

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

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>			5. MINERAL LEASE NO: <b>ML-49144</b>	6. SURFACE: State
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>			7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>			8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: <b>The Houston Exploration Company</b>			9. WELL NAME and NUMBER: <b>Gusher 6-2</b>	
3. ADDRESS OF OPERATOR: <b>1100 Louisiana Suite 20</b> CITY <b>Houston</b> STATE <b>TX</b> ZIP <b>77002</b>		PHONE NUMBER: <b>(713) 803-6800</b>	10. FIELD AND POOL, OR WILDCAT: <b>Undesignated <u>Moffat Mine</u></b>	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>1550' FNL &amp; 1825' FWL</b> <i>605972X 40.327132</i> AT PROPOSED PRODUCING ZONE: <b>Same as above</b> <i>4464603Y -109.752598</i>			11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <i>SE 2 6S 19E</i>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: <b>18.0 miles from Vernal Utah</b>			12. COUNTY: <b>Uintah</b>	13. STATE: <b>UTAH</b>
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) <b>1550'</b>	16. NUMBER OF ACRES IN LEASE: <b>600</b>	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:		
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) <b>N/A</b>	19. PROPOSED DEPTH: <b>7,400</b>	20. BOND DESCRIPTION: <b>104155044</b>		
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): <b>5308'</b>	22. APPROXIMATE DATE WORK WILL START: <b>9/15/2005</b>	23. ESTIMATED DURATION: <b>30 days</b>		

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
11"	8 5/8	J-55	36#	2,000	PRIMIUM LITE II	250 SKS	3.38 CF	11.0 PPG
					CLASS "G"	329 SKS	1.2 CF	15.6 PPG
					CALCIUM CHLORIDE	200 SKS	1.10 CF	15.6 PPG
7 7/8"	4 1/2"	N-80	11.6#	8,000	PRIMIUM LITE II	200 SKS	3.3 CF	11.0 PPG
					CLASS "G"	400 SKS	1.56 CF	14.3 PPG

**ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                                   |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) William A. Ryan *William A. Ryan* TITLE Agent  
SIGNATURE \_\_\_\_\_ DATE 8/9/05

(This space for State use only)

API NUMBER ASSIGNED: 43-047-36963

Approved by the  
Utah Division of  
Oil, Gas and Mining  
APPROVAL

Date: 09-19-05  
By: *[Signature]*

**RECEIVED**  
**AUG 12 2005**

DIV. OF OIL, GAS & MINING

# T6S, R19E, S.L.B.&M.

## THE HOUSTON EXPLORATION COMPANY

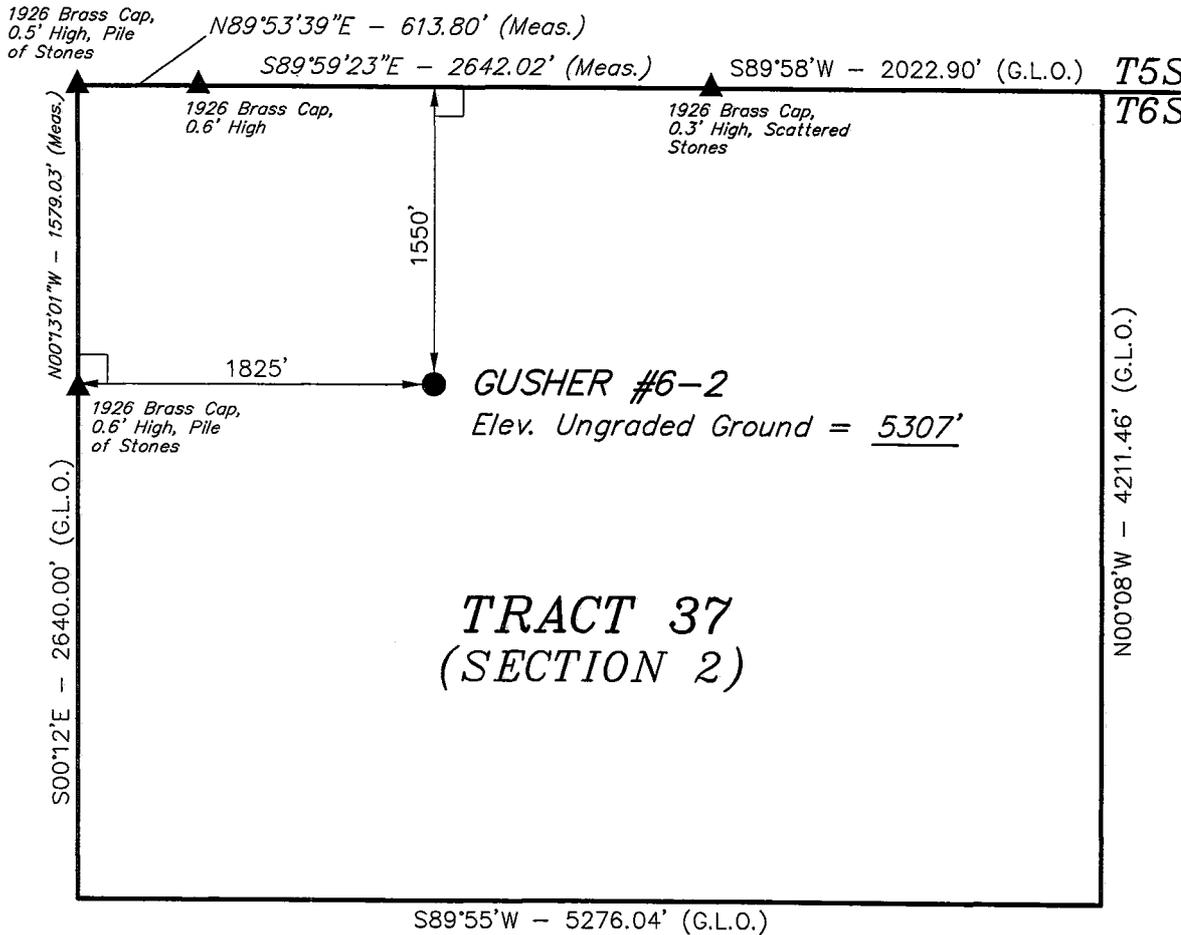
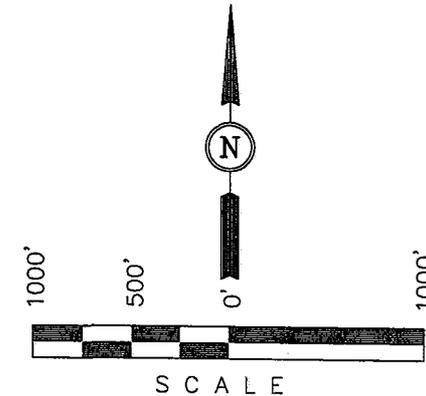
Well location, GUSHER #6-2, located as shown in Tract 37 (Section 2), T6S, R19E, S.L.B.&M. Uintah County, Utah.

### BASIS OF ELEVATION

CANAL TRIANGULATION STATION LOCATED IN THE NE 1/4 OF SECTION 11, T6S, R19E, S.L.B.&M. TAKEN FROM THE VERNAL SW QUADRANGLE QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5312 FEET.

### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



**TRACT 37  
(SECTION 2)**

**GUSHER #6-2**  
Elev. Ungraded Ground = 5307'

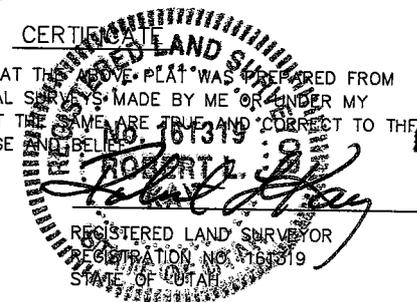
S89°55'W - 5276.04' (G.L.O.)

(NAD 83)  
LATITUDE = 40°19'37.71" (40.327142)  
LONGITUDE = 109°45'11.96" (109.753322)  
(NAD 27)  
LATITUDE = 40°19'37.85" (40.327181)  
LONGITUDE = 109°45'09.44" (109.752622)

#### LEGEND:

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

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.



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

SCALE 1" = 1000'	DATE SURVEYED: 11-16-04	DATE DRAWN: 11-22-04
PARTY D.K. C.M. E.C.O.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE THE HOUSTON EXPLORATION COMPANY	

**Ten Point Plan**

**The Houston Exploration Company**

**Gusher 6-2**

**Surface Location Track 37, Section 2, T. 6S., R. 19E.**

**1. Surface Formation**

Green River

**2. Estimated Formation Tops and Datum:**

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Green River	Surface	+5,308' G.L.
Uteland Butte Limestone	3,654	+1,654'
Wasatch	3,769	+1,539'
Mesaverda	6,169	-861'
Buck Tounge	8,369	-3,061'
TD	7,400	-2,092'

A 11" hole will be drilled to 2,000' +/- . The hole depth will depend on the depth that the Birds Nest Zone is encountered. The hole will be drilled 400' beyond the top of the Birds Nest.

**3. Producing Formation Depth:**

Formation objective includes the Green River, Wasatch, Mesaverde and its sub-members.

Off Set Well information  
Permitted/Drilled:

**4. Proposed Casing:**

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight/FT</u>	<u>Grade</u>	<u>Coupling &amp; Tread</u>	<u>Casing Depth</u>	<u>New/Used</u>
11	8 5/8	36#	J-55	STC	2000	NEW
7 7/8	4 1/2	11.6#	N-80	LTC	T.D.	NEW

**Cement Program:**

The Surface Casing will be cemented to the Surface as follows:

	<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Lead:	8 5/8	Premium Lite II .05#/sk Static Free .25#/sk Cello Flake 5#/sk KOL Seal .002 gps FP-6L 10% Bentonite .5% Sodium Metasilicate 3% Potassium Chloride	250 sks. +/-	3.38ft <sup>3</sup> /sk	11.0 ppg
Tail:	8 5/8	Class "G" 2% Calcium Chloride .25#/sk Cello Flake	329 sks. +/-	1.2ft <sup>3</sup> /sk	15.6 ppg
Top Job:	8 5/8	4% Calcium Chloride .25#/sk Cello Flake	200 sks. +/-	1.10ft <sup>3</sup> /sk	15.6 ppg

Production casing will be cemented to 2,500' or higher as follows:

	<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Lead:	4 1/2	Premium Lite II .25#/sk Cello Flake .05#/sk Static Free 5#/sk Kol Seal 3% Potassium Chloride .055 gps FP-6L 10% Bentonite .5 Sodium Metasilicate	200 sks +/-	3.3ft <sup>3</sup> /sk	11.0 ppg
Tail:	4 1/2	Class "G" .05% Static Free 2 Sodium Chloride .1% R-3 2% Bentonite	400 sks +/-	1.56ft <sup>3</sup> /sk	14.3 ppg

##### **5. BOP and Pressure Containment Data;**

The anticipated bottom hole pressure will be less than 3000 psi.

A 3000-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 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./OT.</u>	<u>Fluid Loss Ml/30 Mins.</u>	<u>Mud Type</u>
0-2000	Air/Clear Water	-----	No Control	Water/Gel
2000-T.D.	8.4-12.0	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 2000' to T.D.
- d) Logging: 

Type	Interval
DLL/SFL W/GR and SP	T.D. to Surf. Csg
FDC/CNL W/GR and CAL	T.D. to Surf. Csg

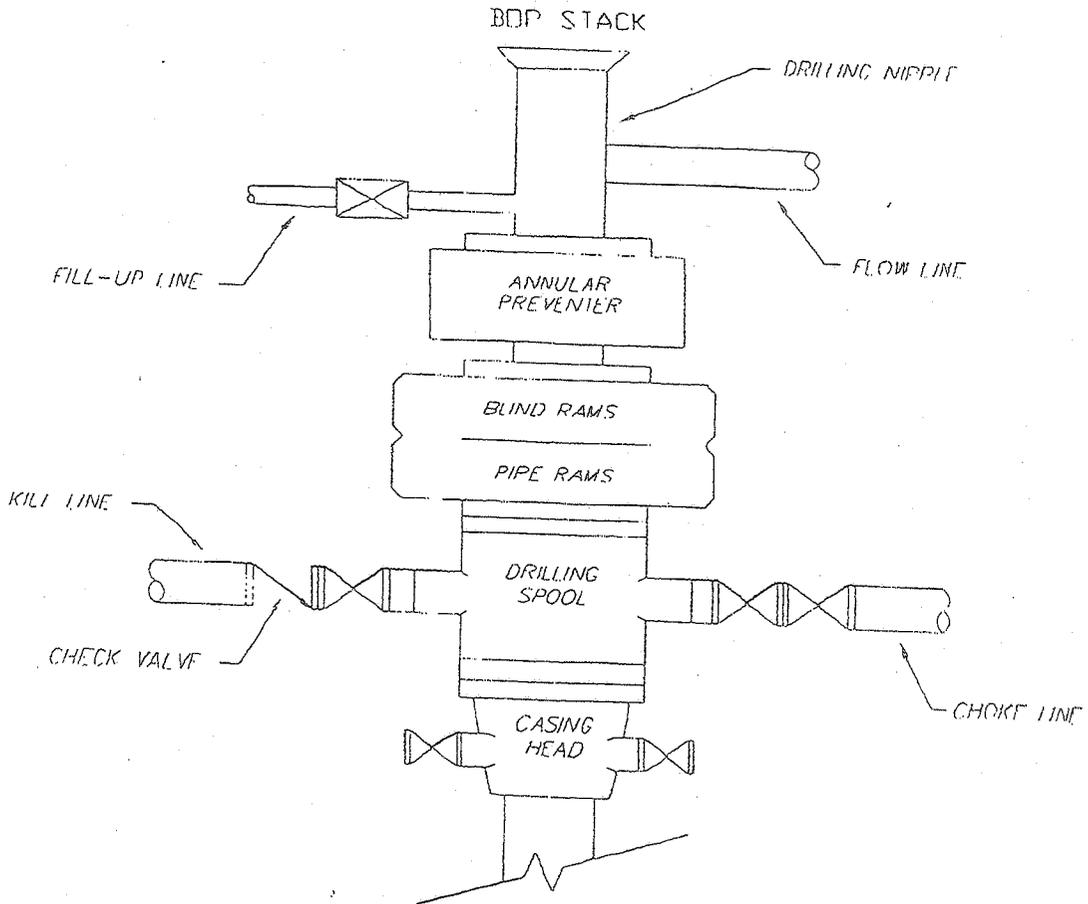
## 9. Abnormalities (including sour gas):

No abnormal pressures, temperatures or other hazards are anticipated. Oil and gas shows are anticipated in the Wasatch Formation. Other wells drilled in the area have not encountered over pressured zones or H<sub>2</sub>S.

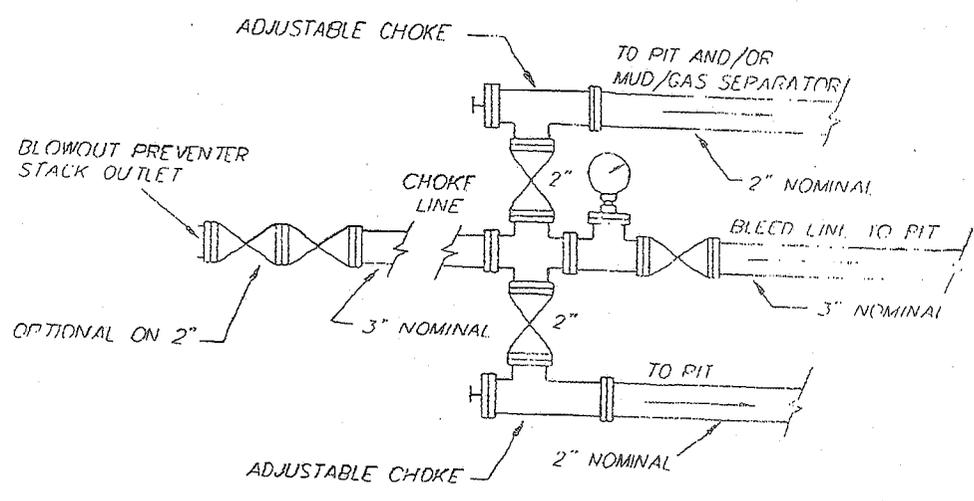
## 10. Drilling Schedule:

The anticipated starting date is 09/15/05. Duration of operations is expected to be 30 days.

TYPICAL 3,000 p.s.i.  
BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i.  
CHOKER MANIFOLD SCHEMATIC



TYPICAL  
GAS WELL

WATER DRAIN  
PIT

water dump line

valve

WELL HEAD

valve

COMBINATION  
UNIT

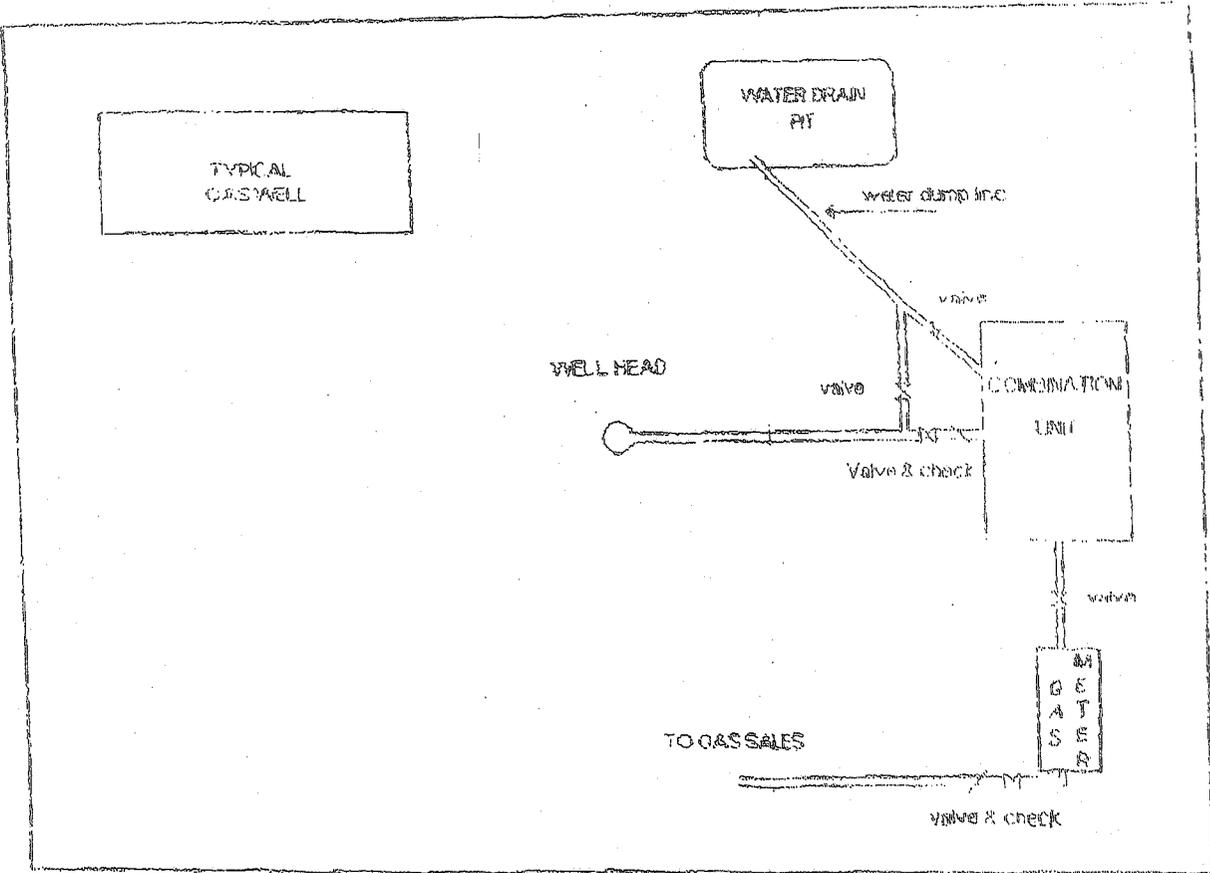
Valve & check

valve

TO GAS SALES

GAS  
METER

valve & check



**THE HOUSTON EXPLORATION COMPANY**

**13 POINT SURFACE USE PLAN**

**FOR WELL**

**GUSHER 6-2**

**LOCATED IN TRACK 37**

**SECTION 2, T.6S, R19E, S.L.B.&M.**

**UINTAH COUNTY, UTAH**

**LEASE NUMBER: ML-49144**

**SURFACE OWNERSHIP: STATE**

1. Existing Roads:

To reach The Houston Exploration Co well Rock House #3-36-10-22 in Section 36, T10S, R 22E, starting in Vernal, Utah.

Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 approximately 16.4 miles to the junction of this road and an existing road to the northwest; turn right and proceed in a northwesterly direction approximately 1.3 miles to the beginning of the proposed access road to the west; follow road flags in a westerly, then a southwesterly direction approximately 0.3 miles to the proposed location.

Total distance from Vernal, Utah to the proposed well location is approximately 18.0 miles.

All existing roads to the proposed location are State of Utah, BLM maintained or County Class D roads. Please see the attached map for additional details.

2. Planned access road

The proposed access road will be approximately 1584' +/- of new construction on lease. The road will be graded once per year minimum and maintained.

- A) Approximate length 1584 ft
- B) Right of Way width 30 ft
- C) Running surface 18 ft
- D) Surface material Native soil
- E) Maximum grade 5%

- F) Fence crossing None
- G) Culvert None
- H) Turnouts None
- I) Major cuts and fills None
- J) Road Flagged Yes
- K) Access road surface ownership State
- L) All new construction on lease Yes
- M) Pipe line crossing None

Please see the attached location plat for additional details.

An off lease right of way will not be required.

All surface disturbances for the road and location will not be within the lease boundary.

3. Location of existing wells

The following wells are located within a one-mile radius of the location site.

- A) Producing well None
- B) Water well None
- C) Abandoned well None
- D) Temp. abandoned well None
- E) Disposal well None
- F) Drilling /Permitted well None
- G) Shut in wells None
- H) Injection well None
- I) Monitoring or observation well None

Please see the attached map for additional details.

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 Desert Tan color. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded. The required paint color is Desert Tan.

All tanks will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank in the battery. The integrity of the dike will be maintained.

The operator will adhere to all site security guidelines and regulation identified in 43 cfr 3126.7.

All off lease storage, off lease measurement, commingling on lease or off lease, of production, will have prior written approval from the authorized officer.

If the well is capable of economic production a surface gas/oil line will be required.

**An off lease right of way will not be required.**

Please see the attached location diagrams for pipeline location. There will be no additional surface disturbances required for the installation of a gathering line.

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

The gas meter will be calibrated and the tank strapped in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The authorized officer will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration report will be submitted to the BLM's Vernal District office and State of Utah, Division of Oil, Gas, and Mining. All measurement facilities will conform to API (American Petroleum Institute) and AGA (American Gas Association) standards for gas and liquid hydrocarbon measurement.

5. Location and type of water supply

Water for drilling and cementing will come from **Ouray**, Utah Permit # **53617**. (Dalbo/A-1)

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 gravel or pit lining material will be obtained from private resources.

7. Methods for handling waste disposal

A) Pit construction and liners:

The reserve pit will be approximately **12 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 store water for drilling. A semi-closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The 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. To facilitate disposal of produced fluids trucking to an approved disposal site may be used or alternatively evaporation may be used with a pumping system.

C) Garbage:

A trash cage fabricated from expanded metal will be used to hold trash on location and will be removed to an authorized landfill location.

D) Sewage:

A portable chemical toilet will be supplied for human waste.

E) Site clean-up:

After the 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

Location dimensions are as follows:

<b>A) Pad length</b>	<b>345 ft.</b>
<b>B) Pad width</b>	<b>245 ft.</b>
<b>C) Pit depth</b>	<b>12 ft.</b>
<b>D) Pit length</b>	<b>150 ft.</b>
<b>E) Pit width</b>	<b>75 ft.</b>
<b>F) Max cut</b>	<b>16.6 ft.</b>
<b>G) Max fill</b>	<b>7.9 ft.</b>
<b>H) Total cut yds.</b>	<b>8,770 cu yds.</b>
<b>I) Pit location</b>	<b>east side</b>
<b>J) Top soil location</b>	<b>west end</b>
<b>K) Access road location</b>	<b>north end</b>
<b>L) Flare Pit</b>	<b>corner C</b>

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 and the pit area. The topsoil removed and piled will amount to approximately **1,700** cubic yards of material. Topsoil will be stockpiled in one distinct pile. 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 listed. When all drilling

and completion activities have been completed and the pit back-filled the topsoil from the pit area will be spread on the pit area. The pit area will be seeded when the soil has been spread. The unused portion of the location (the area outside the dead men) will be re-contoured.

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 re-contoured 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 the 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 topsoil is stock piled and when reclamation work is performed.

The seed mix and quantity list will be used whether the seed is broadcast or drilled.

B) Seed Mix

**To be determined by the Authorized Officer.**

11. Surface ownership:

<b>Access road</b>	<b>State</b>
<b>Location</b>	<b>State</b>
<b>Pipe line</b>	<b>None</b>

12. Other information:

A) Vegetation

The vegetation coverage is Slight. The majority of the existing vegetation consists of non-native species. Rabbit brush, bitter brush, and Indian Rice grass and Sagebrush are also found on the location.

B) Dwellings:

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

C) Archeology:

The location has been surveyed. A copy of that survey 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 affect such sites, will be suspended and the discovery reported promptly to the surface management agency.

D) Water:

**The nearest water is the Moffat Canal located 1.5 miles to the southwest.**

E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without prior application.

F) Notification:

- a) Location Construction  
At least forty eight (48) hours prior to construction of location and access roads.
- b) Location completion  
Prior to moving on the drilling rig.

- 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 90 days.

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

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. 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.

G) Flare pit:

The flare pit will be located in **corner C** of the reserve pit outside the pit fences 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  
290 S 800 E  
Rocky Mountain Consulting  
Vernal, UT 84078

Office 435-789-0968

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 The Houston Exploration Company 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 8/9/05



William A. Ryan, Agent  
Rocky Mountain Consulting

Onsite Dates:

### Statement of use of Hazardous Materials

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 for The Houston Exploration Company  
Rocky Mountain Consulting  
290 S 800 E  
Vernal, UT 84078

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

# THE HOUSTON EXPLORATION COMPANY

## GUSHER #6-2

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 2, T6S, R19E, 6th P.M.

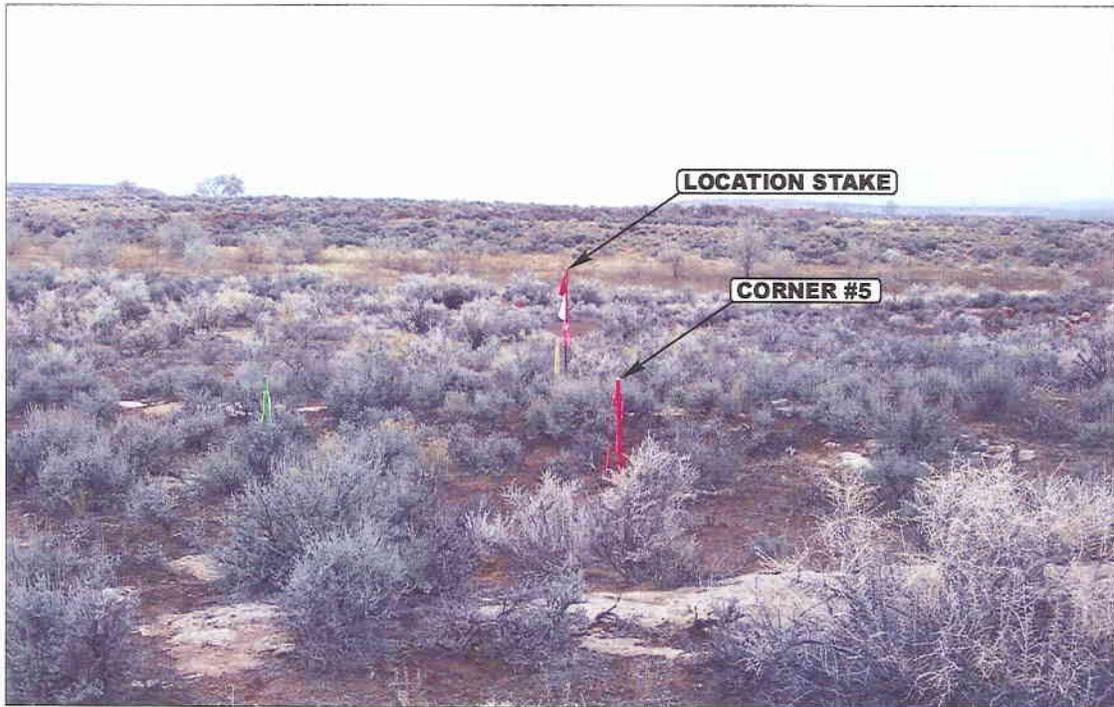


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: WESTERLY



- Since 1964 -

**UELS** Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

11 18 04  
MONTH DAY YEAR

PHOTO

TAKEN BY: D.K.

DRAWN BY: L.K.

REVISED: 00-00-00

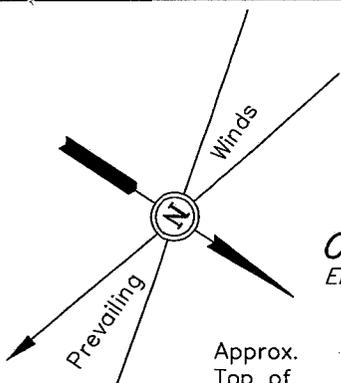
# THE HOUSTON EXPLORATION COMPANY

## LOCATION LAYOUT FOR

GUSHER #6-2

SECTION 2, T6S, R19E, S.L.B.&M.

1550' FNL 1825' FWL



SCALE: 1" = 50'  
DATE: 11-22-04  
Drawn By: E.C.O.

F-1.6'  
El. 306.4'

Sta. 3+45

C-3.9'  
El. 311.9'

C-5.4'  
El. 313.4'

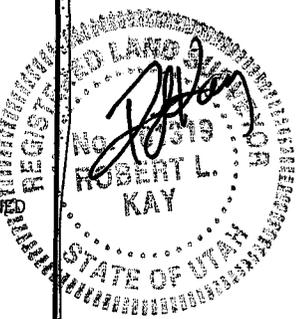
10

Topsoil Stockpile

Approx. Top of Cut Slope

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

NOTE:  
EARTHWORK CALCULATIONS REQUIRED A FILL OF 0.7' @ THE LOCATION STAKE FOR BALANCE. ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OBTAINED BY AASHTO METHOD t-99.



Approx. Toe of Fill Slope

El. 312.6'  
C-16.6'  
(btm. pit)

Pit Topsoil

C-2.9'  
El. 310.9'

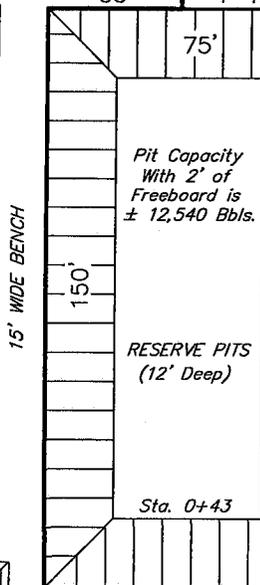
C-0.8'  
El. 308.8'

F-0.7'  
El. 307.3'

Sta. 1+65

F-5.7'  
El. 302.3'

Existing Canal



C-0.6'  
El. 308.6'

C-0.9'  
El. 308.9'

DOG HOUSE

RIG

WATER

PUMP

MUD SHED

HOPPER

POWER

TOOLS

FUEL

STORAGE TANK

TRAILER

TOILET

FUEL

Round Corners as needed

Sta. 0+00

F-7.9'  
El. 300.1'

El. 311.8'  
C-15.8'  
(btm. pit)

Reserve Pit Backfill & Spoils Stockpile

F-0.6'  
El. 307.4'

F-7.1'  
El. 300.9'

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5307.3'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5308.0'

Proposed Access Road (Ramp As Needed)

FIGURE #1

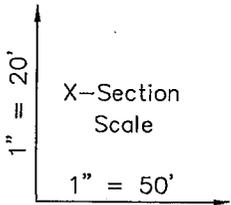
# THE HOUSTON EXPLORATION COMPANY

## TYPICAL CROSS SECTIONS FOR

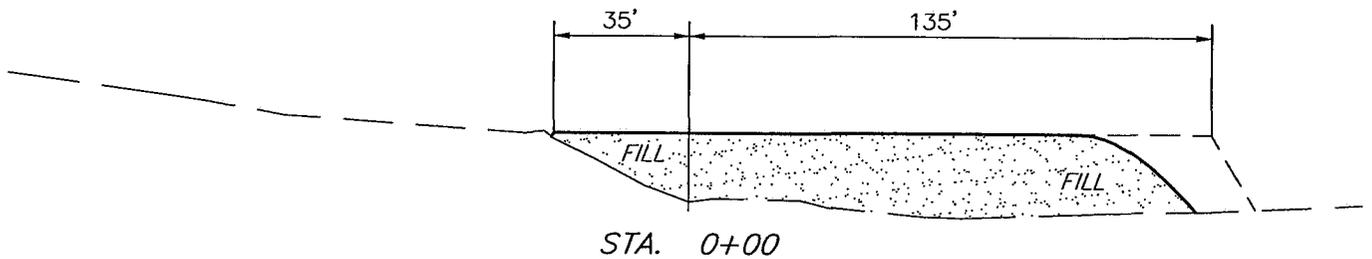
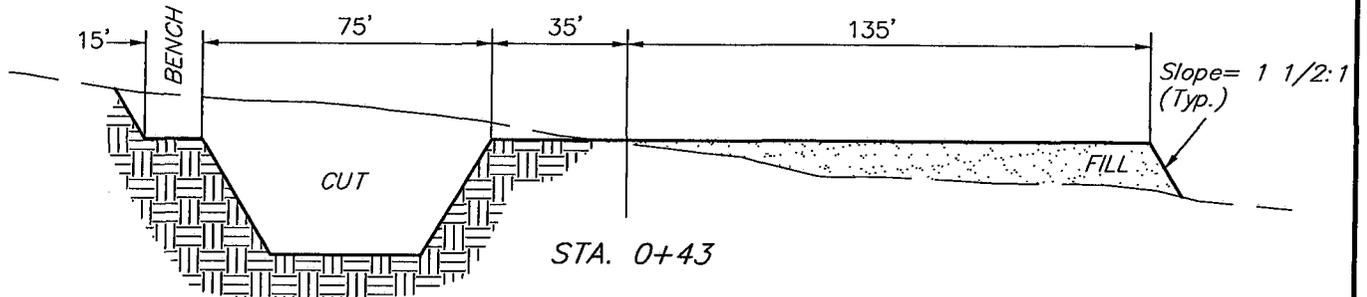
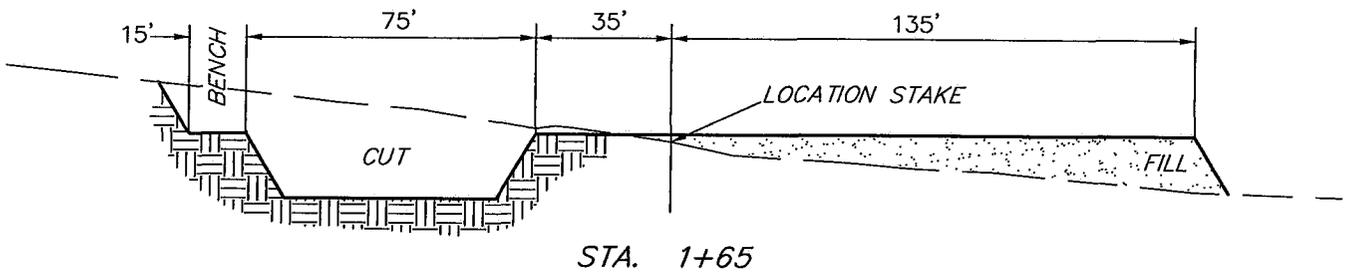
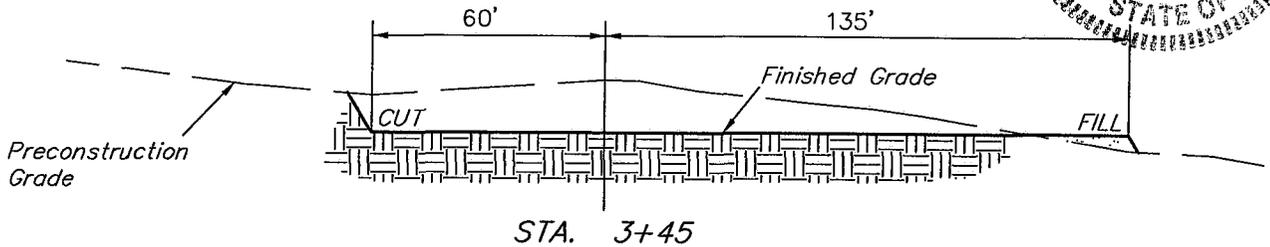
GUSHER #6-2

SECTION 2, T6S, R19E, S.L.B.&M.

1550' FNL 1825' FWL



DATE: 11-22-04  
Drawn By: E.C.O.



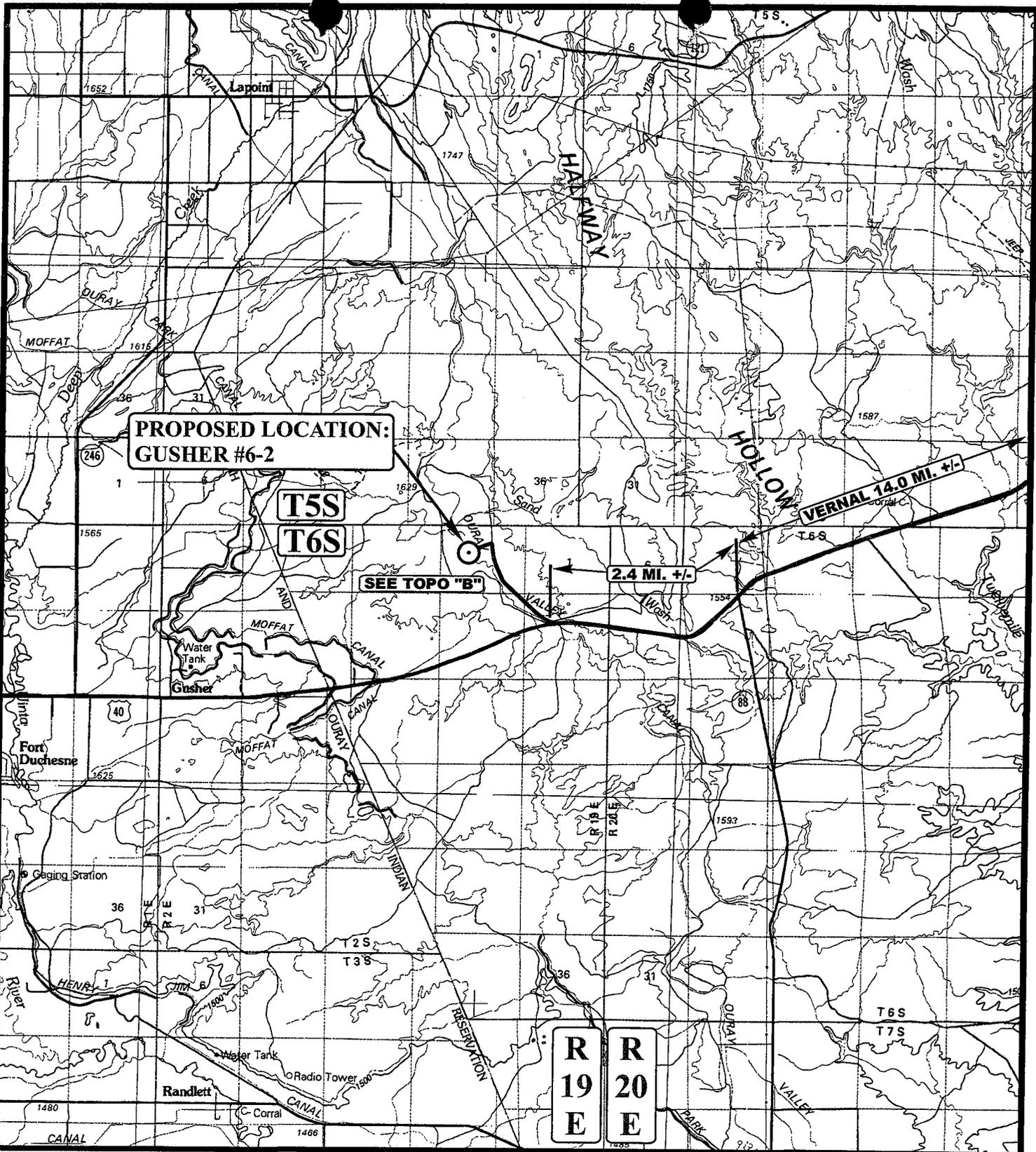
\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

**FIGURE #2**

### APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,700 Cu. Yds.
Remaining Location	= 7,070 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 8,770 CU.YDS.</b>
<b>FILL</b>	<b>= 5,370 CU.YDS.</b>

EXCESS MATERIAL	= 3,400 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,400 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 0 Cu. Yds.



**LEGEND:**

○ PROPOSED LOCATION



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



**THE HOUSTON EXPLORATION COMPANY**

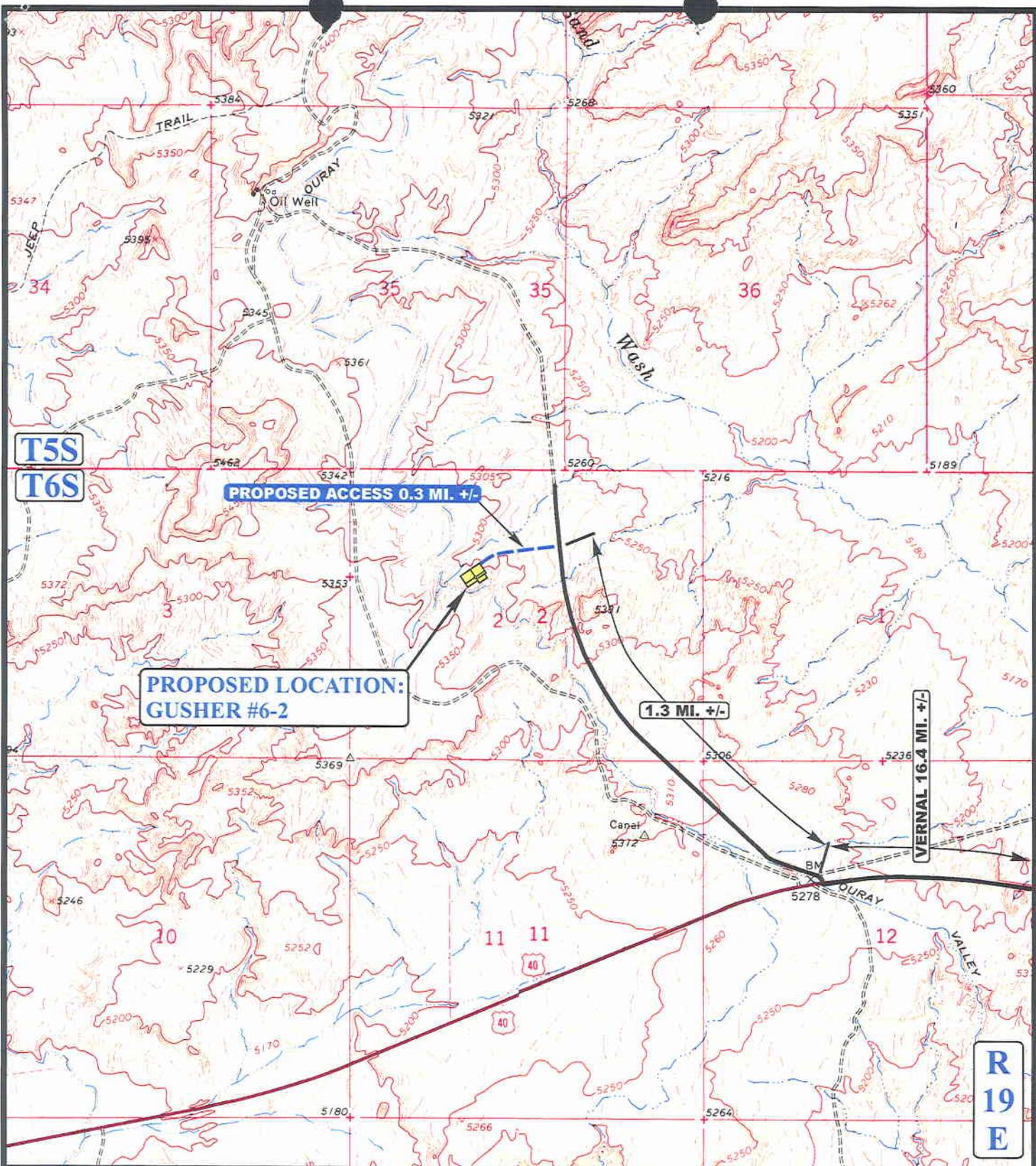
GUSHER #6-2  
 SECTION 2, T6S, R19E, 6th P.M.  
 1550' FNL 1825' FWL

TOPOGRAPHIC  
 MAP

11	18	04
MONTH	DAY	YEAR

SCALE: 1:100,000 | DRAWN BY: L.K. | REVISED: 00-00-00





**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD



**THE HOUSTON EXPLORATION COMPANY**

**GUSHER #6-2**  
**SECTION 2, T6S, R19E, 6th P.M.**  
**1550' FNL 1825' FWL**



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

**TOPOGRAPHIC** 11 18 04  
**MAP** MONTH DAY YEAR

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



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/12/2005

API NO. ASSIGNED: 43-047-36963
--------------------------------

WELL NAME: GUSHER 6-2  
 OPERATOR: HOUSTON EXPLORATION CO, ( N2525 )  
 CONTACT: BILL RYAN

PHONE NUMBER: 435-789-0968

PROPOSED LOCATION:

SENW 02 060S 190E  
 SURFACE: 1550 FNL 1825 FWL  
 BOTTOM: 1550 FNL 1825 FWL  
 UINTAH  
 MOFFAT CANAL ( 627 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DRD	9/15/05
Geology		
Surface		

LEASE TYPE: 3 - State  
 LEASE NUMBER: ML-49144  
 SURFACE OWNER: 3 - State  
 PROPOSED FORMATION: MVRD  
 COALBED METHANE WELL? NO

LATITUDE: 40.32713  
 LONGITUDE: -109.7526

RECEIVED AND/OR REVIEWED:

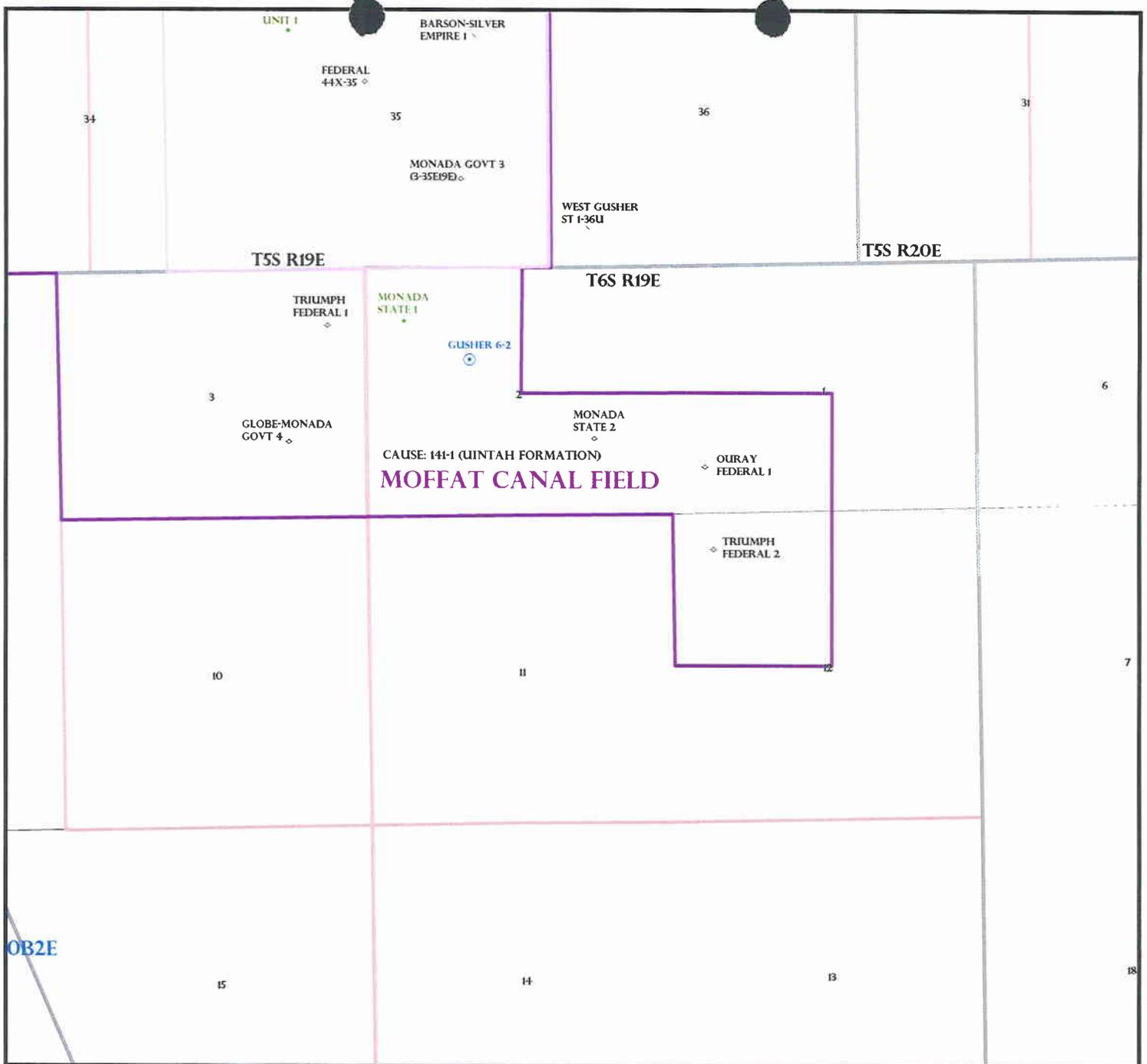
- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]  
(No. 104155044 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 53617 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.  
Unit \_\_\_\_\_
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception  
Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

COMMENTS: Needs Posib (09-12-05)

STIPULATIONS: 1- Spacing Slip  
2- STATEMENT OF BASIS



OPERATOR: THE HOUSTON EXPL CO (N2525)

SEC: 2 T. 6S R. 19E

FIELD: MOFFAT CANAL (627)

COUNTY: UINTAH

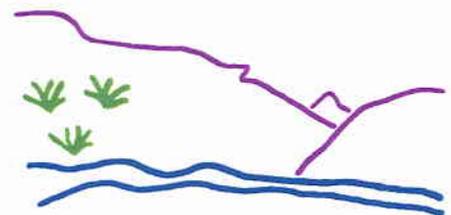
SPACING: R649-3-3 / EXCEPTION LOCATION

- Field Status**
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED

**Wells Status**

- ✂ GAS INJECTION
- ✂ GAS STORAGE
- ✂ LOCATION ABANDONED
- ⊙ NEW LOCATION
- ⊙ PLUGGED & ABANDONED
- ✂ PRODUCING GAS
- PRODUCING OIL
- ✂ SHUT-IN GAS
- SHUT-IN OIL
- ✂ TEMP. ABANDONED
- ⊙ TEST WELL
- ⊙ WATER INJECTION
- ⊙ WATER SUPPLY
- ⊙ WATER DISPOSAL
- ⊙ DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA WHITNEY  
DATE: 17-AUG-2005

**DIVISION OF OIL, GAS AND MINING  
APPLICATION FOR PERMIT TO DRILL  
STATEMENT OF BASIS**

**OPERATOR:** \_\_\_\_\_ THE HOUSTON EXPLORATION COMPANY  
**WELL NAME & NUMBER:** \_\_\_\_\_ GUSHER 6-2  
**API NUMBER:** \_\_\_\_\_ 43-047-36963  
**LOCATION:** 1/4,1/4 SE/NW Sec: 2 TWP: 6S RNG: 19E 1825' FWL 1550' FNL

**Geology/Ground Water:**

Houston proposes to set 2,000 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 4,600 feet. A search of Division of Water Rights records shows 1 water well within a 10,000 foot radius of the proposed location. The well is 318 feet in depth and its listed use is for oilfield drilling. The surface formation at this location is the Uinta Formation. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The proposed surface casing should adequately protect any near surface aquifers.

**Reviewer:** Brad Hill **Date:** 09/14/05

**Surface:**

The predrill investigation of the surface was performed on 09/12/05. Ben Williams with DWR and Ed Bonner with SITLA were invited to this investigation on 09/02/05. Mr. Williams was present. This site is on State surface, with State minerals, and appears to be the best site for a location in the immediate area. Mr. Williams had no concerns regarding the construction of this location or the drilling of this well. He gave Ms. Stringham with Houston a DWR prescribed seed mix to be used when reserve pit is reclaimed. The Ouray Valley Canal is adjacent to this site to the south and west.

**Reviewer:** David W. Hackford **Date:** 09/13/2005

**Conditions of Approval/Application for Permit to Drill:**

1. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

OPERATOR: THE HOUSTON EXPLORATION COMPANY

WELL NAME & NUMBER: GUSHER 6-2

API NUMBER: 43-047-36963

LEASE: ML-49144 FIELD/UNIT: MOFFAT CANAL

LOCATION: 1/4, 1/4 SE/NW sec: 2 TWP: 6S RNG: 19E 1825' FWL 1550' FNL

LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4, 1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): 605973E 4464610N SURFACE OWNER: STATE OF UTAH

**PARTICIPANTS**

DAVID W. HACKFORD (DOGM), GINGER STRINGHAM (HOUSTON), BEN WILLIAMS (DWR).

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

SITE IS IN AN AREA OF LOW ROLLING HILLS AND SHALLOW DRAWS DRAINING TO THE NORTHEAST TO HALFWAY HOLLOW WASH 2.5 MILES AWAY. THIS WASH DRAINS TO THE SOUTHEAST FOR EIGHT MILES WHERE IT ENTERS THE GREEN RIVER. VERNAL, UTAH IS 18 MILES TO THE NORTHEAST. THE OURAY VALLEY CANAL BORDERS THIS SITE TO THE WEST AND SOUTH.

**SURFACE USE PLAN**

CURRENT SURFACE USE: WILDLIFE AND LIVESTOCK GRAZING, HUNTING.

PROPOSED SURFACE DISTURBANCE: LOCATION WILL BE 345' BY 220'. ACCESS ROAD WILL BE 0.3 MILES.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: SEE ATTACHED MAP FROM GIS DATABASE.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: ALL PRODUCTION FACILITIES WILL BE ON LOCATION AND ADDED AFTER DRILLING WELL. PIPELINE WILL BE SURVEYED AND PERMITTED IF NEEDED.

SOURCE OF CONSTRUCTION MATERIAL: ALL CONSTRUCTION MATERIAL WILL BE BORROWED FROM SITE DURING CONSTRUCTION OF LOCATION.

ANCILLARY FACILITIES: NONE WILL BE REQUIRED.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS?  
EXPLAIN: UNLIKELY.

**WASTE MANAGEMENT PLAN:**

DRILLED CUTTINGS WILL BE SETTLED INTO RESERVE PIT. LIQUIDS FROM PIT WILL BE ALLOWED TO EVAPORATE. FORMATION WATER WILL BE CONFINED TO STORAGE

TANKS. SEWAGE FACILITIES, STORAGE AND DISPOSAL WILL BE HANDLED BY COMMERCIAL CONTRACTOR. TRASH WILL BE CONTAINED IN TRASH BASKETS AND HAULED TO AN APPROVED LAND FILL.

**ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: NONE

FLORA/FAUNA: SAGE, GREASEWOOD, CHEATGRASS, PRICKLY PEAR, RABBITBRUSH, HALOGETON: PRONGHORN, RODENTS, SONGBIRDS, RAPTORS, COYOTE, RABBITS, DEER.

SOIL TYPE AND CHARACTERISTICS: LIGHT BROWN SANDY CLAY LOAM WITH STREAKS OF RED CLAY.

EROSION/SEDIMENTATION/STABILITY: VERY LITTLE NATURAL EROSION. SEDIMENTATION AND STABILITY ARE NOT A PROBLEM AND LOCATION CONSTRUCTION SHOULDN'T CAUSE AN INCREASE IN STABILITY OR EROSION PROBLEMS.

PALEONTOLOGICAL POTENTIAL: NONE OBSERVED

**RESERVE PIT**

CHARACTERISTICS: 150' BY 75' AND 12' DEEP.

LINER REQUIREMENTS (Site Ranking Form attached): A 12 MIL LINER WILL BE REQUIRED FOR RESERVE PIT.

**SURFACE RESTORATION/RECLAMATION PLAN**

AS PER SITLA.

SURFACE AGREEMENT: AS PER SITLA.

CULTURAL RESOURCES/ARCHAEOLOGY: SITE WAS INSPECTED BY SAGEBRUSH ARCHEOLOGICAL CONSULTANTS. A REPORT OF THIS INVESTIGATION WILL BE PLACED ON FILE.

**OTHER OBSERVATIONS/COMMENTS**

THIS PREDRILL INVESTIGATION WAS CONDUCTED ON A WARM, SUNNY DAY.

**ATTACHMENTS**

PHOTOS OF THIS SITE WERE TAKEN AND PLACED ON FILE.

DAVID W. HACKFORD  
DOGM REPRESENTATIVE

09/12/05 9:30 AM  
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>20</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>5</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**      30      (Level I Sensitivity)

Sensitivity Level I = 20 or more: total containment is required.  
Sensitivity Level II = 15-19: lining is discretionary.  
Sensitivity Level III = below 15: no specific lining is required.





# 09-05 Houston Gusher 6-2

## Casing Schematic

Green River

Surface

8-5/8"  
MW 8.4  
Frac 19.3

TOC @  
0.

Surface  
2000. MD

BHP  
 $(.052)(7400)(8.6) = 3309$   
 Anticipate 3,000

G<sub>eq</sub>  
 $(.12)(7400) = 888$   
 MASP = 2421

BOPE - 3,000 ✓

Surf csg - 4460  
 70% = 3122

Max pressure @ Surface shoe = 2121  
 Test to 2100# ✓

✓ Adequate per 9/15/05

4-1/2"  
MW 8.6

Production  
7400. MD

1230  
TOC Tail

✓ w/ 18% Washout

TOC @  
3588.

3769 Washout

4600 BMSW

5548 TOC Tail

6169 Mesaverde

✓ Propose TOC 2500' or higher

w/ 15% Washout

TOC 2508' w/ 5% Washout

Well name:

**09-05 Houston Gusher 6-2**Operator: **Houston Exploration Company**String type: **Surface**

Project ID:

43-047-36963

Location: **Uintah County****Design parameters:****Collapse**Mud weight: 8.400 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: 103 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 350 ft

Cement top: Surface

**Burst**Max anticipated surface  
pressure: 1,760 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,000 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: 1,749 ft

Completion type is subs  
Non-directional string.**Re subsequent strings:**Next setting depth: 7,400 ft  
Next mud weight: 8.600 ppg  
Next setting BHP: 3,306 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,000 ft  
Injection pressure 2,000 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 (ft <sup>3</sup> )
1	2000	8.625	36.00	J-55	ST&C	2000	2000	7.7	143.5
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	873	3450	3.954	2000	4460	2.23	63	434	6.89 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & MiningPhone: 801-538-5280  
FAX: 801-359-3940Date: September 14, 2005  
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:

**09-05 Houston Gusher 6-2**

Operator: **Houston Exploration Company**

String type: **Production**

Project ID:  
43-047-36963

Location: **Uintah County**

**Design parameters:**

**Collapse**

Mud weight: 8.600 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: 179 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 3,589 ft

**Burst**

Max anticipated surface pressure: 2,418 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 3,306 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)

Completion type is subs  
Non-directional string.

Tension is based on buoyed weight.  
Neutral point: 6,449 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	7400	4.5	11.60	N-80	LT&C	7400	7400	3.875	171.5
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	3306	6350	1.921	3306	7780	2.35	75	223	2.98 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & Mining

Phone: 801-538-5280  
FAX: 801-359-3940

Date: September 14, 2005  
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 7400 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

August 17, 2005

RE: The Houston Exploration Company  
Gusher 6-2  
Sec. 2, T6S, R19E

Utah Division of Oil, Gas and Mining  
1549 West North Temple  
Suite 1210  
PO BOX 145801  
SLC, UT 84114

Dear Sir or Madam,

The Houston Exploration Company respectfully requests a spacing exception for the subject well. The well has been moved from the center of the forty-acre spacing.

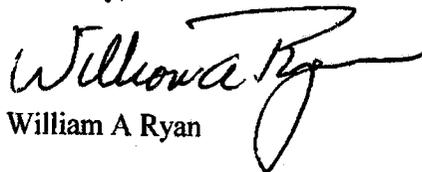
The well is located at 1550' FNL & 1825' FWL, which has changed from the proposed location at 1980' FNL & 1980' FWL.

The location was moved due to topographic considerations, a drainage and access. Please see the plat maps.

The Houston Exploration Company is the only lease owner within a 460' radius.

If you have additional questions please contact William A Ryan, Agent  
290 S 800 E  
Vernal, UT 84078  
435-789-0968

Sincerely,

  
William A Ryan

RECEIVED  
AUG 17 2005  
DIV. OF OIL, GAS & MINING

**From:** Ed Bonner  
**To:** Whitney, Diana  
**Date:** 9/6/2005 12:46:56 PM  
**Subject:** Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

Dominion Exploration & Production, Inc

AP 1-2J  
AP 2-2J  
AP 3-2J  
AP 5-2J  
AP 8-2J  
AP 9-2J  
AP 10-2J  
AP 15-2J

EnCana Oil & Gas (USA) Inc  
Middle Mesa State 36-14-29-24

EOG Resources, Inc  
East Chapita 6-16  
East Chapita 7-16  
East Chapita 8-16

The Houston Exploration Company

Rock House 13-36  
Asphalt Wash 3-16-11-24  
Asphalt Wash 4-16-11-24  
Asphalt Wash 7-16-11-24  
Asphalt Wash 8-16-11-24  
Asphalt Wash 12-16-11-24  
Asphalt Wash 14-16-11-24  
Gusher 6-2

QEP Uinta Basin, Inc  
SC 4ML-16-10-23  
SC 5ML-16-10-23  
SC 12ML-16-10-23  
SC 14ML-16-10-23  
RW 01-36BG

XTO Energy Inc  
State of Utah 17-8-7-34  
State of Utah 17-8-15-14

If you have any questions regarding this matter please give me a call.

**CC:** Garrison, LaVonne; Hill, Brad; Hunt, Gil



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. H. HAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

September 19, 2005

Houston Exploration Company  
1100 Louisiana, Suite 2000  
Houston, TX 77002

Re: Gusher 6-2 Well, 1550' FNL, 1825' FWL, SE NW, Sec. 2, T. 6 South,  
R. 19 East, Uintah 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 attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall 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 43-047-36963.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor  
SITLA

Operator: Houston Exploration Company  
Well Name & Number Gusher 6-2  
API Number: 43-047-36963  
Lease: ML-49144

Location: SE NW                      Sec. 2                      T. 6 South                      R. 19 East

### 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**

The operator is required to notify the Division of Oil, Gas and Mining 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

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- 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)

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

October 31, 2006

The Houston Exploration Company  
1100 Louisiana Suite 2000  
Houston, TX 77002

Re: APD Rescinded - Gusher 6-2 Sec. 2 T. 6 R. 19E  
Uintah County, Utah API No. 43-047-36963

Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on September 19, 2005. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective October 31, 2006.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Engineering Technician

cc: Well File  
SITLA, Ed Bonner

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

**ROUTING**

- |        |
|--------|
| 1. DJJ |
| 2. CDW |

Change of Operator (Well Sold)

**X - Operator Merger**

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

6/1/2007

**FROM: (Old Operator):**

N2525 - The Houston Exploration Company  
 1100 Louisiana, Suite 2000  
 Houston, TX 77002

Phone: 1-(713) 830-6800

**TO: ( New Operator):**

N6965-Forest Oil Corporation  
 707 17th St, Suite 3600  
 Denver, CO 80202

Phone: 1 (303) 812-1755

**CA No.**

**Unit:**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED LIST								

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 7/30/2007
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 7/30/2007
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 7/31/2007
- a. Is the new operator registered in the State of Utah: Business Number: 571171-0143
- b. If **NO**, the operator was contacted on: \_\_\_\_\_
- a. (R649-9-2) Waste Management Plan has been received on: IN PLACE
- b. Inspections of LA PA state/fee well sites complete on: \_\_\_\_\_
- c. Reports current for Production/Disposition & Sundries on: YES
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM not yet BIA
- Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a
- Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

**DATA ENTRY:**

- Changes entered in the **Oil and Gas Database** on: 7/31/2007
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 7/31/2007
- Bond information entered in RBDMS on: 7/31/2007
- Fee/State wells attached to bond in RBDMS on: 7/31/2007
- Injection Projects to new operator in RBDMS on: n/a
- Receipt of Acceptance of Drilling Procedures for APD/New on: pending

**BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: 6236351
- Indian well(s) covered by Bond Number: n/a
- a. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 6218963
- b. The **FORMER** operator has requested a release of liability from their bond on: not yet

**LEASE INTEREST OWNER NOTIFICATION:**

- (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 8/1/2007

**COMMENTS:**

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**See Attached List**

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER \_\_\_\_\_

8. WELL NAME and NUMBER:  
**See Attached List**

2. NAME OF OPERATOR:  
Forest Oil Corporation *N6965*

9. API NUMBER:  
various

3. ADDRESS OF OPERATOR:  
707 17th Street, #3600 CITY Denver, STATE CO ZIP 80202 PHONE NUMBER (303) 812-1755

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL  
FOOTAGES AT SURFACE: **See attached list** COUNTY: \_\_\_\_\_  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: \_\_\_\_\_ STATE: **UTAH**

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

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

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. *N2525*

Effective 6/1/2007 please change the operator for the attached list of Utah wells from The Houston Exploration Company N-2525 to Forest Oil Corporation (N-6965). Forest merged with The Houston Exploration Company, a copy of the merger document is attached.. The contract operated wells will continue to be contract operated by Enduring.

Forest Oil Corporation as new operator, accepts all applicable terms, conditions, stipulations and restrictions concerning approved operations conducted on the lease or portion of the lease described.

Forest Oil Corporation meets the State of Utah bonding requirements under Safeco bond #6218963.

Please send all future correspondence to Forest Oil Corporation at the above listed address.

Forest Oil Corporation, 707 17th Street, Suite #3600, Denver, CO 80202

*J.C. Ridens*  
J. C. Ridens, Senior Vice President - Western Region 7-5-07  
Date

NAME (PLEASE PRINT) Joanne C. Hresko TITLE Vice President & General Mgr. - Northern Division  
SIGNATURE *Joanne C. Hresko* DATE 7-5-07

(This space for State use only)

**APPROVED** 7/31/07  
*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

*No wells in APD status or  
at New status  
at this time*  
(See Instructions on Reverse Side)

**RECEIVED**  
JUL 30 2007

(5/2000)

DIV OF OIL, GAS & MINING *WMP*

well_name	sec	twp	rng	api	entity	lease	well	stat	flag	unit	qtr_qtr	l_num	op no
FEDERAL 28-01	28	080S	250E	4304730098	10095	Federal	GW	S			SESE	UTU-016257	N2525
CONOCO STATE 32-2	32	080S	250E	4304730100	10096	State	GW	S			NENE	ML-11124	N2525
ROCK HOUSE 11-31	31	100S	230E	4304733312	13984	Federal	GW	P			NESW	UTU-76281	N2525
BONANZA 4B-12	12	090S	230E	4304733806	14593	Federal	D	PA			NWNW	UTU-74426	N2525
WALKER HOLLOW 13-31	31	060S	230E	4304735039		Federal	GW	LA			SESW	UTU-76280	N2525
ROCK HOUSE 6D-32	32	100S	230E	4304735409	14293	State	GW	S			SESW	ML-47063	N2525
BONANZA 2B-16	16	090S	240E	4304735694	14186	State	D	PA			NWNE	ML-46526	N2525
ROCK HOUSE 2D-36	36	100S	220E	4304735759	14357	State	GW	P			NWNE	ML-47061	N2525
ROCK HOUSE 2D-32	32	100S	230E	4304735760	14317	State	GW	S			NWNE	ML-47063	N2525
ROCK HOUSE 10D-32	32	100S	230E	4304735761	14318	State	GW	S			NWSE	ML-47063	N2525
ROCK HOUSE 12D-32	32	100S	230E	4304735762	14294	State	GW	P			NWSW	ML-47063	N2525
ROCK HOUSE 11-36	36	100S	220E	4304735900	14478	State	GW	P			NESW	ML-46907	N2525
ROCK HOUSE 4-36	36	100S	220E	4304735901	14449	State	GW	S			NWNW	ML42061	N2525
BONANZA 12A-22	22	090S	240E	4304735922	14520	Federal	D	PA			NWSW	UTU-78118	N2525
BONANZA 14-16	16	090S	240E	4304735941	14521	State	D	PA			SESW	ML-46526	N2525
ROCK HOUSE 11-2	02	110S	230E	4304736153	14695	State	GW	P	C		NESW	ML-47078	N2525
ROCK HOUSE 7-32-10-23	32	100S	230E	4304736306	14766	State	GW	S			SWNE	ML-47063	N2525
ROCK HOUSE 3-32-10-23	32	100S	230E	4304736307	14781	State	GW	P			NENW	ML-47063	N2525
ROCK HOUSE 5-32-10-23	32	100S	230E	4304736410	14727	State	GW	S			SWNW	ML-47063	N2525
GUSHER 6-2	02	060S	190E	4304736963		State	OW	LA			SESW	ML-49144	N2525
N HORSESHOE 3-16-6-21	16	060S	210E	4304737391	15716	State	GW	DRL	C		NENW	ML-49317	N2525
N HORSESHOE 12-7-6-22	07	060S	220E	4304737392		State	GW	LA			NWSW	ML-47969	N2525
N HORSESHOE 16-9-6-22	09	060S	220E	4304737393		State	GW	LA			SESE	ML-47969	N2525
N HORSESHOE 14-10-6-22	10	060S	220E	4304737394		State	GW	LA			SESW	ML-47969	N2525
N HORSESHOE 2-15-6-22	15	060S	220E	4304737395		State	GW	LA			NWNE	ML-47969	N2525
N HORSESHOE 4-15-6-22	15	060S	220E	4304737396		State	GW	LA			NWNW	ML-47969	N2525
N WALKER HOLLOW 12-32-6-23	32	060S	230E	4304737397		State	GW	LA			NWSW	ML-47777	N2525
N WALKER HOLLOW 16-32-6-23	32	060S	230E	4304737398		State	GW	LA			SESE	ML-47777	N2525
N WALKER HOLLOW 2-32-6-23	32	060S	230E	4304737399	15741	State	GW	DRL	C		NWNE	ML-47777	N2525
N WALKER HOLLOW 10-32-6-23	32	060S	230E	4304737400		State	GW	LA			NWSE	ML-47777	N2525
N WALKER HOLLOW 8-32-6-23	32	060S	230E	4304737401		State	GW	LA			SENE	ML-47777	N2525
N WALKER HOLLOW 11-36-6-23	36	060S	230E	4304737462		State	GW	LA			NESW	ML-47970	N2525
N WALKER HOLLOW 13-36-6-23	36	060S	230E	4304737463		State	GW	LA			SWSW	ML-47970	N2525
N WALKER HOLLOW 15-36-6-23	36	060S	230E	4304737464		State	GW	LA			SWSE	ML-47970	N2525
N WALKER HOLLOW 14-32-6-23	32	060S	230E	4304737478		State	GW	LA			SESW	ML-47777	N2525
HACKING RES 11-32-8-25	32	080S	250E	4304737479		State	GW	LA			NESW	ML-11124	N2525
HACKING RES 3-32-8-25	32	080S	250E	4304737480		State	GW	LA			NENW	ML-11124	N2525
HACKING RES 5-32-8-25	32	080S	250E	4304737481		State	GW	LA			SWNW	ML-11124	N2525
HACKING RES 15-32-8-25	32	080S	250E	4304737482		State	GW	LA			SWSE	ML-11124	N2525
HACKING RES 9-32-8-25	32	080S	250E	4304737483		State	GW	LA			NESE	ML-11124	N2525
HACKING RESERVOIR 7-32-8-25	32	080S	250E	4304737571	15885	State	GW	DRL	C		SWNE	ML-11124	N2525