

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

5. LEASE DESIGNATION AND SERIAL NO. <b>U-31266</b>
6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>na</b>
7. UNIT AGREEMENT NAME <b>na</b>
8. FARM OR LEASE NAME <b>na</b>
9. WELL NO. <b>Thurston 13-19-9-24</b>
10. FIELD OR LEASE NAME <b>Undesignated</b>
11. Sec., T., R., M., OR BLK AND SURVEY OR AREA <b>Sec. 19, T9S, R24E</b>
12. COUNTY OR PARISH   13. STATE <b>Uintah   Utah</b>
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40</b>
22. APPROX. DATE WORK WILL START <b>4/30/06</b>

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

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

2. NAME OF OPERATOR  
**Thurston Energy Operating Company**

3. ADDRESS OF OPERATORS  
**PO Box 240 Vernal, UT 84078**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirement)  
 at surface **828' FSL & 829' FWL SWSW 648304X 40.016480**  
 At proposed prod. Zone **same as above 44308234 -109.262273**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**46 miles south of Vernal, UT**

15. DISTANCE FROM PROPOSED LOC. TO NEAREST PROP. OR LEASE LINE, FT. (Also to nearest drlg. Unit line, if any)  
**828'**

16. NO. OF ACRES IN LEASE  
**1,594**

17. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED. OR APPLIED FOR, ON THIS LEASE, FT.  
**1,450'**

19. PROPOSED DEPTH  
**8,000**

20. ROTARY OR CABLE TOOLS  
**Rotary**

21. ELEVATION (SHOW WHETHER DF. RT. GR., etc.)  
**5321' GR**

PROPOSED CASING AND CEMENT PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<b>11"</b>	<b>9 5/8"</b>	<b>36#</b>	<b>2000'</b>	<b>180 sks</b>
<b>7 7/8"</b>	<b>5 1/2"</b>	<b>17#</b>	<b>T.D.</b>	<b>808 sks</b>

**The operator requests permission to drill the subject well. Please find the attached 10 point plan and 13 point plan.**

**William A Ryan  
290 S 800 E  
Vernal, UT 84078  
435-789-0968**

**CONFIDENTIAL**

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 A. Ryan TITLE Agent DATE \_\_\_\_\_

(This space for Federal or State Office use)

PERMIT NO. 43-047037707 APPROVAL DATE \_\_\_\_\_

APPROVED BY Bradley G. Hill TITLE BRADLEY G. HILL DATE 02-09-06  
 ENVIRONMENTAL SCIENTIST III

\*See Instructions on Reverse Side

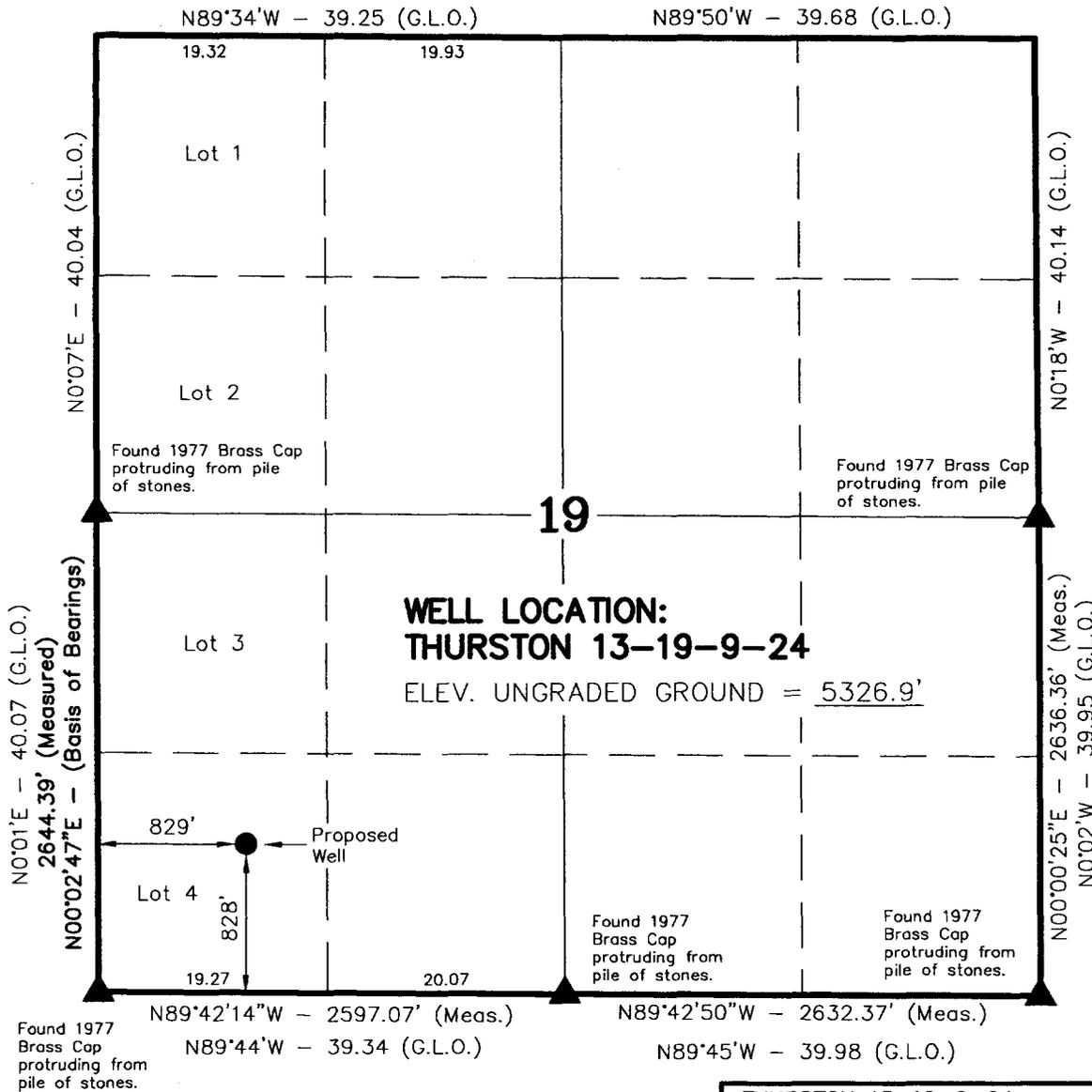
Title 18 U. S. C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED  
**FEB 06 2006**  
DIV. OF OIL, GAS & MINING  
*Federal Approval of this Action is Necessary*

# T9S, R24E, S.L.B.&M.

# THURSTON ENERGY OPERATING COMPANY

WELL LOCATION, THURSTON 13-19-9-24,  
 LOCATED AS SHOWN IN LOT 4 OF SECTION  
 19, T9S, R24E, S.L.B.&M. UINTAH COUNTY,  
 UTAH.



**NOTES:**

1. Well footages are measured at right angles to the Section Lines.
2. Bearings are based on Global Positioning Satellite observations.



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.

*Kolby R. Key*  
 REGISTERED LAND SURVEYOR  
 No. 362251  
 KOLBY R. KEY  
 REGISTERED LAND SURVEYOR  
 REGISTRATION NO. 362251  
 STATE OF UTAH

▲ = SECTION CORNERS LOCATED  
 BASIS OF ELEVATION IS BENCH MARK 46 EAM LOCATED IN THE SW 1/4 OF SECTION 23, T9S, R24E, S.L.B.&M. THE ELEVATION OF THIS BENCH MARK IS SHOWN ON THE BONANZA 7.5 MIN. QUADRANGLE AS BEING 5550'.

**THURSTON 13-19-9-24**  
**(Proposed Well Head)**  
**NAD 83 Autonomous**  
 LATITUDE = 40° 00' 59.4"  
 LONGITUDE = 109° 15' 46.9"

<b>TIMBERLINE LAND SURVEYING, INC.</b>		<b>SHEET</b> <b>2</b> <b>OF 10</b>
38 WEST 100 NORTH. - VERNAL, UTAH 84078 (435) 789-1365		
DATE SURVEYED: 10-20-05	SURVEYED BY: K.R.K.	
DATE DRAWN: 10-29-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'	Date Last Revised:	

**SELF-CERTIFICATION STATEMENT**

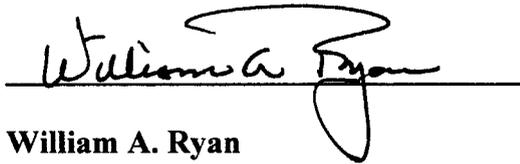
**The following self-certification statement is provided per Federal requirements dated June 15, 1988.**

**Please be advised that The Thurston Energy Operating Company are considered to be the operator of the following well.**

**Thurston 13-19-9-24  
Section 19, T.9S, R. 24 E.  
SW ¼, SW ¼, Lot #4  
Lease U-31266  
Uintah County, Utah**

**The Thurston Energy Operating Company is responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.**

**Bond UTB-000181 provides state-wide bond coverage on all Federal lands.**

A handwritten signature in black ink that reads "William A. Ryan". The signature is written in a cursive style and is positioned above a solid horizontal line.

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

**Ten Point Plan**

**Thurston Energy Operating Company**

**Thurston 13-19-9-24**

**Surface Location SW ¼ SW ¼, Lot #4, Section 19, T. 9S., R. 24E.**

**1. Surface Formation**

Green River

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

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Green River	Surface	+5,321' G.L.
Wasatch	4,330	+991'
Mesaverda	6,010	-689'
Sago	8,050	-2,729'
TD	8,000	-2,679'

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:**

Hatch #923-24A

Hatch #923-24G

Hatch #923-24K

Thurston #13-20-9-24

Southman Cyn #1-30-9-24

Southman Cyn #3-30-9-24

Southman Cyn #4-30

Southman Cyn #5-30-9-24

Southman Cyn #6-30

Southman Cyn #7-30-9-24

Southman Cyn #8-30

Southman Cyn #12-30

Red Wash 9-24-23-30

**Producing Wells:**

Southman Cyn #2D-30

**Abandoned Wells:**

Devils Playground 21-19

**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"	9 5/8"	36#	J-55	STC	2000	NEW
7 7/8"	5 1/2"	17#	N-80	LTC	T.D.	NEW

**Cement Program:**

**Cement volume = Gauge hole + 25%**

**The Surface Casing will be cemented from 2000' to the Surface as follows:**

<u>Casing Size</u>	<u>Casing Depth</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Top Job:					
14"	As required	Class "G"	35 sks. +/-	1.18ft <sup>3</sup> /sk	15.6 ppg
Lead:					
9 5/8"	surface-1400'	Premium "5"	53 sks. +/-	3.82ft <sup>3</sup> /sk	11.0 ppg
Tail:					
9 5/8"	1400'-2000'	Premium "5"	92 sks. +/-	1.18ft <sup>3</sup> /sk	15.6 ppg

NOTE:

Cement top for tail = Trona + 200'

**Production casing will be cemented to 200' inside surface casing or higher as follows:**

<u>Casing Size</u>	<u>Casing Depth</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Lead:					
5 1/2"	1800'-4130'	Premium "5"	436 sks +/-	3.82ft <sup>3</sup> /sk	11.0 ppg
Tail:					
5 1/2"	4130'-TD	Premium "5"	372 sks +/-	1.18ft <sup>3</sup> /sk	15.6 ppg

NOTE:

Cement top for tail = Wasatch + 200'

## 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 9 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>
40-2000	Air/Clear Water	NA	No Control	Air/Water
2000-T.D.	8.4-12.0	35-45	20-8	LSND

## 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:

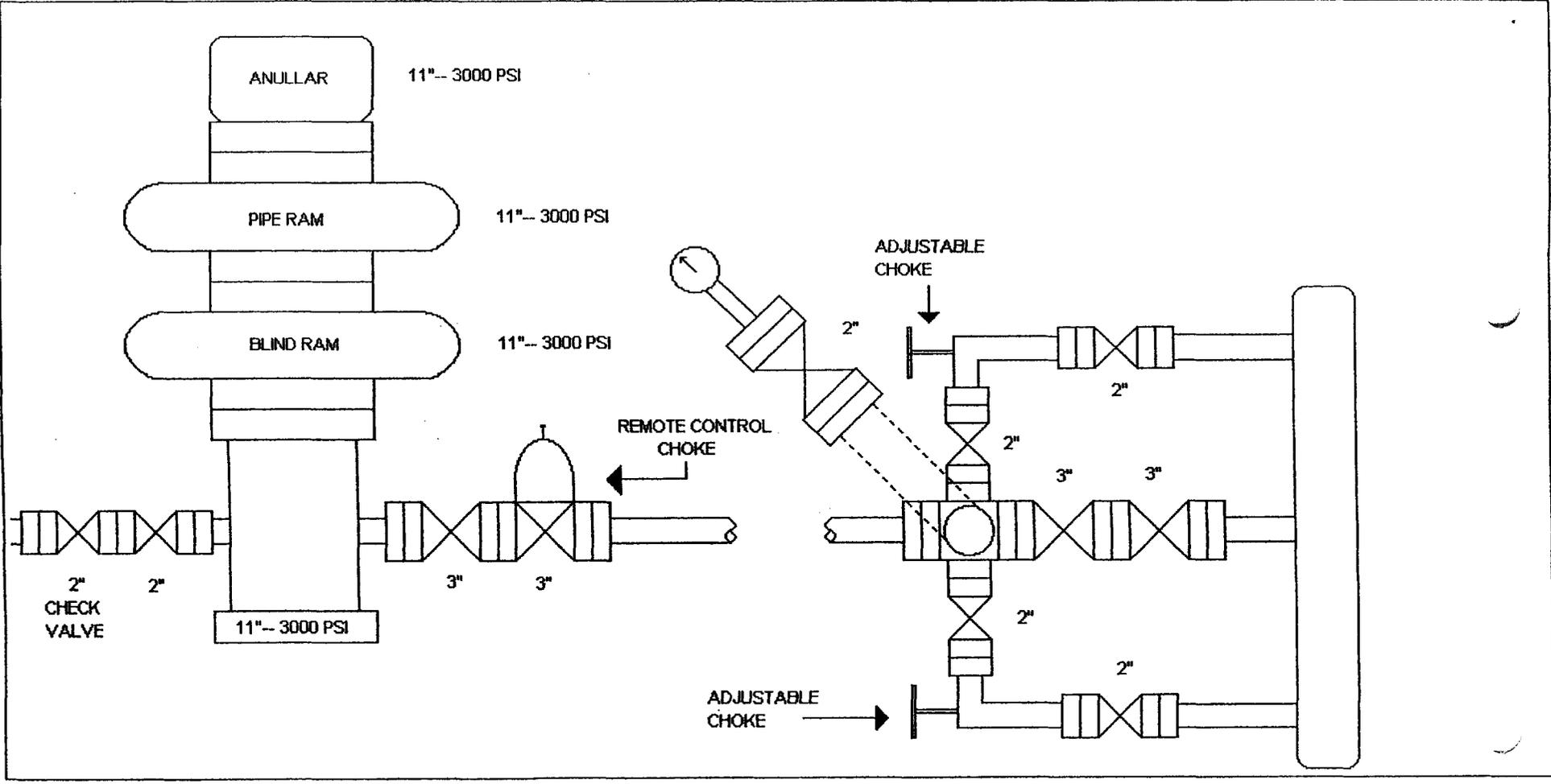
Type	Interval
DLL/SFL W/GR and SP	T.D. to Surf. Csg
FDC/CNL W/GR and CAL	T.D. to Surf. Csg

**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 4/31/06. Duration of operations is expected to be 30 days.



**THURSTON ENERGY OPERATING COMPANY**

**13 POINT SURFACE USE PLAN**

**FOR WELL**

**THURSTON 13-19-9-24**

**LOT #4**

**SECTION 19, T.9S, R24E, S.L.B.&M.**

**UINTAH COUNTY, UTAH**

**LEASE NUMBER: U-31266**

**SURFACE OWNERSHIP: FEDERAL**

**1. Existing Roads:**

**Thurston Energy Operating CO  
Thurston #13-19-9-24  
Sec. 19, T9S, R24E**

**Starting in Vernal, Utah:**

**Proceed in an easterly, then southerly direction from Vernal, Utah along US Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 36 miles to the junction of County B road 3410. Exit right and proceed in a westerly direction along County B road 3410 approximately 5.3 miles to the junction of a reclaimed service road; exit left and proceed in a southerly direction along the service road for approximately 6,610' to the proposed location.**

**Total distance from Vernal, Utah to the proposed well location is approximately 46.1 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 6,610' of new construction on lease, approximately 100' of upgrade for a reclaimed service road on lease and approximately 956' of upgrade for a reclaimed service**

**road off lease. The road will be graded once per year minimum and maintained.**

- A) Approximate length            6610 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                Federal**
- 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 be required for approximately 956' of road upgrade for the reclaimed service road.**

All surface disturbances for the road and location will 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                 Southman Canyon #2D-30**
- B) Water well                      None**
- C) Abandoned well               Devils Playground #21-19**
- D) Temp. abandoned well        None**
- E) Disposal well                  None**

**F) Drilling /Permitted well**

**Hatch #923-24A**

**Hatch #923-24G**

**Hatch #923-24K**

**Thurston #13-20-9-24**

**SC 1-30-9-24**

**SC 3-30-9-24**

**SC 4-30**

**SC 5-30-9-24**

**SC 6-30**

**SC 7-30-9-24**

**SC 8-30**

**SC 12-30**

**Red Wash 9-24-23-30**

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

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 line will be required.

**Approximately 6,110' of 3" steel gas gathering surface pipeline would be constructed on Federal Lands. (Due to bedrock sandstone, shallow soils and a tie-in with a surface gathering system the line will not be buried.) The pipeline will tie into the existing pipeline in Sec 19, T9S, R24E. The pipeline will be strung and boomed to the northeast of the location and parallel the access road.**

**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 The White River at the Bonanza Bridge, Permit # - T75376.**

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 will be used for a period not to exceed 90 days after initial production. During the 90-day period an application for approval for permanent disposal method and location will be submitted to the authorized officer.

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:

- A) Pad length 345 ft
- B) Pad width 260 ft
- C) Pit depth 12 ft
- D) Pit length 150 ft
- E) Pit width 75 ft
- F) Max cut 33.6 ft
- G) Max fill 32.6 ft
- H) Total cut yds. 17,470 cu yds
- I) Pit location Southeast end
- J) Top soil location East & West ends
- K) Access road location East 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 and the pit area. The topsoil removed and piled will amount to approximately 1,500 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. **The topsoil will be**

**used in the interim reclamation.**  
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 reclaimed and 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) Interim Seed Mix:

**6#/acre Needle & Thread Grass**  
**6#/acre Crested Wheat Grass**

11. Surface ownership:

<b>Access road</b>	<b>Federal</b>
<b>Location</b>	<b>Federal</b>
<b>Pipe line</b>	<b>Federal</b>

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 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 White River located approximately 4 miles to the South.**

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.

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  
Rocky Mountain Consulting  
Vernal, UT 84078

Office 435-789-0968

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

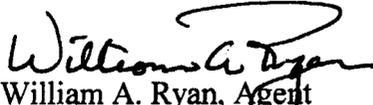
All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions 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.

**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 Thurston Energy Operating 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 1/18/06

  
William A. Ryan, Agent  
Rocky Mountain Consulting

**Onsite Dates:**

**01/05/06**

### **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 Thurston Energy Operating CO  
290 S 800 E  
Vernal, UT 84078

435-789-0968 Office  
435-828-0968 Cell

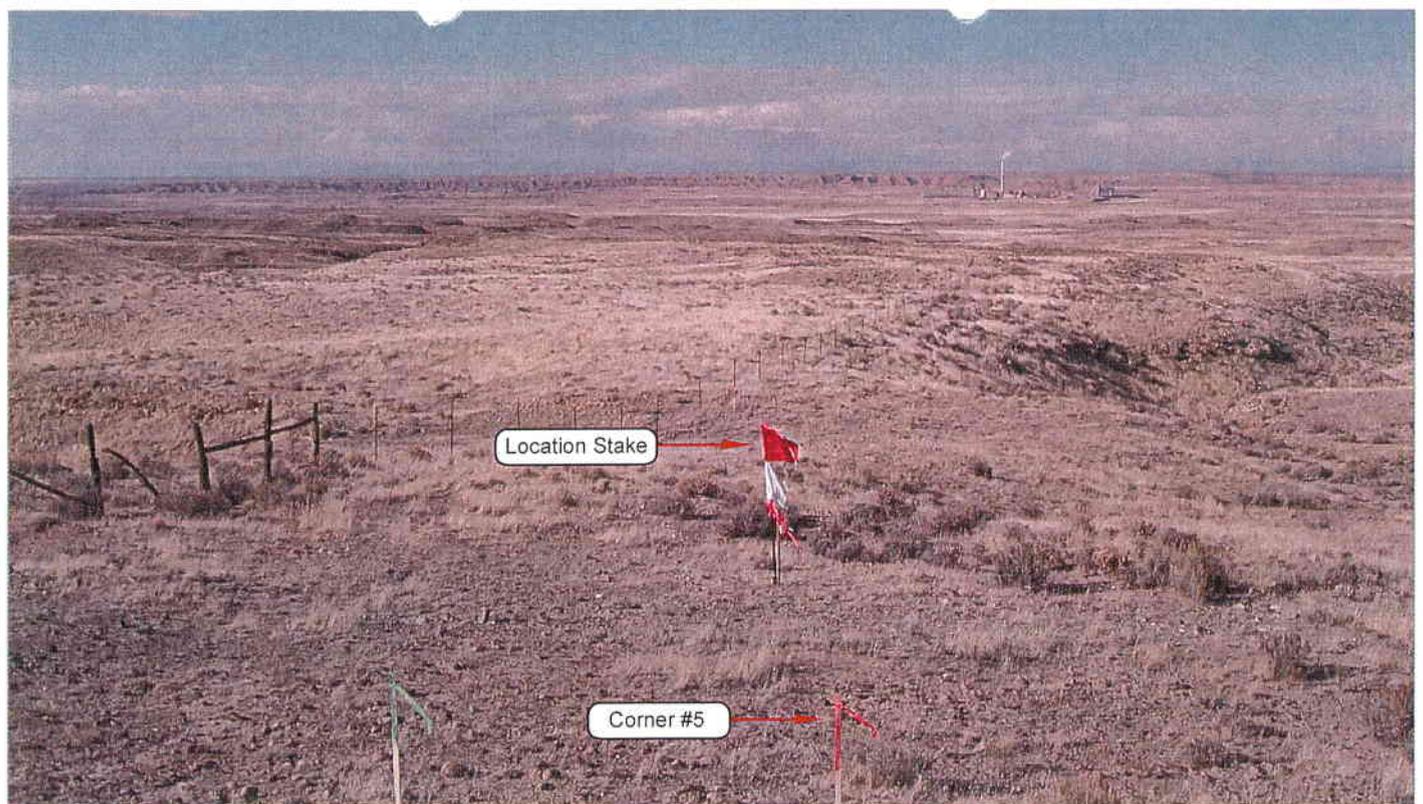


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

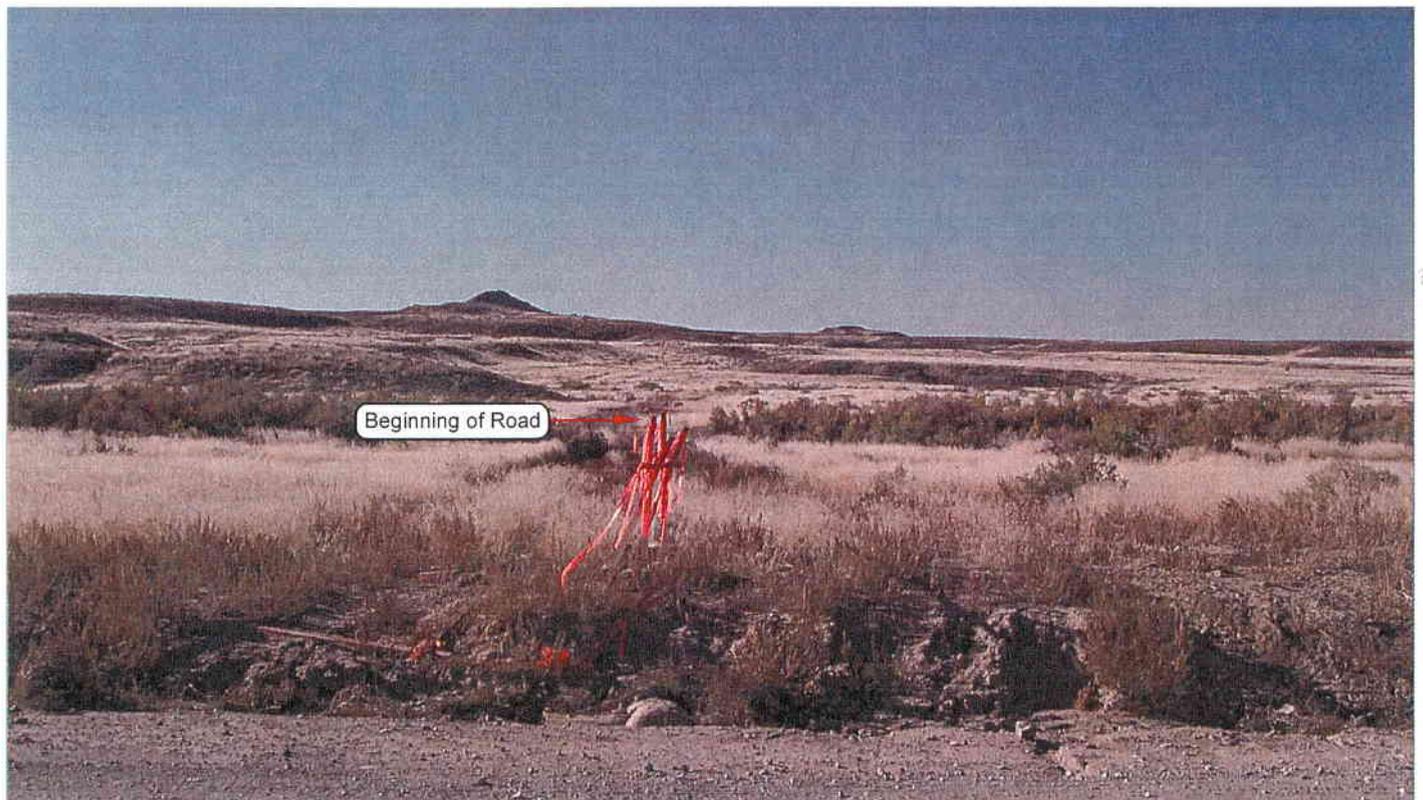


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHEASTERLY

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24  
SECTION 19, T9S, R24E, S.L.B.&M.  
828' FSL & 829' FWL**

**LOCATION PHOTOS**

TAKEN BY: K.R.K.

DRAWN BY: M.W.W.

DATE TAKEN: 10-20-05

DATE DRAWN: 10-31-05

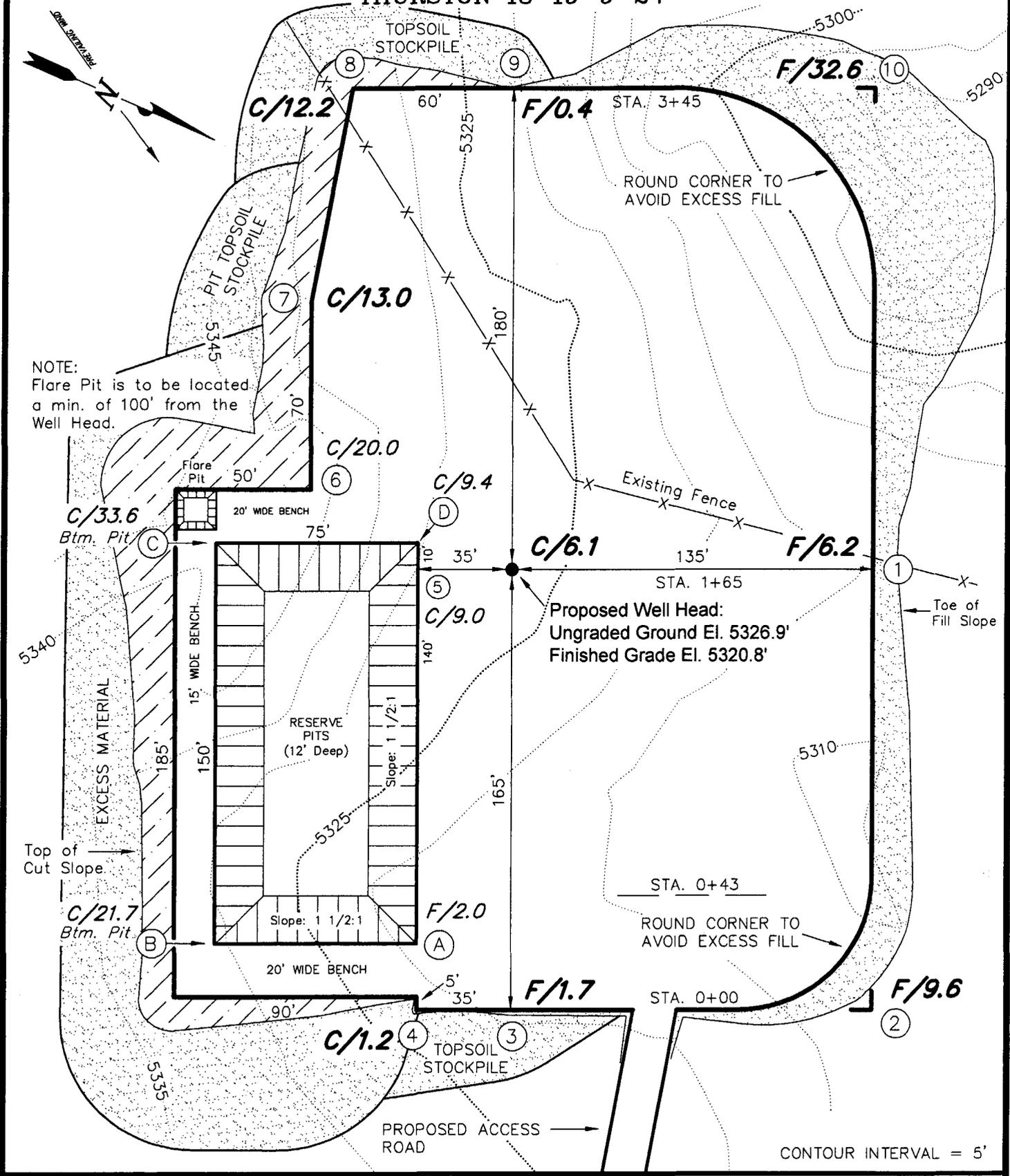
REVISED:

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

SHEET  
**1**  
OF 10

# THURSTO. ENERGY OPERATING COMPANY

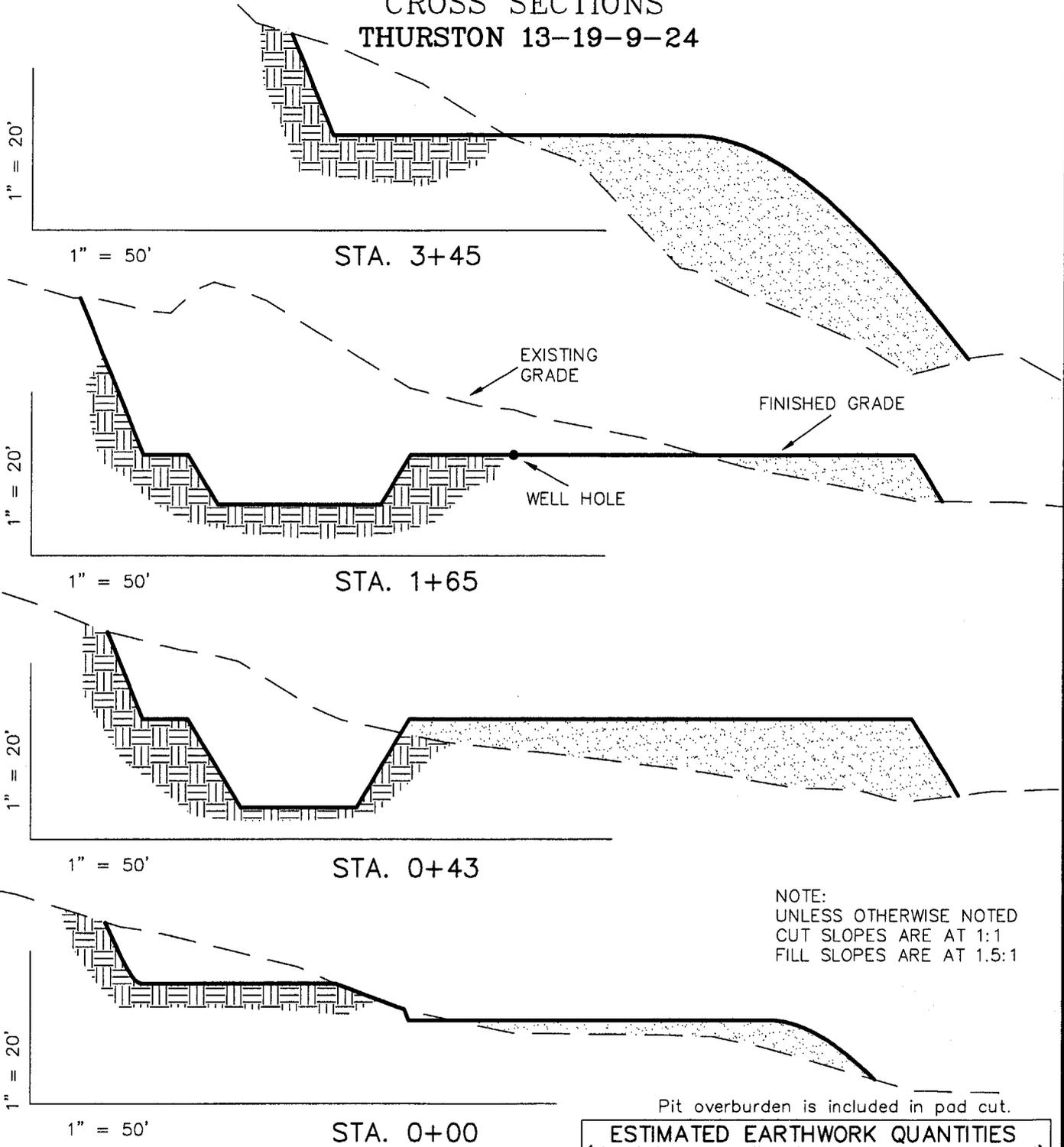
## CUT SHEET THURSTON 13-19-9-24



Section 19, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 828' FSL & 829' FWL
Date Surveyed: 10-15-05	Date Drawn: 10-31-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	<b>Land Surveying, Inc.</b>
			38 WEST 100 NORTH VERNAL, UTAH 84078
			<b>SHEET 3 OF 10</b>

# THURSTON ENERGY OPERATING COMPANY

## CROSS SECTIONS THURSTON 13-19-9-24



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

Pit overburden is included in pad cut.

### REFERENCE POINTS

- 185' NORTHWESTERLY = 5313.9'
- 235' NORTHWESTERLY = 5313.3'
- 230' SOUTHWESTERLY = 5319.6'
- 268' SOUTHWESTERLY = 5316.2'

### ESTIMATED EARTHWORK QUANTITIES (No shrink or swell adjustments have been used) (Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	14,130	15,800	Topsoil is not included in Pad Cut	-1,670
PIT	3,340	0		3,340
TOTALS	17,470	15,800	1,500	1,670

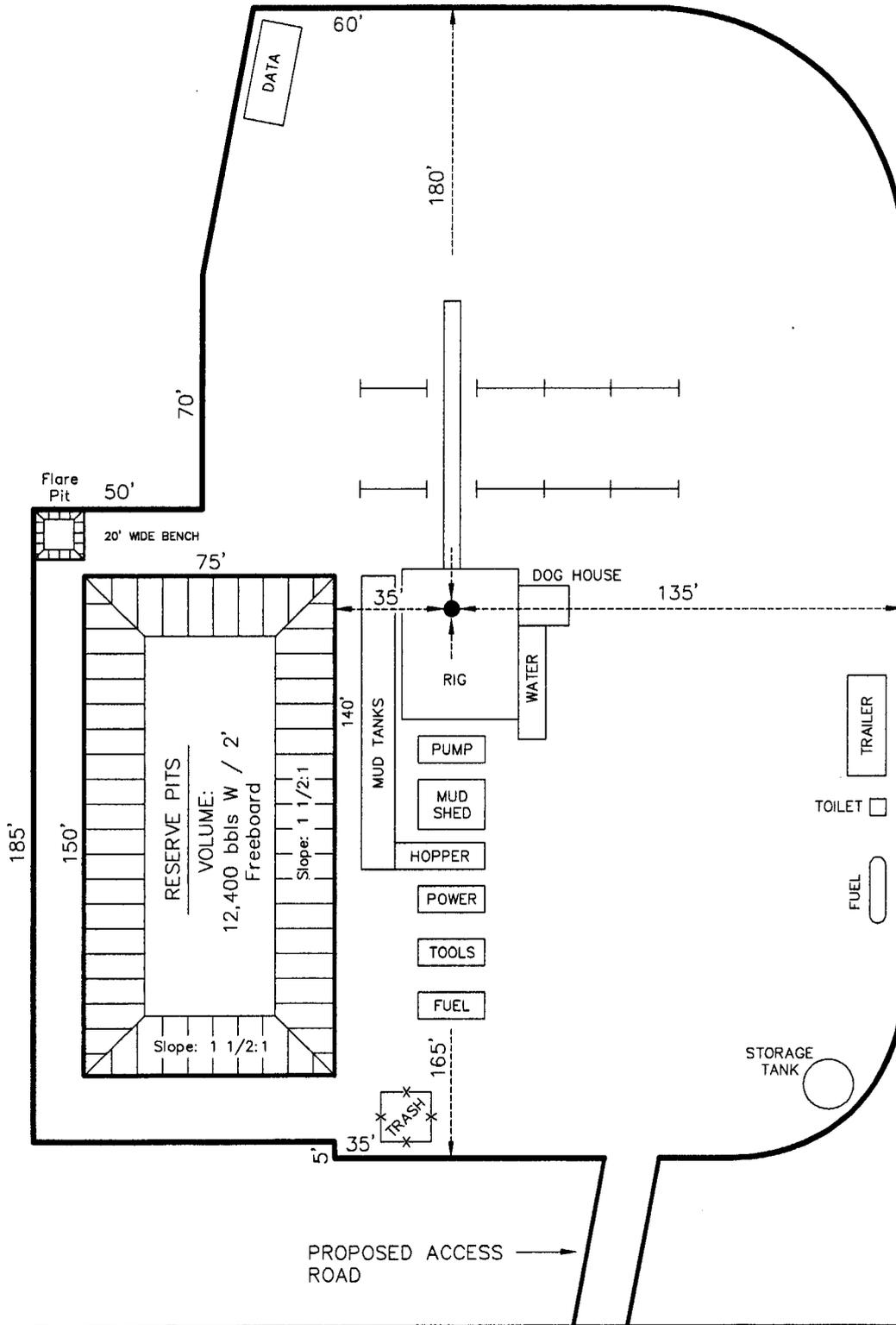
Excess Material after Pit Rehabilitation = 0 Cu. Yds.

Section 19, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 828' FSL & 829' FWL
Date Surveyed: 10-15-05	Date Drawn: 10-31-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 <i>Land Surveying, Inc.</i> 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	

**SHEET**  
**4**  
**OF 10**

# THURSTON ENERGY OPERATING COMPANY

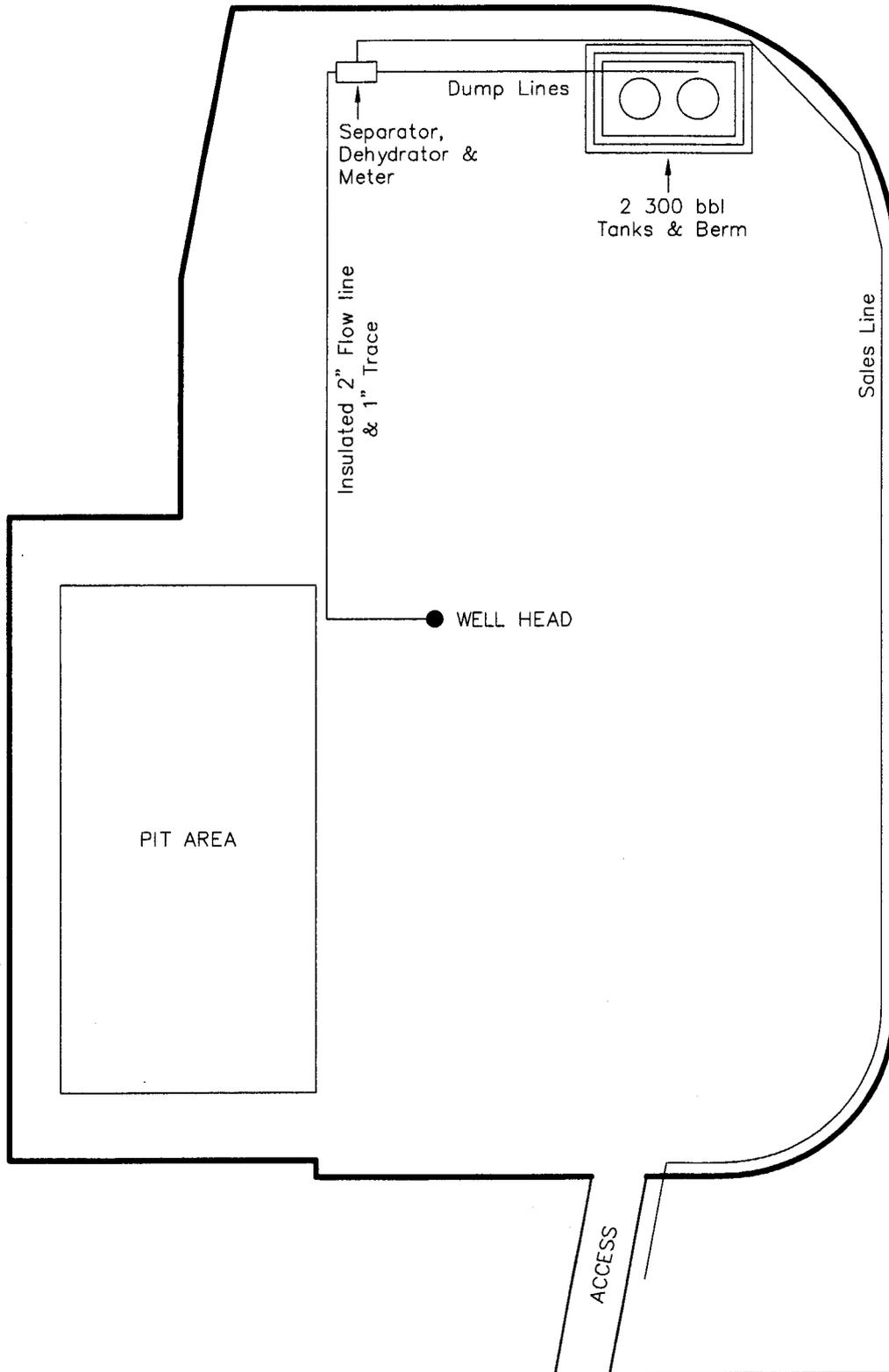
## TYPICAL RIG LAYOUT THURSTON 13-19-9-24



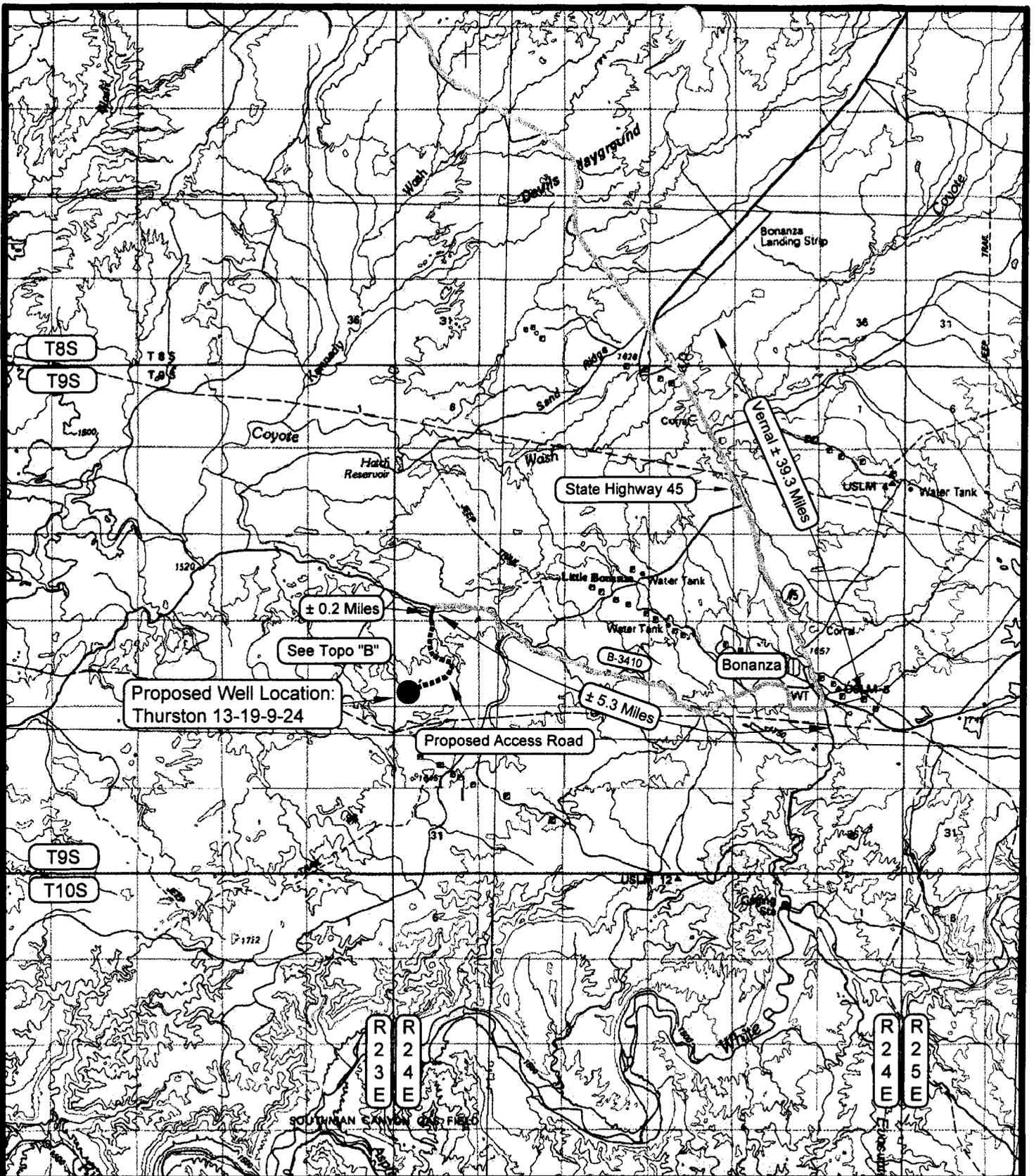
Section 19, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 828' FSL & 829' FWL
Date Surveyed: 10-15-05	Date Drawn: 10-31-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	
			SHEET <b>5</b> OF 10

# THURSTON ENERGY OPERATING COMPANY

## TYPICAL PRODUCTION LAYOUT THURSTON 13-19-9-24



Section 19, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 828' FSL & 829' FWL
Date Surveyed: 10-15-05	Date Drawn: 10-31-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	
			SHEET <b>6</b> OF 10



**LEGEND**

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- = PROPOSED ACCESS ROAD
- B-5460 = COUNTY ROAD CLASS & NUMBER

**TOPOGRAPHIC MAP "A"**

SCALE: 1:100,000

DRAWN BY: M.W.W.

DATE SURVEYED: 10-20-05

DATE DRAWN: 10-31-05

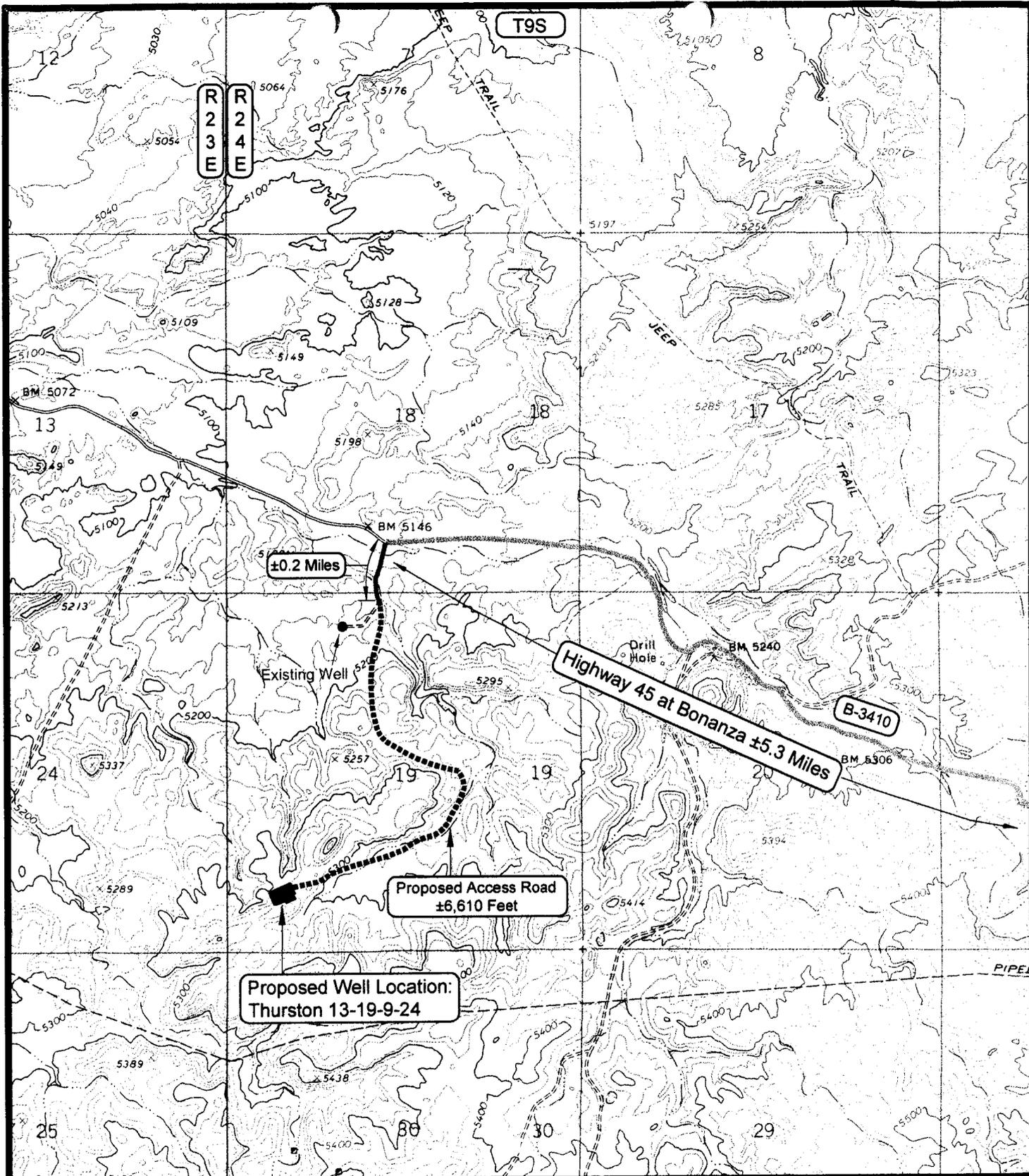
REVISED: 01-16-06 B.J.S.

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24  
SECTION 19, T9S, R24E, S.L.B.&M.  
828' FSL & 829' FWL**

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET  
7  
OF 10**



**LEGEND**

- PROPOSED ACCESS ROAD
- = SUBJECT WELL
- = SHARED ACCESS
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- B-5480 = COUNTY ROAD CLASS & NUMBER
- = LEASE LINE AND/OR PROPERTY LINE

**TOPOGRAPHIC MAP "B"**

SCALE: 1" = 2000'

DRAWN BY: M.W.W.

DATE SURVEYED: 10-16-05

DATE DRAWN: 10-31-05

REVISED: 01-16-06 B.J.S.

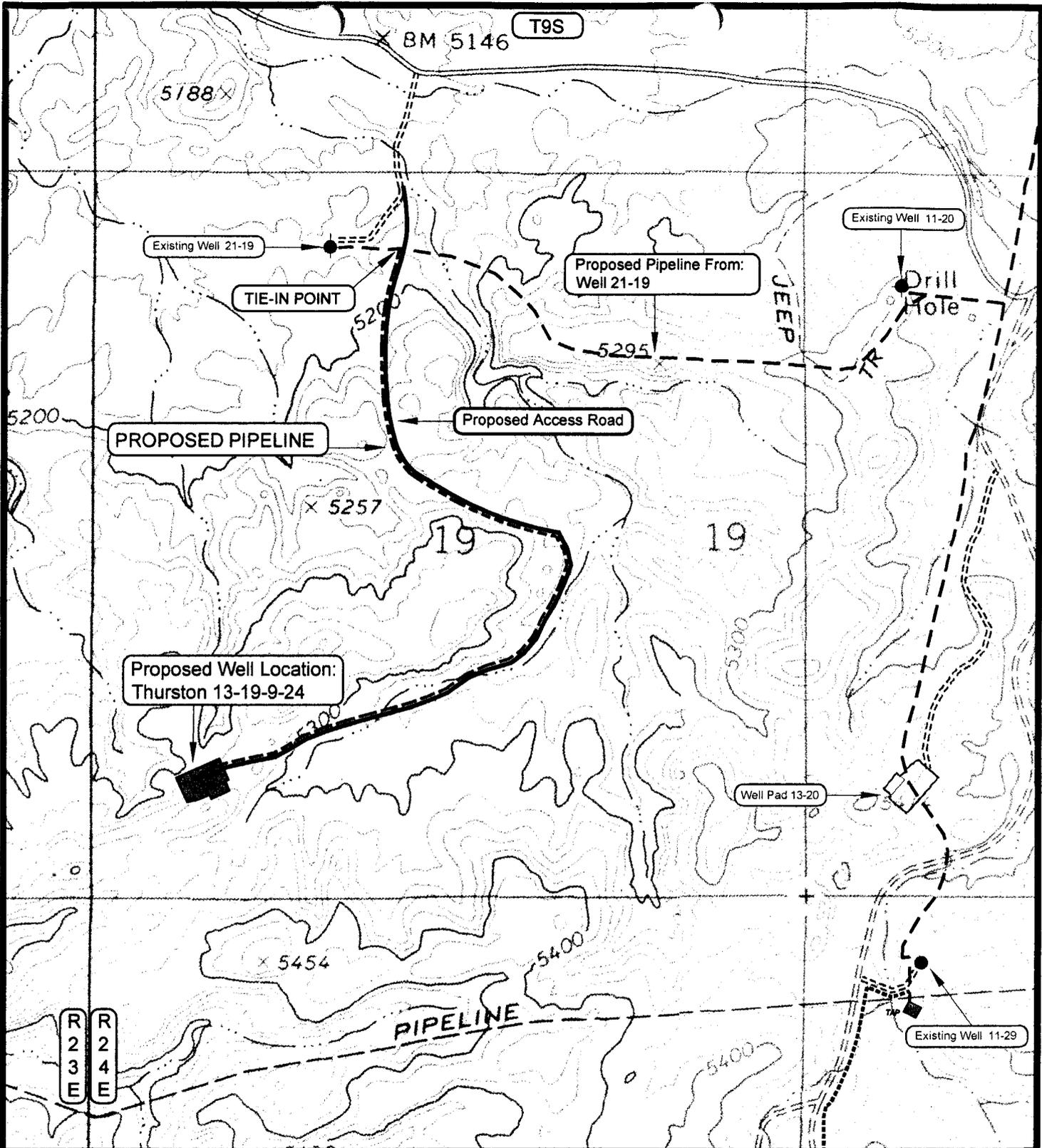
**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24  
SECTION 19, T9S, R24E, S.L.B.&M.  
828' FSL & 829' FWL**

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1385

**SHEET  
8  
OF 10**





APPROXIMATE PIPELINE LENGTH = ±6,110 Feet

**LEGEND**

- = EXISTING PIPELINE
- - - - = PROPOSED PIPELINE
- - - - = PROPOSED ACCESS ROAD
- = LEASE LINE AND / OR PROPERTY LINE

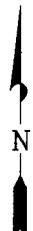
**THURSTON ENERGY OPERATING COMPANY**

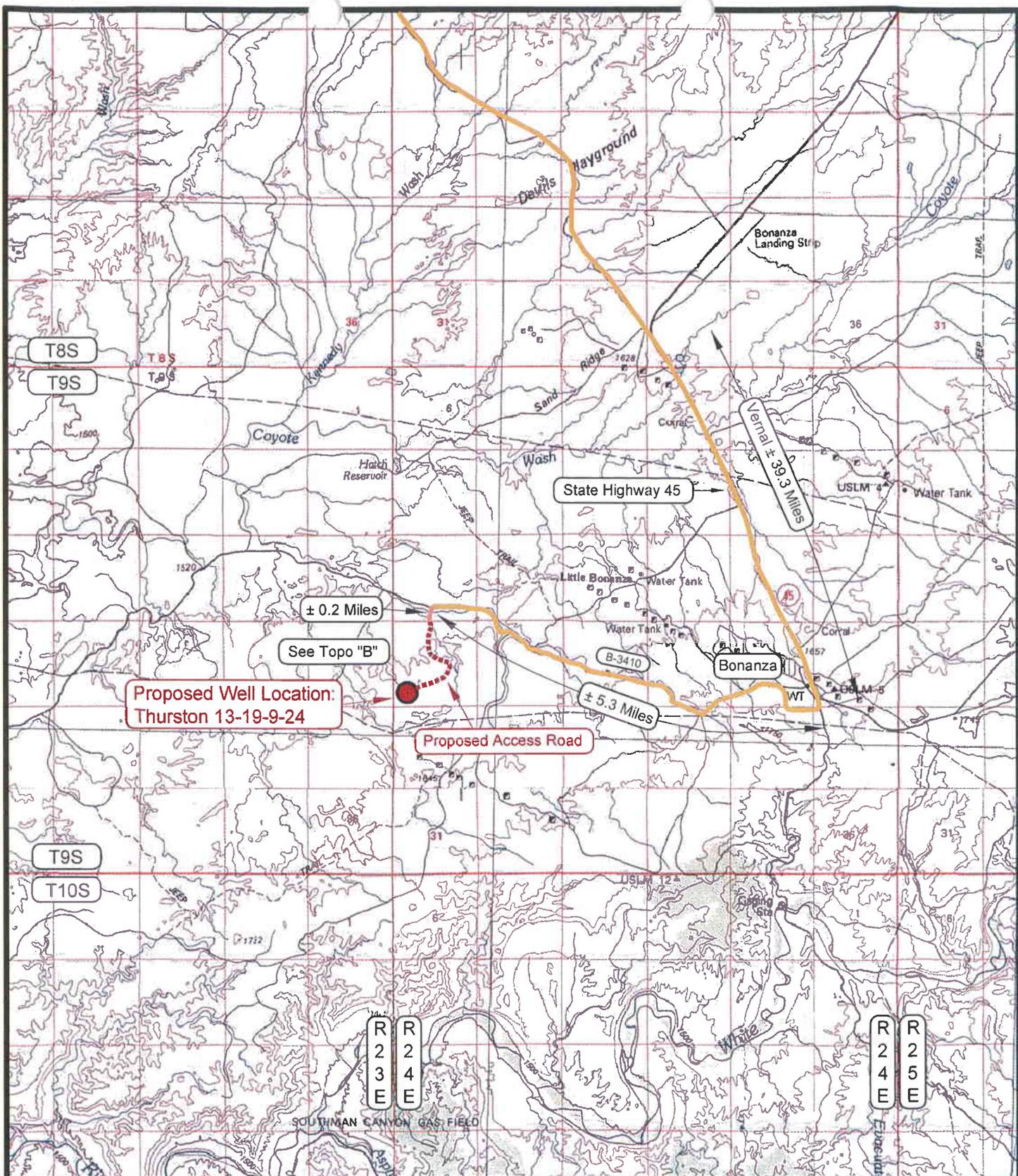
**Thurston 13-19-9-24**  
**SECTION 19, T9S, R24E, S.L.B.&M.**  
**828' FSL & 829' FWL**

<b>TOPOGRAPHIC MAP "D"</b>		DATE SURVEYED: 10-20-05
SCALE: 1" = 1000'		DATE DRAWN: 10-31-05
DRAWN BY: M.W.W.	REVISED: 01-18-06 B.J.S.	

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**10**  
**OF 10**





**LEGEND**

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- = PROPOSED ACCESS ROAD
- B-5460 = COUNTY ROAD CLASS & NUMBER

**TOPOGRAPHIC MAP "A"**

DATE SURVEYED: 10-20-05

DATE DRAWN: 10-31-05

SCALE: 1:100,000

DRAWN BY: M.W.W.

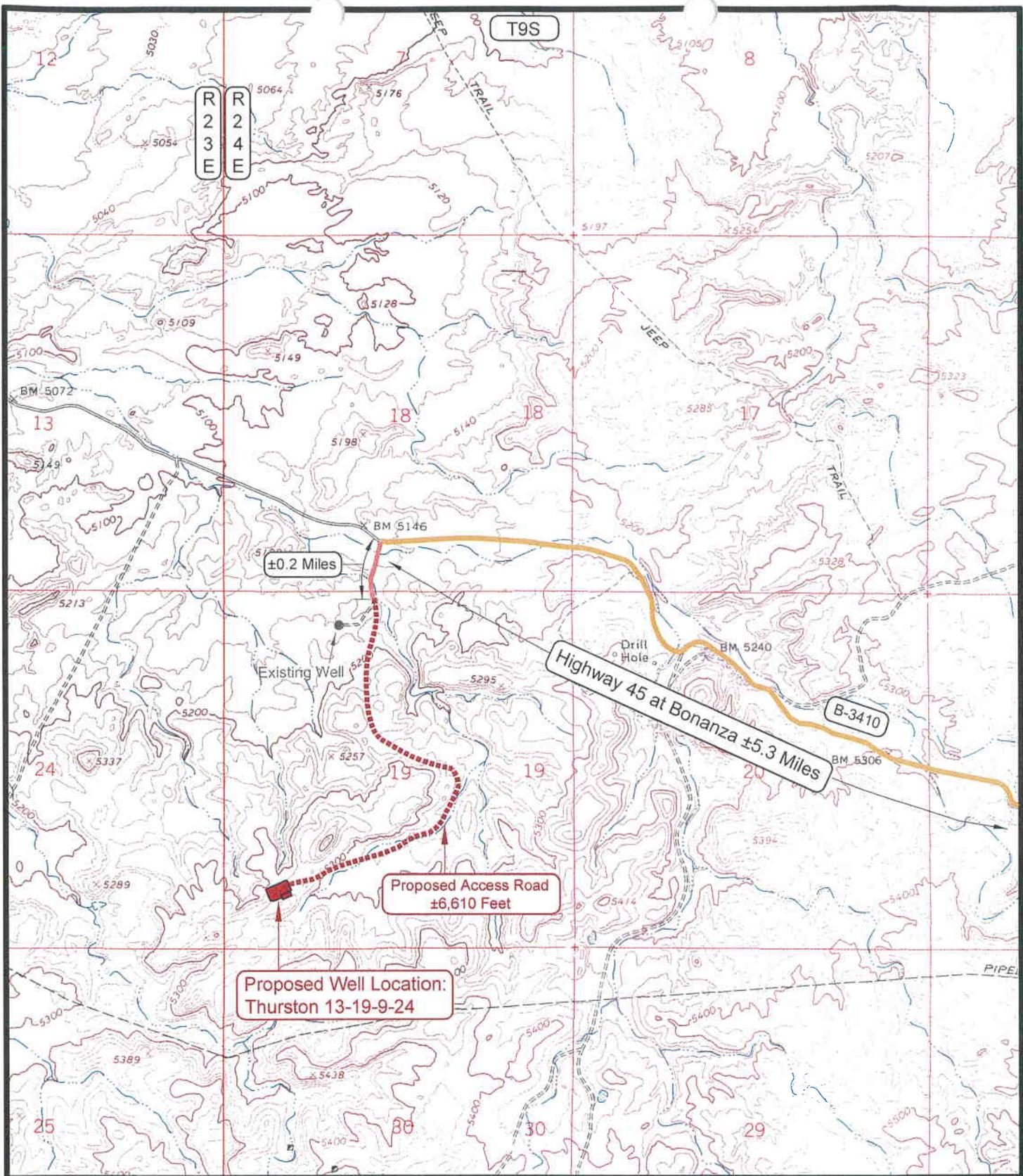
REVISED: 01-16-06 B.J.S.

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24**  
**SECTION 19, T9S, R24E, S.L.B.&M.**  
**828' FSL & 829' FWL**

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**7**  
**OF 10**



**LEGEND**

- PROPOSED ACCESS ROAD
- = SUBJECT WELL
 — — — — — = LEASE LINE AND / OR PROPERTY LINE
- - - - - = SHARED ACCESS
 — — — — — = EXISTING ROAD
- — — — — = EXISTING ROAD (TO BE IMPROVED)
 (B-5460) = COUNTY ROAD CLASS & NUMBER

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-24**  
**SECTION 19, T9S, R24E, S.L.B.&M.**  
**828' FSL & 829' FWL**

**TOPOGRAPHIC MAP "B"**

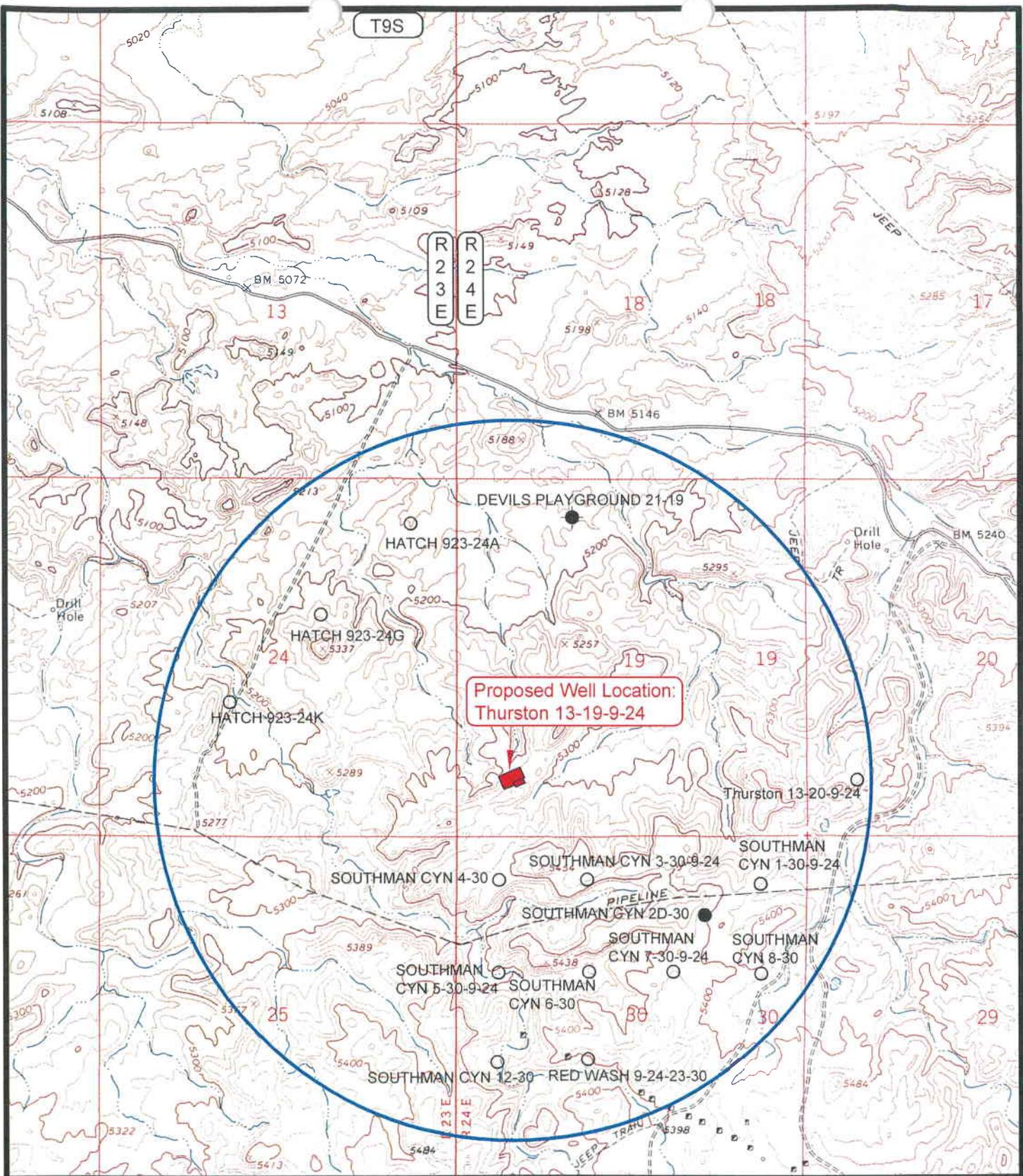
DATE SURVEYED: 10-16-05  
 DATE DRAWN: 10-31-05  
 REVISED: 01-16-06 B.J.S.

SCALE: 1" = 2000'

DRAWN BY: M.W.W.

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**8**  
**OF 10**



**LEGEND**

- ⊗ = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- = PROPOSED WELL
- ⊗ = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL
- ⊗ = ABANDONED LOCATION

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24**  
**SECTION 19, T9S, R24E, S.L.B.&M.**  
**828' FSL & 829' FWL**

**TOPOGRAPHIC MAP "C"**

DATE SURVEYED: 10-20-05

DATE DRAWN: 10-31-05

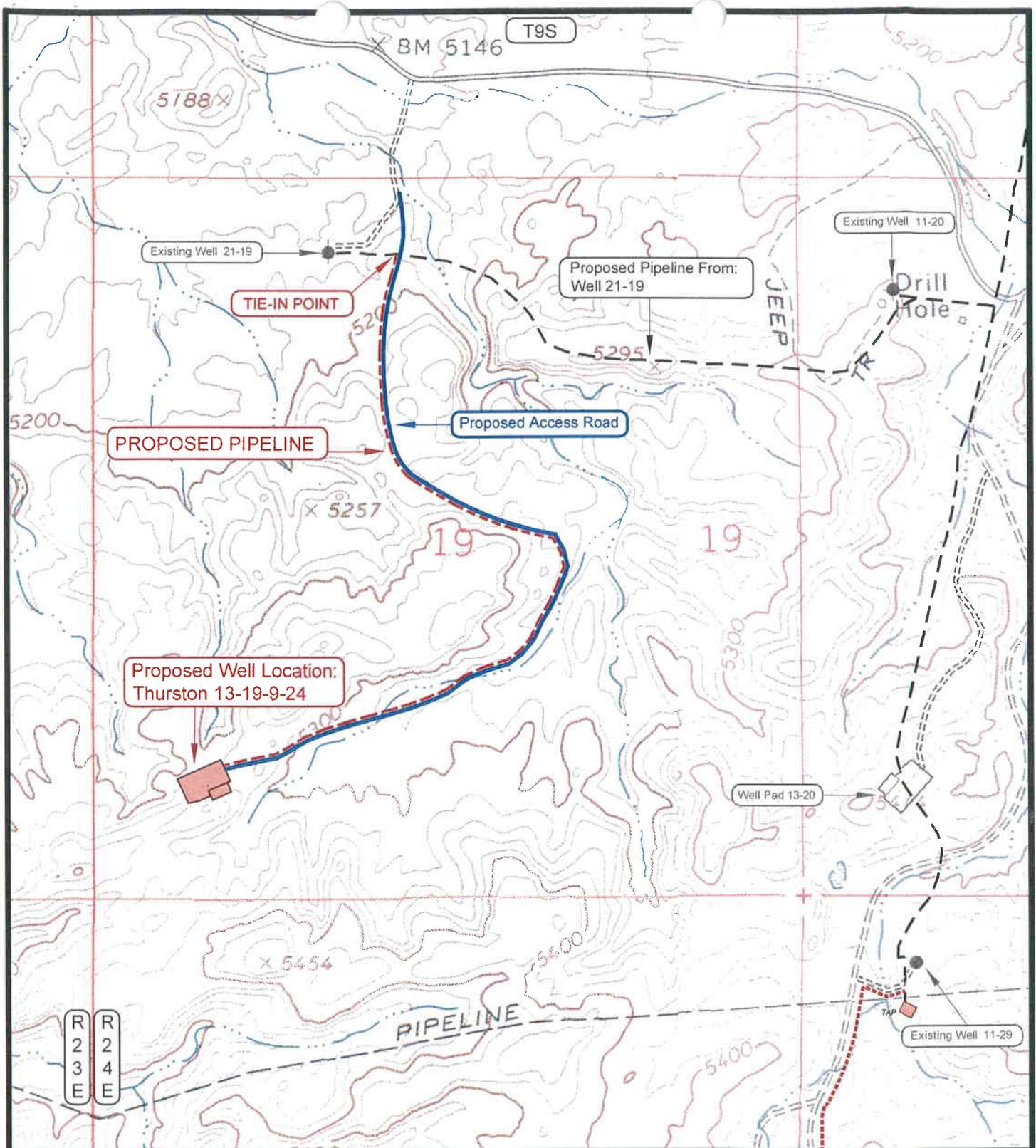
SCALE: 1" = 2000'

DRAWN BY: M.W.W.

REVISED:

**Timberline Land Surveying, Inc.**  
 38 West 100 North Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**9**  
**OF 10**



**APPROXIMATE PIPELINE LENGTH = ±6,110 Feet**

**LEGEND**

- = EXISTING PIPELINE
- = PROPOSED PIPELINE
- = PROPOSED ACCESS ROAD
- = LEASE LINE AND / OR PROPERTY LINE



**THURSTON ENERGY OPERATING COMPANY**

**Thurston 13-19-9-24  
SECTION 19, T9S, R24E, S.L.B.&M.  
828' FSL & 829' FWL**

**TOPOGRAPHIC MAP "D"**

DATE SURVEYED: 10-20-05

DATE DRAWN: 10-31-05

SCALE: 1" = 1000'

DRAWN BY: M.W.W.

REVISED: 01-16-06 B.J.S.

**Timberline Land Surveying, Inc.**

38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET  
10  
OF 10**

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/06/2006

API NO. ASSIGNED: 43-047-37707

WELL NAME: THURSTON 13-19-9-24  
 OPERATOR: THURSTON ENERGY ( N2790 )  
 CONTACT: BILL RYAN

PHONE NUMBER: 435-789-0968

PROPOSED LOCATION:

SWSW 19 090S 240E  
 SURFACE: 0828 FSL 0829 FWL  
 BOTTOM: 0828 FSL 0829 FWL  
 COUNTY: UINTAH  
 LATITUDE: 40.01648 LONGITUDE: -109.2623  
 UTM SURF EASTINGS: 648304 NORTHINGS: 4430823  
 FIELD NAME: UNDESIGNATED ( 2 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: U-31266  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: MVRD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

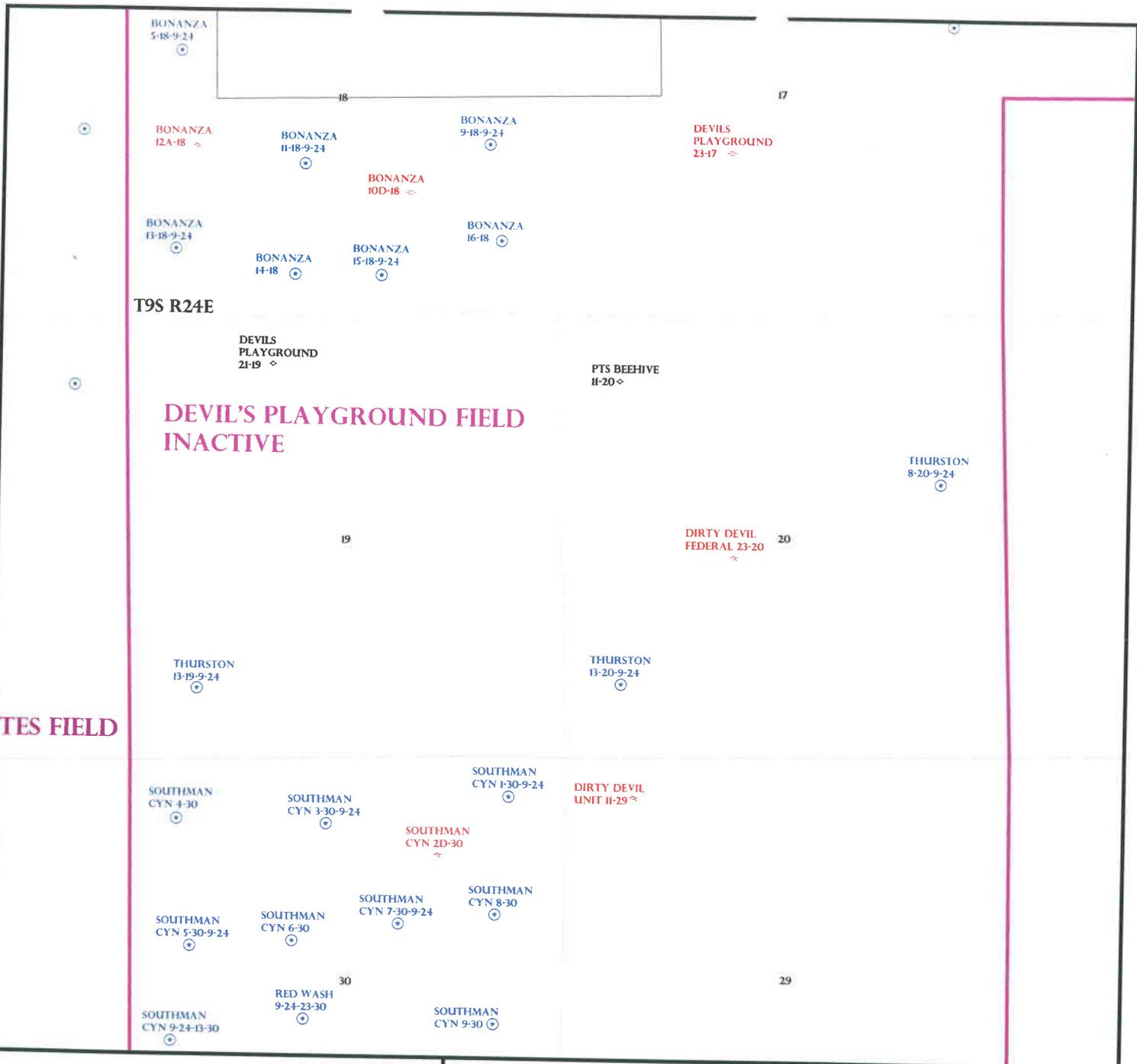
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UTB-000181 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. T75376 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

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: \_\_\_\_\_

STIPULATIONS: 1. Federal Approval  
2. Spacing Strip



OPERATOR: THURSTON ENERGY (N2790)

SEC: 19,20 T. 9S R. 24E

FIELD: UNDESIGNATED (002)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING

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

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NE PP OIL
  - NE 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



PREPARED BY: DIANA WHITNEY  
DATE: 8-FEBRUARY-2006



**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*

February 9, 2006

Thurston Energy Operating Company  
P O Box 240  
Vernal, UT 84078

Re: Thurston 13-19-9-24 Well, 828' FSL, 829' FWL, SW SW, Sec. 19, T. 9 South,  
R. 24 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.

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 43-047-37707.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal District Office

**Operator:** Thurston Energy Operating Company

**Well Name & Number** Thurston 13-19-9-24

**API Number:** 43-047-37707

**Lease:** U-31266

**Location:** SW SW                      **Sec.** 19                      **T.** 9 South                      **R.** 24 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

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

#### 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. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

#### 5. 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reenter a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

UTU-31266

6. If Indian, Allottee or Tribe Name

na

7. If Unit or CA, Agreement Designation

na

8. Well Name and No.

Thurston 13-19-9-24

9. API Well No.

4304737707

10. Field and Pool, or Exploratory Area

undesigned

11. County or Parish, State

Uintah Utah

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

Thurston Energy Operating Company

3. Address and Telephone No.

PO BOX 240 Vernal, UT 84078

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

828' FSL & 829' FWL SWSW

9S 24E Sec. 19

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

**TYPE OF SUBMISSION**

Notice of Intent  
 Subsequent Report  
 Final Abandonment Notice

**TYPE OF ACTION**

Abandonment  
 Recompletion  
 Plugging Back  
 Casing Repair  
 Altering Casing  
 Other \_\_\_\_\_  
 Change of Plans  
 New Construction  
 Non-Routine Fracturing  
 Water Shut-Off  
 Conversion to Injection  
 Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Thurston Energy Operating Company requests to change the water source for drilling, cementing and completion. The new water source would come from a Vernal City tap. A permit number was not provided for the new source. Please see the attached map for additional details. The address of the tap is Dalbo/A-1 Tank at 355 South 1000 East Vernal, UT 84078.

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

Signed

*William A. Ryan*

Title Agent

Date 07/19/06

(This space for Federal or State office use)

Approved by

Title

Date

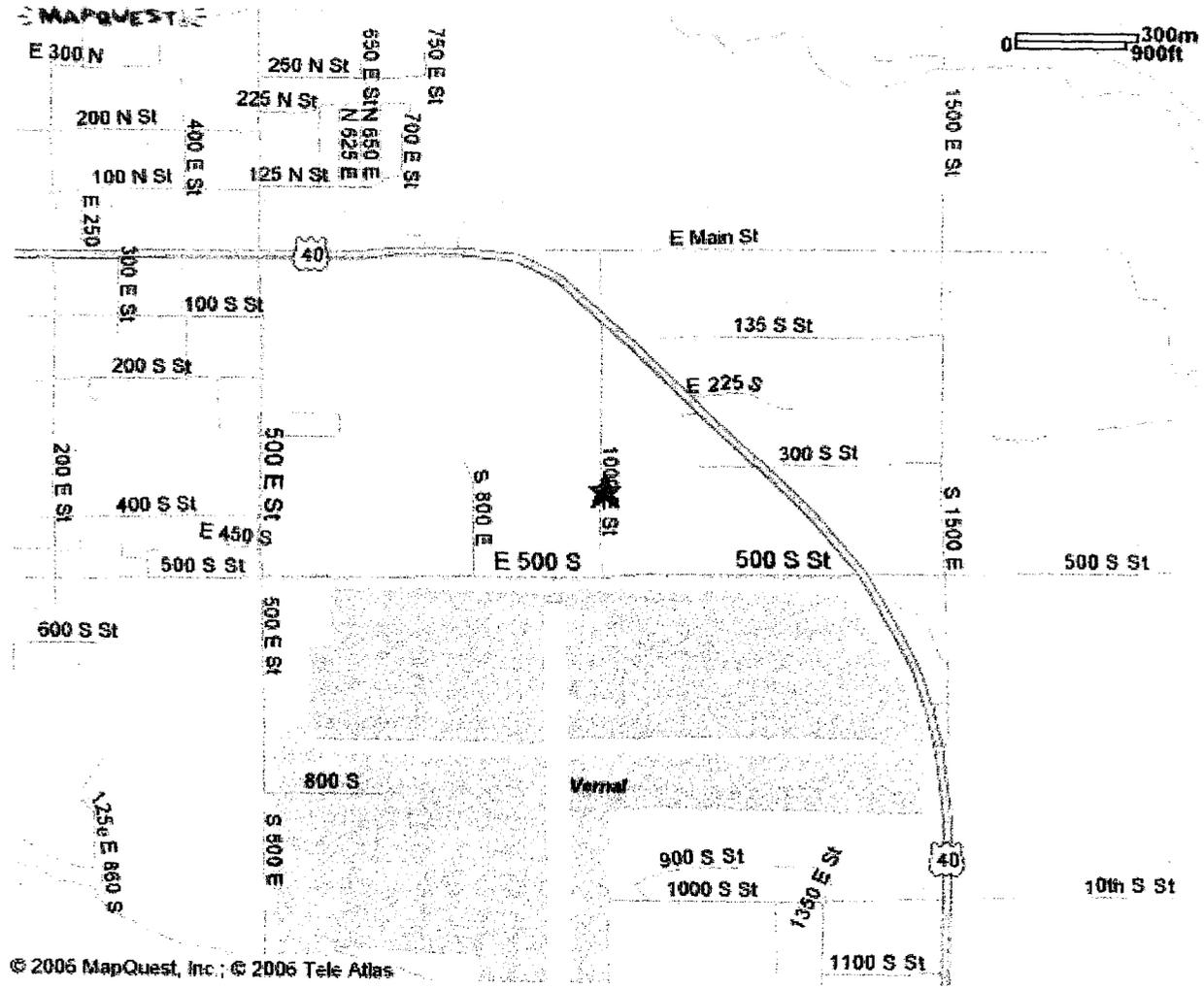
Conditions of approval, if any:

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

\*See Instructions on Reverse Side

JUL 28 2006

DIV. OF OIL, GAS & MINING



RECEIVED

JUL 28 2006

DIV. OF OIL, GAS & MINING



**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*

March 13, 2007

Thurston Energy Operating Company  
P.O. Box 240  
Vernal, UT 84078

Re: APD Rescinded -Thurston 13-19-9-24 Sec. 19 T. 9 R. 24E  
Uintah County, Utah API No. 43-047-37707

Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on February 9, 2006. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective March 13, 2007.

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  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Vernal

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

5. LEASE DESIGNATION AND SERIAL NO. <b>U-31266</b>
6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>na</b>
7. UNIT AGREEMENT NAME <b>na</b>
8. FARM OR LEASE NAME <b>na</b>

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 B. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
**Thurston Energy Operating Company**

3. ADDRESS OF OPERATORS  
**PO Box 240 Vernal, UT 84078**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirement)  
 at surface **828' FSL & 829' FWL SWSW Lot 4**  
 At proposed prod. Zone **same as above**

**RECEIVED**

JAN 31 2006

9. WELL NO.  
**Thurston 13-19-9-24**

10. FIELD OR LEASE NAME  
**Undesignated**

11. Sec., T., R., M., OR BLK AND SURVEY OR AREA  
**Sec. 19, T9S, R24E**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**46 miles south of Vernal, UT**

**43,047,37707**

12. COUNTY OR PARISH **Uintah** 13. STATE **Utah**

15. DISTANCE FROM PROPOSED LOC. TO NEAREST PROP. OR LEASE LINE, FT. (Also to nearest drlg. Unit line, if any)  
**828'**

16. NO. OF ACRES IN LEASE  
**1,594**

17. NO. OF ACRES ASSIGNED TO THIS WELL  
**40**

16. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.  
**1,450'**

19. PROPOSED DEPTH  
**8,000**

20. ROTARY OR CABLE TOOLS  
**Rotary**

21. ELEVATION (SHOW WHETHER DF, RT, GR, etc.)  
**5321' GR**

22. APPROX. DATE WORK WILL START  
**4/30/06**

**PROPOSED CASING AND CEMENT PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	9 5/8"	36#	2000'	180 sks
7 7/8"	5 1/2"	17#	T.D.	808 sks

The operator requests permission to drill the subject well. Please find the attached 10 point plan and 13 point plan.

**William A Ryan  
290 S 800 E  
Vernal, UT 84078  
435-789-0968**

**RECEIVED  
NOV 09 2007  
DIV. OF OIL, GAS & MINING**

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 A. Ryan TITLE Agent DATE \_\_\_\_\_  
 (This space for Federal or State Office Use)

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

APPROVED BY [Signature] TITLE Assistant Field Manager DATE 11-5-2007  
 CONDITIONS OF APPROVAL Lands & Mineral Resources

**CONDITIONS OF APPROVAL ATTACHED**

\*See Instructions on Reverse Side

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

**NOTICE OF APPROVAL**



*06BM2057A*

**VERNAL FIELD OFFICE**



**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE**

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

<b>Company:</b>	<b>Thurston Energy Operating Company</b>	<b>Location:</b>	<b>SWSW Lot 4, Sec. 19, T9S, R24E</b>
<b>Well No:</b>	<b>Thurston 13-19-9-24</b>	<b>Lease No:</b>	<b>UTU-31266</b>
<b>API No:</b>	<b>43-047-37707</b>	<b>Agreement:</b>	<b>N/A</b>

<b>Title</b>	<b>Name</b>	<b>Office Phone Number</b>	<b>Cell Phone Number</b>
Petroleum Engineer:	Matt Baker	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	Michael Lee	(435) 781-4432	(435) 828-7875
Petroleum Engineer:	James Ashley	(435) 781-4470	(435) 828-7874
Petroleum Engineer:	Ryan Angus	(435) 781-4430	(435) 828-7368
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913
NRS/Enviro Scientist:	Paul Buhler	(435) 781-4475	(435) 828-4029
NRS/Enviro Scientist:	Karl Wright	(435) 781-4484	(435) 828-7381
NRS/Enviro Scientist:	Holly Villa	(435) 781-4404	
NRS/Enviro Scientist:		(435) 781-4476	
NRS/Enviro Scientist:	Chuck Macdonald	(435) 781-4441	(435) 828-7481
NRS/Enviro Scientist:	Jannice Cutler	(435) 781-3400	(435) 828-3544
NRS/Enviro Scientist:	Michael Cutler	(435) 781-3401	(435) 828-3546
NRS/Enviro Scientist:	Anna Figueroa	(435) 781-3407	(435) 828-3548
NRS/Enviro Scientist:	Vertlyn Pindell	(435) 781-3402	(435) 828-3547
NRS/Enviro Scientist:	Darren Williams	(435) 781-4447	
NRS/Enviro Scientist:	Nathan Packer	(435) 781-3405	(435) 828-3545

**Fax: (435) 781-3420**

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- The interim seed mix for this location shall be:

Crested wheatgrass	<i>Agropyron cristatum</i>	6 lbs. /acre
Needle and Threadgrass	<i>Stipa comata</i>	6 lbs. /acre

  - All pounds are in pure live seed.
  - Reseeding may be required if first seeding is not successful.
- The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be recontoured and the topsoil respread, and the area shall be seeded in the same manner as the location topsoil.
- Once the location is plugged and abandoned, it shall be recontoured to natural contours, topsoil respread where appropriate, and the entire location seeded with the recommended seed mix. Seeding shall take place by broadcasting the seed and walking it into the soil with a dozer immediately after the dirt work is completed.
- The lessee/operator is given notice that lands in the lease have been identified as containing Golden Eagle nests within 0.5 mile. It is requested that the lessee/operator not initiate surface disturbing activities or drilling from February 1st through July 15th. A survey may be conducted by a qualified biologist or a BLM representative during this timing period to determine if Golden Eagles are in the area.
- As discussed on the onsite conducted on January 5, 2006 the fence that goes through the proposed location will be rerouted around the location.

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- A Cement Bond Log (CBL) shall be run from the TD to the top of cement. A field copy of the CBL shall be submitted to the BLM Vernal Field Office for review.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location ( $\frac{1}{4}$ / $\frac{1}{4}$ , Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers 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 reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**U-31266**

**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:  
**Thurston 13-19-9-24**

2. NAME OF OPERATOR:  
**Thurston Energy Operating Company**

9. API NUMBER:  
**4304737707**

3. ADDRESS OF OPERATOR:  
290 South 800 East CITY **Vernal** STATE **UT** ZIP **84078** PHONE NUMBER: **(435) 789-0968**

10. FIELD AND POOL, OR WILDCAT:  
**Bonanza**

4. LOCATION OF WELL  
FOOTAGES AT SURFACE: **828' FSL & 829' FWL**  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **SWSW 19 9S 24E**

COUNTY: **Uintah**

STATE: **UTAH**

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

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

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

The operator respectfully requests a one year APD approval extension for the subject location.

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 04-29-08  
By: [Signature]

COPY SENT TO OPERATOR

Date: 5.1.2008  
Initials: KS

NAME (PLEASE PRINT) Ginger Bowden

TITLE Agent

SIGNATURE [Signature]

DATE 4/24/2008

(This space for State use only)

**RECEIVED**

**APR 28 2008**

DIV. OF OIL, GAS & MINING

RESET

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 4304737707  
**Well Name:** Thurston 13-19-9-24  
**Location:** Sec. 19, T9S, R24E SWSW  
**Company Permit Issued to:** Thurston Energy Operating Company  
**Date Original Permit Issued:** 2/9/2006

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes  No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes  No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes  No

Has the approved source of water for drilling changed? Yes  No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes  No

Is bonding still in place, which covers this proposed well? Yes  No

Spinger Borden  
Signature

4/24/2008  
Date

Title: Agent

Representing: Thurston Energy Operating CO

RECEIVED  
APR 28 2008  
DIV. OF OIL, GAS & MINING



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

June 3, 2009

Thurston Energy Operating Co.  
290 South 800 East  
Vernal, UT 84078

Re: APD Rescinded – Thurston 13-19-9-24, Sec.19, T.9S, R.24E  
Uintah County, Utah API No. 43-047-37707

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on May 3, 2007. On April 29, 2008, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective June 3, 2009.

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  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Vernal



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Green River District-Vernal Field Office

170 South 500 East

Vernal, UT 84078

(435) 781-4400 Fax: (435) 781-4410

<http://www.blm.gov/ut/st/en/fo/vernal.html>



IN REPLY REFER TO:

3160

UTG011

January 25, 2010

Ralph Curton Jr.  
Thurston Energy Operating Company  
4925 Greenville Ave., Suite 900  
Dallas, TX 75206

43 047 37707

Re: Notice of Expiration  
Well No. Thurston 13-19-9-24  
Lot 4, Sec. 19, T9S, R24E  
Uintah County, Utah  
Lease No. UTU-31266

Dear Mr. Curton Jr.:

The Application for Permit to Drill (APD) for the above-referenced well was approved on November 5, 2007. A two (2) year extension of the original APD was requested on November 5, 2008. The request was reviewed and the extension request was "Returned to Operator" unapproved on November 17, 2008 due to the APD not expiring until November 5, 2009, so the Sundry Notice was not needed at this time. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced application has expired. If you intend to drill at this location in the future, a new Application for Permit to Drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of this well is to be rehabilitated. A schedule for this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

If you have any questions regarding this matter, please contact me at (435) 781-4455.

Sincerely,

*Cindy Severson*

Cindy Severson  
Land Law Examiner

RECEIVED

JAN 28 2010

DIV. OF OIL, GAS & MINING

cc: UDOGM