8.00	51.5	344 N 16 W	26	20.0	120 S 60 E
15572.0	8.00	35.7	352 N 8 W	8	20.0	125 S 55 E
15578.0	8.00	39.0	349 N 11 W	3	19.6	128 S 52 E
15580.0	8.00	23.3	261 S 81 W	26	19.8	125 S 55 E
15582.0	8.00	34.9	356 N 4 W	9	19.9	120 S 60 E
15590.0	8.00	12.6	283 N 77 W	25	20.1	121 S 59 E
15606.0	8.00	37.2	293 N 67 W	13	20.3	120 S 60 E
15608.0	8.00	42.3	299 N 61 W	46	20.3	121 S 59 E
15616.0	8.00	18.4	327 N 33 W	54	20.2	122 S 58 E
15620.0	8.00	42.2	308 N 52 W	38	20.4	120 S 60 E
15622.0	8.00	43.3	309 N 51 W	46	20.4	122 S 58 E
15624.0	8.00	46.9	280 N 80 W	18	20.3	123 S 57 E
15630.0	8.00	28.0	306 N 54 W	100	20.3	122 S 58 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15632.0	8.00	41.1	311	N 49 W	66	20.2	124	S 56 E
15634.0	8.00	41.1	305	N 55 W	100	20.2	123	S 57 E
15636.0	8.00	41.1	306	N 54 W	100	20.1	122	S 58 E
15638.0	8.00	40.6	307	N 53 W	98	20.2	124	S 56 E
15640.0	8.00	5.6	191	S 11 W	30	20.2	124	S 56 E
15642.0	8.00	21.1	359	N 1 W	73	20.2	123	S 57 E
15644.0	8.00	20.5	358	N 2 W	90	20.1	122	S 58 E
15648.0	8.00	35.6	292	N 68 W	30	20.1	123	S 57 E
15650.0	8.00	35.9	303	N 57 W	45	20.1	123	S 57 E
15652.0	8.00	38.2	313	N 47 W	15	20.0	123	S 57 E
15654.0	8.00	33.4	311	N 49 W	50	20.0	123	S 57 E
15656.0	8.00	40.3	301	N 59 W	93	19.9	121	S 59 E
15662.0	8.00	45.2	303	N 57 W	71	20.0	122	S 58 E
15664.0	8.00	18.4	208	S 28 W	62	19.9	123	S 57 E
15666.0	8.00	12.5	205	S 25 W	24	19.8	123	S 57 E
15668.0	8.00	15.0	227	S 47 W	35	19.8	124	S 56 E
15678.0	8.00	35.6	293	N 67 W	20	19.9	121	S 59 E
15682.0	8.00	39.4	302	N 58 W	62	19.8	121	S 59 E
15686.0	8.00	8.9	267	S 87 W	38	19.7	119	S 61 E
15688.0	8.00	29.2	214	S 34 W	8	19.8	123	S 57 E
15694.0	8.00	8.6	328	N 32 W	24	20.0	126	S 54 E
15698.0	8.00	33.7	0	N 0 E	32	19.8	121	S 59 E
15700.0	8.00	23.1	344	N 16 W	52	20.6	126	S 54 E
15702.0	8.00	27.2	260	S 80 W	44	19.9	122	S 58 E
15704.0	8.00	27.4	344	N 16 W	22	19.8	123	S 57 E
15706.0	8.00	32.6	323	N 37 W	57	20.0	122	S 58 E
15708.0	8.00	38.8	291	N 69 W	65	20.0	121	S 59 E
15710.0	8.00	36.2	290	N 70 W	60	19.9	124	S 56 E
15712.0	8.00	33.1	269	S 89 W	20	19.7	123	S 57 E
15714.0	8.00	44.9	287	N 73 W	28	19.6	122	S 58 E
15716.0	8.00	44.8	289	N 71 W	43	19.6	125	S 55 E
15718.0	8.00	31.4	216	S 36 W	25	19.9	121	S 59 E
15720.0	8.00	29.7	233	S 53 W	22	19.8	122	S 58 E
15722.0	8.00	26.6	267	S 87 W	26	19.9	124	S 56 E
15724.0	8.00	12.4	102	S 78 E	70	19.9	126	S 54 E
15728.0	8.00	8.1	216	S 36 W	60	19.8	122	S 58 E
15730.0	8.00	15.0	239	S 59 W	30	19.8	124	S 56 E
15732.0	8.00	11.4	213	S 33 W	13	19.8	122	S 58 E
15734.0	8.00	41.0	298	N 62 W	53	19.7	121	S 59 E
15736.0	8.00	42.5	305	N 55 W	60	19.8	127	S 53 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
12-23-81

DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15738.0	8.00	12.6	214	S 34 W	18	19.9	123	S 57 E
15740.0	8.00	8.4	232	S 52 W	26	19.7	123	S 57 E
15742.0	8.00	13.2	188	S 8 W	21	19.7	123	S 57 E
15750.0	8.00	14.7	277	N 83 W	81	19.7	124	S 56 E
15754.0	8.00	12.3	232	S 52 W	58	19.6	124	S 56 E
15756.0	8.00	7.3	185	S 5 W	64	19.6	123	S 57 E
15758.0	8.00	7.4	173	S 7 E	62	19.5	124	S 56 E
15760.0	8.00	6.3	180	S 0 E	30	19.4	123	S 57 E
15764.0	8.00	49.3	290	N 70 W	41	19.5	123	S 57 E
15772.0	8.00	20.6	233	S 53 W	46	19.3	125	S 55 E
15774.0	8.00	45.3	344	N 16 W	17	19.5	125	S 55 E
15776.0	8.00	40.9	348	N 12 W	20	19.4	125	S 55 E
15780.0	8.00	36.1	270	N 90 W	47	19.3	125	S 55 E
15782.0	8.00	31.2	281	N 79 W	20	19.2	129	S 51 E
15786.0	8.00	21.1	167	S 13 E	65	18.9	124	S 56 E
15788.0	8.00	14.6	182	S 2 W	82	18.5	130	S 50 E
15790.0	8.00	40.7	309	N 51 W	17	18.7	128	S 52 E
15792.0	8.00	45.4	308	N 52 W	26	19.4	122	S 58 E
15794.0	8.00	29.0	203	S 23 W	25	19.3	126	S 54 E
15796.0	8.00	29.3	203	S 23 W	16	19.2	126	S 54 E
15802.0	8.00	13.3	296	N 64 W	90	19.3	125	S 55 E
15804.0	8.00	20.4	303	N 57 W	100	19.3	124	S 56 E
15806.0	8.00	21.7	316	N 44 W	100	19.0	123	S 57 E
15808.0	8.00	20.2	302	N 58 W	100	19.0	124	S 56 E
15810.0	8.00	21.4	305	N 55 W	100	20.1	127	S 53 E
15812.0	8.00	19.9	302	N 58 W	100	18.6	122	S 58 E
15814.0	8.00	25.1	304	N 56 W	81	19.1	119	S 61 E
15816.0	8.00	20.5	299	N 61 W	55	19.2	119	S 61 E
15818.0	8.00	15.4	218	S 38 W	17	19.2	119	S 61 E
15820.0	8.00	14.9	215	S 35 W	38	19.2	118	S 62 E
15822.0	8.00	28.0	334	N 26 W	85	19.0	126	S 54 E
15824.0	8.00	16.2	237	S 57 W	63	18.8	119	S 61 E
15826.0	8.00	16.9	91	S 89 E	68	19.0	133	S 47 E
15828.0	8.00	11.9	156	S 24 E	22	19.4	121	S 59 E
15830.0	8.00	11.6	149	S 31 E	31	19.4	121	S 59 E
15840.0	8.00	19.1	255	S 75 W	21	19.4	126	S 54 E
15842.0	8.00	22.7	261	S 81 W	72	19.2	120	S 60 E
15844.0	8.00	15.5	235	S 55 W	28	19.1	124	S 56 E
15846.0	8.00	19.4	237	S 57 W	34	19.3	120	S 60 E
15856.0	8.00	7.5	342	N 18 W	28	19.4	127	S 53 E

Prosec/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15858.0	8.00	5.2	310	N 50 W	48	19.3	129	S 51 E
15860.0	8.00	5.8	299	N 61 W	45	19.3	124	S 56 E
15862.0	8.00	48.1	323	N 37 W	15	19.5	128	S 52 E
15870.0	8.00	9.2	164	S 16 E	28	19.4	122	S 58 E
15872.0	8.00	12.5	156	S 24 E	7	19.3	124	S 56 E
15874.0	8.00	28.2	337	N 23 W	27	19.4	124	S 56 E
15876.0	8.00	43.1	302	N 58 W	29	19.4	123	S 57 E
15878.0	8.00	25.4	291	N 69 W	25	19.4	123	S 57 E
15880.0	8.00	27.0	297	N 63 W	44	19.3	124	S 56 E
15882.0	8.00	36.7	295	N 65 W	68	19.4	123	S 57 E
15890.0	8.00	41.2	298	N 62 W	66	19.2	124	S 56 E
15892.0	8.00	41.9	299	N 61 W	56	19.2	123	S 57 E
15894.0	8.00	41.3	298	N 62 W	63	19.3	123	S 57 E
15896.0	8.00	47.6	299	N 61 W	66	19.4	122	S 58 E
15898.0	8.00	37.2	298	N 62 W	70	19.4	123	S 57 E
15900.0	8.00	36.6	299	N 61 W	79	19.3	122	S 58 E
15902.0	8.00	36.8	299	N 61 W	82	19.2	122	S 58 E
15904.0	8.00	36.6	298	N 62 W	70	19.2	123	S 57 E
15906.0	8.00	37.8	297	N 63 W	22	19.2	123	S 57 E
15908.0	8.00	39.6	292	N 68 W	58	19.3	122	S 58 E
15912.0	8.00	39.0	296	N 64 W	64	19.4	122	S 58 E
15914.0	8.00	39.4	297	N 63 W	53	19.2	123	S 57 E
15918.0	8.00	22.0	57	N 57 E	38	19.2	123	S 57 E
15922.0	8.00	48.4	312	N 48 W	49	19.2	123	S 57 E
15926.0	8.00	25.1	38	N 38 E	59	19.2	122	S 58 E
15928.0	8.00	18.5	39	N 39 E	59	19.2	121	S 59 E
15930.0	8.00	39.1	289	N 71 W	34	19.2	121	S 59 E
15932.0	8.00	44.1	294	N 66 W	29	19.1	122	S 58 E
15934.0	8.00	43.3	303	N 57 W	91	19.1	122	S 58 E
15936.0	8.00	43.3	303	N 57 W	97	19.1	121	S 59 E
15946.0	8.00	40.0	348	N 12 W	34	19.1	121	S 59 E
15954.0	8.00	26.2	7	N 7 E	65	19.0	121	S 59 E
15956.0	8.00	43.3	266	S 86 W	52	19.0	121	S 59 E
15962.0	8.00	26.2	205	S 25 W	85	19.1	122	S 58 E
15964.0	8.00	26.6	205	S 25 W	78	19.0	121	S 59 E
15966.0	8.00	58.0	281	N 79 W	53	19.0	122	S 58 E
15970.0	8.00	37.4	258	S 78 W	54	19.0	122	S 58 E
15972.0	8.00	42.9	305	N 55 W	60	19.0	122	S 58 E
15974.0	8.00	42.9	306	N 54 W	62	19.0	122	S 58 E
15976.0	8.00	44.1	303	N 57 W	77	19.0	122	S 58 E

Prosee/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
15978.0	8.00	43.9	303	N 57 W	93	19.0	122	S 58 E
15980.0	8.00	44.7	299	N 61 W	80	19.0	122	S 58 E
15982.0	8.00	46.0	300	N 60 W	100	19.0	121	S 59 E
15984.0	8.00	16.5	189	S 9 W	75	19.0	122	S 58 E
15986.0	8.00	19.0	217	S 37 W	94	19.0	121	S 59 E
15988.0	8.00	18.7	202	S 22 W	52	19.0	122	S 58 E
15992.0	8.00	41.2	321	N 39 W	54	18.9	122	S 58 E
15994.0	8.00	41.3	298	N 62 W	62	18.9	121	S 59 E
15996.0	8.00	31.0	290	N 70 W	68	19.0	122	S 58 E
15998.0	8.00	43.0	318	N 42 W	11	19.0	121	S 59 E
16000.0	8.00	32.0	268	S 88 W	68	19.0	121	S 59 E
16002.0	8.00	31.9	271	N 89 W	74	18.9	121	S 59 E
16006.0	8.00	38.4	256	S 76 W	25	18.9	121	S 59 E
16008.0	8.00	38.4	255	S 75 W	33	19.0	120	S 60 E
16012.0	8.00	41.9	269	S 89 W	66	18.8	121	S 59 E
16016.0	8.00	41.5	268	S 88 W	66	18.9	120	S 60 E
16018.0	8.00	45.7	278	N 82 W	47	19.0	121	S 59 E
16022.0	8.00	28.7	293	N 67 W	79	18.9	122	S 58 E
16028.0	8.00	50.9	288	N 72 W	54	18.8	122	S 58 E
16030.0	8.00	27.3	280	N 80 W	9	18.9	121	S 59 E
16032.0	8.00	26.3	260	S 80 W	29	19.1	121	S 59 E
16038.0	8.00	36.2	243	S 63 W	61	18.8	122	S 58 E
16040.0	8.00	36.2	290	N 70 W	83	18.8	122	S 58 E
16042.0	8.00	47.3	266	S 86 W	100	18.9	122	S 58 E
16044.0	8.00	36.7	291	N 69 W	88	19.0	121	S 59 E
16046.0	8.00	38.2	295	N 65 W	91	19.1	121	S 59 E
16048.0	8.00	43.9	273	N 87 W	40	19.0	120	S 60 E
16052.0	8.00	34.0	299	N 61 W	40	18.8	121	S 59 E
16054.0	8.00	39.6	294	N 66 W	95	18.9	121	S 59 E
16056.0	8.00	40.1	293	N 67 W	65	18.9	121	S 59 E
16058.0	8.00	40.1	293	N 67 W	100	19.0	121	S 59 E
16060.0	8.00	39.2	293	N 67 W	100	18.8	122	S 58 E
16062.0	8.00	40.3	294	N 66 W	100	18.8	121	S 59 E
16064.0	8.00	39.1	292	N 68 W	91	18.8	121	S 59 E
16066.0	8.00	41.5	300	N 60 W	75	18.9	121	S 59 E
16068.0	8.00	47.0	261	S 81 W	22	18.9	121	S 59 E
16070.0	8.00	47.0	252	S 72 W	35	18.8	121	S 59 E
16076.0	8.00	20.4	74	N 74 E	42	18.8	122	S 58 E
16078.0	8.00	20.9	74	N 74 E	38	18.8	122	S 58 E
16080.0	8.00	5.0	351	N 9 W	71	18.9	121	S 59 E

Prescott/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
16082.0	8.00	47.2	273	N 87 W	70	18.9	122	S 58 E
16084.0	8.00	49.6	277	N 83 W	58	18.8	121	S 59 E
16086.0	8.00	52.1	272	N 88 W	89	18.8	122	S 58 E
16090.0	8.00	10.5	164	S 16 E	45	18.8	121	S 59 E
16092.0	8.00	13.8	246	S 66 W	48	18.8	122	S 58 E
16094.0	8.00	14.0	245	S 65 W	37	18.8	122	S 58 E
16098.0	8.00	41.3	302	N 58 W	19	18.8	121	S 59 E
16100.0	8.00	40.2	301	N 59 W	44	18.9	122	S 58 E
16102.0	8.00	39.7	296	N 64 W	21	18.9	122	S 58 E
16104.0	8.00	39.7	296	N 64 W	72	18.8	122	S 58 E
16106.0	8.00	37.5	287	N 73 W	61	18.8	122	S 58 E
16108.0	8.00	14.0	235	S 55 W	51	18.8	121	S 59 E
16110.0	8.00	13.0	221	S 41 W	86	18.8	121	S 59 E
16112.0	8.00	13.0	218	S 38 W	100	18.8	121	S 59 E
16114.0	8.00	29.9	7	N 7 E	12	18.8	121	S 59 E
16116.0	8.00	13.0	216	S 36 W	33	18.7	121	S 59 E
16118.0	8.00	37.2	296	N 64 W	20	18.7	121	S 59 E
16120.0	8.00	37.4	298	N 62 W	40	18.7	121	S 59 E
16122.0	8.00	39.2	299	N 61 W	21	18.6	122	S 58 E
16124.0	8.00	8.9	151	S 29 E	22	18.6	121	S 59 E
16126.0	8.00	28.5	326	N 34 W	55	18.6	122	S 58 E
16128.0	8.00	31.3	329	N 31 W	55	18.6	121	S 59 E
16130.0	8.00	31.6	330	N 30 W	45	18.6	122	S 58 E
16132.0	8.00	31.5	330	N 30 W	51	18.6	121	S 59 E
16136.0	8.00	39.1	298	N 62 W	18	18.6	121	S 59 E
16138.0	8.00	39.2	296	N 64 W	18	18.7	121	S 59 E
16142.0	8.00	32.2	292	N 68 W	60	18.6	121	S 59 E
16144.0	8.00	32.4	293	N 67 W	86	18.6	121	S 59 E
16146.0	8.00	32.5	291	N 69 W	87	18.6	121	S 59 E
16148.0	8.00	34.0	294	N 66 W	94	18.7	120	S 60 E
16150.0	8.00	34.8	297	N 63 W	75	18.5	121	S 59 E
16152.0	8.00	22.9	277	N 83 W	45	18.5	120	S 60 E
16154.0	8.00	35.3	295	N 65 W	23	18.5	120	S 60 E
16160.0	8.00	14.5	160	S 20 E	49	18.6	122	S 58 E
16162.0	8.00	14.7	160	S 20 E	51	18.5	121	S 59 E
16170.0	8.00	37.7	296	N 64 W	31	18.5	121	S 59 E
16174.0	8.00	23.9	283	N 77 W	69	18.5	121	S 59 E
16176.0	8.00	11.7	255	S 75 W	38	18.5	121	S 59 E
16178.0	8.00	24.0	300	N 60 W	100	18.6	123	S 57 E
16180.0	8.00	41.9	305	N 55 W	91	18.6	123	S 57 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
16182.0	8.00	43.1	303 N 57 W	84	18.7	123 S 57 E
16184.0	8.00	43.3	303 N 57 W	100	18.8	123 S 57 E
16186.0	8.00	30.7	300 N 60 W	100	18.9	124 S 56 E
16188.0	8.00	33.6	295 N 65 W	97	18.8	123 S 57 E
16190.0	8.00	31.8	297 N 63 W	100	19.0	123 S 57 E
16192.0	8.00	31.8	298 N 62 W	100	19.0	124 S 56 E
16194.0	8.00	31.5	297 N 63 W	100	19.0	123 S 57 E
16198.0	8.00	43.1	296 N 64 W	81	19.0	122 S 58 E
16202.0	8.00	43.7	299 N 61 W	100	19.1	121 S 59 E
16204.0	8.00	35.7	294 N 66 W	81	19.0	122 S 58 E
16206.0	8.00	35.1	290 N 70 W	62	19.2	122 S 58 E
16208.0	8.00	31.8	275 N 85 W	100	19.2	122 S 58 E
16210.0	8.00	32.7	281 N 79 W	100	19.2	122 S 58 E
16212.0	8.00	16.9	270 N 90 W	73	19.2	121 S 59 E
16214.0	8.00	29.1	269 S 89 W	65	19.1	122 S 58 E
16216.0	8.00	31.8	297 N 63 W	31	19.1	123 S 57 E
16218.0	8.00	31.9	297 N 63 W	57	19.2	122 S 58 E
16220.0	8.00	34.2	295 N 65 W	100	19.2	121 S 59 E
16222.0	8.00	34.3	299 N 61 W	100	19.2	121 S 59 E
16224.0	8.00	36.2	295 N 65 W	100	19.2	122 S 58 E
16226.0	8.00	31.3	302 N 58 W	100	19.2	121 S 59 E
16228.0	8.00	33.3	279 N 81 W	100	19.2	122 S 58 E
16234.0	8.00	37.5	295 N 65 W	76	19.2	121 S 59 E
16236.0	8.00	35.4	293 N 67 W	100	19.3	121 S 59 E
16238.0	8.00	35.0	293 N 67 W	100	19.3	121 S 59 E
16240.0	8.00	34.4	294 N 66 W	100	19.2	121 S 59 E
16242.0	8.00	34.2	296 N 64 W	100	19.3	121 S 59 E
16244.0	8.00	34.1	296 N 64 W	100	19.3	122 S 58 E
16246.0	8.00	34.3	297 N 63 W	100	19.3	121 S 59 E
16248.0	8.00	33.1	296 N 64 W	84	19.3	121 S 59 E
16252.0	8.00	19.5	292 N 68 W	36	19.2	121 S 59 E
16256.0	8.00	40.5	264 S 84 W	16	19.2	122 S 58 E
16258.0	8.00	14.7	200 S 20 W	61	19.2	122 S 58 E
16260.0	8.00	35.4	297 N 63 W	100	19.2	121 S 59 E
16262.0	8.00	35.0	296 N 64 W	100	19.2	121 S 59 E
16264.0	8.00	35.4	295 N 65 W	100	19.2	121 S 59 E
16266.0	8.00	35.2	295 N 65 W	100	19.3	121 S 59 E
16268.0	8.00	34.8	295 N 65 W	100	19.3	121 S 59 E
16270.0	8.00	34.7	295 N 65 W	100	19.3	121 S 59 E
16272.0	8.00	33.9	296 N 64 W	100	19.2	121 S 59 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
16274.0	8.00	41.7	290	N 70 W	36	19.2	120	S 60 E
16276.0	8.00	21.4	198	S 18 W	49	19.2	121	S 59 E
16278.0	8.00	50.7	285	N 75 W	81	19.2	121	S 59 E
16280.0	8.00	38.1	291	N 69 W	81	19.2	121	S 59 E
16282.0	8.00	37.3	286	N 74 W	60	19.2	121	S 59 E
16284.0	8.00	40.1	300	N 60 W	49	19.2	121	S 59 E
16286.0	8.00	31.8	298	N 62 W	100	19.1	123	S 57 E
16288.0	8.00	49.9	303	N 57 W	75	19.1	123	S 57 E
16290.0	8.00	48.8	304	N 56 W	82	19.2	123	S 57 E
16292.0	8.00	36.7	290	N 70 W	76	19.1	123	S 57 E
16294.0	8.00	38.2	291	N 69 W	100	19.1	121	S 59 E
16296.0	8.00	38.5	291	N 69 W	78	19.1	122	S 58 E
16298.0	8.00	39.7	290	N 70 W	100	19.2	122	S 58 E
16300.0	8.00	36.5	291	N 69 W	88	19.1	122	S 58 E
16302.0	8.00	36.4	289	N 71 W	33	19.1	121	S 59 E
16304.0	8.00	36.4	289	N 71 W	96	19.1	121	S 59 E
16306.0	8.00	34.9	297	N 63 W	73	19.1	121	S 59 E
16308.0	8.00	32.8	290	N 70 W	99	19.1	121	S 59 E
16310.0	8.00	35.4	293	N 67 W	100	19.1	122	S 58 E
16312.0	8.00	35.3	294	N 66 W	81	19.1	123	S 57 E
16314.0	8.00	35.3	294	N 66 W	74	19.1	122	S 58 E
16316.0	8.00	35.4	294	N 66 W	20	19.1	122	S 58 E
16318.0	8.00	38.7	309	N 51 W	89	19.0	122	S 58 E
16320.0	8.00	36.7	304	N 56 W	31	19.0	122	S 58 E
16322.0	8.00	32.1	296	N 64 W	19	19.0	121	S 59 E
16324.0	8.00	44.3	299	N 61 W	35	19.0	121	S 59 E
16326.0	8.00	40.7	292	N 68 W	97	19.0	122	S 58 E
16328.0	8.00	40.6	292	N 68 W	92	19.0	121	S 59 E
16330.0	8.00	40.4	294	N 66 W	100	19.0	121	S 59 E
16332.0	8.00	39.2	289	N 71 W	68	19.1	122	S 58 E
16334.0	8.00	38.0	286	N 74 W	100	19.1	121	S 59 E
16336.0	8.00	36.0	293	N 67 W	100	19.0	123	S 57 E
16338.0	8.00	35.5	292	N 68 W	86	19.1	121	S 59 E
16340.0	8.00	37.6	294	N 66 W	100	19.0	124	S 56 E
16342.0	8.00	37.8	293	N 67 W	100	19.1	123	S 57 E
16344.0	8.00	37.2	292	N 68 W	88	19.0	122	S 58 E
16346.0	8.00	31.4	290	N 70 W	64	19.0	122	S 58 E
16348.0	8.00	31.5	290	N 70 W	71	19.0	121	S 59 E
16350.0	8.00	31.3	290	N 70 W	88	18.9	122	S 58 E
16352.0	8.00	31.5	291	N 69 W	78	19.0	123	S 57 E

Pioneer/Atlas

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
16354.0	8.00	31.8	282	N 78 W	100	19.0	122	S 58 E
16356.0	8.00	34.7	296	N 64 W	91	18.8	122	S 58 E
16358.0	8.00	35.9	299	N 61 W	79	19.1	122	S 58 E
16360.0	8.00	34.8	298	N 62 W	100	19.0	123	S 57 E
16362.0	8.00	39.0	305	N 55 W	35	19.0	123	S 57 E
16364.0	8.00	31.0	331	N 29 W	29	19.0	122	S 58 E
16366.0	8.00	30.9	344	N 16 W	83	19.0	122	S 58 E
16368.0	8.00	33.3	281	N 79 W	58	19.0	122	S 58 E
16372.0	8.00	45.7	327	N 33 W	58	19.0	123	S 57 E
16374.0	8.00	17.8	183	S 3 W	27	19.0	122	S 58 E
16376.0	8.00	51.5	281	N 79 W	62	19.0	122	S 58 E
16378.0	8.00	34.3	327	N 33 W	37	18.9	122	S 58 E
16380.0	8.00	34.7	293	N 67 W	58	18.9	122	S 58 E
16382.0	8.00	38.7	307	N 53 W	63	19.0	123	S 57 E
16384.0	8.00	37.9	305	N 55 W	67	18.9	120	S 60 E
16386.0	8.00	38.9	307	N 53 W	73	18.9	122	S 58 E
16388.0	8.00	33.2	293	N 67 W	74	18.9	122	S 58 E
16390.0	8.00	35.6	295	N 65 W	61	19.0	122	S 58 E
16392.0	8.00	35.2	297	N 63 W	61	19.0	122	S 58 E
16394.0	8.00	34.4	293	N 67 W	100	19.0	121	S 59 E
16396.0	8.00	34.5	298	N 62 W	73	19.0	122	S 58 E
16398.0	8.00	43.2	298	N 62 W	56	19.0	121	S 59 E
16406.0	8.00	33.7	294	N 66 W	80	18.9	124	S 56 E
16408.0	8.00	31.7	290	N 70 W	55	18.8	122	S 58 E
16410.0	8.00	30.8	295	N 65 W	56	18.8	121	S 59 E
16412.0	8.00	33.3	297	N 63 W	100	18.9	121	S 59 E
16414.0	8.00	33.5	297	N 63 W	100	19.0	122	S 58 E
16416.0	8.00	33.0	297	N 63 W	70	18.9	121	S 59 E
16418.0	8.00	34.3	297	N 63 W	85	19.0	121	S 59 E
16420.0	8.00	35.7	299	N 61 W	100	19.0	122	S 58 E
16422.0	8.00	33.2	300	N 60 W	33	18.9	122	S 58 E
16424.0	8.00	38.3	302	N 58 W	93	19.0	124	S 56 E
16426.0	8.00	42.3	309	N 51 W	30	19.0	122	S 58 E
16432.0	8.00	17.7	298	N 62 W	87	18.9	121	S 59 E
16434.0	8.00	17.6	299	N 61 W	75	18.8	121	S 59 E
16436.0	8.00	17.7	298	N 62 W	34	18.9	121	S 59 E
16438.0	8.00	45.1	327	N 33 W	100	18.9	119	S 61 E
16444.0	8.00	17.6	298	N 62 W	96	19.0	121	S 59 E
16448.0	8.00	42.1	292	N 68 W	100	18.9	122	S 58 E
16450.0	8.00	38.1	268	S 88 W	61	18.9	122	S 58 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
RICH UTAH
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
16452.0	8.00	32.8	283 N 77 W	100	19.0	123 S 57 E
16454.0	8.00	38.2	267 S 87 W	53	18.9	121 S 59 E
16456.0	8.00	8.4	50 N 50 E	42	19.0	122 S 58 E
16458.0	8.00	16.5	231 S 51 W	14	18.9	122 S 58 E
16460.0	8.00	33.7	229 S 49 W	54	18.8	121 S 59 E
16462.0	8.00	32.6	216 S 36 W	56	19.0	121 S 59 E
16468.0	8.00	7.7	272 N 88 W	27	18.8	121 S 59 E
16474.0	8.00	36.4	251 S 71 W	56	18.9	120 S 60 E
16488.0	8.00	32.8	356 N 4 W	67	18.9	119 S 61 E
16490.0	8.00	35.2	265 S 85 W	61	18.3	119 S 61 E
16492.0	8.00	1.8	160 S 20 E	100	18.8	120 S 60 E
16494.0	8.00	15.6	196 S 16 W	69	18.8	119 S 61 E
16496.0	8.00	7.4	186 S 6 W	86	18.8	120 S 60 E
16504.0	8.00	35.4	339 N 21 W	32	18.8	119 S 61 E
16506.0	8.00	35.4	341 N 19 W	18	18.7	121 S 59 E
16508.0	8.00	45.6	256 S 76 W	64	18.8	119 S 61 E
16514.0	8.00	36.9	234 S 54 W	46	18.8	120 S 60 E
16518.0	8.00	33.7	257 S 77 W	39	18.8	121 S 59 E
16524.0	8.00	43.9	265 S 35 W	34	18.8	124 S 56 E
16526.0	8.00	47.7	269 S 89 W	15	18.7	122 S 58 E
16550.0	8.00	37.1	294 N 66 W	11	18.7	121 S 59 E
16552.0	8.00	24.5	291 N 69 W	67	18.8	120 S 60 E
16554.0	8.00	34.9	302 N 58 W	79	18.7	119 S 61 E
16556.0	8.00	30.5	305 N 55 W	64	18.6	120 S 60 E
16558.0	8.00	29.7	307 N 53 W	93	18.6	120 S 60 E
16560.0	8.00	34.5	292 N 68 W	100	18.7	121 S 59 E
16562.0	8.00	39.6	295 N 65 W	94	18.8	121 S 59 E
16564.0	8.00	28.7	310 N 50 W	83	18.8	120 S 60 E
16566.0	8.00	28.9	293 N 67 W	100	18.8	120 S 60 E
16568.0	8.00	35.9	293 N 67 W	100	18.8	121 S 59 E
16570.0	8.00	35.2	290 N 70 W	100	18.8	118 S 62 E
16572.0	8.00	35.0	292 N 68 W	100	18.7	120 S 60 E
16574.0	8.00	35.1	292 N 68 W	100	18.8	121 S 59 E
16576.0	8.00	33.7	305 N 55 W	62	18.6	121 S 59 E
16578.0	8.00	35.0	292 N 68 W	100	18.8	121 S 59 E
16580.0	8.00	36.1	291 N 69 W	59	18.8	120 S 60 E
16582.0	8.00	35.8	292 N 68 W	84	18.7	121 S 59 E
16584.0	8.00	35.7	292 N 68 W	100	18.8	121 S 59 E
16586.0	8.00	35.7	292 N 68 W	100	18.8	121 S 59 E
16588.0	8.00	35.2	292 N 68 W	100	18.9	121 S 59 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ	BEARING	GRADE	****BOREHOLE***** DA	DAZ	BEARING
16590.0	8.00	46.1	273	N 87 W	75	18.8	120	S 60 E
16592.0	8.00	40.0	307	N 53 W	51	18.8	121	S 59 E
16594.0	8.00	40.1	308	N 52 W	44	18.8	121	S 59 E
16600.0	8.00	35.1	298	N 62 W	68	18.6	121	S 59 E
16602.0	8.00	35.4	296	N 64 W	58	18.8	121	S 59 E
16606.0	8.00	36.7	300	N 60 W	46	18.8	121	S 59 E
16608.0	8.00	43.1	254	S 74 W	42	18.6	125	S 55 E
16614.0	8.00	33.1	282	N 78 W	100	18.8	126	S 54 E
16616.0	8.00	32.4	290	N 70 W	100	18.8	130	S 50 E
16618.0	8.00	34.3	292	N 68 W	100	18.8	124	S 56 E
16620.0	8.00	33.7	290	N 70 W	100	18.9	123	S 57 E
16622.0	8.00	34.6	292	N 68 W	100	18.9	122	S 58 E
16624.0	8.00	35.4	294	N 66 W	76	18.9	123	S 57 E
16626.0	8.00	35.2	293	N 67 W	100	19.0	121	S 59 E
16628.0	8.00	34.1	293	N 67 W	100	18.9	122	S 58 E
16630.0	8.00	34.2	295	N 65 W	100	18.8	123	S 57 E
16632.0	8.00	34.5	291	N 69 W	91	18.9	118	S 62 E
16634.0	8.00	39.1	306	N 54 W	52	19.0	121	S 59 E
16636.0	8.00	40.1	299	N 61 W	41	19.0	122	S 58 E
16638.0	8.00	39.6	276	N 84 W	67	19.0	121	S 59 E
16640.0	8.00	32.5	292	N 68 W	72	19.0	123	S 57 E
16642.0	8.00	32.9	262	S 82 W	62	19.1	120	S 60 E
16644.0	8.00	34.4	279	N 81 W	100	19.1	123	S 57 E
16646.0	8.00	31.6	290	N 70 W	80	19.1	124	S 56 E
16648.0	8.00	30.6	294	N 66 W	54	19.2	122	S 58 E
16650.0	8.00	32.0	290	N 70 W	56	19.2	122	S 58 E
16656.0	8.00	35.2	294	N 66 W	37	19.2	122	S 58 E
16658.0	8.00	35.9	291	N 69 W	55	19.4	123	S 57 E
16660.0	8.00	37.8	264	S 84 W	52	19.3	123	S 57 E
16662.0	8.00	34.8	297	N 63 W	69	19.4	123	S 57 E
16664.0	8.00	33.8	295	N 65 W	92	19.4	122	S 58 E
16666.0	8.00	33.9	294	N 66 W	100	19.4	122	S 58 E
16668.0	8.00	33.9	295	N 65 W	100	19.4	122	S 58 E
16670.0	8.00	34.3	292	N 68 W	100	19.4	122	S 58 E
16672.0	8.00	34.6	291	N 69 W	100	19.5	122	S 58 E
16674.0	8.00	34.4	292	N 68 W	100	19.6	123	S 57 E
16678.0	8.00	44.4	303	N 57 W	66	19.7	123	S 57 E
16680.0	8.00	34.3	314	N 46 W	73	19.8	122	S 58 E
16684.0	8.00	46.0	329	N 31 W	21	19.9	123	S 57 E
16692.0	8.00	35.4	284	N 76 W	62	20.0	122	S 58 E

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WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
16694.0	8.00	31.9	284 N 76 W	52	20.0	124 S 56 E
16698.0	8.00	32.0	251 S 71 W	35	20.1	123 S 57 E
16700.0	8.00	30.8	282 N 78 W	100	20.2	123 S 57 E
16702.0	8.00	33.1	282 N 78 W	89	20.3	122 S 58 E
16706.0	8.00	35.5	295 N 65 W	68	20.3	120 S 60 E
16708.0	8.00	35.8	290 N 70 W	68	20.4	121 S 59 E
16710.0	8.00	34.4	293 N 67 W	100	20.4	123 S 57 E
16712.0	8.00	44.0	294 N 66 W	42	20.5	124 S 56 E
16714.0	8.00	25.3	285 N 75 W	22	20.5	123 S 57 E
16720.0	8.00	30.7	293 N 67 W	65	20.5	124 S 56 E
16722.0	8.00	30.7	15 N 15 E	13	20.7	124 S 56 E
16724.0	8.00	33.1	295 N 65 W	86	20.7	124 S 56 E
16726.0	8.00	40.5	316 N 44 W	19	20.8	123 S 57 E
16736.0	8.00	27.4	291 N 69 W	59	21.0	123 S 57 E
16740.0	8.00	45.5	297 N 63 W	65	20.9	124 S 56 E
16746.0	8.00	28.9	300 N 60 W	63	21.2	122 S 58 E
16748.0	8.00	43.8	299 N 61 W	100	21.2	124 S 56 E
16750.0	8.00	38.3	299 N 61 W	100	21.2	124 S 56 E
16752.0	8.00	37.4	299 N 61 W	100	21.2	123 S 57 E
16754.0	8.00	40.0	299 N 61 W	100	21.4	124 S 56 E
16756.0	8.00	30.5	292 N 68 W	96	21.2	124 S 56 E
16758.0	8.00	25.5	313 N 47 W	67	21.2	124 S 56 E
16760.0	8.00	26.3	310 N 50 W	80	21.7	122 S 58 E
16764.0	8.00	12.5	79 N 79 E	27	21.4	125 S 55 E
16772.0	8.00	28.5	291 N 69 W	100	21.5	124 S 56 E
16774.0	8.00	28.4	291 N 69 W	100	21.5	125 S 55 E
16776.0	8.00	30.3	290 N 70 W	100	21.6	125 S 55 E
16778.0	8.00	34.6	293 N 67 W	100	21.5	126 S 54 E
16780.0	8.00	34.1	291 N 69 W	100	21.4	126 S 54 E
16782.0	8.00	34.2	292 N 68 W	100	21.4	125 S 55 E
16784.0	8.00	33.1	290 N 70 W	100	21.3	124 S 56 E
16786.0	8.00	35.0	284 N 76 W	94	21.3	123 S 57 E
16788.0	8.00	34.4	289 N 71 W	100	21.4	127 S 53 E
16790.0	8.00	34.3	292 N 68 W	100	21.4	127 S 53 E
16792.0	8.00	35.6	293 N 67 W	100	21.4	126 S 54 E
16794.0	8.00	35.4	292 N 68 W	100	21.4	125 S 55 E
16796.0	8.00	38.2	293 N 67 W	100	21.4	125 S 55 E
16798.0	8.00	38.9	292 N 68 W	100	21.4	125 S 55 E
16800.0	8.00	38.8	292 N 68 W	100	21.4	125 S 55 E
16802.0	8.00	36.8	291 N 69 W	100	21.4	125 S 55 E

MARATHON OIL COMPANY
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WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
16804.0	8.00	32.6	283 N 77 W	100	21.4	124 S 56 E
16806.0	8.00	35.5	283 N 77 W	100	21.4	125 S 55 E
16808.0	8.00	33.6	284 N 76 W	100	21.4	125 S 55 E
16810.0	8.00	30.3	295 N 65 W	86	21.5	125 S 55 E
16812.0	8.00	37.2	293 N 67 W	97	21.4	124 S 56 E
16814.0	8.00	35.4	293 N 67 W	100	21.5	126 S 54 E
16816.0	8.00	33.6	292 N 68 W	100	21.3	127 S 53 E
16818.0	8.00	34.5	291 N 69 W	100	21.6	127 S 53 E
16820.0	8.00	34.3	290 N 70 W	100	21.5	126 S 54 E
16822.0	8.00	34.0	290 N 70 W	100	21.4	126 S 54 E
16824.0	8.00	37.8	292 N 68 W	100	21.3	124 S 56 E
16826.0	8.00	34.6	291 N 69 W	100	21.4	126 S 54 E
16828.0	8.00	35.0	295 N 65 W	100	21.4	127 S 53 E
16830.0	8.00	35.5	296 N 64 W	75	21.4	127 S 53 E
16832.0	8.00	37.0	294 N 66 W	90	21.4	126 S 54 E
16834.0	8.00	43.0	294 N 66 W	63	21.4	128 S 52 E
16836.0	8.00	43.3	294 N 66 W	69	21.4	129 S 51 E
16838.0	8.00	35.1	294 N 66 W	100	21.5	126 S 54 E
16840.0	8.00	5.6	354 N 6 W	41	21.4	127 S 53 E
16842.0	8.00	36.4	291 N 69 W	45	21.5	126 S 54 E
16844.0	8.00	37.4	293 N 67 W	59	21.5	127 S 53 E
16846.0	8.00	39.1	290 N 70 W	55	21.5	126 S 54 E
16848.0	8.00	39.4	292 N 68 W	100	21.5	127 S 53 E
16850.0	8.00	39.6	293 N 67 W	100	21.5	129 S 51 E
16852.0	8.00	38.2	293 N 67 W	100	21.6	129 S 51 E
16854.0	8.00	40.2	296 N 64 W	100	21.6	129 S 51 E
16856.0	8.00	39.2	297 N 63 W	100	21.5	128 S 52 E
16858.0	8.00	38.3	289 N 71 W	94	21.5	128 S 52 E
16860.0	8.00	38.6	291 N 69 W	100	21.6	126 S 54 E
16862.0	8.00	37.1	290 N 70 W	100	21.5	126 S 54 E
16864.0	8.00	39.0	290 N 70 W	100	21.6	126 S 54 E
16866.0	8.00	42.6	290 N 70 W	100	21.6	126 S 54 E
16868.0	8.00	39.4	291 N 69 W	100	21.5	127 S 53 E
16870.0	8.00	40.2	293 N 67 W	100	21.7	129 S 51 E
16872.0	8.00	39.9	296 N 64 W	45	21.6	130 S 50 E
16876.0	8.00	30.4	313 N 47 W	96	21.6	125 S 55 E
16878.0	8.00	36.4	308 N 52 W	100	21.6	122 S 58 E
16880.0	8.00	36.1	301 N 59 W	100	21.6	125 S 55 E
16882.0	8.00	37.0	295 N 65 W	80	21.6	126 S 54 E
16884.0	8.00	36.9	304 N 56 W	53	21.5	126 S 54 E

MARATHON OIL COMPANY
HAWK SPRINGS 1-10
WILDCAT
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DEPTH	WL	**FORMATION DIP** ANG	AZ BEARING	GRADE	****BOREHOLE***** DA	DAZ BEARING
16886.0	8.00	37.3	302 N 58 W	39	21.0	119 S 61 E
16888.0	8.00	22.1	36 N 36 E	40	21.6	122 S 58 E
16890.0	8.00	28.8	219 S 39 W	38	21.6	122 S 58 E
16892.0	8.00	32.8	207 S 27 W	30	21.6	119 S 61 E
16896.0	8.00	38.1	351 N 9 W	34	21.5	119 S 61 E
16898.0	8.00	51.5	334 N 26 W	62	21.5	116 S 64 E
16900.0	8.00	22.2	302 N 58 W	100	21.6	117 S 63 E
16902.0	8.00	22.5	307 N 53 W	96	21.6	123 S 57 E
16904.0	8.00	22.6	310 N 50 W	75	21.7	126 S 54 E
16906.0	8.00	22.6	310 N 50 W	40	21.7	126 S 54 E

Dresser Atlas