

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

5. LEASE DESIGNATION AND SERIAL NO.
UT-ML-47977-OBA

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1a TYPE OF WORK

DRILL DEEPEN PLUG BACK

7. UNIT AGREEMENT NAME

B TYPE OF WELL

Oil Well Gas Well OTHER
Single Zone Multiple Zone

8. FARM OR LEASE NAME

2. Name of Operator

Marathon Oil Company

9. WELL NO.

SITLA #12-16

3. Address of Operator

1501 Stampede Avenue, Cody, WY 82414

10. FIELD OR LEASE NAME

4. Location of Well (Report location clearly and in accordance with any State requirement)

At surface **1,324' FWL, 1,530' FNL SW/NW**

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

Sec. 16, T15S, R9E

At proposed prod. Zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

12. COUNTY OR PARISH 13. STATE

Carbon Utah

15. Distance from proposed location to nearest Property or lease line ft.

1,324'

16. NO. OF ACRES IN LEASE

480'

17. NO. OF ACRES ASSIGNED TO THIS WELL

160

(Also to nearest drlg. Unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION * TO NEAREST WELL, DRILLING COMPLETED.

2,347'

19. PROPOSED DEPTH

3,042'

20. ROTARY OR CABLE TOOLS

Rotary

OR APPLIED FOR, ON THIS LEASE, FT.

21. ELEVATION (SHOW WHETHER DF. RT, GR, etc.)

6,210'

22. APPROX. DATE WORK WILL START

April 15, 2000

23

PROPOSED CASING AND CEMENT PROGRAM

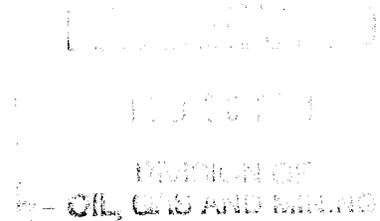
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24	300'	To Surface
7-7/8"	5-1/2"	17	T.D.	1,662'

Operator requests permission to drill the subject well.

Please see the attached 10 Point and 13 Point Surface Use Plane.

If you require additional information please contact:

William Ryan
350 S., 800 E.
Vernal, Utah
435-789-0968



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

24

SIGNATURE

William Ryan

TITLE

Agent

DATE

Jan 15, 2000

(This space for Federal or State Office use)

PERMIT NO.

43-0077-10377-1

APPROVAL DATE

APPROVED BY

TITLE

BRADLEY G. HILL
RECLAMATION SPECIALIST III

DATE

3/27/00

CONDITIONS OF APPROVAL, IF ANY:

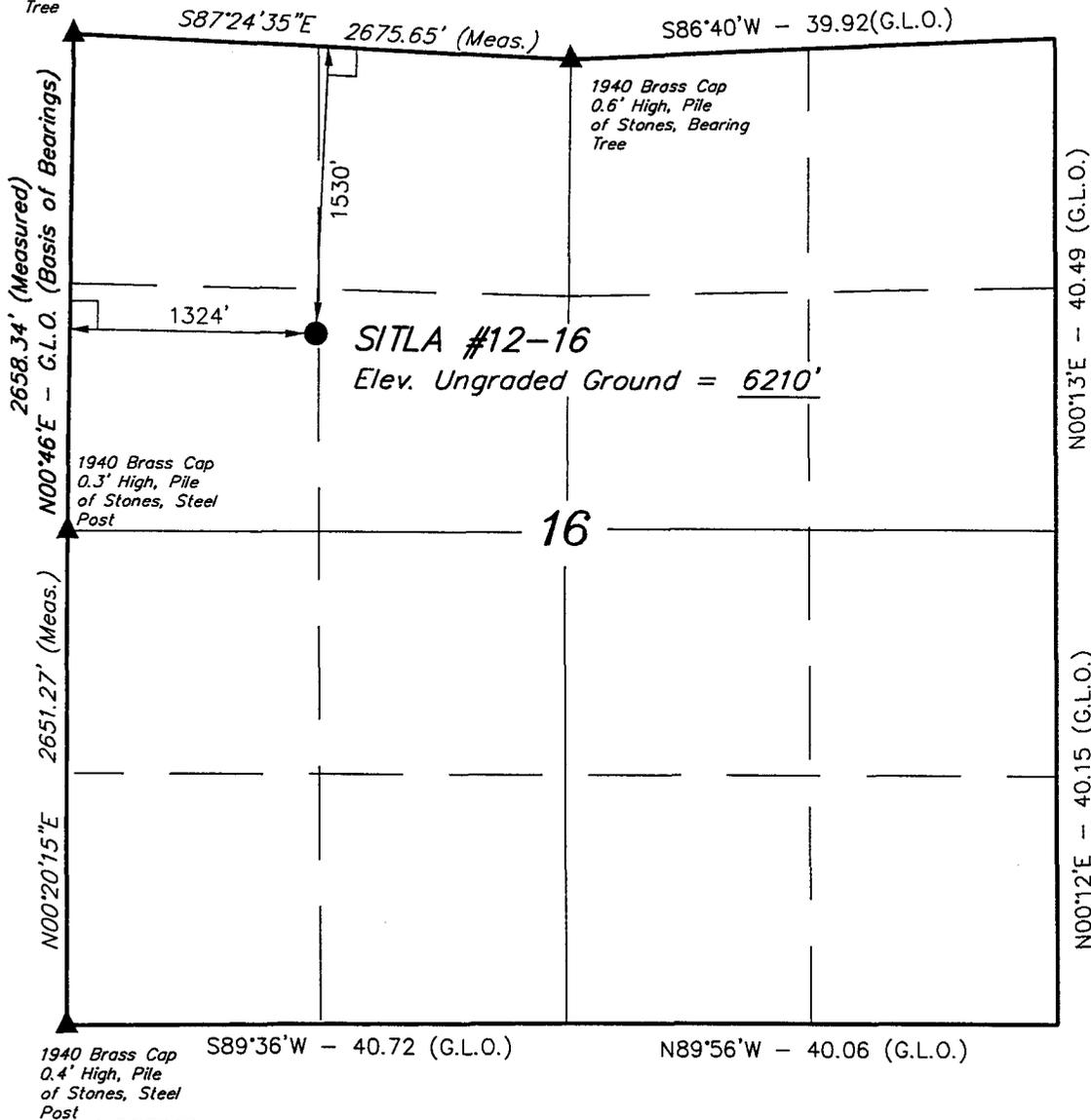
***See Instructions on Reverse Side**

T15S, R9E, S.L.B.&M.

MARATHON OIL CO.

Well location, SITLA #12-16, located as shown in the SW 1/4 NW 1/4 of Section 16, T15S, R9E, S.L.B.&M. Carbon County, Utah.

1940 Brass Cap
0.4' High, Pile
of Stones, Bearing
Tree



1940 Brass Cap
0.4' High, Pile
of Stones, Steel
Post

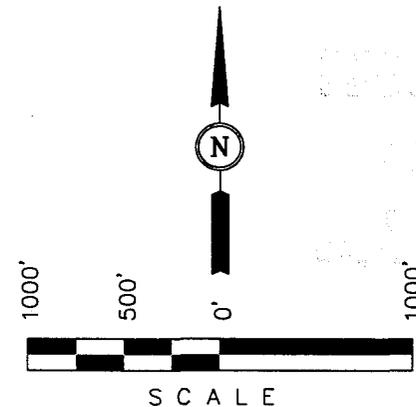
LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

Latitude = 39°31'24"
Longitude = 110°55'22"

BASIS OF ELEVATION

SPOT ELEVATION AT THE NORTHWEST CORNER OF SECTION 16, T15S, R9E, S.L.B.&M. TAKEN FROM THE PINNACLE PEAK QUADRANGLE, UTAH, CARBON COUNTY 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6242 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Robert L. Gray
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-1-99	DATE DRAWN: 1-6-00
PARTY D.K. L.J. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE MARATHON OIL CO.	

SELF-CERTIFICATION STATEMENT

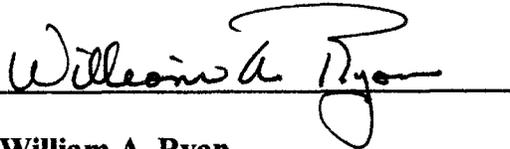
The following self-certification statement is provided per Federal and State of Utah requirements dated June 15, 1988.

Please be advised that Marathon Oil Company is considered to be the operator of the following well.

**SITLA #12-16
SW 1/4, NW 1/4, Section 16, T. 15 S., R. 9 E.
Lease ML-47977-OBA
Carbon County, Utah**

Marathon Oil Company is responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

State of Utah Blanket O&G Bond 5217029 and SITLA Bond 5922542 provide state wide bond coverage on State of Utah lands.

A handwritten signature in cursive script, reading "William A. Ryan", is written over a horizontal line.

**William A. Ryan
Agent
Rocky Mountain Consulting
350 S. 800 E.
Vernal UT 84078
435-789-0968 Office
435-828-0968 Cell
435-789-0970 Fax**



Office (435) 789-0968
Cellular (435) 828-0968

350 S. 800 E.
Vernal, UT 84078

February 3, 2000

Re: Well SITLA #12-16
SW/NW, Sec. 16, T15S, R9E
Lease No. ML-47977-OBA

Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

*Applicable to
Case 243-1
LC
(Op. No. 1, 1, 1, 1)*

Dear Sirs:

Marathon Oil Company (Marathon) respectfully requests a spacing exception for the subject well. The well was originally requested for the center of the **SW ¼ of the NW ¼ of Sec. 16, T15S, R9E**. The location was moved due to topographic considerations, erosion potential, major and minor drainage's, access conditions and deer winter range. Please see the attached map for details.

The well is located **1,530' FNL, 1,324' FWL in Sec. 16, T15S, R9E**.

A 460' radius around the proposed location is within the lease **ML-47977-OBA**. Please see the attached plat for details.

If you have additional questions please contact:

William A Ryan
William (Bill) Ryan
Rocky Mountain Consulting
Agent

435-789-0968 Office
435-828-0968 Cellular
435-789-0970 Fax

Ten Point Plan

Marathon Oil Company

SITLA #12-16

Surface Location SW ¼, NW ¼, Section 16, T15S, R9E

1. Surface Formation:

Mancos

2. Estimated Formation Tops and Datum:

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Mancos	Surface'	+6,217' KB
Ferron	2,662'	+3,555'
#1 Coal	2,708'	+3,515'
#5 Coal	2,816'	+3,401'
Tunnunk	2,926'	+3,291'
T.D.	3,042'	+3,175'

3. Producing Formation Depth:

Formation objective includes both the #1 and #5 Coal.

4. Proposed Casing:

<u>Hole Size</u>	<u>Casing Grade Size</u>	<u>Weight/Ft.</u>	<u>Setting & Tread</u>	<u>Casing Depth</u>	<u>New/Used</u>
11	8 5/8	24	J-55/STC/8rd	300	New
7 7/8	5 1/2	17	L-80/STC/8rd	T.D.	New

Cement Program:

<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amount</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
8 5/8	Premium Plus 2% Calcium Chloride .25 lb/sk. Cello Flake	135 sks. +/-	1.19 cu. ft./sk.	15.6 lbs./gal.
5 1/2 Lead. (2,162-1,662')	50/50 Pozmix 10% Cal Seal 2% Calcium Chloride .25 lb/sk. Cello Flake 8% Gel	60 sks. +/-	1.89 cu. ft./sk.	12.7 lbs./gal.
Tail (T.D.-2,162')	Thixotropic 10% Cal Seal 1% Calcium Chloride	120 sks. +/-	1.6 cu. ft./sk.	14.2 lbs./gal.

5. BOP and Pressure Containment Data:

The anticipated bottom hole pressure will be less than 2,000 psi.

A 2000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 8 5/8" surface casing. The BOP system including the casing will be pressure tested to the minimum standards set forth in "On Shore Order #2". The BOP will be mechanically checked daily during the drilling operation.

6. Mud Program:

<u>Interval</u>	<u>Mud weight lbs./gal.</u>	<u>Viscosity Sec./Qt.</u>	<u>Fluid Loss MI/30 Mins.</u>	<u>Mud Type</u>
0-300	Clear Water	----	No Control	Water/Gel
300-T.D.	8.4-8.6	30	8-10	Water/Gel

7. Auxiliary Equipment:

Upper Kelly cock, full opening stabbing valve, 2 1/2" choke manifold and pit level indicator.

8. Testing, Coring, Sampling and Logging:

- a) Test: None are anticipated.
- b) Coring: There is the possibility of sidewall coring.
- c) Sampling: Every 10' from 1,800' to T.D.
- d) Logging:

Type	Interval	
Array Induction-Gamma Ray-SP-Caliper		T.D. to Surf. Csg
High Resolution Spectral Density-PEF		T.D. to Surf. Csg
Compensated Neutron, Microlog		T.D. to Surf. Csg

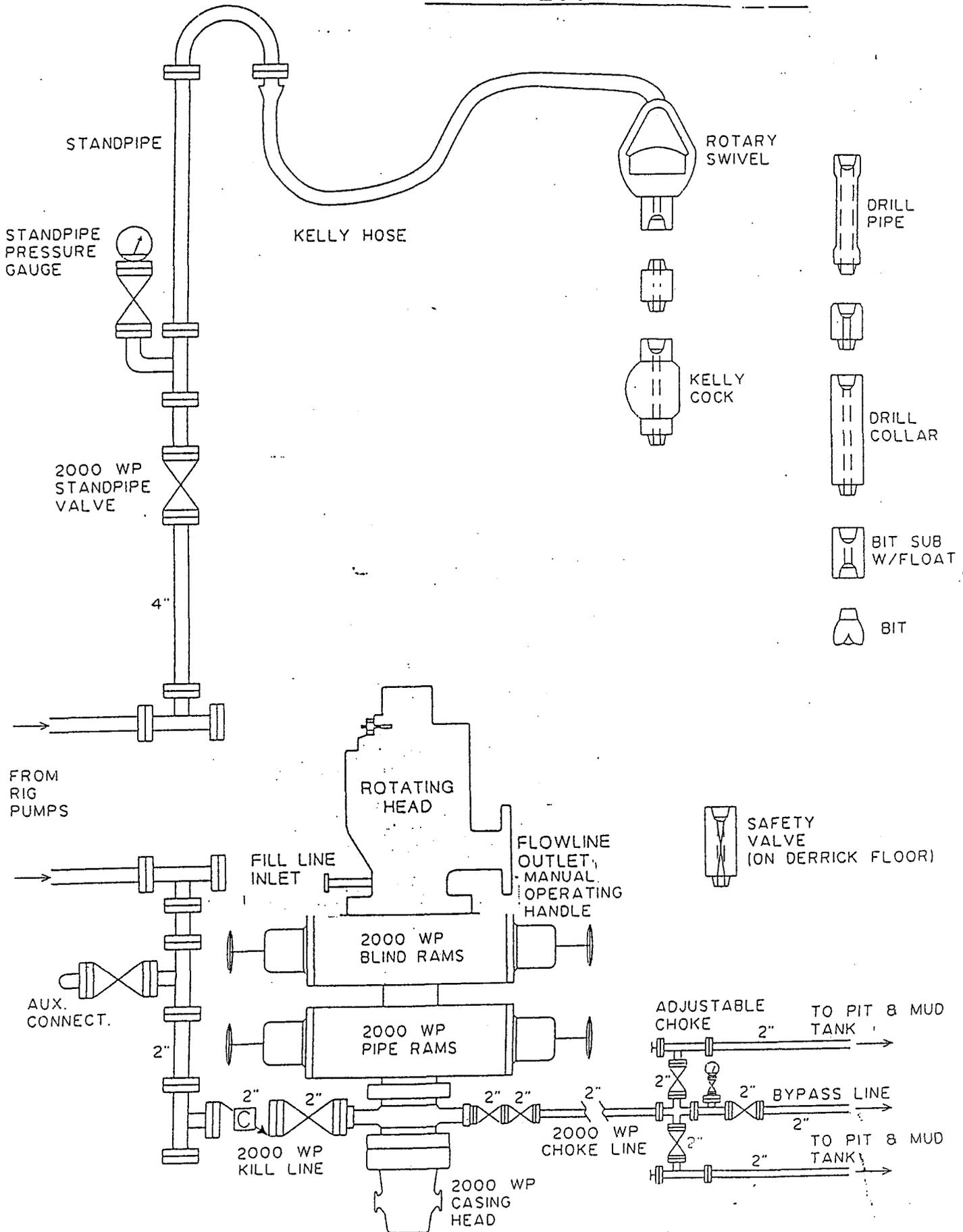
9. Abnormalities (including sour gas):

No abnormal pressures, temperatures or other hazards are anticipated. Oil and gas shows are anticipated. Other wells drilled in the area have not encountered over pressured zones or H2S.

10. Drilling Schedule:

The anticipated starting date is April 15, 2000. Duration of operations expected to be 3 days.

MARATHON OIL COMPANY 2000 PSI BOPE



MARATHON OIL CO.
13 POINT SURFACE USE PLAN
FOR WELL
MARATHON OIL CO.
SITLA #12-16
LOCATED IN
SW 1/4, NW 1/4
SECTION 16, T15S, R9E, S.L.B.&M.
CARBON COUNTY, UTAH
LEASE NUMBER: ML-47977-OBA
SURFACE OWNERSHIP:
STATE OF UTAH
SCHOOL AND INSTATUTIONAL TRUST LANDS ADMINISTRATION

4. Location of tank batteries, production facilities, and production gathering service lines.

All production facilities are to be contained within the proposed location site. Please see the attached plat plan for a typical gas well separator installation and well site piping.

All permanent (on site for more than six months or longer) structures constructed or installed will be painted a **Juniper Green** color. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded. The required **paint color is Juniper Green.**

No tanks will be required at the location.

A dike will be constructed around the whole location.

If the well is capable of economic production a gas gathering line, a produced water line and power cable will be required. All lines will be buried.

A. Produced Water Line

The proposed produced water lines will be constructed from the subject well to a proposed water disposal well in Sec. 23, T15S, R9E. Please see the attached produced water pipeline map.

Approximately 1,200' of 12" or smaller plastic/fiberglass gathering line would be constructed on SITLA lands the tie in point will be into a proposed line in Section 16, T15S, R9E.

Please see the attached location diagrams and **Water Pipeline map** for the location of the produced water

pipeline. The Operator proposes burring the line 4 feet below the surface.

B. Gas Gathering Line

The Operator proposes building approximate **1,200 feet of plastic 14" or smaller gas gathering line. The line will start at the proposed location and be constructed to a tie in to a proposed central gas processing facility SWD #1 in Section 23, T15S, R9E. The proposed tie in will be in Section 16, T15S, R9E. Please see the attached gas gathering line map.**

The gas line will be buried in the same trench used to install the produced water line as previously described.

The gas meter run will be located within 500' of the well head. The gas line will be buried or anchored down from the well head to the meter. Meter runs will be housed and/or fenced.

The gas meter will be calibrated in place prior to any deliveries. All measurement facilities will conform to API (American Petroleum Institute) and AGA (American Gas Association) standards for gas and liquid hydrocarbon measurement.

Pipeline construction and seeding.

Silt controls will be used to minimize silt entry into Serviceberry Creek. Controls will include but not be limited to the following, silt catchment ponds, plastic dikes and the use of straw bails.

Sand bedding may be required to protect water and gas lines in rocky areas. The sand will come from an off sight location.

The gas and water lines will be buried. A track hoe or backhoe will be used to dig a trench approximately as wide as the bucket used to dig the trench and as deep as 4 feet. Trees will be removed as required for the trenches. **When the water and gas lines are adjacent to a proposed road** the topsoil will be removed from the road and pipeline and wind rowed along the side of the road and pipeline. **When the pipeline is constructed cross-country the topsoil will be removed and wind rowed outside the area used to store material removed from the trench.** A motor grader will be used to remove the topsoil. Topsoil will be replaced as soon as the trench has been back filled. Seed will be spread when the topsoil is replaced.

C. Electrical Power Cable.

The operator proposes installation of a power line at some time in the future. Currently Utah Power is not able to install or supply power for this well. Power should be available in the next year or two. The power cable will be installed in a trench on the opposite side of the road from the gas gathering line and the produced water line. Please see the attached power cable map. The line will be installed in a trench dug with a backhoe. The width will be the width of a bucket and 4' deep. The trench will be back filled as soon as the line has been installed. The disturbed area will be reseeded as soon as the trench is back filled. The seed mix will be as specified by the Utah Division of Oil Gas and Mining. Erosion controls will be the same as listed for the water and gas gathering trench.

5. Location and type of water supply

Water for drilling and cementing the subject well will be trucked from **Price Cities water tank on Highway 10.**

6. Source of construction materials

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. Additional road gravels or pit lining material will be obtained from private sources.

7. Methods for handling waste disposal

A) Pit construction and liners:

The reserve pit will be approximately 8 ft. deep and most of the depth shall be below the surface of the existing ground. Please see the attached plat for details.

The reserve pit will be lined.

The reserve pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids, chemicals, produced fluids, etc.

B) Produced fluids:

Produced water will be confined to the reserve pit, or if deemed necessary, a storage tank, for a period not to exceed 90 days after initial production. Produced water after the initial production will be piped to a proposed water injection well in Section 23, T15S, R9E.

C) Garbage:

A trash cage fabricated from expanded metal will be used to hold trash on

location and will be removed to an authorized land fill location.

D) Sewage:

A portable chemical toilet will be supplied for human waste.

E) Site clean-up:

After the drilling and work over rig is moved off the location the well site area will be cleaned and all refuse removed.

8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen for the future.

9. Well-site layout and location.

The proposed location has been staked at 1,530' FNL, 1,324' FWL. The location has been moved out side the normal drilling window spacing due to topographic and mule deer winter range considerations.

Well-site layout

Location dimensions are as follow:

- | | |
|-------------------------|-----------------------|
| A) Pad length | 275 ft. |
| B) Pad width | 190 ft. |
| C) Pit depth | 8 ft. |
| D) Pit length | 80 ft. |
| E) Pit width | 50 ft. |
| F) Max cut | 4.6 ft. |
| G) Max fill | 3.2 ft. |
| H) Total cut yds. | 4,360 cu. yds. |
| I) Pit location | east side |
| J) Top soil location | north side |
| K) Access road location | south end |
| L) Flare pit | corner C |

Please see the attached location diagram for additional details.

All pits will be fenced according to the following minimum standards:

- a) Thirty nine inch net wire shall be used with at least one strand of wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- b) The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- c) Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 ft.
- e) All wire shall be stretched by using a stretching device before it is attached to the corner posts.

10. Plans for restoration of the surface

Prior to construction of the location, the top 6 inches of soil material will be stripped off the location, road and pipeline and the pit area. The topsoil removed and piled will amount to approximately 1,000 cubic yards of material on the location. **Topsoil will be stockpiled in one distinct pile for the location and wind rowed along side the pipeline for soil from the road and pipeline.** Placement of the topsoil is noted on the attached location plat. **The topsoil pile from the location will be seeded as**

soon as the soil is stock piled with the seed mix provided by the Utah Division of Oil Gas and Mining. When all drilling and completion activities have been completed and the pit and pipeline trench back-filled the topsoil will be spread. **The disturbed area will be seeded when the topsoil has been spread.** The unused portion of the location (the area outside the dead men) will be recontoured.

The dirt contractor will be provided with an approved copy of the surface use plan prior to construction activities.

Changes to the drainage during the construction activities shall be restored to its original line of flow or as near as possible when the pit is back-filled.

All disturbed areas will be recontoured to the approximate natural contours. Prior to back filling the pit the fences around the reserve pit will be removed.

The reserve pit will be reclaimed within 90 days of well completion. If the reserve pit has not dried sufficiently to allow back filling, an extension on the time requirement for back filling the pit will be requested. Once reclamation activities have begun, they shall be completed within 30 days.

After the reserve pit has been reclaimed, no depressions in the soil covering the reserve pit will be allowed. The objective is to keep seasonal rainfall and run off from seeping into the soil used to cover the reserve pit. Diversion ditches and water bars will be used to divert run off as needed.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface.

A) Seeding dates:

Seed will be spread when the topsoil is stock piled and when reclamation work is performed.

B) Seed Mix

At such time as the well is plugged and abandoned the operator will submit a surface reclamation plan to the surface management agency for prescribed seed mixture and reseeding requirements.

The seed mix and quantity required will be provided by the State of Utah Division of Oil Gas and Mining

11. Surface ownership:

Access road	State of Utah, SITLA
Location	State of Utah, SITLA
Pipeline	State of Utah, SITLA

12. Other information

A) Vegetation:

The vegetation coverage is slight. The majority of the existing vegetation consists of sagebrush, Rabbit brush, Bitter brush and Indian rice grass are also found on the location.

B) Dwellings:

There are no dwellings or other facilities within a one mile radius of the location.

C) Archeology:

The location has not been surveyed. The surveys have been scheduled and copy of the surveys will be forwarded to your office.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the antiquities act of June 8, 1906) are discovered, all operations which would effect such sites will be suspended and the discovery reported promptly to the surface management agency.

D) Water:

The nearest water is North Spring Canyon 3,000 feet west of the location.

E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without the Division of Wildlife Resources approval.

F) Notification:

The Division of Wildlife Resources and the Division of Oil and Gas will be notified as follows.

a) **Location construction**

At least forty eight (48) hours prior to construction of location and access roads

b) **Location completion**

Notification will be given 24 hr prior to moving the drilling rig on location.

c) **Spud notice**

At least twenty-four (24) hours prior to spudding the well.

d) **Casing string and cementing**

At least twenty-four (24) hours prior to running casing and cementing all casing strings.

e) **BOP and related equipment tests**

At least twenty-four (24) hours prior to initial pressure tests.

f) **First production notice**

Within five (5) business days after the new well begins, or production resumes after well has been off production for more than ninety 90 days.

g) **Completion and work over**

At least twenty-four (24) hours prior to moving the rig on location.

Division of Wildlife Resource
434-636-0260

Division of Oil, Gas, and Mining.
801-538-5340

H) Flare pit:

The flare pit will be located in corner C of the reserve pit out side the pit fence and 100 feet from the bore hole on the **east side of the location**. All fluids will be removed from the pit within 48 hours of occurrence.

13. Lessees or Operator's representative and certification

A) Representative

William A. Ryan

Rocky Mountain Consulting
350 South 800 East
Vernal, Utah 84078

Office 435-789-0968
Fax 435-789-0970
Cellular 435-828-0968

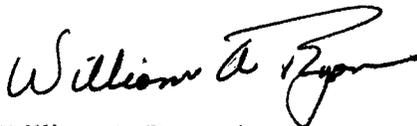
All lease operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

This drilling permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

B) Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill-site 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 and belief, true and correct, and that the work associated with the operation proposed herein will be performed by **Marathon Oil CO.** and its contractors and subcontractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved.

Date Feb. 3, 2000



William A. Ryan, Agent
Rocky Mountain Consulting

Onsite Date:

Statement of use of Hazardous Material

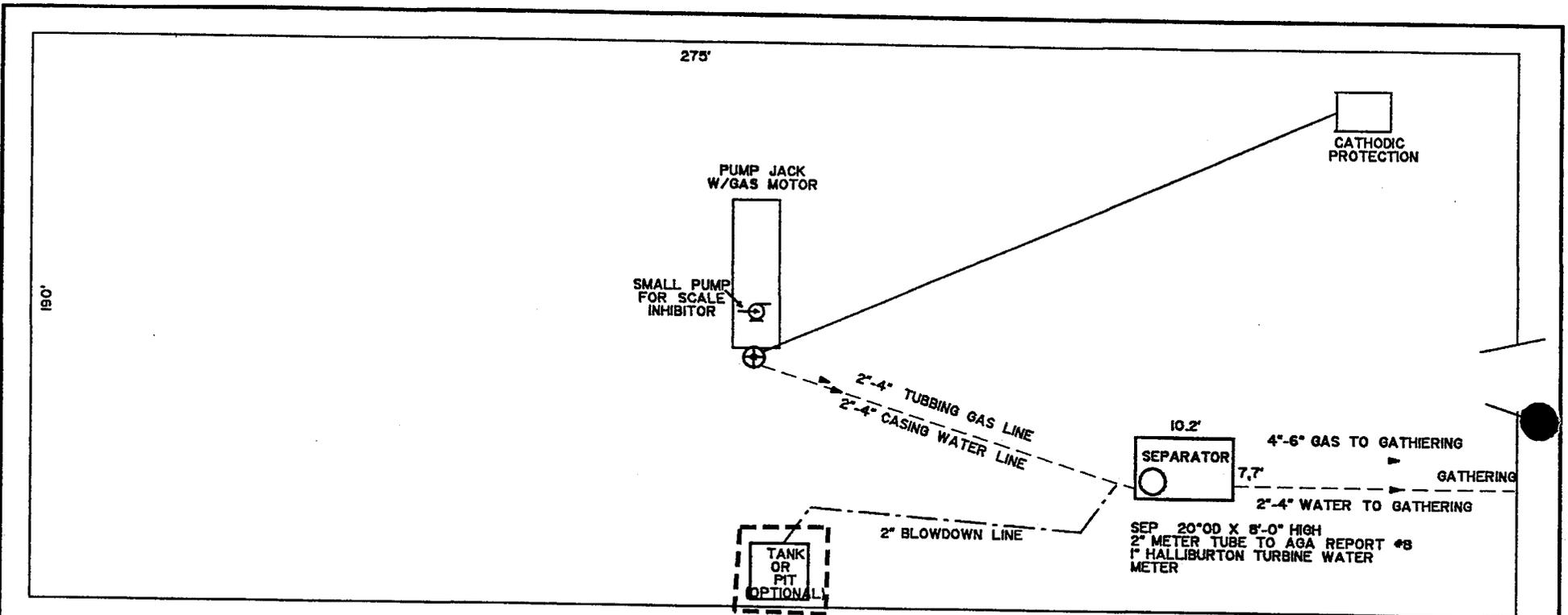
No chemical(s) from the EPA's Consolidated list of Chemicals subject to Reporting under Title III of the Superfund Amendments and Reauthorization, Act (SARA) of 1986.

Will be used, produced, transported, stored, disposed, or associated with the proposed action, No extremely hazardous substances, as defined in 40 cfr 355, will be used, produced, stored, transported, disposed, or associated with the proposed action.

If you require additional information please contact:

William A Ryan
Agent
Rocky Mountain Consulting
350 S. 800 E.
Vernal Utah, 84078

Telephone
(435) 789-0968 office
(435) 828-0968 cellular
(435) 789-0970 fax



MARATHON OIL COMPANY
ROCKY MOUNTAIN REGION

DRUNKARD'S WASH
CARBON COUNTY, UTAH

TYPICAL FACILITY

NOT TO SCALE

01/00

MARATHON OIL CO. - OPERATOR
SUBJECT TO MARATHON'S SITE
SECURITY PLAN LOCATED AT THE
SUPERINTENDENT'S OFFICE

Approvals:

_____ *Production Foreman*

_____ *Operations Superintendent*

LEGEND

- _____ OIL/CONDENSATE
- EMULSION
- RECYCLE/REJECT
- WATER OFF & DRAIN
- GAS FUEL
- GAS OFF
- RUPTURE
- POP OFF
- ⊗ VALVE
- A, B, C, etc. SEALED VALVES
- Ⓜ METER

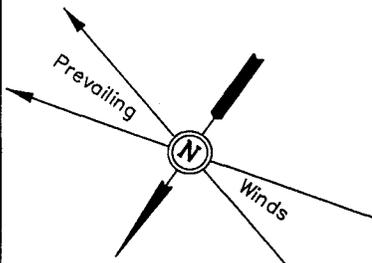
----- SPCC DIKES

PUT typical.fac

MARATHON OIL CO.

LOCATION LAYOUT FOR

SITLA #12-16
SECTION 16, T15S, R9E, S.L.B.&M.
1530' FNL 1324' FWL



Proposed Access Road

F-0.3'
El. 09.1'

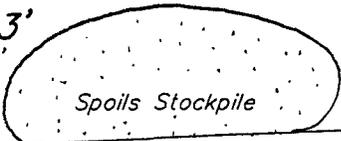
F-3.2'
El. 06.2'

F-2.1'
El. 07.3'

6

7

8

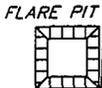
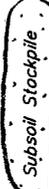


Sta. 2+75

SCALE: 1" = 50'
DATE: 1-7-00
Drawn By: C.B.T.

NOTE:

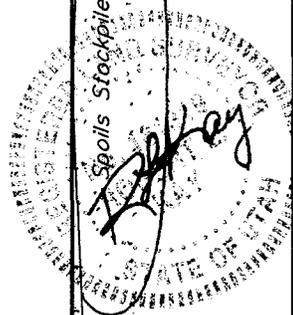
Flare Pit is to be located a min. of 100' from the Well Head.



El. 11.2'
C-9.8'
(btm. pit)

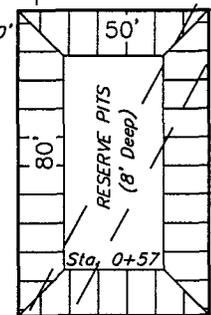
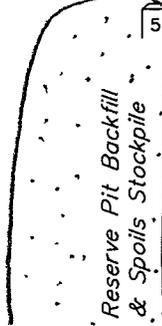
C-0.4'
El. 09.8'

C-0.5'
El. 09.9'



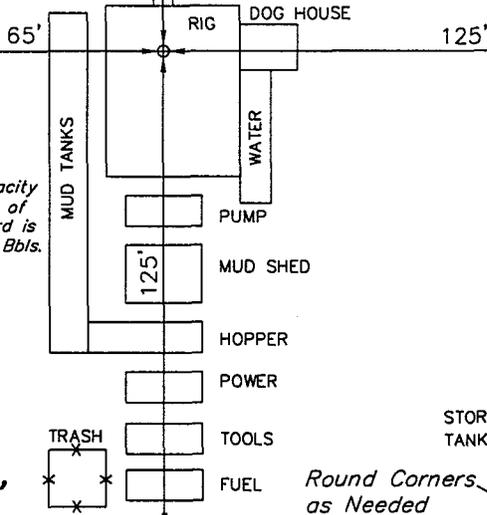
Sta. 1+25

C-2.2'
El. 11.6'



El. 12.5'
C-11.1'
(btm. pit)

El. 11.7'
C-2.3'



Sta. 0+00

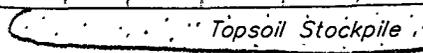
El. 12.4'
C-3.0'

C-2.6'
El. 12.0'

C-4.6'
El. 14.0'

Construct Diversion Ditch

Construct Diversion Ditch



Elev. Ungraded Ground at Location Stake = 6209.9'
Elev. Graded Ground at Location Stake = 6209.4'

UTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017

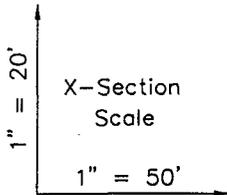
MARATHON OIL CO.

TYPICAL CROSS SECTIONS FOR

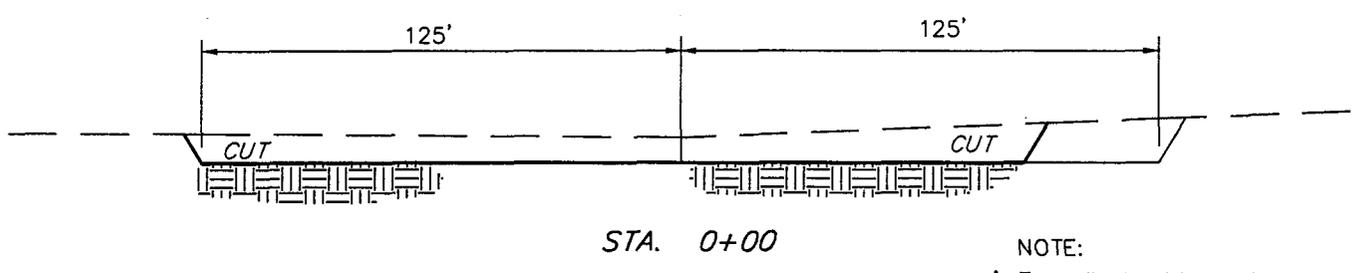
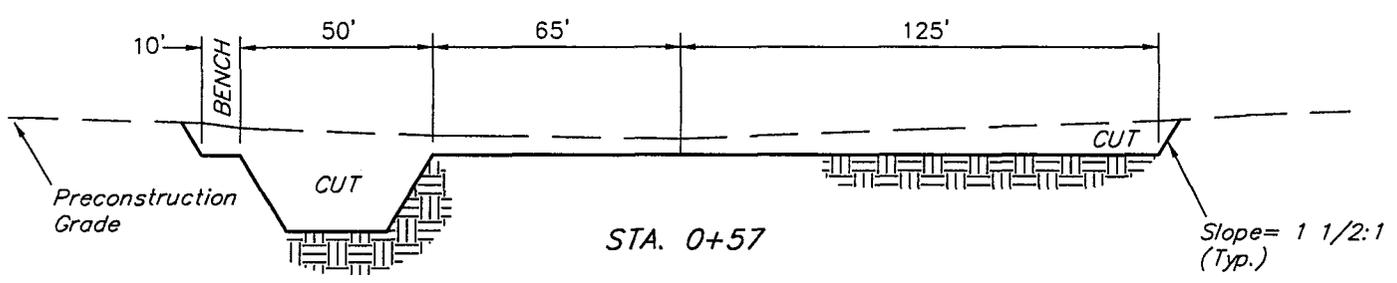
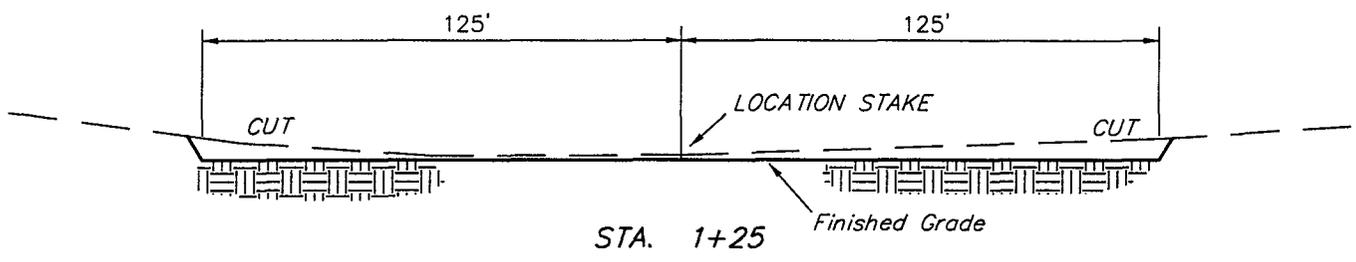
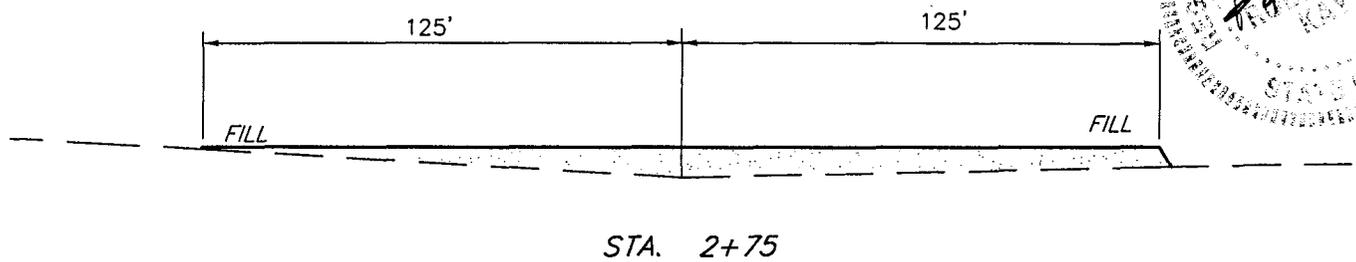
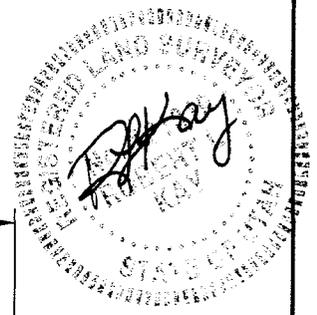
SITLA #12-16

SECTION 16, T15S, R9E, S.L.B.&M.

1530' FNL 1324' FWL



DATE: 1-7-00
Drawn By: C.B.T.

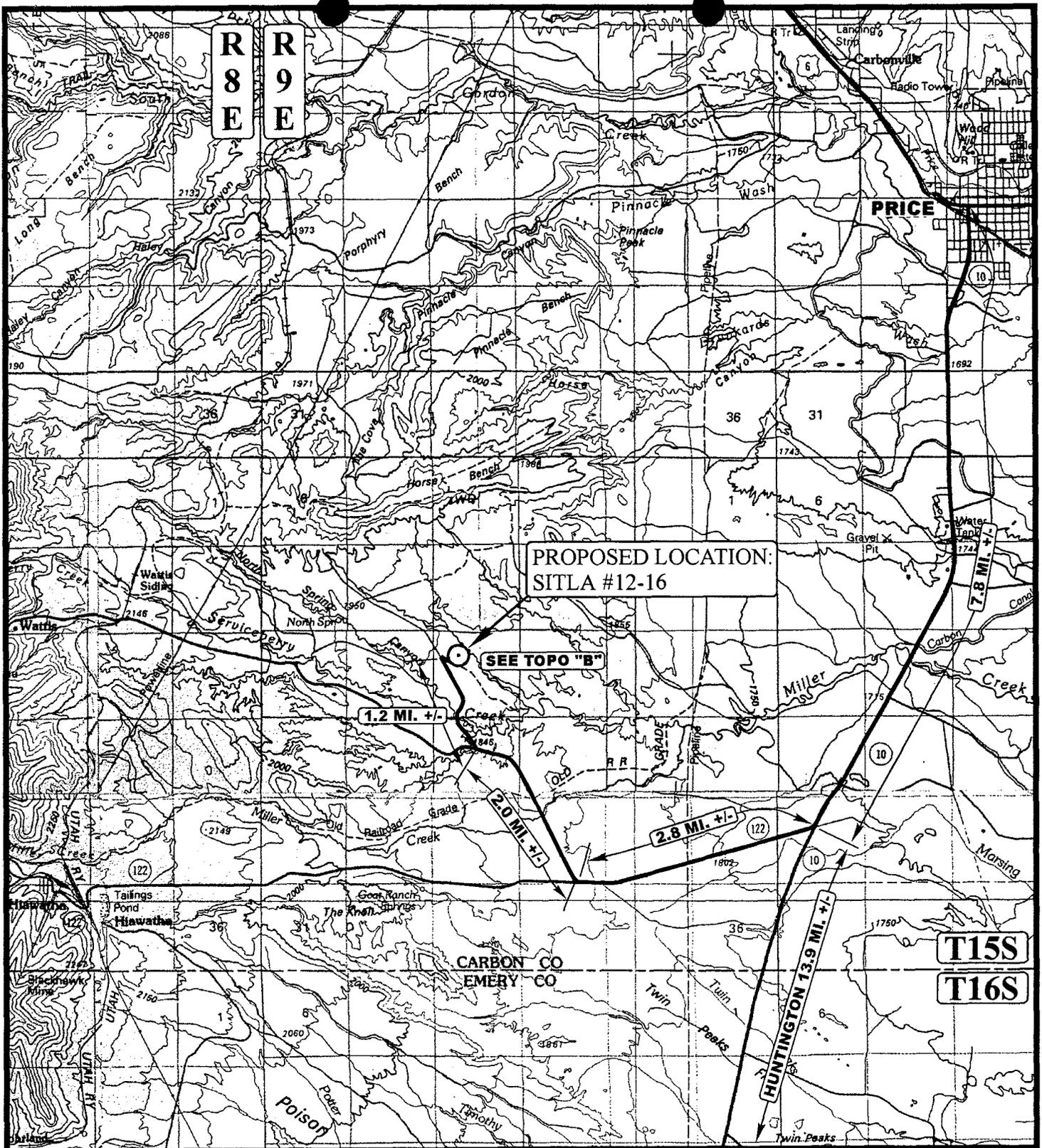


NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	1,270 Cu. Yds.
Remaining Location	=	3,090 Cu. Yds.
TOTAL CUT	=	4,360 CU.YDS.
FILL	=	1,660 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	=	2,610 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	1,660 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	950 Cu. Yds.



LEGEND:

⊙ PROPOSED LOCATION



MARATHON OIL CO.

SITLA #12-16
SECTION 16, T15S, R9E, S.L.B.&M.
1530' FNL 1324' FWL



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 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC
MAP

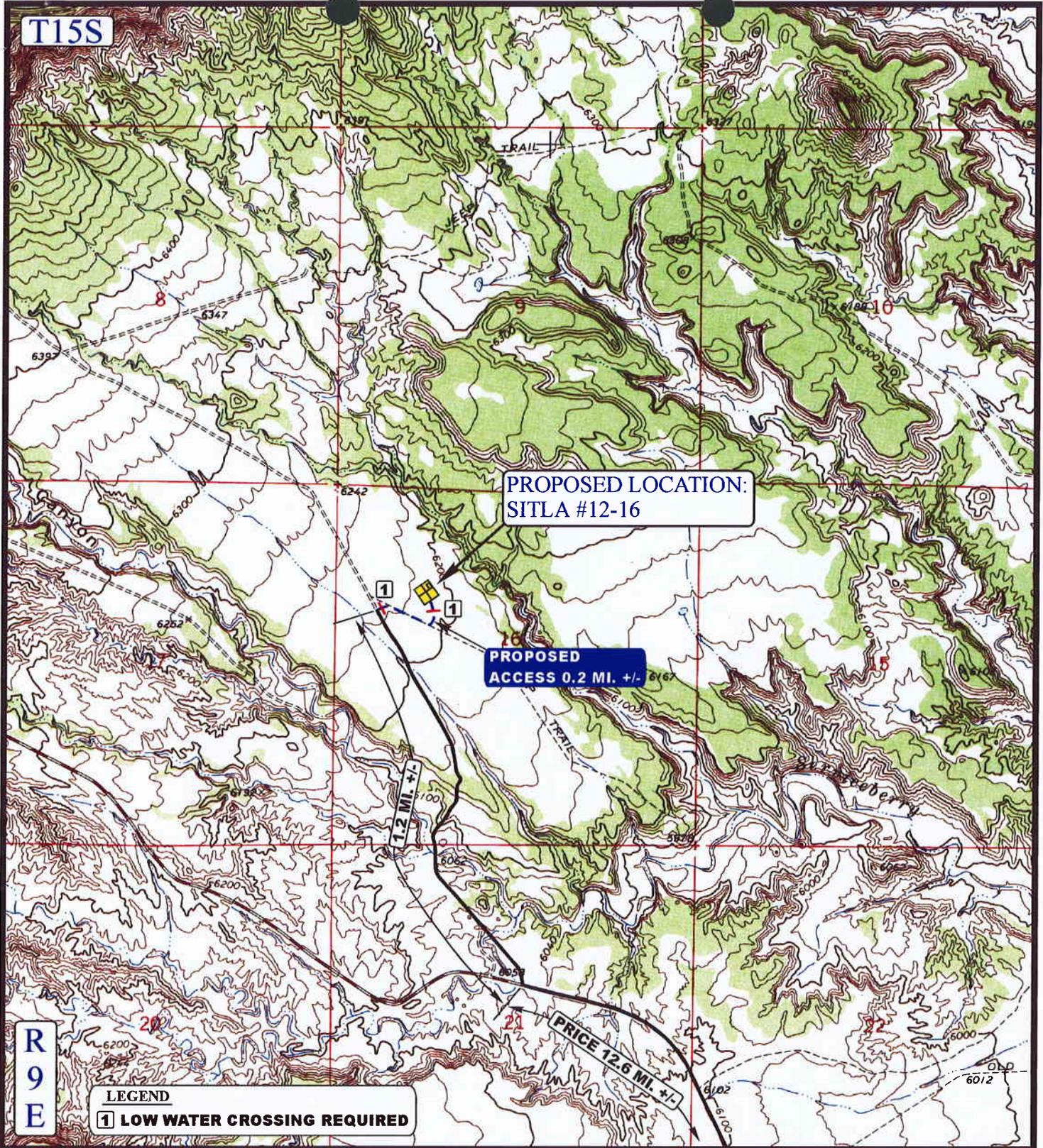
12 27 99
 MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: J.L.G. REVISED: 00-00-00



T15S

R
9
E



PROPOSED LOCATION:
SITLA #12-16

PROPOSED
ACCESS 0.2 MI. +/-

1.2 MI. +/-

PRICE 12.6 MI. +/-

LEGEND
1 LOW WATER CROSSING REQUIRED

LEGEND:

--- PROPOSED ACCESS ROAD
— EXISTING ROAD



MARATHON OIL CO.

SITLA #12-16
SECTION 16, T15S, R9E, S.L.B.&M.
1530' FNL 1324' FWL



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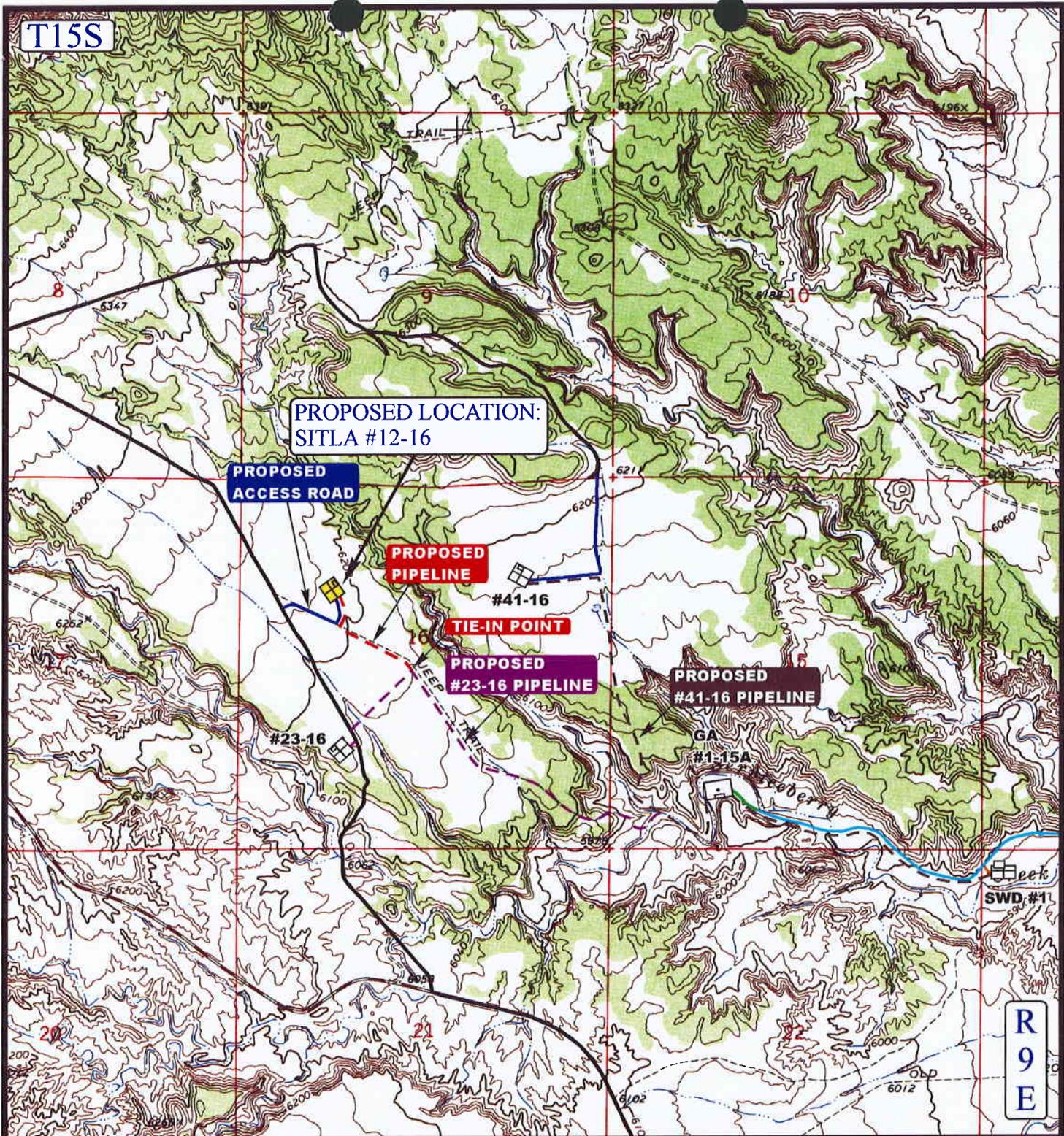
TOPOGRAPHIC
MAP

12 28 99
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00



T15S



R
9
E

APPROXIMATE TOTAL PIPELINE DISTANCE = 1200' +/-

LEGEND:

- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED ACCESS



MARATHON OIL CO.

SITLA #12-16
 SECTION 16, T15S, R9E, S.L.B.&M.
 1530' FNL 1324' FWL



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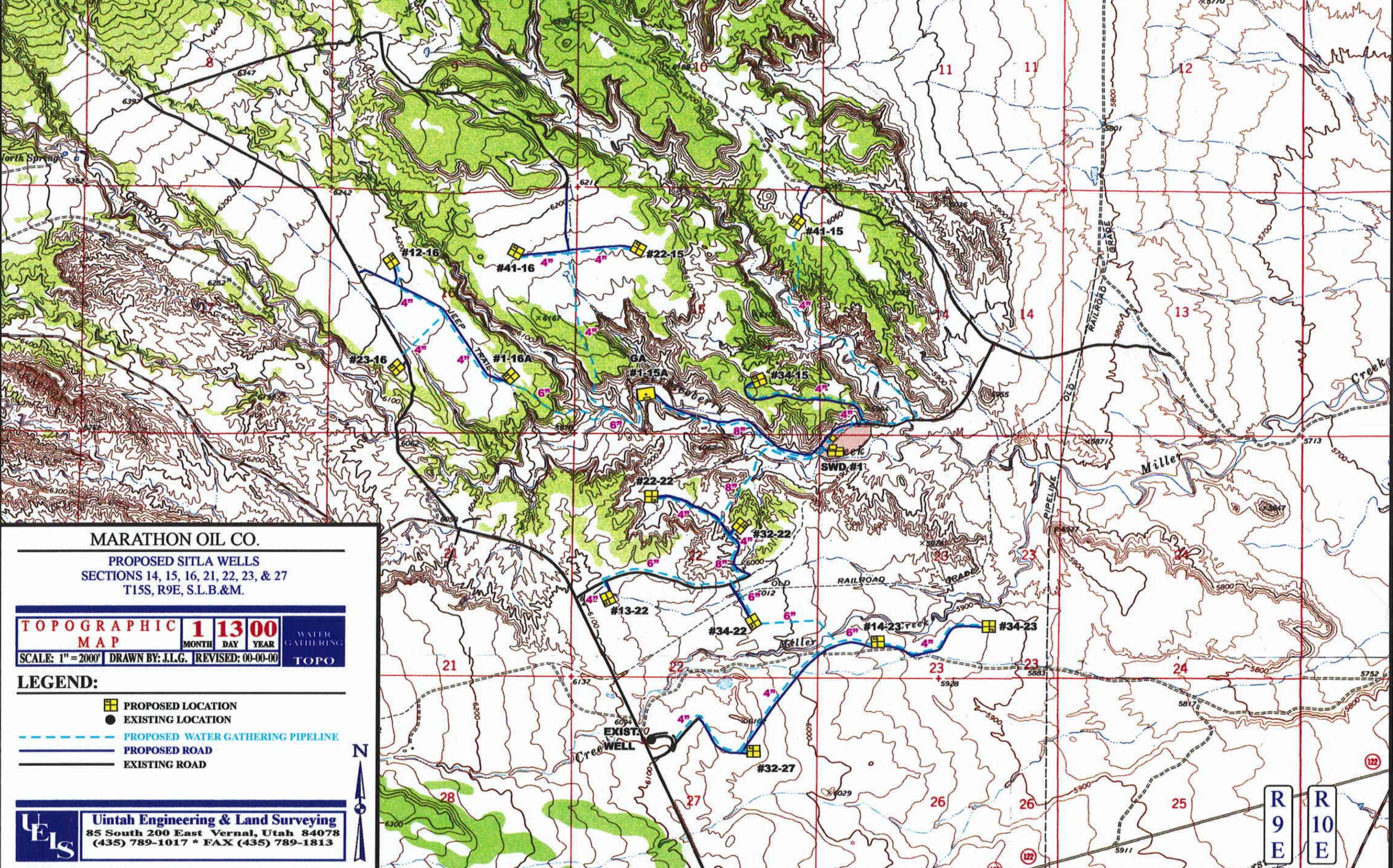
**TOPOGRAPHIC
MAP**

12	28	99
MONTH	DAY	YEAR

SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00



T15S



MARATHON OIL CO.
 PROPOSED SITLA WELLS
 SECTIONS 14, 15, 16, 21, 22, 23, & 27
 T15S, R9E, S.L.B.&M.

TOPOGRAPHIC MAP **1 13 00** WATER GATHERING
 MONTH DAY YEAR TOPO
 SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00

- LEGEND:**
- PROPOSED LOCATION
 - EXISTING LOCATION
 - PROPOSED WATER GATHERING PIPELINE
 - PROPOSED ROAD
 - EXISTING ROAD

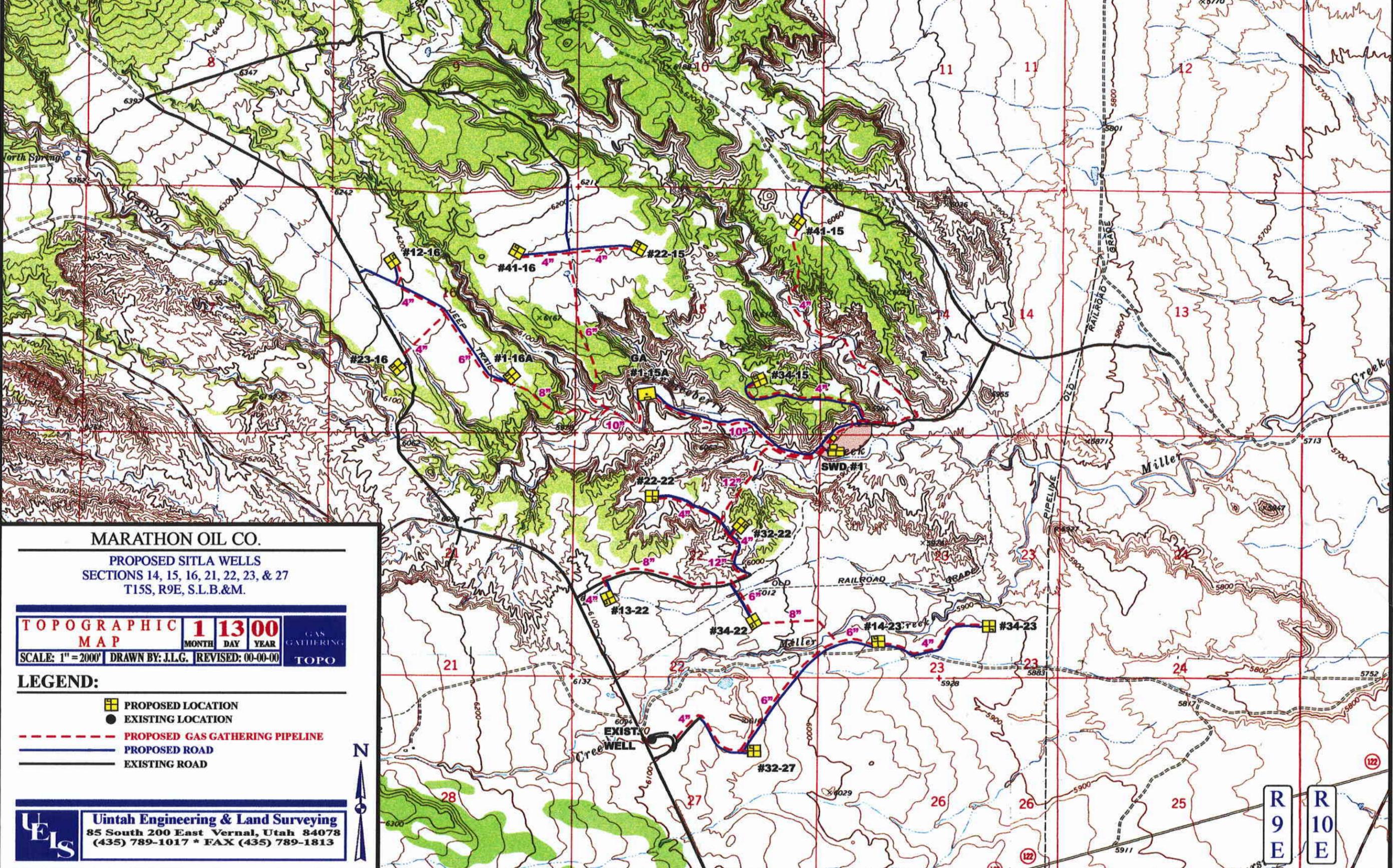
U&L S **Uintah Engineering & Land Surveying**
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813



R
9
E

R
10
E

T15S



MARATHON OIL CO.
 PROPOSED SITLA WELLS
 SECTIONS 14, 15, 16, 21, 22, 23, & 27
 T15S, R9E, S.L.B.&M.

TOPOGRAPHIC MAP 1 13 00
 MONTH DAY YEAR
 SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00
 GAS GATHERING TOPO

LEGEND:
 [Yellow Square] PROPOSED LOCATION
 [Black Circle] EXISTING LOCATION
 [Red Dashed Line] PROPOSED GAS GATHERING PIPELINE
 [Blue Line] PROPOSED ROAD
 [Black Line] EXISTING ROAD

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 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

R 9 E R 10 E

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/16/2000

API NO. ASSIGNED: 43-007-30563

WELL NAME: SITLA 12-16
 OPERATOR: MARATHON OIL COMPANY (N3490)
 CONTACT: BILL RYAN, AGENT

PHONE NUMBER: 435-789-0968

PROPOSED LOCATION:

SWNW 16 150S 090E
 SURFACE: 1530 FNL 1324 FWL
 BOTTOM: 1530 FNL 1324 FWL
 CARBON
 UNDESIGNATED (2)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	<i>RRK</i>	3-23-00
Geology		
Surface		

LEASE TYPE: 3-State
 LEASE NUMBER: ML-47977-OBA
 SURFACE OWNER: 3-State

PROPOSED FORMATION: FRSD

RECEIVED AND/OR REVIEWED:

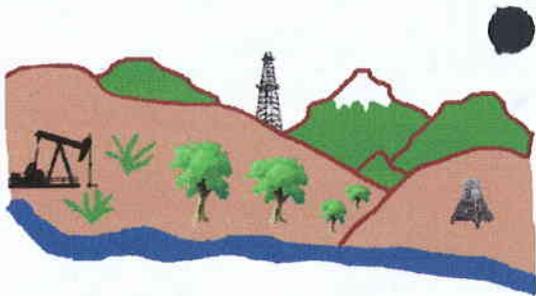
- Plat
- Bond: Fed[] Ind[] Sta[3] Fee[]
(No. 5922542)
- Potash (Y/N)
- Oil Shale (Y/N) *190 - 5 (B)
- Water Permit
(No. MUNICIPAL)
- RDCC Review (Y/N)
(Date: _____)
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

- R649-2-3. Unit _____
- R649-3-2. General
- Siting: _____
- R649-3-3. Exception
- Drilling Unit
Board Cause No: 243-1 (160')
Eff Date: 10-13-98
Siting: 660' to Dr. Unit boundary & 1320' between wells.
- R649-3-11. Directional Drill

COMMENTS: Need Presite. (Conducted 3-9-00)

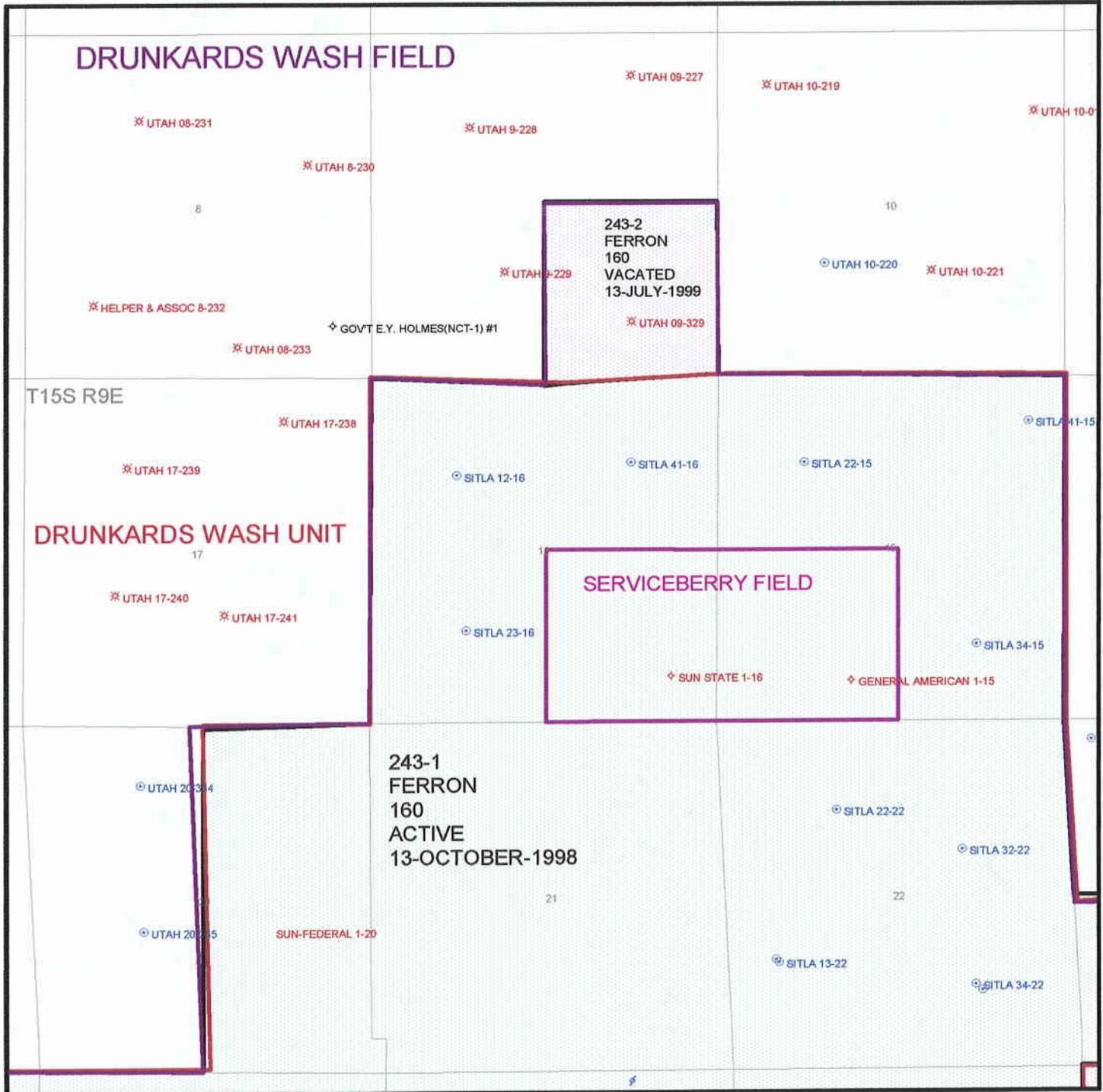
STIPULATIONS: (1) STATEMENT OF BASIS



Utah Oil Gas and Mining

Serving the Industry, Protecting the Environment

OPERATOR: MARATHON OIL COMPANY (N3490)
 FIELD: UNDESIGNATED (002)
 SEC. 15 & 16, T 15 S, R 9 E
 COUNTY: CARBON CAUSE No: 243-1 160 ACRES



PREPARED
 DATE: 17-Feb-2000

ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: Marathon Oil Company
WELL NAME & NUMBER: SITLA #12-16
API NUMBER: 43-007-30563
LEASE: SITLA FIELD/UNIT: Drunkards Wash
LOCATION: 1/4, 1/4 SWNW Sec: 16 TWP: 15 S RNG: 9 E 1324 FWL 1530 FNL
LEGAL WELL SITING: 660' F SEC. LINE; 660' F 1/4, 1/4 LINE; 1320' F ANOTHER WELL.
GPS COORD (UTM): X = 506546; Y = 4374690
SURFACE OWNER: SITLA

PARTICIPANTS

C. Kierst (DOGM), C. Colt (DWR), B. Ryan (Rocky Mtn. Consulting), D. Kay (U.E.L.S.), Randy Meabon (Marathon), D. Wilcox (Nielson Construction), C. Arterbery (drilling consultant)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/~5.5 miles east of the base of Wasatch Plateau. The location is on Quaternary/Tertiary Pediment Mantle covering the westward-dipping Blue Gate Member of the Mancos Shale (above the Garley Canyon Beds). The pad is on a southeastward-trending and sloping, elongate, low bench. The pad is ~1 mile north of the Wattis Highway. It is ~2100' northeast of North Spring Creek and ~700' southwest of the draw of an unnamed southeastward draining tributary of Serviceberry Creek. Igneous intrusive dikes having surface expression are in the area.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 275' X 250' pad with 80' X 50' X 8' inboard pit, ~528' of new access road are requested.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 1 SGW status CBM well (Marathon), 1 PA status location (Texaco - 4300730106), 6 PGW status CBM production wells (RGC) and 2 NEW status CBM locations (Marathon).

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Questar gas pipeline ~3 miles east of the pad (Questar pipeline runs north-south).

SOURCE OF CONSTRUCTION MATERIAL: Material will be borrowed from the pad at the time of construction. Water turnouts and berms will be placed as needed and the road and pad will be graveled as needed. Ancillary gravel needs will be satisfied by the dirt contractor from legally permitted sources. Water will be from the City of Price.

ANCILLARY FACILITIES: none

WASTE MANAGEMENT PLAN:

Portable chemical toilets which will be emptied into the municipal

waste treatment system; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill. No crude oil is expected to be produced. Drilling fluid, completion frac fluid and cuttings will be buried in the pit after evaporation and slashing the pit liner. Produced water will be gathered to the evaporation pit and eventually injected into the Navajo Sandstone via a Marathon-operated salt water disposal well. Used oil from drilling operations and support is hauled to a used oil re-cycler and re-used.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Location is ~2.25 miles north of flowing Miller Creek and ~2100' northeast of spring-fed (~1.5 miles upstream) but ephemeral North Spring Creek. The Price River is about 7 miles to the northeast. Only surface water rights (5) exist within a mile of the location.

FLORA/FAUNA: Sagebrush, rabbit brush bitter brush and indian rice grass / birds, lizards, coyotes, rodents, raptors, elk, deer, reptiles. Nesting raptors are not an issue here. Critical elk, and deer winter range; big game seasonal operational restriction until 4/15/2000.

SOIL TYPE AND CHARACTERISTICS: Moderately-permeable silty soil on Quaternary/Tertiary Pediment Mantle covering the Blue Gate Member of Mancos Shale. (GM-SM)

SURFACE FORMATION & CHARACTERISTICS: Blue Gate Member (above Garley Canyon Beds) of Mancos Shale.

EROSION/SEDIMENTATION/STABILITY: Ground generally slopes east to southeast toward the Serviceberry Creek drainage.

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout, earthen pit, as above.

LINER REQUIREMENTS (Site Ranking Form attached): Synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

As per State surface agreement.

SURFACE AGREEMENT: Agreement filed with State.

CULTURAL RESOURCES/ARCHAEOLOGY: Cleared but not yet filed with state.

OTHER OBSERVATIONS/COMMENTS

No DWR concerns are noted at this location beyond season restrictions.

ATTACHMENTS:

4 Photos were taken of this location. (31-34)

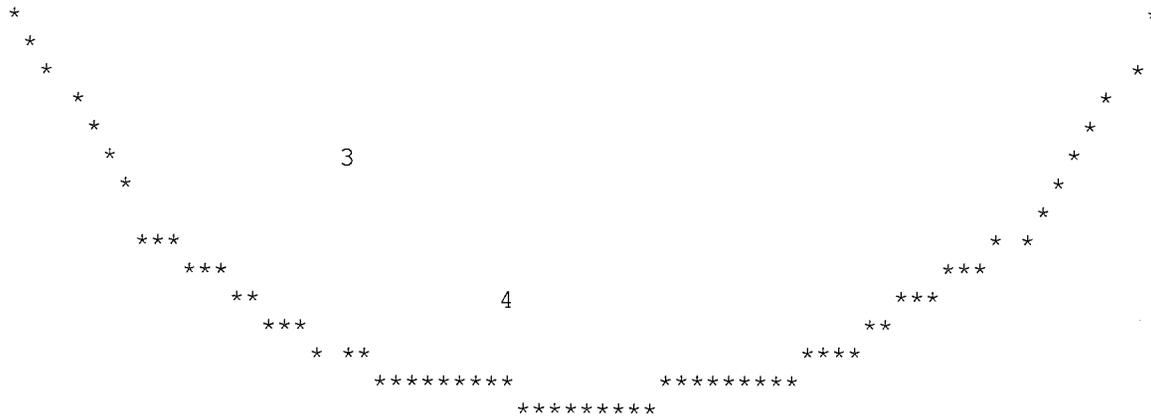
Chris Kierst
DOGM REPRESENTATIVE

3/9/2000 3:40 PM
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>0</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

Final Score 15 (Level II Sensitivity)



UTAH DIVISION OF WATER RIGHTS
 NWPLAT POINT OF DIVERSION LOCATION PROGRAM

MAP CHAR	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION or WELL INFO	POINT OF DIVERSION DESCRIPTION
				DIAMETER DEPTH YEAR LOG NORTH EAST CNR SEC TWN RNG B&M	
0	91 4528	.0000	.00	Unnamed Trib. to Serviceberry	
				WATER USE(S): STOCKWATERING OTHER	PRIORITY DATE: 00/00/19
				State of Utah School & Institutional Tru 675 East 500 South, Suite 500	Salt Lake City
1	91 4980	.0000	4.73	Unnamed Washes	N 2100 W 1500 SW 15 15S 9E SL
				WATER USE(S): STOCKWATERING	PRIORITY DATE: 01/26/19
				State of Utah School & Institutional Tru 675 East 500 South, 5th Floor	Salt Lake City
2	91 4729	.0000	.00	North Spring Wash	
				WATER USE(S): STOCKWATERING OTHER	PRIORITY DATE: 00/00/18
				State of Utah School & Institutional Tru 675 East 500 South, Suite 500	Salt Lake City
3	91 4726	.0000	.00	Serviceberry Creek	
				WATER USE(S): STOCKWATERING OTHER	PRIORITY DATE: 00/00/18
				State of Utah School & Institutional Tru 675 East 500 South, Suite 500	Salt Lake City

4 91 4727 .0000 .00 Serviceberry Creek

WATER USE(S): STOCKWATERING OTHER

State of Utah School & Institutional Tru 675 East 500 South, Suite 500

PRIORITY DATE: 00/00/18

Salt Lake City

DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

Operator Name: Marathon Oil Company

Name & Number: SITLA #12-16

API Number: 43-007-30563

Location: 1/4, 1/4 SWNW Sec. 16 T. 15 S R. 9 E County: Carbon

Geology/Ground Water:

There are no aquifers with high quality ground water expected to be encountered. A moderately - permeable soil is developed on the Quaternary / Tertiary Pediment Mantle covering the upper part of the Blue Gate Member of the Mancos Shale. The proposed surface casing and cementing program should be sufficient to ensure the protection of the ground water resources. The Garley Canyon Beds, though thin, will probably be adequately protected within the existing surface casing and cementing program, but, in the event these are below the proposed setting depth, the casing string should be extended as needed to accomplish their inclusion.

Reviewer: C. Kierst Date: 3/23/2000

Surface:

The silty, moderately-permeable soil is developed on Quaternary/Tertiary Pediment Mantle covering a pediment formed from the Blue Gate Member of the Mancos Shale. The nearest year-round moving surface waters are ~2.25 miles south in Miller Creek. Berms will be placed around the pad. Pit integrity will be maintained by the use of a synthetic liner. There are no nearby culinary or irrigation water supply wells. There are 5 surface water rights within a mile of the location. The site was photographed and characterized on 3/9/2000. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. The well utilities and water gathering system will follow the approach roadway.

Reviewer: C. Kierst Date: 3/23/2000

Conditions of Approval/Application for Permit to Drill:

- 1) Culverts sufficient to manage expected runoff, standing and surface water shall be installed in crossed drainages.
- 2) Berm location and pit.
- 3) Minimum 12 mil synthetically lined pit and blooie pit.
- 4) Dust abatement will be used while drilling and on access roads.
- 5) 404 Dredge and Fill Permits must be obtained when required or waived by the U.S. Army Corp. of Engineers or their authorized agents for crossings of any watercourses by pipelines or access roads, or prior to any bank or streambed modifications.
- 6) Compliance with terms of the governing EIS.
- 7) Extend surface casing as needed to case the Garley Canyon Beds.

Well name:

3-00 Marathon SITLA #12-16

Operator: **Marathon**

String type: **Surface**

Project ID:
43-007-30563

Location: **Carbon County**

Design parameters:

Collapse

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 79 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 160 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.433 psi/ft
Calculated BHP 130 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 262 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 1,850 ft
Next mud weight: 8.330 ppg
Next setting BHP: 801 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,850 ft
Injection pressure 1,850 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	300	8.625	24.00	J-55	ST&C	300	300	7.972	14.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	130	1370	10.56	130	2950	22.73	6	244	38.74 J

Prepared RJK
by: Utah Dept. of Natural Resources

Date: March 23,2000
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 300 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	3-00 Marathon SITLA #12-16	
Operator:	Marathon	Project ID:
String type:	Production	43-007-30563
Location:	Carbon County	

Design parameters:	Minimum design factors:	Environment:
<u>Collapse</u>	<u>Collapse:</u>	H2S considered? No
Mud weight: 8.330 ppg	Design factor 1.125	Surface temperature: 75 °F
Design is based on evacuated pipe.		Bottom hole temperature: 118 °F
		Temperature gradient: 1.40 °F/100ft
		Minimum section length: 368 ft
	<u>Burst:</u>	Cement top: 2,148 ft
	Design factor 1.00	
<u>Burst</u>		
Max anticipated surface pressure: 0 psi		
Internal gradient: 0.433 psi/ft	<u>Tension:</u>	Non-directional string.
Calculated BHP 1,316 psi	8 Round STC: 1.80 (J)	
No backup mud specified.	8 Round LTC: 1.80 (J)	
	Buttress: 1.60 (J)	
	Premium: 1.50 (J)	
	Body yield: 1.50 (B)	
	Tension is based on buoyed weight.	
	Neutral point: 2,658 ft	

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	3042	5.5	17.00	L-80	LT&C	3042	3042	4.767	104.8

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1316	6290	4.78	1316	7740	5.88	45	338	7.48 J

Prepared by: RJK
Utah Dept. of Natural Resources

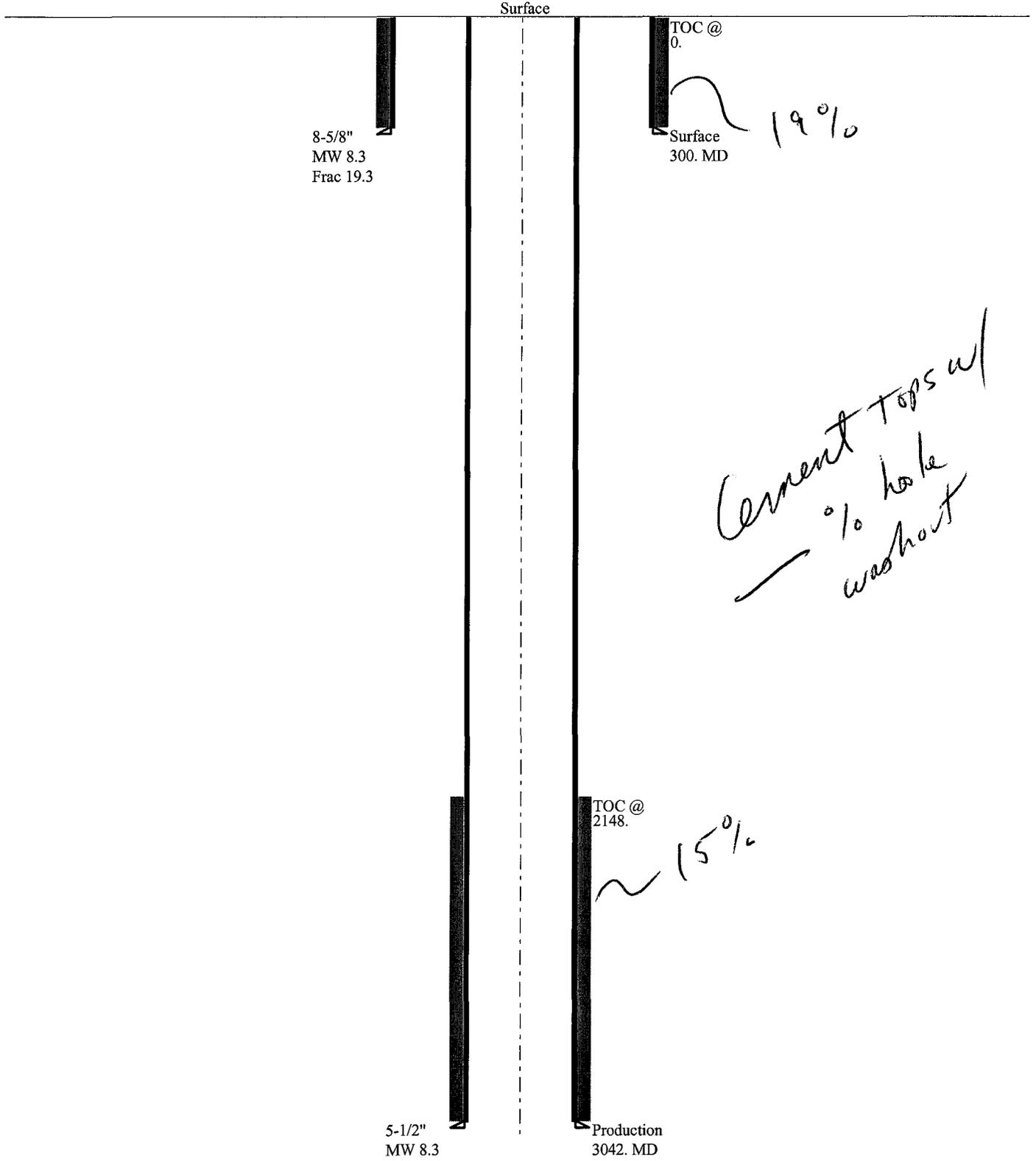
Date: March 23,2000
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 3042 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

3-00 Marathon SITLA #12-18

Casing Schematic



Well name:

3-00 Marathon SITLA #23-16

Operator: **Marathon**

String type: **Surface**

Project ID:

43-007-30665

Location: **Carbon County**

Design parameters:

Collapse

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 79 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 160 ft

Cement top: 0 ft

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.433 psi/ft
Calculated BHP 130 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 262 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 1,850 ft
Next mud weight: 8.330 ppg
Next setting BHP: 801 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,850 ft
Injection pressure 1,850 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	300	8.625	24.00	J-55	ST&C	300	300	7.972	14.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	130	1370	10.56	130	2950	22.73	6	244	38.74 J

Prepared RJK
by: Utah Dept. of Natural Resources

Date: March 23,2000
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 300 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 27, 2000

Marathon Oil Company
1501 Stampede Avenue
Cody, WY 82414

Re: SITLA 12-16 Well, 1530' FNL, 1324' FWL, SW NW, Sec. 16, T. 15S, R. 9E,
Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the enclosed Conditions of Approval, approval to drill the referenced well is granted.

This approval will expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30563.

Sincerely,

A handwritten signature in cursive script that reads "John R. Baza".

John R. Baza
Associate Director

er

Enclosures

cc: Carbon County Assessor
SITLA

Operator: Marathon Oil Company

Well Name & Number: SITLA 12-16

API Number: 43-007-30563

Lease: ML-47977-OBA

Location: SW NW **Sec.** 16 **T.** 15S **R.** 9E

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division of the following actions during drilling of this well:

- . 24 hours prior to cementing or testing casing
 - . 24 hours prior to testing blowout prevention equipment
 - . 24 hours prior to spudding the well
 - . within 24 hours of any emergency changes made to the approved drilling program
 - . prior to commencing operations to plug and abandon the well
- Division contacts (please leave a voice mail message if the person is not available to take the call):
- . Dan Jarvis at (801)538-5338
 - . Robert Krueger at (801)538-5274 (plugging)
 - . Carol Daniels at (801)538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: MARATHON OIL COMPANY

Well Name: SITLA 12-16

Api No. 43-007-30563 LEASE TYPE: STATE

Section 16 Township 15S Range 09E County CARBON

Drilling Contractor ELLENBURG DRILLING RIG # 15

SPUDDED:

Date 05/26/2000

Time 7:00 PM

How ROTARY

Drilling will commence _____

Reported by CHUCK WALTER

Telephone # 1-435-820-9667

Date 05/30/2000 Signed: CHD

Form 9

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

SUNDRY NOTICES AND REPORTS ON WELLS <small>Do not use this form for proposals to drill new wells, deepen existing wells, or to reseat plugged and abandoned wells. Use APPLICATION FOR PERMIT for such proposals.</small>		6. Lease Designation and Serial Number ML-47977-OBA
		7. Indian Allottee or Tribe Name NA
		8. Unit or Communitization Agreement NA
		9. Well Name and Number SITLA # 12-16
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify) 2		10. API Well Number 43-007-30563
2. Name of Operator Marathon Oil Company		11. Field and Pool, or Wildcat DRUNKARD'S WASH
3. Address of Operator 1501 Stampede Ave., Cody, Wyoming 82414	4. Telephone Number 307-527-2211	
5. Location of Well Footage : 1530' FNL, 1324' FWL County : CARBON Q.Q. Sec. T., R., M. : SWNW 16-16S-9E State : UTAH		
12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		

NOTICE OF INTENT
(Submit in Duplicate)

<input type="checkbox"/> Abandonment	<input type="checkbox"/> New Construction
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Other _____	

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

<input type="checkbox"/> Abandonment *	<input type="checkbox"/> New Construction
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Other _____	SPUD

Date of Work Completion 05/26/2000

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
 * Must be accompanied by a cement verification report.

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

THE ABOVE NAMED WELL WAS SPUDDED ON 5/26/00 WITH ELENBURG RIG #15.
 SURFACE CASING WAS PRE-SET TO 322'.

33424'

GL: 6210' KB: 6222'

CC: WRF,RPM,DRILLING,DTJ,T&C(HOU),MEW

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

Name & Signature R.P. Meabon Title Reg. Coord. Date 05/30/00

(State Use Only)

(8/90)

See Instructions on Reverse Side

RECEIVED

JUL 03 2000

DIVISION OF
 OIL, GAS AND MINING

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

ENTITY ACTION FORM

Operator: Marathon Oil Company
Address: Attn: Michael L. Meyer
539 South Main St.
Findlay, OH 45840

Operator Account Number: N 3490
Phone Number: (419) 421-3217

Well 1

API Number	Well Number		QQ	Sec	Twp	Rng	County
43-007-30563	Sitla 12-16		SW NW	16	15S	9E	Carbon
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	<i>12780</i>	5-26-00		<i>7-6-00</i>		
Comments: <i>000706 entity added</i>							

Well 2

API Number	Well Number		QQ	Sec	Twp	Rng	County
43-007-30670	Sitla 14-23		SW SW	23	15S	9E	Carbon
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	<i>12781</i>	5-29-00		<i>7-6-00</i>		
Comments: <i>000706 entity added.</i> Communization Agreement In Progress.							

Well 3

API Number	Well Number		QQ	Sec	Twp	Rng	County
43-007-30655	Sitla 22-22		SE NW	22	15S	9E	Carbon
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	<i>12782</i>	5-21-00		<i>7-6-00</i>		
Comments: <i>000706 entity added.</i>							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Michael L. Meyer
Name (Please Print)
Michael L Meyer
Signature
Supervisor (RMS) 6-29-00
Date

RECEIVED

JUL 03 2000

DIVISION OF
OIL, GAS AND MINING

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

6. Lease Designation and Serial Number ML-47977-OBA
7. Indian Allottee or Tribe Name NA
8. Unit or Communitization Agreement NA
9. Well Name and Number SITLA # 12-16
10. API Well Number 43-007-30563
11. Field and Pool, or Wildcat DRUNKARD'S WASH

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT for such proposals

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify) <u>2</u>	
2. Name of Operator Marathon Oil Company	
3. Address of Operator 1501 Stampede Ave., Cody, Wyoming 82414	4. Telephone Number 307-527-2211
5. Location of Well Footage : 1530' FNL, 1324' FWL County : CARBON QQ, Sec, T., R., M : SWNW 16-15S-9E State : UTAH	

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

NOTICE OF INTENT
(Submit in Duplicate)

<input type="checkbox"/> Abandonment	<input type="checkbox"/> New Construction
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Fracture Treat	<input checked="" type="checkbox"/> Vent or Flare
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Other _____	

Approximate Date Work Will Start August 2000

SUBSEQUENT REPORT
(Submit Original Form Only)

<input type="checkbox"/> Abandonment *	<input type="checkbox"/> New Construction
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Other _____	

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

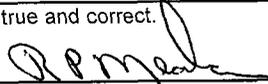
13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

THE ABOVE NAMED WELL WAS SPUDDED ON 5/26/00 AND MARATHON PLANS TO PROCEED WITH THE COMPLETION WORK BY AUGUST 1, 2000. DUE TO THE SENSITIVITY OF THE FERRON FORMATION DURING COMPLETION, AND TESTING PHASE AND TO ESTABLISH A STABILIZED WATER AND GAS RATE FOR THE PURPOSE OF ECONOMIC VIABILITY, MARATHON REQUESTS APPROVAL, IN ACCORDANCE WITH R649-3-20.3, APPROVAL TO VENT OR FLARE GAS FROM THE ABOVE NAMED WELL FOR A PERIOD OF 30 DAYS OR 50 MMCF, WHICHEVER IS LESS.

RECEIVED
JUL 25 2000
DIVISION OF
OIL, GAS AND MINING

CC: WRF,RPM,DTJ,T&C(HOU),MEW,DRUNKARD'S WASH OFFICE

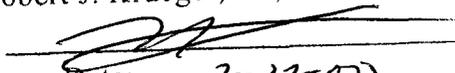
14. I hereby certify that the foregoing is true and correct.

Name & Signature R.P. Meabon  Title Reg. Coord. Date 07/20/00

APPROVED

(State Use Only)

COPY SENT TO OPERATOR
Date: 7-27-00
Initials: CHD

The Utah Division of Oil, Gas and Mining
Robert J. Krueger, PE, Petroleum Engineer

Date: 7-27-00

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

6. Lease Designation and Serial Number
 ML-47977-OBA

7. Indian Allottee or Tribe Name
 NA

8. Unit or Communitization Agreement
 NA

9. Well Name and Number
 SITLA # 12-16

10. API Well Number
 43-007-30563

11. Field and Pool, or Wildcat
 DRUNKARD'S WASH

SUNDRY NOTICES AND REPORTS ON WELLS
 Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
 Use APPLICATION FOR PERMIT -- for such proposals

1. Type of Well
 Oil Well Gas Well Other (specify) ?

2. Name of Operator
Marathon Oil Company

3. Address of Operator
1501 Stampede Ave., Cody, Wyoming 82414

4. Telephone Number
 307-527-2211

5. Location of Well
 Footage : 1530' FNL, 1324' FWL County : CARBON
 QQ, Sec, T., R., M : SWNW 16-15S-9E State : UTAH

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

NOTICE OF INTENT
 (Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
 (Submit Original Form Only)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>FIRST PRODUCTION</u> | |

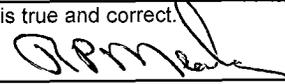
Date of Work Completion 09/08/2000

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
 * Must be accompanied by a cement verification report.

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

The above named well was placed on production to the sales line on 9/08/2000.

CC: WRF,RPM,DTJ,T&C(HOU),MEW

14. I hereby certify that the foregoing is true and correct.
 Name & Signature R.P. Meabon  Title Reg. Coord. Date 09/20/00

(State Use Only)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NO.

ML-47977-OBA

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

1a. TYPE OF WELL:

OIL WELL

GAS WELL

DRY

Other _____

7. UNIT AGREEMENT NAME

NA

b. TYPE OF COMPLETION:

NEW WELL

WORK OVER

DEEPEN

PLUG BACK

DIFF. RESVR.

Other _____

8. FARM OR LEASE NAME

SITLA

2. NAME OF OPERATOR

MARATHON OIL COMPANY

9. WELL NO.

12-16

3. ADDRESS OF OPERATOR

1501 STAMPEDE AVENUE, CODY, WYOMING 82414

10. FIELD AND POOL, OR WILDCAT

DRUNKARD'S WASH

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.*)

At surface

1530' FNL, 1324' FWL SWNW

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

16-15S-9E

At total depth

SAME

14. API NO.

43-007-30563

DATE ISSUED

3/27/2000

12. COUNTY

CARBON

13. STATE

UTAH

15. DATE SPUNDED

5/26/00

16. DATE T.D. REACHED

5/29/00

17. DATE COMPL. (Ready to prod.) or (Plug & Abd.)

9/8/00

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)

6210' GR, 6222' RKB

19. ELEV. CASINGHEAD

NA

20. TOTAL DEPTH, MD & TVD

3075 MD 3075 TVD

21. PLUG BACK T.D., MD & TVD

3030 MD 3030 TVD

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

----->

ROTARY TOOLS

0 - 3075', Elenburg #15

CABLE TOOLS

NA

24. PRODUCING INTERVAL(S), OF THIS COMPLETION---TOP, BOTTOM, NAME (MD AND TVD)

2684' - 2811' Gross, Ferron Coal

25. WAS DIRECTIONAL SURVEY MADE

NA

26. TYPE ELECTRIC AND OTHER LOGS RUN

6-6-00 CNL-LDT-HRI-MLT-GR, AIT-GR, CBL-CCL-GR-10-2-00

27. WAS WELL CORED? YES NO

DRILL STEM TEST? YES NO

(Submit analysis)

(See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	334' KB	11"	140 sxs of Prem AG-300	0
5-1/2"	17#	3075.68' KB	7-7/8"	90 sxs 50/50 POZ followed by 190 sxs Thixotropic	0

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	2943'	none

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER
2788' - 90', 2797' - 2804', 2809' - 11'	22.7gm	47
2747' - 56', 2762' - 64', 2770' - 73'	22.7gm	59
2684' - 87', 2693' - 95', 2710' - 22'	22.7gm	71

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
2788' - 2811'	58,610# 16-30 sd in 27,950g of 20# Delta Gel.
2747' - 2773'	76,360# 16-30 sd in 31,974g of 20# Delta Gel.
2684' - 2722'	116,410# 16-30 sd in 40,695g of 20# Delta Gel.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)					
9/8/00	Pumping - Positive Cavity Pump	Producing					
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO
9/19/2000	24	na	----->	0	231	558	na
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)	
90	90	----->	0	231	558	na	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

Field Supervisor

35. LIST OF ATTACHMENTS

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

SIGNED

[Signature]

TITLE

REGULATORY COORDINATOR

DATE

9/25/00

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on 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) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

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

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

37. SUMMARY OF POROUS ZONES:

Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

38. GEOLOGIC MARKERS

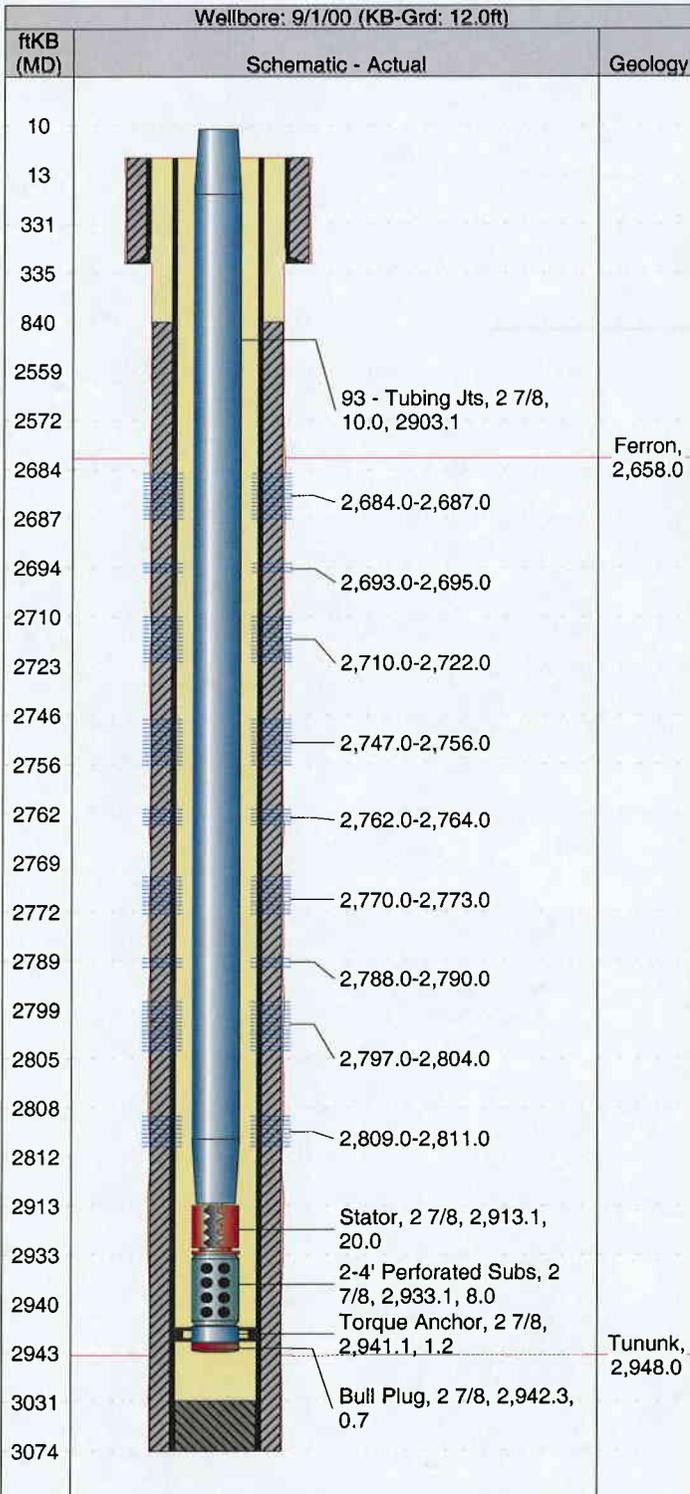
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
				Ferron Tununk	2658 2948	2658 2948

Sitla 12-16

Location

East-West Distance (ft)	From E or W Line	NS Dist. (ft)	From N or S Line
1324.0	W	1530.0	N
Latitude (DMS)		Longitude (DMS)	
Legal Survey Type		Surface Legal Location	
Congressional		SW/NW SEC. 16-T15S-R9E	

API	Field Name	Area	Operator	County	State/Province
43-007-30563	Drunkards Wash	Drunkards Wash	Marathon Oil Company	CARBON	UTAH
KB Elev (ft)	Ground Elev (ft)	Casing Flange Elev (ft)	KB-Ground (ft)	KB-Casing Flange (ft)	Spud Date
6222.00	6210.00	6210.00	12.00	12.00	5/24/00



Group List - Actual

Wellbore							
Date	Des	OD	Int (MD)				
5/28/00	Wellbore	11	12.0-334.0				
5/28/00	Wellbore	7 7/8	334.0-3,075.7				
Production Casing							
Date	Des	OD	ID	Top (MD)	Len	Btm (MD)	
5/28/00	Casing Jts	5 1/2	4.892	12.0	2546.9	2,558.9	
5/28/00	Marker Jt.	5 1/2	4.892	2,558.9	14.7	2,573.6	
5/28/00	Casing Jts	5 1/2	4.892	2,573.6	457.0	3,030.5	
5/28/00	Insert Float Collar	5 1/2	4.892	3,030.5	0.1	3,030.6	
5/28/00	Casing Jt.	5 1/2	4.892	3,030.6	44.5	3,075.1	
5/28/00	Casing Shoe	5 1/2	4.820	3,075.1	0.6	3,075.7	
Surface Casing							
Date	Des	OD	ID	Top (MD)	Len	Btm (MD)	
5/28/00	Casing Jts	8 5/8	8.097	12.0	321.0	333.0	
5/28/00	Casing Shoe	8 5/8		333.0	1.0	334.0	
Production Tubing							
Date	Des	OD	ID	Len	Top (MD)	Btm (MD)	
9/1/00	93 - Tubing Jts	2 7/8	2.441	2903.1	10.0	2,913.1	
9/1/00	Stator	2 7/8	2.411	20.0	2,913.1	2,933.1	
9/1/00	2-4' Perforated Subs	2 7/8	2.441	8.0	2,933.1	2,941.1	
9/1/00	Torque Anchor	2 7/8		1.2	2,941.1	2,942.3	
9/1/00	Bull Plug	2 7/8		0.7	2,942.3	2,943.0	
Rod String							
Date	Des	OD	Top (MD)	Len			
9/1/00	Polish Rod	7/8	36.0	22.0			
9/1/00	114 - 7/8" Rods	7/8	58.0	2850.0			
9/1/00	Rod Pump	7/8	2,908.0	15.0			
Cement							
Date	Des	Int (MD)	Com				
5/28/00	Surface Casing	12.0-334.0					
5/28/00	PBTD	3,030.0-3,075.7					
5/28/00	Production Casing	840.0-3,075.7					
Perforations							
Date	Int (MD)	Com					
8/23/00	2,684.0-2,687.0						
8/23/00	2,693.0-2,695.0						
8/23/00	2,710.0-2,722.0						
8/23/00	2,747.0-2,756.0						
8/23/00	2,762.0-2,764.0						
8/23/00	2,770.0-2,773.0						
8/22/00	2,788.0-2,790.0						
8/22/00	2,797.0-2,804.0						
8/22/00	2,809.0-2,811.0						
Formations							
Des	Top (MD)						
Ferron	2,658.0						
Tununk	2,948.0						

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