

**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: ML-28042	6. SURFACE: Federal
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: N/A	
2. NAME OF OPERATOR: Thurston Energy Operating Company				9. WELL NAME and NUMBER: Thurston 10-15-9-24	
3. ADDRESS OF OPERATOR: 4925 Greenville # 900 CITY Dallas STATE TX ZIP 75206				PHONE NUMBER: (323) 251-8819	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1864' FSL & 2085' FEL AT PROPOSED PRODUCING ZONE: Same as above				10. FIELD AND POOL, OR WILDCAT: Undesignated	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 38.1 miles south of Vernal, UT				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 15 9S 24E	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 1,864'		16. NUMBER OF ACRES IN LEASE: 616.59		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 3,100'		19. PROPOSED DEPTH: 8,000		20. BOND DESCRIPTION: 02694345269	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5363.2 GR		22. APPROXIMATE DATE WORK WILL START: 6/1/2010		23. ESTIMATED DURATION: 30 Days	

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12 1/4" <sup>11"</sup>	8 5/8 J-55 36#	2,000	Premium Lite II	250 SX	3.38 CF 11.0 PPG
			Class "G"	329 SX	1.2 CF 15.6 PPG
			Calcium Chloride	200 SX	1.10 CF 15.6 PPG
7 7/8	4 1/2 N-80 11.6#	8,000	Premium Lite II	200 SX	3.3 CF <sup>11.6</sup> 14.3 PPG
			Class G	400 SX	1.56 CF 14.3 PPG

25. **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 (435) 789-0968 TITLE Agent

SIGNATURE William A Ryan DATE 2/24/2010

(This space for State use only)

API NUMBER ASSIGNED: 43-047-40626

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

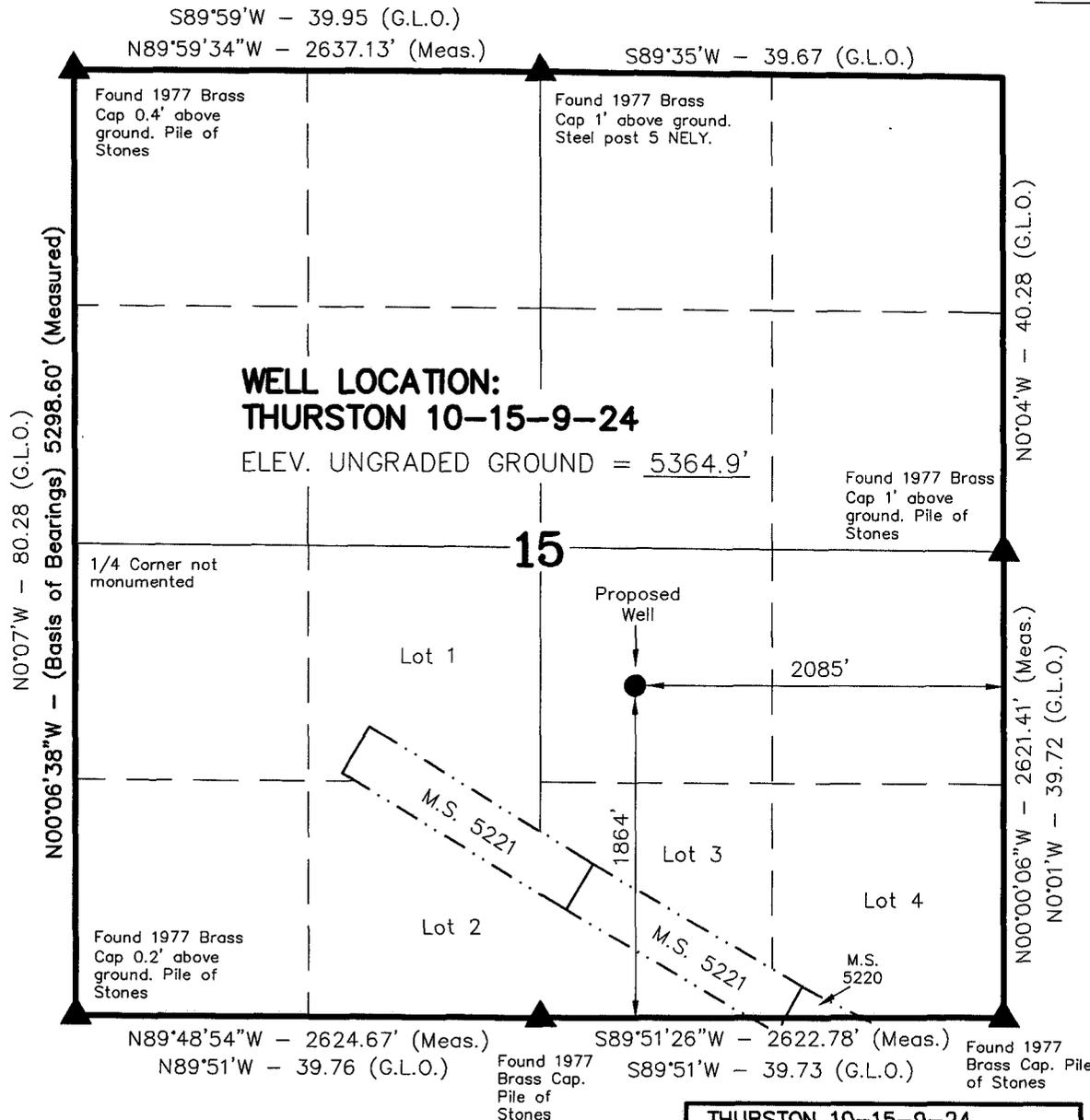
Date: 06-16-10  
(See instructions on reverse side)  
By: [Signature]

**RECEIVED**  
**MAR 15 2010**  
DIV. OF OIL, GAS & MINING

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

# THURSTON ENERGY OPERATING COMPANY

WELL LOCATION, THURSTON 10-15-9-24,  
LOCATED AS SHOWN IN THE NW 1/4 SE  
1/4 OF SECTION 15, 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 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. Kay*  
 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 10-15-9-24**  
**(Proposed Well Head)**  
**NAD 83 Autonomous**  
 LATITUDE = 40° 02' 01.4"  
 LONGITUDE = 109° 11' 53.9"

**TIMBERLINE LAND SURVEYING, INC.**

38 WEST 100 NORTH. - VERNAL, UTAH 84078  
 (435) 789-1365

DATE SURVEYED: 10-15-05	SURVEYED BY: K.R.K.	<b>SHEET 2 OF 10</b>
DATE DRAWN: 10-29-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'	Date Last Revised:	

# Thurston Energy, LLC

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4925 Greenville Avenue, Suite 900 • Dallas, Texas 75206 USA (323) 251-8819

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February 24, 2010

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

To Whom It May Concern:

This APD filing for state well name **Thurston 10-15-9-24**, located in ML-28042, and all filing information is identical to a previously approved permit with the same well location, name, etc, that has since expired. The previously approved API Well number is 43-047-37404.

Thurston is essentially "re-filing" for a new permit and API #. Please let me know if there is anything else you may need from me in this regard.

**Please hold all information associated with this Application for Permit to Drill and all associated logs confidential for a minimum of six (6) months.**

Best Regards,

  
William A Ryan, Agent for Thurston  
(435) 789-0968

RECEIVED  
MAR 15 2010  
DIV. OF OIL, GAS & MINING

# Thurston Energy, LLC

4925 Greenville Avenue, Suite 900 • Dallas, Texas 75206 USA

## 10 Point Plan

### Thurston Energy Operating Company

#### Thurston 10-15-9-24

Surface Location NW ¼ SE ¼, Section 15, T.9S, R.24E

#### 1. Surface Formation

Green River

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

Formation	Depth	Datum
Green River	Surface	+5,363' G.L.
Uteland Butte Limestone	3,545'	+1,818'
Wasatch	3,635'	+1,728'
Mesaverde	5,385'	-22'
Buck Tongue	6,810'	-1,447'
Castlegate	6,880'	-1,517'
TD	8,000'	-2,637'

A 12 ¼" will be drilled to 2,000' +/- . The hole 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: Thurston 5-15-9-24, RSW 12ML-14-9-24, RSW 13ML-14-9-24, Bonanza 9-24-32-22, Bonanza 5-22-9-24

Abandoned Wells: Federal 21-14 and State 14-16

Shut in Well: Dirty Devi 31-15A

Water Well: Federal 14-10

**4. Proposed Casing:**

Hole Size	Casing Size	Weight/FT	Grade	Coupling & Tread	Casing Depth	New/Used
11	8 5/8	36#	J-55	STC	2000	New
7 7/8	4 1/2	11.6#	N-80	LTC	TD	New

**Cement Program:**

The surface casing will be cemented to the surface as follows:

	Casing Size	Cement Type	Cement Amounts	Cement Yield	Cement Weight
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% Na <sub>2</sub> SiO <sub>3</sub> , 3% KCL	250 sks. +/-	3.38 ft <sup>3</sup> /sk	11.0 ppg
Tail:	8 5/8	Class "G", 2% CaCl <sub>2</sub> , .25#/sk Cello Flake	329 sks. +/-	1.2 ft <sup>3</sup> /sk	15.6 ppg
Top Job:	8 5/8	4% CaCl <sub>2</sub> , .25#/sk Cello Flake	200 sks. +/-	1.10 ft <sup>3</sup> /sk	15.6 ppg

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

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

Interval	Mud Weight lbs/gal	Viscosity Sec/OT	Fluid Loss MI/30 min	Mud Type
0-2000	Air/Clear Water	-----	No Control	Water/Gel
2000-TD	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:**

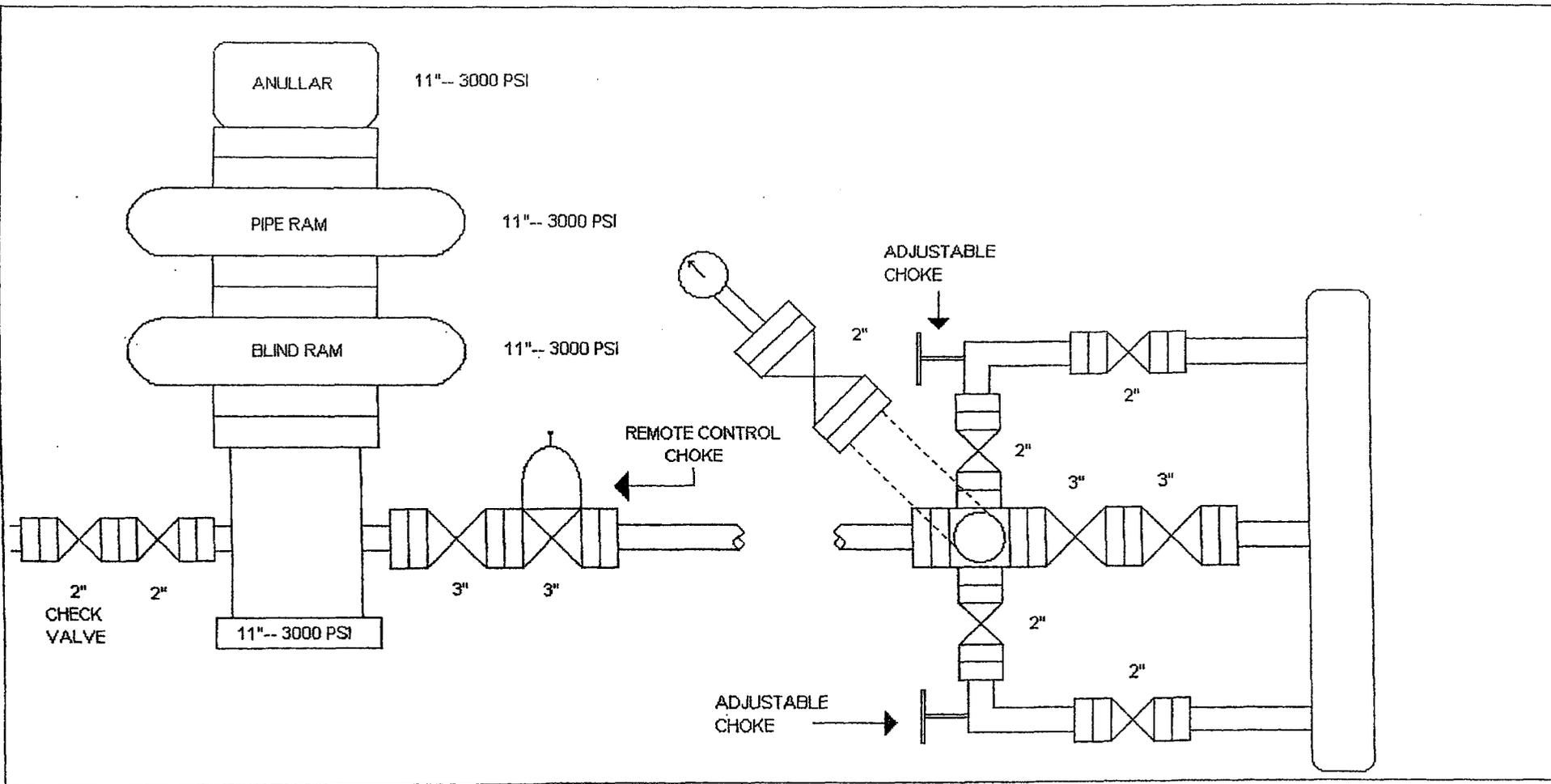
- a) Test: None are anticipated
- b) Coring: There is the possibility of sidewall coring
- c) Sampling: Every 10' from 2000' to TD
- d) Logging: Type: DLL/SFL W/GR and SP @ Interval: TD to Surf Csg; Type: FDC/CNL W/GR and CAL @ Interval: TD to Surf Csg.

**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 H2S.

**10. Drilling Schedule:**

The anticipated starting date is 6/1/10. Duration of operations is expected to be 30 days.



# **Thurston Energy, LLC**

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4925 Greenville Avenue, Suite 900 • Dallas, Texas 75206 USA

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**13 POINT SURFACE USE PLAN FOR THURSTON 10-15-9-24  
LOCATED IN NW ¼ SE ¼, SECTION 15, T.9S, R24E, S.L.B.&M  
UINTAH COUNTY, UTAH  
LEASE NUMBER: ML-28042  
SURFACE OWNERSHIP: FEDERAL**

**1. Existing Roads:**

Thurston Energy Operating Company, Thurston 10-15-9-24, Section 15, 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 33.4 miles to the junction of the Little Bonanza Road, County B Road 3430; exit right and proceed in a southwesterly direction along the Little Bonanza road approximately 0.9 miles to the proposed access road; follow road flags in a southeasterly direction approximately 2,415 feet to the proposed location.

Total Distance from Vernal, Utah to the proposed well location is approximately 38.1 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 2,415' +/- of new construction on lease. The road will be graded once per year minimum and maintained.

A) Approximate Length	2,415'
B) Right-of-Way width	30'
C) Running surface	18'
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) Pipeline crossing	No

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 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	WRNUM 49-267
C) Abandoned well	State 14-16, Federal 21-14
D) Temp abandoned well	None
E) Disposal well	Federal 14-10
F) Drilling/Permitted well	Thurston 5-15-9-24, RSW 12ML-14-9-24, RSW 13ML-14-9-24, Bonanza 9-24-32-22, and Bonanza 5-22-9-24
G) Shut In well	Dirty Devil 31-15A
H) Injection well	None
I) Monitoring or observation well	None

Please see 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 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 2,740' +/- of 3" surface pipeline would be constructed on Federal lands. The pipeline will tie into the existing pipeline in Sec 15, T9S, R24E. The pipeline will be strung and boomed to the north of the location and parallel to the access roads.**

**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 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 nor foreseeable in 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	18.8 ft
G) Max fill	8.9 ft
H) Total cut yds	8,020 cu yds
I) Pit location	East end
J) Top soil location	North and West ends
K) Access road location	West end

L) Flare Pit	Corner C
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Please see the attached location diagram for additional details.

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

- A) Thirty-nine inch new 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 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. 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:**

Access road, Location, Pipeline - All Federal

**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. See copy of survey.

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 5 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  
730 East 300 South  
Vernal, UT 84078

Office: (435) 789-0968  
Fax: (435) 789-0970  
Mobile: (435) 828-0969

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: *March 10, 2010*

*William A. Ryan*  
William A. Ryan, Agent  
Rocky Mountain Consulting

**Onsite Dates:**

# **Thurston Energy, LLC**

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4925 Greenville Avenue, Suite 900 • Dallas, Texas 75206 USA

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## **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, disposed, or associated with the proposed action.

If you require addition information please contact:

William A Ryan  
Rocky Mountain Consulting  
730 East 300 South  
Vernal, UT 84078

Office: (435) 789-0968  
Fax: (435) 789-0970  
Mobile: (435) 828-0969

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

FORM 4B

Bond No. 0269435269

**COLLATERAL BOND**

**KNOW ALL MEN BY THESE PRESENTS:**

That we (operator name) Thurston Energy Operating Company as Principal, which is duly authorized and qualified to do business in the State of Utah, are held and firmly bound unto the State of Utah in the sum of:

Thirty Thousand and NO/100 dollars (\$ \$30,000.00 ) lawful money of the United States by virtue of the following financial instruments (cash account, negotiable bonds of the United States, a state or municipality, or negotiable certificate of deposit - see Rule R649-3-1):

Certificate of Deposit Bond # 0269435269

payable to the Director of the Division of Oil, Gas and Mining, as agent of the State of Utah, for the use and benefit of the State of Utah for the faithful payment of which we bind ourselves, our heirs, executors, administrators and successors, jointly and severally by these presents.

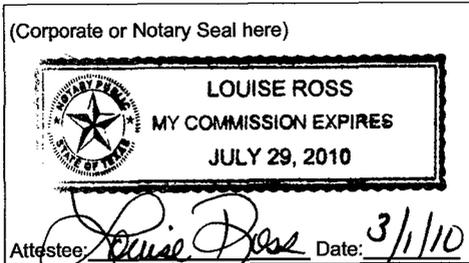
**THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS** the Principal is or will be engaged in the drilling, redrilling, deepening, repairing, operating, and plugging and abandonment of a well or wells and restoring the well site or sites in the State of Utah for the purposes of oil or gas production and/or the injection and disposal of fluids in connection therewith for the following described land or well:

Blanket Bond: To cover all wells drilled in the State of Utah  
 Individual Bond: Well No: Thurston 10-15-9-24  
Section: 15 Township: 9S Range: 24E  
County: Uintah, Utah

**NOW, THEREFORE**, if the above bounden Principal shall comply with all the provisions of the laws of the State of Utah and the rules, orders and requirements of the Board of Oil, Gas and Mining of the State of Utah, including, but not limited to the proper plugging and abandonment of wells and well site restoration, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

**IN TESTIMONY WHEREOF**, said Principal has hereunto subscribed its name and has caused this instrument to be signed by its duly authorized officers and its corporate or notary seal to be affixed this

1st day of March, 20 10



Thurston Energy Operating Company

By Ralph Curton, Jr. Principal (company name)  
Name (print) President/CEO Title

[Signature]  
Signature

## **Paleontological Reconnaissance Report**

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**Thurston Energy's Proposed Well Pads, Access Roads, and  
Pipelines for "Thurston #9-7-9-24; #7-9-9-24; #5-15-9-24;  
#10-15-9-24; #13-19-9-24; #8-20-9-24; #13-20-9-24;  
#5-27-9-24; #15-27-9-24; & #12-29-9-24"  
(Sec. 7, 9-10, 15, 19-20, 27, & 29, T 9 S, R 24 E)**

Bonanza & Red Wash SE  
Topographic Quadrangles  
Uintah County, Utah

May 19, 2006

Prepared by Stephen D. Sandau  
Paleontologist  
Intermountain Paleo-Consulting  
P. O. Box 1125  
Vernal, Utah 84078

WELL COPY

**A CULTURAL RESOURCE INVENTORY FOR THE THURSTON ENERGY  
OPERATING COMPANY WELLS #9-7-9-24, #7-9-9-24, #5-15-9-24, #10-15-9-24, #13-19-9-24,  
#8-20-9-24, #13-20-9-24, #5-27-9-24, #15-27-9-24, #12-29-9-24 and #13-29-9-24, AND THEIR  
ASSOCIATED ACCESS ROADS AND PIPELINES, UINTAH COUNTY, UTAH**

by

Sandy Chynoweth Pagano  
Archaeologist

Prepared for:

Rocky Mountain Consulting, Inc.  
290 South 800 East  
Vernal, Utah 84078

Prepared by:

Sagebrush Consultants, L.L.C.  
3670 Quincy Avenue, Suite 203  
Ogden, Utah 84403

Under the Authority of:

Cultural Resource Use Permit No. 05UT54630

and

Utah State Antiquities Permit No. U-05-SJ-1411bps

Cultural Resource Report No. 1479

April 20, 2006

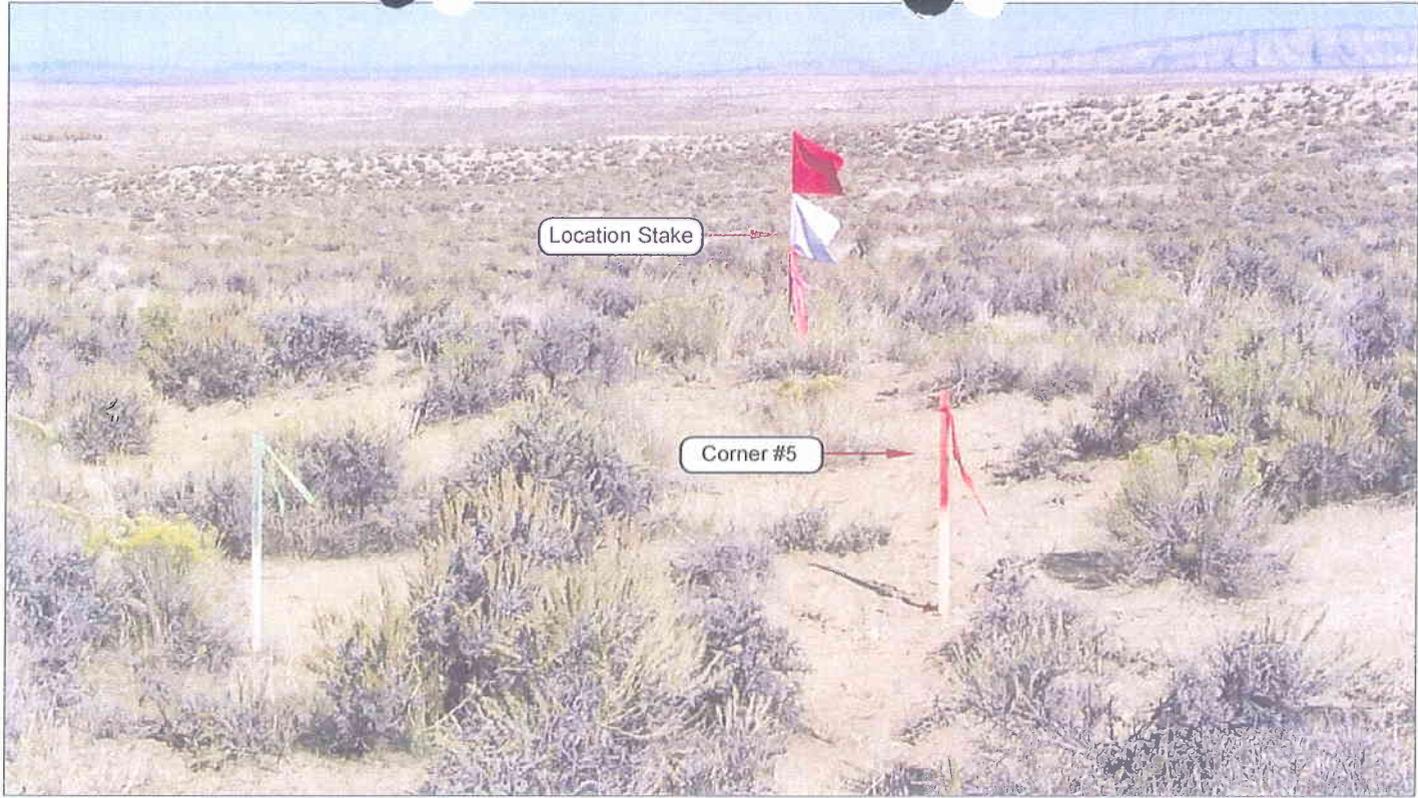


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHEASTERLY

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 10-15-9-24  
SECTION 15 , T9S, R24E, S.L.B.&M.  
1864' FSL & 2085' FEL**

**LOCATION PHOTOS**

DATE TAKEN: 10-15-05

DATE DRAWN: 11-02-05

TAKEN BY: K.R.K.

DRAWN BY: B.J.Z.

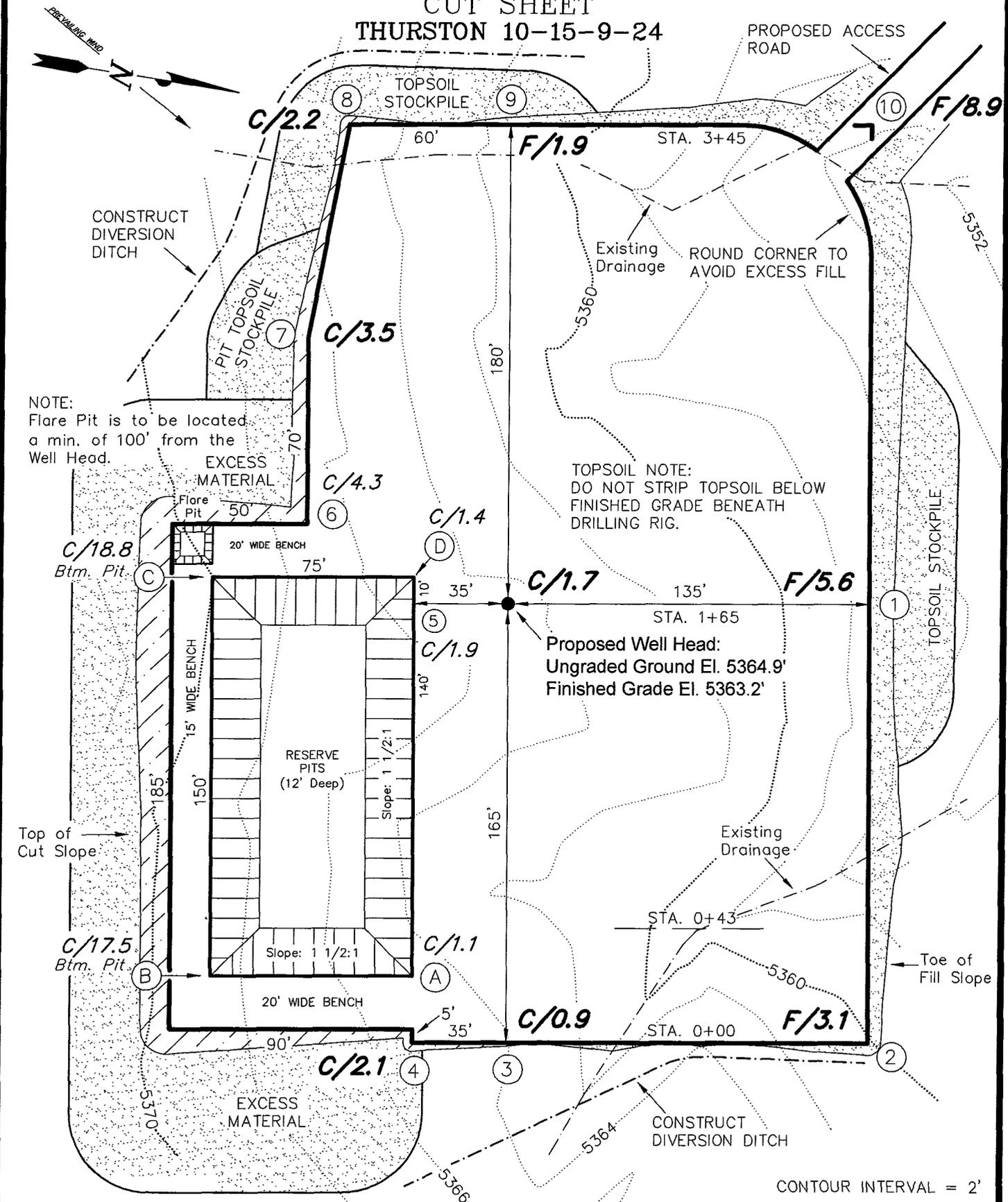
REVISED:

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

**SHEET  
1  
OF 10**

# THURSTON ENERGY OPERATING COMPANY

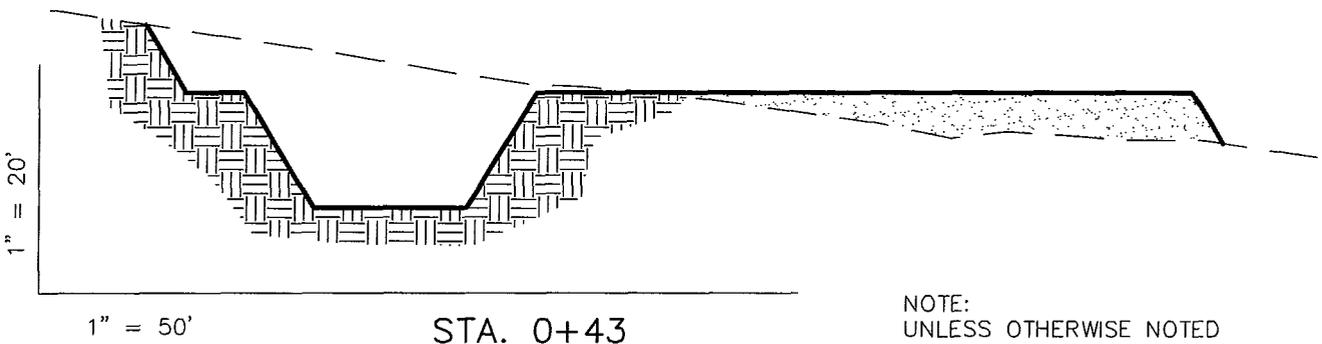
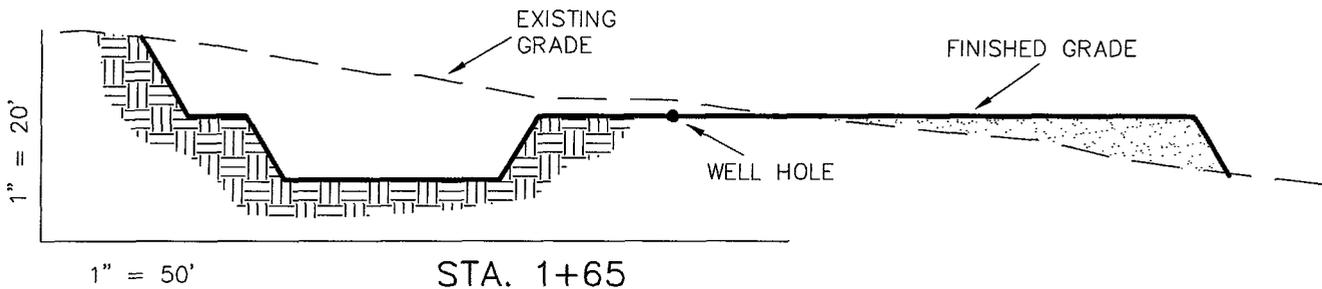
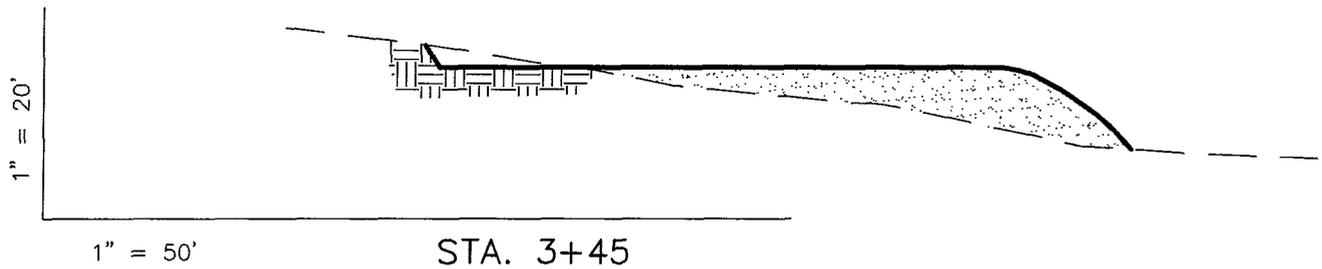
## CUT SHEET THURSTON 10-15-9-24



Section 15, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SE	Footage Location: 1864' FSL & 2085' FEL
Date Surveyed: 10-15-05	Date Drawn: 11-2-05	Date Last Revision: 01-27-06 B.J.S.	<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'	

# THURSTON ENERGY OPERATING COMPANY

## CROSS SECTIONS THURSTON 10-15-9-24



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



Pit overburden is included in pad cut.

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

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	4,680	5,810	Topsoil is not included in Pad Cut	-1,130
PIT	3,340	0		3,340
<b>TOTALS</b>	<b>8,020</b>	<b>5,810</b>	<b>1,500</b>	<b>2,210</b>

Excess Material after Pit Rehabilitation = 540 Cu. Yds.

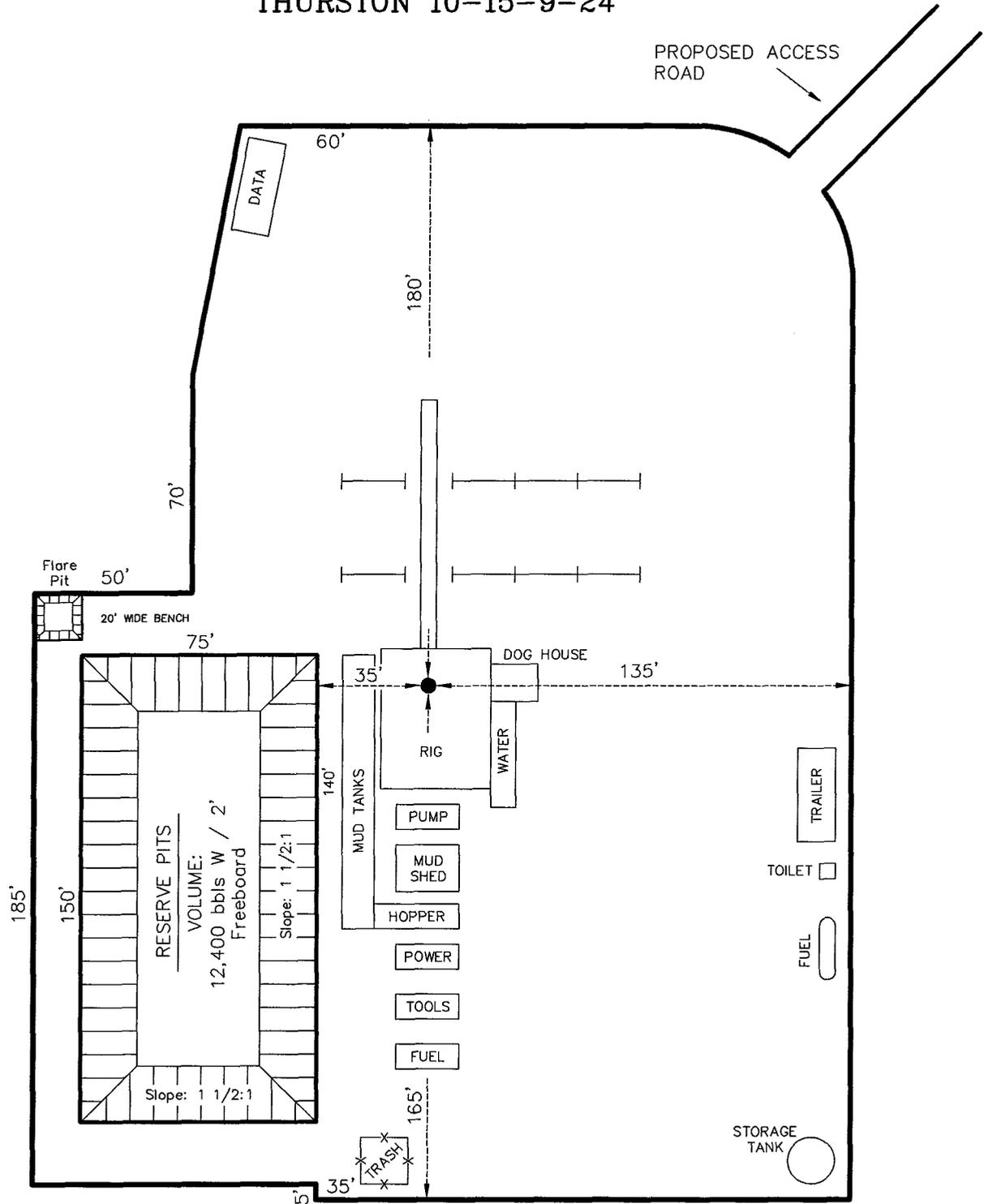
#### REFERENCE POINTS

- 185' NORTHERLY = 5355.4'
- 235' NORTHERLY = 5352.5'
- 215' EASTERLY = 5364.5'
- 265' EASTERLY = 5366.9'

Section 15, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SE	Footage Location: 1864' FSL & 2085' FEL
Date Surveyed: 10-15-05	Date Drawn: 11-2-05	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'	

# THURSTON ENERGY OPERATING COMPANY

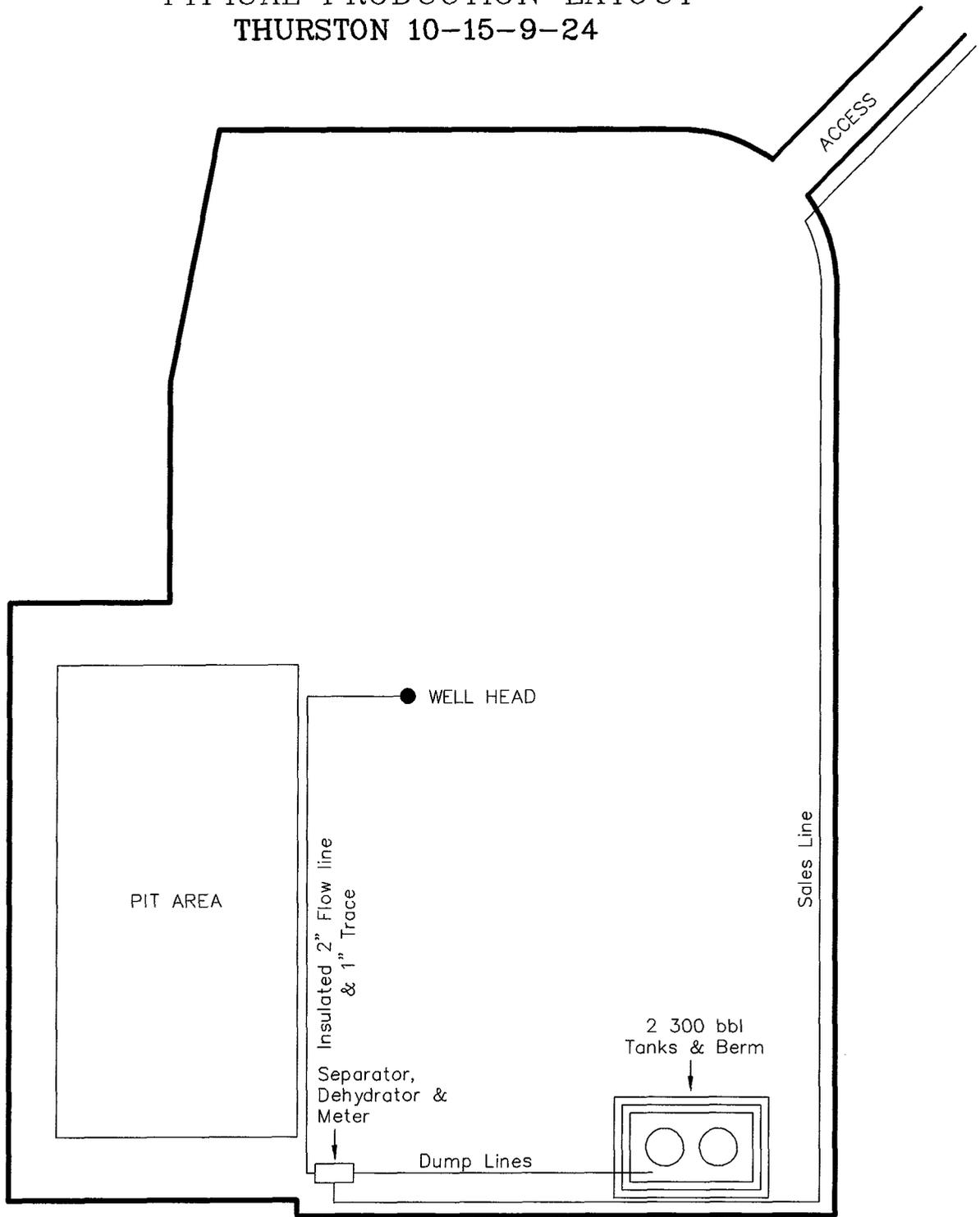
## TYPICAL RIG LAYOUT THURSTON 10-15-9-24



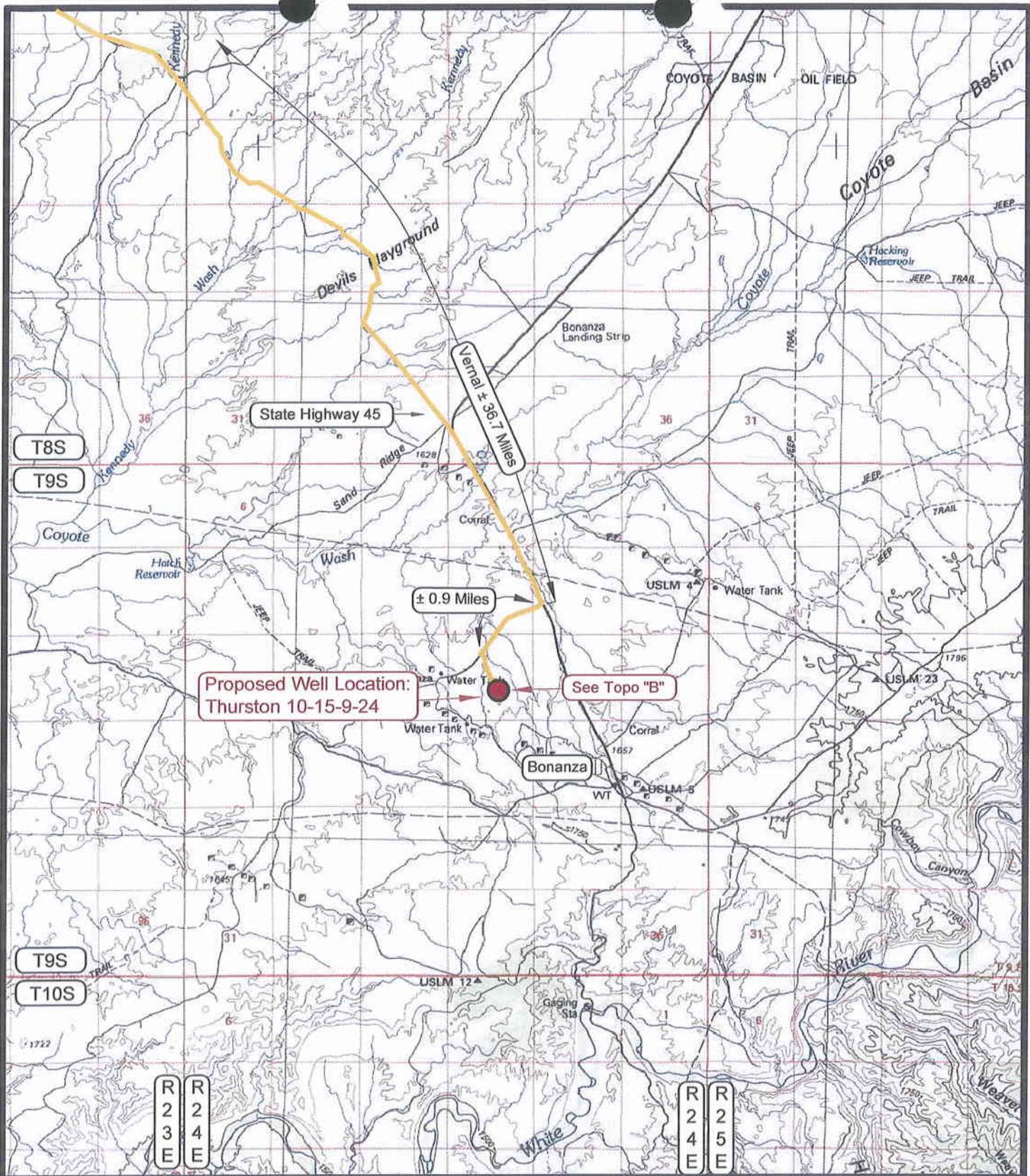
Section 15, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SE	Footage Location: 1864' FSL & 2085' FEL
Date Surveyed: 10-15-05	Date Drawn: 11-2-05	Date Last Revision: 01-27-06 B.J.S.	<b>Timberline</b> (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	
			SHEET <b>5</b> OF 10

# THURSTON ENERGY OPERATING COMPANY

## TYPICAL PRODUCTION LAYOUT THURSTON 10-15-9-24



Section 15, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SE	Footage Location: 1864' FSL & 2085' FEL
Date Surveyed: 10-15-05	Date Drawn: 11-2-05	Date Last Revision: 01-27-06 B.J.S.	<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'	



Proposed Well Location:  
Thurston 10-15-9-24

See Topo "B"

Vernal ± 36.7 Miles

State Highway 45

± 0.9 Miles

**LEGEND**

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- - - = PROPOSED ACCESS ROAD
- B-3430 = COUNTY ROAD CLASS & NUMBER

**TOPOGRAPHIC MAP "A"**

DATE SURVEYED: 10-15-05  
DATE DRAWN: 11-02-05  
REVISED:

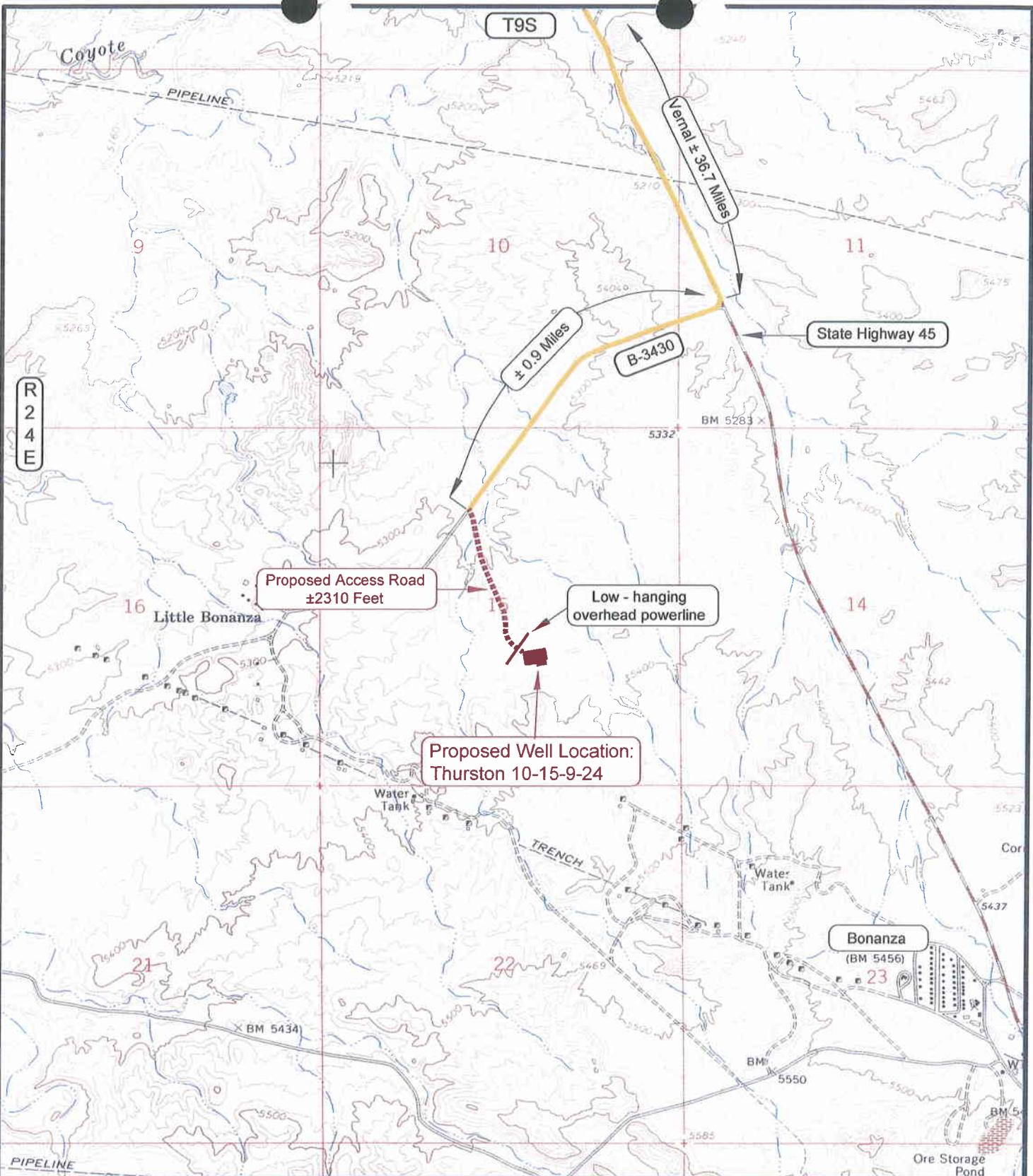
SCALE: 1:100,000      DRAWN BY: B.J.Z.

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 10-15-9-24**  
**SECTION 15, T9S, R24E, S.L.B.&M.**  
**1864' FSL & 2085' FEL**

**Timberline Land Surveying, Inc.**  
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**SHEET**  
**7**  
**OF 10**



**LEGEND**

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

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 10-15-9-24**  
**SECTION 15 , T9S, R24E, S.L.B.&M.**  
**1864' FSL & 2085' FEL**

**TOPOGRAPHIC MAP "B"**

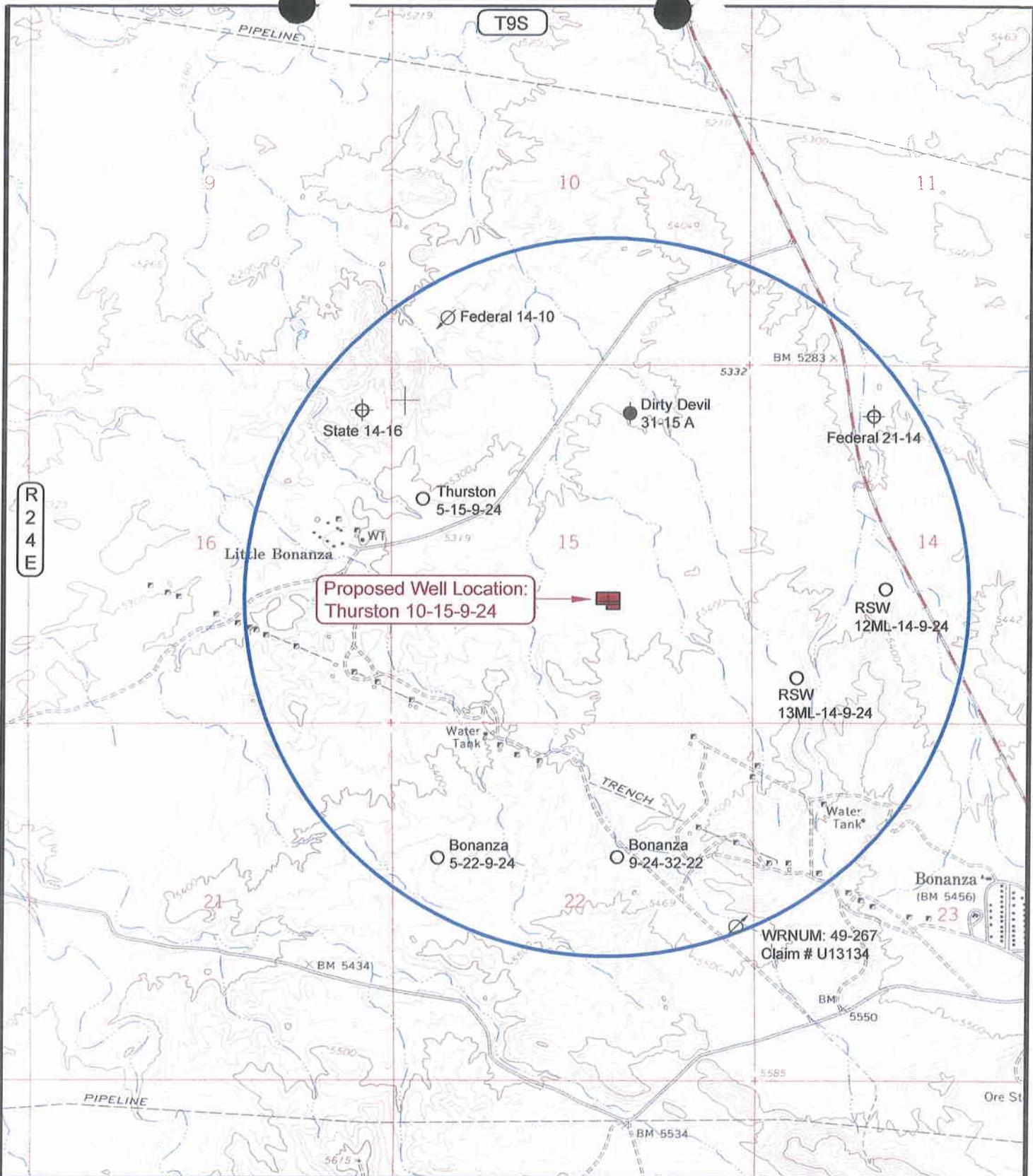
DATE SURVEYED: 10-15-05  
 DATE DRAWN: 11-02-05  
 REVISED: 01-27-06 B.J.S.

SCALE: 1" = 2000'

DRAWN BY: B.J.Z.

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**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 10-15-9-24**  
**SECTION 15 , T9S, R24E, S.L.B.&M.**  
**1864' FSL & 2085' FEL**

**TOPOGRAPHIC MAP "C"**

DATE SURVEYED: 10-15-05

DATE DRAWN: 11-02-05

SCALE: 1" = 2000'

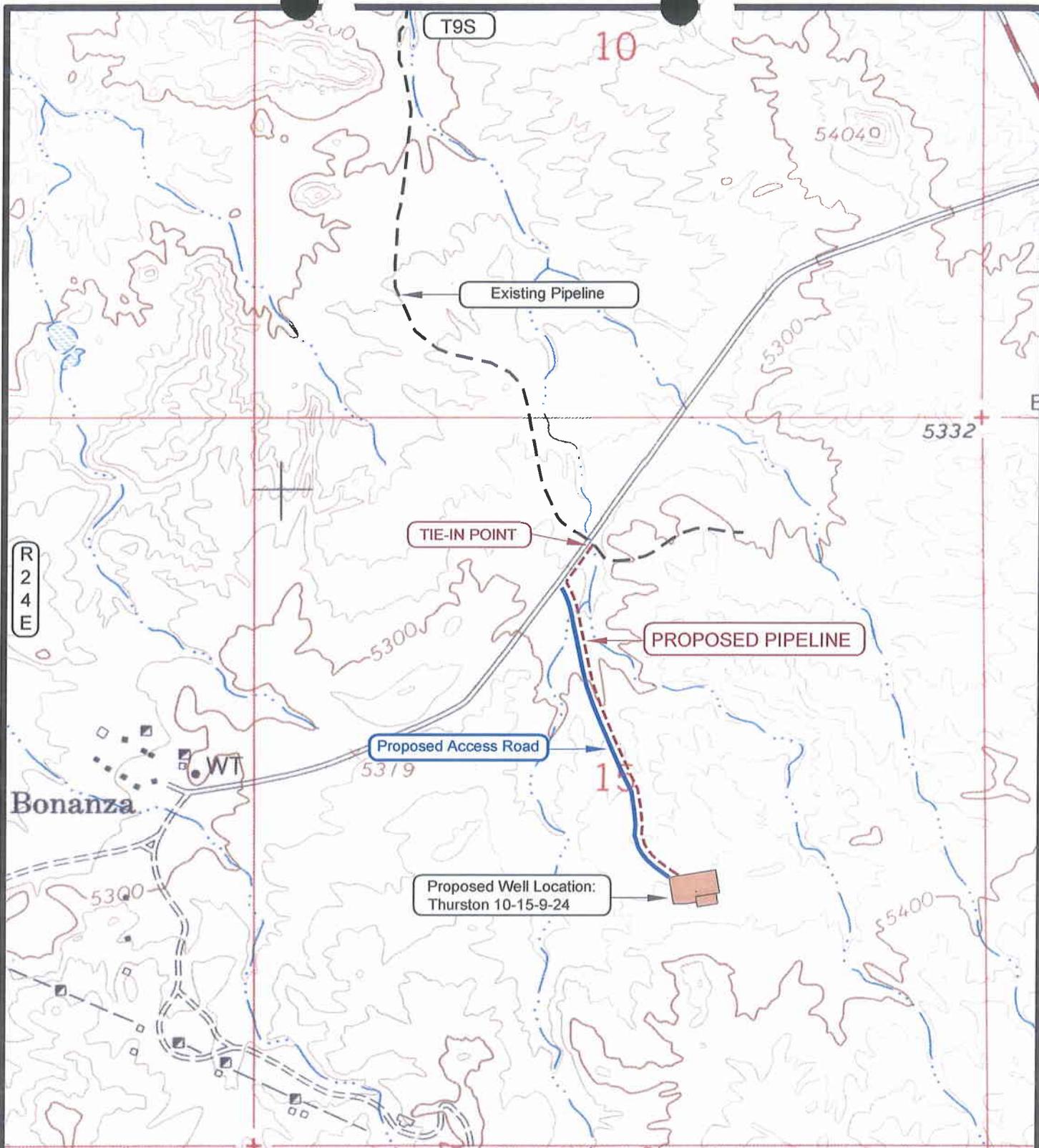
DRAWN BY: B.J.Z.

REVISED:

**Timberline Land Surveying, Inc.**

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

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



**APPROXIMATE PIPELINE LENGTH = 2,700 FEET**

**LEGEND**

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

**THURSTON ENERGY OPERATING COMPANY**

**Thurston 10-15-9-24**  
**SECTION 15, T9S, R24E, S.L.B.&M.**  
**1864' FSL & 2085' FEL**

**TOPOGRAPHIC MAP "D"**

DATE SURVEYED: 10-15-05

DATE DRAWN: 11-02-05

SCALE: 1" = 1000'

DRAWN BY: B.J.Z.

REVISED: 01-27-06 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: 03/15/2010

API NO. ASSIGNED: 43-047-40626

WELL NAME: THURSTON 10-15-9-24  
 OPERATOR: THURSTON ENERGY ( N2790 )  
 CONTACT: BILL RYAN

PHONE NUMBER: 435-789-0968

PROPOSED LOCATION:

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DRD	5/6/10
Geology		
Surface		

NWSE 15 090S 240E  
 SURFACE: 1864 FSL 2085 FEL  
 BOTTOM: 1864 FSL 2085 FEL  
 COUNTY: UINTAH  
 LATITUDE: 40.03371 LONGITUDE: -109.19764  
 UTM SURF EASTINGS: 653782 NORTHINGS: 4432844  
 FIELD NAME: UNDESIGNATED ( 2 )

LEASE TYPE: 3 - State  
 LEASE NUMBER: ML-28042  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: CSLGT  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]  
(No. 0269435269 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. T-75376 )
- 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: 179-15  
Eff Date: 7-17-2008  
Siting: 460' fr. ext. lease boundary
- R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_

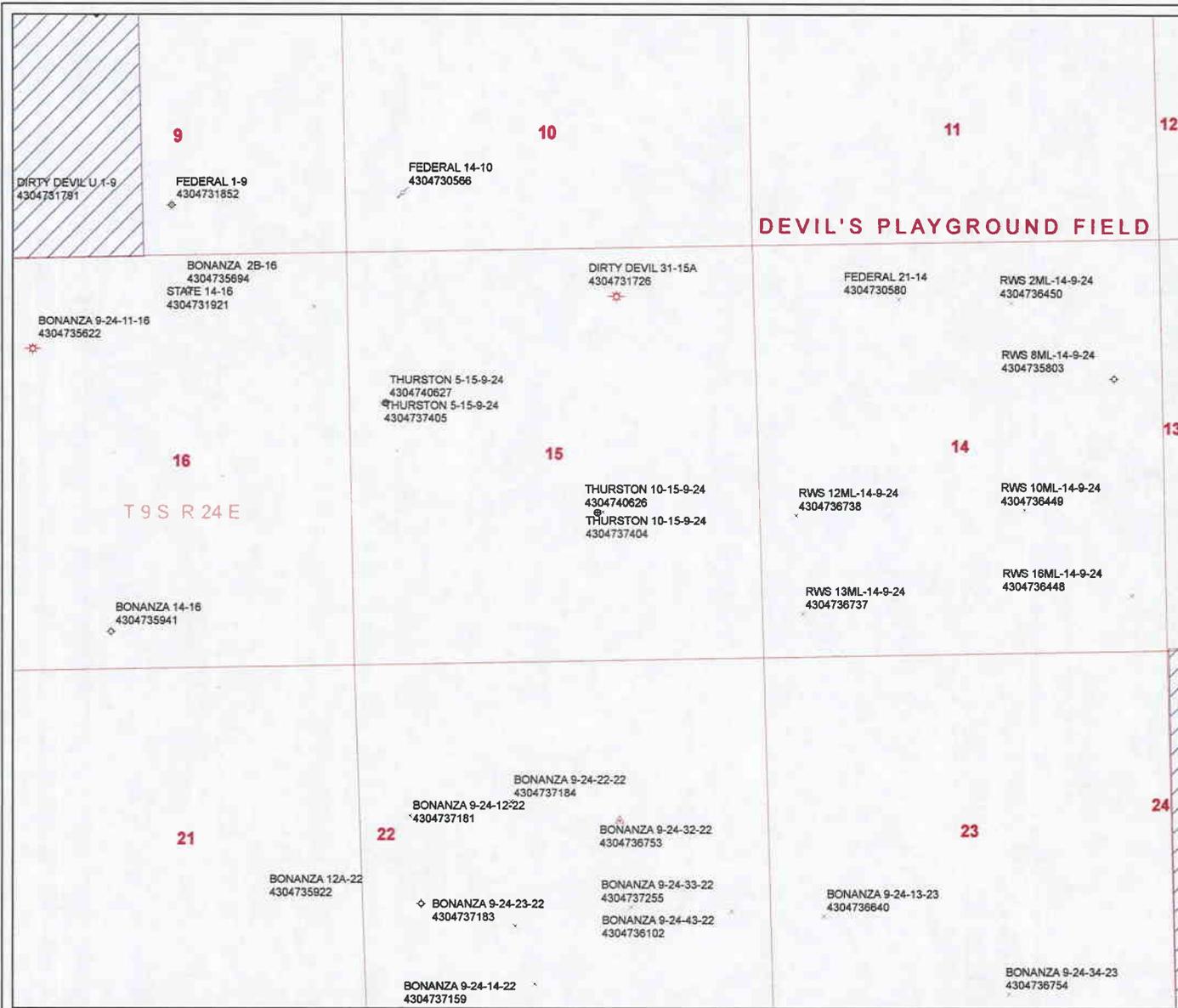
STIPULATIONS: \_\_\_\_\_

- 1- federal approval
- 2- Spacing stip
- 3- STATEMENT OF BASIS
- 4- Cmt Step #3 (4 1/2" production, 2500' mo)

API Number: 4304740626  
 Well Name: THURSTON 10-15-9-24  
 Township 09.0 S Range 24.0 E Section 15  
 Meridian: SLBM  
 Operator: THURSTON ENERGY OPERATING

Map Prepared:  
 Map Produced by Diana Mason

DEVIL'S PLAYGROUND FIELD



- |               |  |
|---------------|--|
| <b>Units</b>  | <b>Wells Query</b>                     |
| ACTIVE        | X - Well other values                  |
| EXPLORARYORY  | ◆ - APD - Approved Permit              |
| GAS STORAGE   | ⊙ - OIL - Spooled (Drilling Commenced) |
| NP PP OIL     | ⊙ - OIL - Gas Injection                |
| NP RECONDARY  | ⊙ - Gas Storage                        |
| PI OIL        | ⊙ - Location Abandoned                 |
| PP GAS        | ⊙ - LOC - New Location                 |
| PP GEOTHERMAL | ⊙ - OPS - Operation Suspended          |
| PP OIL        | ⊙ - PA - Plugged Abandoned             |
| RECONDARY     | ⊙ - POW - Producing Gas Well           |
| TERMINATED    | ⊙ - POW - Producing Oil Well           |
| Field s       | ⊙ - RET - Returned APD                 |
| Sections      | ⊙ - ROW - Shut-In Gas Well             |
| Township      | ⊙ - ROW - Shut-In Oil Well             |
|               | ⊙ - TA - Temp. Abandoned               |
|               | ⊙ - TW - Test Well                     |
|               | ⊙ - WDW - Water Diposer                |
|               | ⊙ - WWI - Water Injection Well         |
|               | ⊙ - WSW - Water Supply Well            |



# Application for Permit to Drill

## Statement of Basis

3/23/2010

Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Ownr</b>	<b>CBM</b>
2509	43-047-40626-00-00		GW	F	No
<b>Operator</b>	THURSTON ENERGY OPERATING	<b>Surface Owner-APD</b>			
<b>Well Name</b>	THURSTON 10-15-9-24	<b>Unit</b>			
<b>Field</b>	UNDESIGNATED	<b>Type of Work</b>			
<b>Location</b>	NWSE 15 9S 24E S 1864 FSL 2085 FEL GPS Coord (UTM) 653782E 4432844N				

### Geologic Statement of Basis

Thurston proposes to set 2,000' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,900'. A search of Division of Water Rights records shows 2 water wells within a 10,000 foot radius of the center of Section 15. One well produces water from a depth of 500 feet and is listed as mining and oil field water. The other well produces stock water from a depth of 290 feet. The surface formation at this site is the Green River Formation. The Green River Formation is made up of interbedded limestones, shales and sandstones. Fresh water is found in this formation and should be protected. Production casing cement should be brought to above the base of the moderately saline groundwater in order to isolate it from fresher waters uphole.

Brad Hill  
APD Evaluator

3/23/2010  
Date / Time

### Surface Statement of Basis

Surface rights at the proposed well site are owned by the Federal Government. The operator must obtain any surface permits or rights of way from the BLM.

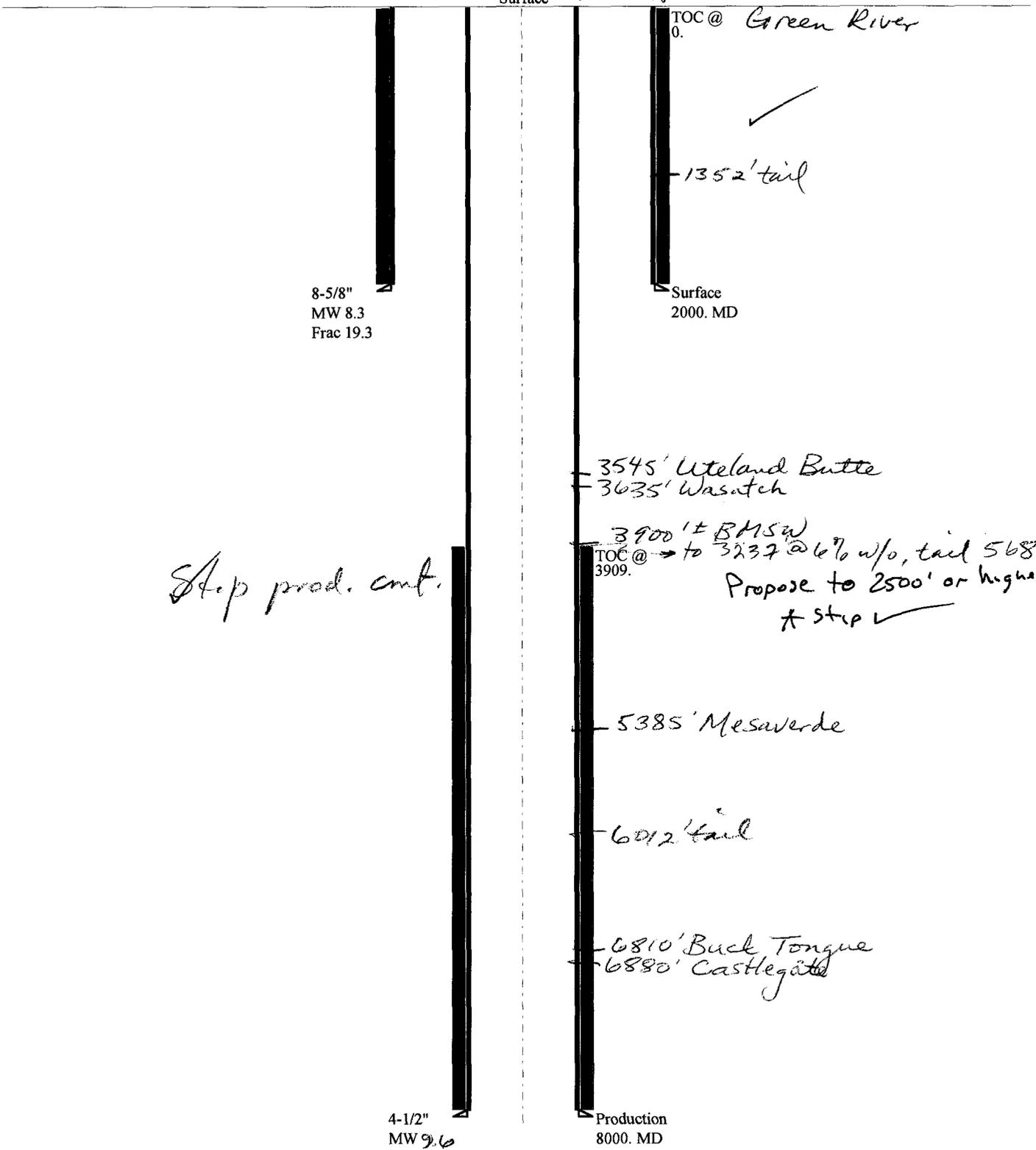
Brad Hill  
Onsite Evaluator

3/23/2010  
Date / Time

### Conditions of Approval / Application for Permit to Drill

<b>Category</b>	<b>Condition</b>
Surface	None.

Casing Schematic



Well name:	<b>43047406260000 Thurston 10-15-9-24</b>	
Operator:	<b>Thurston Energy Operating Company</b>	
String type:	Surface	Project ID: 43-047-40626-0000
Location:	Uintah County, Utah	

**Design parameters:**

**Collapse**

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

**Burst**

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

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 1,751 ft

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 103 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,300 ft

Cement top: Surface

Completion type is subs  
**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 8,000 ft  
Next mud weight: 9.600 ppg  
Next setting BHP: 3,990 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	667.9
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	865	3450	3.987	2000	4460	2.23	63	434	6.88 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: (801) 538-5357  
FAX: (801) 359-3940

Date: May 5, 2010  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.33 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.

Well name:	<b>4304740626000 Thurston 10-15-9-24</b>	
Operator:	<b>Thurston Energy Operating Company</b>	
String type:	Production	Project ID: 43-047-40626-0000
Location:	Uintah County, Utah	

**Design parameters:**

**Collapse**

Mud weight: 9.600 ppg  
Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 2,229 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 3,989 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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 air weight.  
Neutral point: 6,852 ft

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 187 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 3,909 ft

Completion type is subs  
**Non-directional string.**

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	8000	4.5	11.60	N-80	LT&C	8000	8000	3.875	698.1
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	3989	6350	1.592	3989	7780	1.95	93	223	2.40 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: (801) 538-5357  
FAX: (801) 359-3940

Date: May 5, 2010  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8000 ft, a mud weight of 9.6 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.*

**BOPE REVIEW**

**Thurston 10-15-9-24 API 43-047-40626-0000**

**INPUT**

Well Name

Thurston 10-15-9-24		API 43-047-40626-0000	
String 1	String 2		
Casing Size (")	8 5/8	4 1/2	
Setting Depth (TVD)	2000	8000	
Previous Shoe Setting Depth (TVD)	0	2000	
Max Mud Weight (ppg)	8.4	9.6	✓
BOPE Proposed (psi)	500	3000	
Casing Internal Yield (psi)	4460	7780	
Operators Max Anticipated Pressure (psi)	3000	7.2 ppg	✓

**Calculations**

**String 1 8 5/8 "**

<b>Max BHP [psi]</b>	$.052 * \text{Setting Depth} * \text{MW} =$	874	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
<b>MASP (Gas) [psi]</b>	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	634	NO Air Drill to surface shoe with diverter
<b>MASP (Gas/Mud) [psi]</b>	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	434	YES <i>O.K.</i>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
<b>Pressure At Previous Shoe</b>	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	434	NO <i>O.K.</i>
<b>Required Casing/BOPE Test Pressure</b>		2000	psi
<b>*Max Pressure Allowed @ Previous Casing Shoe =</b>		0	psi *Assumes 1psi/ft frac gradient

**Calculations**

**String 2 4 1/2 "**

<b>Max BHP [psi]</b>	$.052 * \text{Setting Depth} * \text{MW} =$	3994	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
<b>MASP (Gas) [psi]</b>	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	3034	NO
<b>MASP (Gas/Mud) [psi]</b>	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	2234	YES <i>O.K.</i>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
<b>Pressure At Previous Shoe</b>	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	2674	NO <i>O.K.</i>
<b>Required Casing/BOPE Test Pressure</b>		3000	psi
<b>*Max Pressure Allowed @ Previous Casing Shoe =</b>		2000	psi *Assumes 1psi/ft frac gradient





435-789-0968 Office

435-828-0968 Cell

300 South 730 East

Vernal, UT 84078

Utah Division of Oil Gas & Minerals

April 22, 2010

Re: e-fileing, Mud wt.

Thurston 10-15-9-24

Dear sirs

Please find attached new cover sheets filed electronically.

Your office requested additional information on the proposed mud weight used in the drilling program. The mud weight range of 8.4-12 ppg was a range that may occur. Depending on mud cleaning efficiency mud weight may increase above the desired weight for well control. The increase is not required for well control and in fact are not desirable.

The operator erred in reporting an 8.4-12 ppg mud. A mud weight of 8.4-9.6 (10 Point Plan, item 6, page 3) will be appropriate for well control on the subject well.

A BLM Sundry reporting the mud weight change is attached.

William (Bill) Ryan

Owner, Engineer

Thurston Energy Operating Agent

**RECEIVED** April 23, 2010



GARY R. HERBERT  
Governor

GREGORY S. BELL  
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 16, 2010

Thurston Energy Operating Company  
4925 Greenville #900  
Dallas, TX 75206

Subject: Thurston 10-15-9-24 Well, 1864' FSL, 2085' FEL, NWSE, Sec. 15, T. 9 South, R. 24 East, Uintah County, Utah

Ladies and 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 43-047-40626.

Sincerely,

Brad Hill  
Acting Associate Director

BGH/js  
Enclosures

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





3. **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5<sup>th</sup> day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

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. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
7. 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.
8. Cement volume for the 4 ½" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 2500' MD as indicated in the submitted drilling plan.

**DIVISION OF OIL, GAS AND MINING**

**SPUDDING INFORMATION**

Name of Company: THURSTON ENERGY OPERATING

Well Name: THURSTON 10-15-9-24

Api No: 43-047-40626 Lease Type STATE - FED SURFACE

Section 15 Township 09S Range 24E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

**SPUDDED:**

Date 08/15/2010

Time 9:15 AM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by STACY WIMMER

Telephone # (970) 778-1035

Date 08/16/2010 Signed CHD

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

FORM 6

ENTITY ACTION FORM

Operator: Thurston Energy Operating Company  
Address: 365 W. 50 N. Suite W-8  
city Vernal  
state Ut zip 84078

Operator Account Number: N 2790

Phone Number: (435) 789-8580

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740625	Thurston 7-9-9-24		SWNE	9	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	17771	8/28/2010		9/7/10		
Comments: <u>mVRD</u>							<b>CONFIDENTIAL</b>

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740627	Thurston 5-15-9-24		SWNW	15	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	17772	8/30/2010		9/7/10		
Comments: <u>CSLGT = mVRD</u>							<b>CONFIDENTIAL</b>

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740626	Thurston 10-15-9-24		NWSE	15	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	17773	8/16/2010		9/7/10		
Comments: <u>CSLGT = mVRD</u>							<b>CONFIDENTIAL</b>

ACTION CODES:

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

Patti Cox

Name (Please Print)

Signature

Business Manager

Title

9/1/2010

Date

RECEIVED

SEP 01 2010

(5/2000)

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML 28042**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:  
**Thurston 10-15-9-24**

9. API NUMBER:  
**4304740626**

10. FIELD AND POOL, OR WILDCAT:

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

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

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

3. ADDRESS OF OPERATOR: **365 W. 50 N Suite W-8** CITY **Vernal** STATE **UT** ZIP **84078** PHONE NUMBER: **(435) 789-8580**

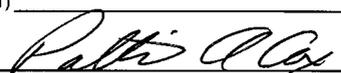
4. LOCATION OF WELL  
FOOTAGES AT SURFACE: **1864' FSL 2085' FEL** COUNTY: **Uintah**  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NWSE 15 T9S R24** STATE: **UTAH**

**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 checked="" 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: <b>8/29/2010</b>	<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 type="checkbox"/> OTHER: _____
	<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.

Please be advised that construction of road and well pad for Thurston 10-15-9-24 commenced on August 3th. Voice mail notification as required was left with Jamie Sparger of BLM and Carl Wright returned the call to verify that the notification was accepted.

NAME (PLEASE PRINT) **Patti A. Cox** TITLE **Business Manager**  
SIGNATURE  DATE **9/2/2010**

(This space for State use only)

**RECEIVED**  
**SEP 09 2010**  
DIV. OF OIL, GAS & MINING

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML 28042

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 [x] OTHER [ ]

8. WELL NAME and NUMBER:
Thurston 10-15-9-24

2. NAME OF OPERATOR:
Thurston Energy Operating Company

9. API NUMBER:
4304740626

3. ADDRESS OF OPERATOR:
365 W. 50 N Suite W-8 CITY Vernal STATE UT ZIP 84078 PHONE NUMBER: (435) 789-8580

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1864' FSL 2085' FEL COUNTY: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 15 T9S R24E STATE: UTAH

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

Table with 2 main columns: TYPE OF SUBMISSION and TYPE OF ACTION. Includes checkboxes for various actions like ACIDIZE, DEEPEN, REPERFORATE, etc.

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

Please be advised that we spudded the Thurston 10-15-9-24 well August 16, 2010. Proper advance notice was given to jamie Sparger with BLM and Dave Hackford of the State of Utah as required.

NAME (PLEASE PRINT) Patti A. Cox TITLE Business Manager
SIGNATURE DATE 9/2/2010

(This space for State use only)

RECEIVED
SEP 09 2010
DIV. OF OIL, GAS & MINING

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

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML-28042

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 [x] OTHER [ ]

8. WELL NAME and NUMBER:
Thurston 10-15-9-24

2. NAME OF OPERATOR:
Thurston Energy Operating Company

9. API NUMBER:
4304740626

3. ADDRESS OF OPERATOR:
365 W. 50 N. Ste W-8 CITY Vernal STATE UT ZIP 84078

PHONE NUMBER:
(435) 789-8580

10. FIELD AND POOL, OR WILDCAT:
undesignated

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1864 FSL 2085 FEL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 15 T9S R24

STATE:
UTAH

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

Table with columns: TYPE OF SUBMISSION, TYPE OF ACTION. Includes checkboxes for NOTICE OF INTENT, SUBSEQUENT REPORT, and various actions like ACIDIZE, DEEPEN, REPERFORATE CURRENT FORMATION, etc.

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

Thurston Energy received verbal approval and respectfully requests written approval of the following change in our approved casing program:

Change from 4 1/2" production casing to 5 1/2" production casing.
5 1/2", 17#, N-80, LTC: 0 tp 8,000'

Cemented as follows:

180 sks of Halliburton Light Premium + 4% Bentonite + 0.5% Econolite + 0.125% Poly-E-Flake + 5 lb/sx
Gilsonite mixed @ 11.5 ppg; Yield 2.60 ft3/sx
900 sxs of 50/50 Poz Premium + 10% Salt + 0.1% HR-5 mixed @ 14.3 ppg; Yield 1.25 ft3/sx.

40% excess in open hole with a bit diameter of 7 7/8"

COPY SENT TO OPERATOR

Date: 9.21.2010

Initials: KS

NAME (PLEASE PRINT) Patti Cox

TITLE Business Manager

SIGNATURE [Handwritten Signature]

DATE 8/27/2010

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 9/16/2010
BY: [Handwritten Signature]

RECEIVED
SEP 09 2010
DIV. OF OIL, GAS & MINING

Well name: **43047406260000 Thurston 10-15-9-24rev.**  
 Operator: **Thurston Energy Operating Company**  
 String type: **Production** Project ID: **43-047-40626-0000**  
 Location: **Uintah County, Utah**

**Design parameters:**

**Collapse**  
 Mud weight: 9.600 ppg  
 Design is based on evacuated pipe.

**Burst**  
 Max anticipated surface pressure: 2,229 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP: 3,990 psi  
 No backup mud specified.

**Minimum design factors:**

**Collapse:**  
 Design factor: 1.125

**Burst:**  
 Design factor: 1.00

**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 air weight.  
 Neutral point: 6,835 ft

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 187 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,500 ft

Cement top: 1,857 ft

Completion type is subs  
**Non-directional string.**

Surface @ 2000'

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	8000	5.5	17.00	N-80	LT&C	8000	8000	4.767	1044.2

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	3990	6290	1.577 ✓	3990	7740	1.94 ✓	136	348	2.56 J ✓

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: (801) 538-5357  
 FAX: (801) 359-3940

Date: September 16, 2010  
 Salt Lake City, Utah

Remarks:  
 Collapse is based on a vertical depth of 8000 ft, a mud weight of 9.6 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.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-28042
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<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b>
--	--

<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> THURSTON 10-15-9-24
------------------------------------	--

<b>2. NAME OF OPERATOR:</b> THURSTON ENERGY OPERATING	<b>9. API NUMBER:</b> 43047406260000
--	---

<b>3. ADDRESS OF OPERATOR:</b> 365 W. 50 N. Ste W-8 , Vernal, UT, 84078	<b>PHONE NUMBER:</b> 214 704-3896 Ext	<b>9. FIELD and POOL or WILDCAT:</b> UNDESIGNATED
--	--	--

<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1864 FSL 2085 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSE Section: 15 Township: 09.0S Range: 24.0E Meridian: S	<b>COUNTY:</b> Uintah  <b>STATE:</b> UTAH
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 11/9/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input checked="" type="checkbox"/> <b>NEW CONSTRUCTION</b>
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 Please find attached drilling and completion summary report for Thurston 10-15-9-24.

Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
**FOR RECORD ONLY**  
 November 09, 2010

<b>NAME (PLEASE PRINT)</b> Russell H. Cox	<b>PHONE NUMBER</b> 435 789-8580	<b>TITLE</b> Operations Manager
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/9/2010	

**Tuesday, 11/9/2010**

Reports to follow with flow test results

Yesterday the well started flowing on its own, turned to flow testers

Forecast

Wait on flow test results to determine next action

**Monday, 11/8/2010**

10-15 / 5-15

We will have a swab rig on the 10-15 mid AM, if well kicks off will move it to the 5-15.

Reports will be sent with flow back reports when received this morning

**Sunday, 11/7/2010**

10-15 and 5-15 waiting on swab rig to come available, both have decent csg psi but wont push fluid up tbq, slight gas blow on both wells.

**Friday, 11/5/2010**

Current: Drilled out plugs and cleaned out to bottom, POOH hang off tubing (EOT 6654'), pumped off bit, open to flow testers

24hr: Flowing well thru well testers, WO unit still on well if swabbing is needed in AM. Rig will move to 5-15

**Thursday, 11/4/2010**

Current

Start drilling out plugs this morning

**Wednesday, 11/3/2010**

All,

Sorry for the late reports this morning. Yesterday we RIH with composite bridge plug on e-line, set plug and TOO. The inner sleeve mandrel on the setting tool was left in the hole and came out of the threads (not rope socket). RDMO E-line. Contact fishing tools for first thing AM, contact foam unit to come out once fish is retrieved, begin MIRU workover rig.

Today we RIH with tubing, and grapple to stab onto mandrel. We will work it up and down multiple times and then TOO with tubing to assess fishing success. Once the fish is retrieved, PU pump off bit and check valve, TIH to top of plug, MIRU foam unit, and begin cleaning out wellbore.

**Tuesday, 11/2/2010**

All,

Yesterday we put the well on a 96/64" choke to try and flowback the frac sand left in the wellbore and on top of the frac plug. MIRU E-line, round trip gauge ring / junk basket, tagged fill ~2 ft above frac plug. We only pumped 1132 bbls into the upper frac zone, and we have recovered 1436 Bbls of water therefore we know that the bottom zone is contributing to flow to some extent.

There is currently 25 psi on the casing, we have recovered 1436 BW (36% frac load), 0 BO, 0 Mcf Gas. Today we set a composite bridge plug on e-line, MIRU workover rig and foam unit, drill out bridge plug, drill out frac plug, clean out sand, pump off bit and check valve and land tubing ~1.5 jts above top perf.

### **Monday, 11/1/2010**

All,

Saturday MIRU frac eqpt and wellhead isolation tool and started pumping first Neslen frac stage at 9AM. That stage was flushed around 10AM, which was +/- when I was told e-line was going to arrive on location. At 2PM e-line showed up on location, got rigged up and started down hole with the frac plug and set at 6865 ft and then shot the second set of Neslen perfs at 6808 – 6811, 6752 – 6755, 6706 – 6709 ft. The frac crew was running out of DOT hours and needed some time off so we released them during the e-line operations to come back and start pumping the second stage first thing in the AM. Post job data attached.

Sunday started pumping frac at 7AM, during second proppant stage with ~1 ppg concentration at the perfs we screened out with 4700# of proppant left in the wellbore. We tried once to get back into it at a lower rate and the screen out continued. At that point we had already started our spacer so we left ~400 ft of sand in the wellbore. The decision was made to RDMO and start the well on flow at ~2 bpm to lift the sand. The well flowed back overnight and continues to flow this morning. A flowback report will be provided, I have one from this AM but there was some error found on it that I am having them fix. Post job data attached.

Today we will continue flowing back the well.

### **Saturday, 10/30/2010**

All,

Yesterday RU wellhead isolation tool, flow testers, and frac eqpt.

Today we finish rigging up frac eqpt and pump two stage, plug and perf frac on the Neslen formation. We will pump the first stage, wait briefly on e-line to RU, then go in and set frac plug, drop ball, wait 30 minutes and then begin pumping second stage. RDMO frac eqpt, turn flow over to well testers.

Theron,

Just thought I' give a few constructive comments on the data we are collecting for the Thruston project. I've been reviewing the data on the server to make sure we capture all the learning and test results for future reference. These might sound picky, but it will really help everyone understand what is going on in the field.

1. Post job frac reports are a bit lite in the information. Aside from the treatment chart, there is no summary of what was pumped. No mention of fluids, proppants additives etc. besides that, the file naming isn't clear of what is in the file. You have to open a bunch to find the right one. I'm

sure Halliburton being the industry leader in stimulation can produce a better quality post job report. If they are, they aren't getting posted on the server.

2. There is a lot of empty space on the daily report. Any chance we could keep a summary of perfs, frac stages and test results down there? That way you wouldn't have to look through 20 reports to find the one that has info on perfs and plug setting.
3. Flowback reports on the server are only up to date as mid month. Is this as often as they are posted?

I'm sure I'm not the only one watching this project with the same questions and concerns.

Thanks for listening

Regards, Mike Mullen, P.E.

**Friday, 10/29/2010**

All,

Yesterday we moved in the mountain mover for the frac and started filling with sand, and continued filling frac tanks.

Today we finish preparing for frac date set for Tomorrow morning. Any and all personnel on location will be required to wear proper PPE.

**Thursday, 10/28/2010**

All,

Yesterday we continued transferring water for frac. Wellhead pressure was 300 psi.

Today we continue waiting on frac

**Wednesday, 10/27/2010**

All,

Yesterday RDMO workover rig, continue filling frac tanks, and pressure test frac valve.

Today we wait on frac date. October 30<sup>th</sup>. Pump design attached.

**Tuesday, 10/26/2010**

All,

Yesterday we finished tripping out with tubing and pinpoint injection tool. Transferred tanks to prep for frac. Currently 12 flat tanks on location for the 2-stage frac (capacity w/o bottoms = 6000 bbls). It was too windy to lay down the rig.

Today we move the eqpt and rig to the 5-15 and leave well waiting on frac.

**Sunday, 10/24/2010**

Good Evening,

On Friday we finished TIH with pinpoint injection packer on tubing, straddled perfs from 7170 – 7173. MIRU pumps to breakdown Neslen formation and continue to isolate perfs, breakdown, and so on.

7170 – 7173 ft:

Break at 3595 psi at 3 bpm, picked up to 5.4 bpm and pressure increased to 4959 psi, and we pumped away 2000 gallons.

ISIP = 1814 psi, 5-minute = 1723 psi, 10-minute = 1675 psi and 15-minute = 1650 psi.

7090 – 7093 ft:

Break at 3635 psi at 3 bpm, picked up to 7.1 bpm and pressure increased to 6631 psi, and we pumped away 2000 gallons.

ISIP = 1800 psi, 5-minute = 1703 psi, 10-minute = 1664 psi and 15-minute = 1632 psi.

Release pressure to pit. Secure well. Wait on daylight.

On Saturday we continued isolating and breaking down Neslen perfs

7069 – 7072 ft:

Break at 4864 psi at 3 bpm, picked up to 6.9 bpm and pressure increased to 7036 psi, and we pumped away 2000 gallons.

ISIP = 1813 psi, 5-minute = 1726 psi, 10-minute = 1684 psi and 15-minute = 1650 psi.

7001 – 7004 ft:

Break at 4591 psi at 3 bpm, picked up to 6.8 bpm and pressure increased to 7291 psi, and we pumped away 2000 gallons.

ISIP = 1835 psi, 5-minute = 1693 psi, 10-minute = 1656 psi and 15-minute = 1629 psi.

6930 – 6933 ft: ( Notice that we had a backside transducer which equalized while pumping suggesting that the top packer did not seal correctly – decided to move up hole 1 ft with injection tool which indicated a seal as pressure held, but the pump pressure data and bleed off suggests that we were in communication with other perfs during this zone.)

Break at 4591 psi at 3 bpm, picked up to 6.1 bpm and pressure increased to 5031 psi, and we pumped away 2000 gallons.

ISIP = 1699 psi, 5-minute = 1581 psi, 10-minute = 1408 psi and 15-minute = 1304 psi.

6916 – 6919 ft:

Break at 5306 psi at 3 bpm, picked up to 6.1 bpm and pressure increased to 6074 psi, and we pumped away 2000 gallons.

ISIP = 1690 psi, 5-minute = 1564 psi, 10-minute = 1509 psi and 15-minute = 1474 psi.

After seeing the data from this zone, perhaps the isolation tool worked properly on the prior stage but the formation has changed noticeably. Will have to do some checking here.

RDMO pumps and begin TOOH with injection packer. Leave hanging as darkness sets in to be tubing heavy.

Today (Sunday) we gave the rig crew the day off to avoid double charge and monitored wellhead pressure (500 psi), well flows at 0.3 bpm at 250 psi wellhead pressure.

Tomorrow we finish TOOH to LD injection packer, RD BOP's, RU frac valve and RDMO workover rig.

Of note: We were able to secure two fracs on one day with HES on October 30<sup>th</sup> therefore we will start on the 2-stage Segro frac on the 5-15 and jump over to the Neslen frac on the 10-15.

**Friday, 10/22/2010**

All,

Yesterday MIRU e-line, roundtrip gauge ring / junk basket (tagged fluid level at 100 ft), RIH with 5.5" 10K CIBP and set at 7340 ft and dump bail cement on top (calculated top = 7322 f). RIH with perf guns and shot Neslen perforations, RDMO e-line.

Today we TIH with tubing and pinpoint injection packer, and if the pumping eqpt shows up then we will start isolating and opening up perforations.

**Thursday, 10/21/2010**

All,

Yesterday we stood all the tubing back in the derrick, filled the hole with 3% KCl, spotted tanks, and waited on e-line.

Today we MIRU e-line, roundtrip gauge ring / junk basket, Set CIBP at ~7340, dump bail two sacks of cement on top of plug, and perforate the Upper Segro from 6916 – 6919, 6930 – 6933, 7001 – 7004, 7069 – 7072, 7090 – 7093, 7170 – 7173 ft. RDMO e-line.

**Wednesday, 10/20/2010**

All,

Yesterday we MIRU workover rig to pull tubing. ND tree, NU BOP's, prep to pull tubing in stands.

Today we stand the tubing back in the derrick in preparation for e-line work. We may MIRU e-line and begin that work if time permits.

**Tuesday, 10/19/2010**

All,

Yesterday we had 100 psi on the tubing, 600 psi on the casing. RDMO swab unit.

Today we have no planned operations, wait on e-line to plug bottom zone. Contact state on plug requirements.

**Monday, 10/18/2010**

All,

Yesterday the swab crew took off. Tubing pressure is 100 psi, casing pressure is 600 psi. Dropped a few soap sticks.

Today we begin swabbing the well in, in the AM. Attempt a couple runs and if gas flow will not kickoff, then RDMO swabbing unit.

**Sunday, 10/17/2010**

All,

Attached is yesterday's morning report which was late because we did not receive swabbing results until late.

Yesterday we had 100 psi on the tubing and 600 psi on the casing prior to swabbing. Fluid level on the first run was at 1500 ft and was swabbed down to 2700 ft. We took samples on the first and last swab run. There was a slight gas blow during swab runs throughout the day.

#### **Saturday, 10/16/2010**

All,

Yesterday we continued swabbing on the Segro perms. There has not been a swab report given to our supervisor yet, once we have this we will send out a formal morning report.

Today we continue swabbing. Since we will be over 100% of frac load recovered and there are very few signs of gas kicking at all, this may be our final swab day.

#### **Friday, 10/15/2010**

All,

Yesterday we started swabbing on well attempting to kickoff. We started with 20 psi on the tubing and 650 on the casing and fluid level at 1200 ft. The first swab run recovered mostly oil (took sample) and after that we had water for 136 bbls. The casing pressure stayed around 500 psi and fluid level around 1200 ft. We have nearly recovered 100% of the frac load, zone looks like a water producer.

Today we continue attempting to swab down fluid level and kickoff gas flow.

#### **Thursday, 10/14/2010**

All,

Yesterday we continued waiting on swab unit. Tubing pressure = 20 psi, Casing pressure = 550 psi. A swab truck is lined up to be on location today. We will start swabbing well to kickoff.

#### **Wednesday, 10/13/2010**

All,

Yesterday we waited on a swab unit. Tubing pressure = 30 psi, casing pressure = 500 psi.

Today we will hopefully have a swab unit out there to start swabbing.

#### **Tuesday, 10/12/2010**

All,

Yesterday there was 50 psi on the tubing and 500 psi on the casing. With that casing pressure building up there is a good chance this well may want to unload on us soon. RDMO workover rig.

Today we will attempt to contact a swab truck to come out and start swabbing well on.

**Monday, 10/11/2010**

All,

Today the rig was off. The well had 100 psi on the tubing and 400 on the casing this morning and was opened up on a 48 choke but did not flow. Monitored for 3 hours, no flow.

Tomorrow we RDMO the workover rig and possibly move in a swab truck to continue swabbing the well to kickoff.

**Sunday, 10/10/2010**

All,

Yesterday we had 260 psi on the tubing and started swabbing. First fluid level seen at 1600 ft, made 37 runs and recovered another 253 Bbls. Total we have swabbed back 706 bbls and recovered a total of 2140 bbls.

Today we will be off.

**Saturday, 10/9/2010**

All,

Yesterday we had 150 psi on the tubing and continued swabbing the Segos perfs. We made 37 swab runs recovering 242 bbls fluid and swabbed fluid down to 3100 ft. Never got the well to kickoff. Total water recovered flowback + swabbing = 1887 bbls (80% of frac load).

Today we continue swabbing trying to get the well to kickoff gas flow.

**Friday, 10/8/2010**

All,

Yesterday we continued swabbing on the Segos perfs. Total water recovered = 132 bbls + yesterday's volume (79 bbls) = 211 bbls swabbed back. Fluid was tagged at surface in the AM (wellhead pressure ~100 psi) and swabbed down to 2400 ft after 14 swab runs. There was a slight gas blow at the conclusion of each swab run.

Today we continue swabbing to try and kick the well off.

**Thursday, 10/7/2010**

All,

Yesterday we started cleaning out the sand tag at 7420 circulating 3% KCl. Reverse circulated through bridge and didn't stack out on or return very much sand. We cleaned down to PBTD – cement at 7473 ft, circulated 1.5 wellbore volumes (again not seeing very much sand in returns). ND BOP's, NU production tree and started swabbing. Recovered 79 bbls of fluid and swabbed fluid level down from surface to 2100 ft. No indications of lost circulation, we pumped ~270 bbls and maintained a constant level in the rig tank.

Today we continue swabbing the well in attempt to kickoff gas production. Rigged up to flowback either to flat tank or sales depending on pressure.

**Wednesday, 10/6/2010**

All,

Yesterday we continued flowing back opening the choke up. Casing pressure fell to 15 psi, gas flow estimated at 20 mcf/day, water rate down to 2 bbls/hr. We released the flowback crew, thus far recovering 1434 bbls water (61% frac load) with 906 bbls left to recover. Tanks were hauled and taken to the 5-15 location, as well as fluids. MIRU workover rig and eqpt and started down hole with production tubing. We tagged sand at 7420 ft (top perf at 7437 ft) and prepared to circulate sand out. Today we will rig up pumps to tubing and circulate fill out to cement tag – PBTD at 7470 ft. Once the returns are clean we will hand the tubing off above the top perfs and rig up with swab mandrel to begin swabbing well to kickoff.

#### **Tuesday, 10/5/2010**

All,

Yesterday we continued flowing back the well on a size 24 choke, then changing over to free flow. The casing pressure as of yesterday morning at 6AM, was down to 40 psi, we recovered 114 bbls fluid in 24 hours and had “light” gas production.

Today we move in and rig up a workover rig to prepare to run tubing to PBTD.

#### **Monday, 10/4/2010**

All,

Yesterday we continued flowing back the well. As of yesterday (10/3) morning 6AM, we had flowed back 1109 bbls of water or 47% of our frac load. Casing pressure down to 40 psi, nothing reported in terms of gas production.

Today we continue flow back, possibly plumbing into facilities and releasing crew.

#### **Sunday, 10/3/2010**

All,

Yesterday we continued flowing back the well on a size 24 choke. The casing pressure is down to 75 psi and holding that rate. The fluid rate has slowed down to ~11 bbls per hour and we have recovered a total of 1052 bbls as of 6AM yesterday (10-2) morning. Nothing in flowback report about gas production.

Today we continue flowing back the well.

#### **Saturday, 10/2/2010**

We finished pumping the Segro frac ~1100 AM this morning. This job seemed to treat better than the Segro frac on the 10-15 well. We saw a significant formation breakdown at ~5400 psi to 2700 psi (as expected since there was no DFIT), slowly pumped the acid across the perfs and saw some pressure response (decline). The rate was brought up to ~50 bpm, the nolte plot first indicated height growth before maintaining good extension throughout the rest of the job (incorporating some noise in the data of course). Treating pressure followed inverse hydrostatic until the tail end when we started seeing some net pressure effects and possibly a little more height growth -- my interpretation. The opening wellhead pressure at the start of the job was 748 psi and the ISIP was 2794 psi. On the 10-15 the ISIP was 2727. The 15 minute pressure was 419 psi compared to 562 psi on the 10-15 (perhaps a little

tighter). FG = 0.82, avg Pressure = 4694 psi, max pressure = 5566 psi, total fluid = 99,858 gallons, total proppant = 66,700 lbs.

I would say the job was highly successful and I think we put a slightly better frac on this well than we did on the 10-15 (formation dictated). The flow testers will send out 12 hour reports on this well, which I will distribute. The 10-15 well continues to flow ~50 psi on a size 24 choke (I expect this will die soon). Once it dies we will shut the well in, remove the choke and attempt to free flow any remaining wellhead pressure. We are starting the 7-9 on a size 12 choke and it is flowing back ~1 bpm frac water.

Post Jobs attached with executive summaries for both wells. (Note: CD's with the executive summary were provided by HES immediately after the frac today. The ISIP for the 7-9 was entered incorrectly, the executive summary states that 3794 psi, but it was a simple typo and is supposed to be 2794. Obviously this also effects the Frac Gradient calculation. I have fixed it on the file I attached so please save this copy.)

All,

Yesterday we continued flowing back the well. In the Morning report which had flow from Thursday at 1240 pm to yesterday morning at 6 am we dropped from 1925 psi casing pressure to 750 psi on a size 12 choke. We recovered a total of 624 bbls, with 1716 left to recover. We have opened the well up to a size 24 choke (max choke on location) as of late last night to try and let the well flow as much as it can. There has been gas venting during flowback.

Today we will continue flowing back the well which will most likely die. In that case, the well will be shut in and the flow testers RDMO and well turned over to facilities. We have a workover rig lined up to come in, in a few days and to run production tubing and start swabbing this well on to kickoff.

#### **Friday, 10/1/2010**

All,

Yesterday we rigged up the wellhead isolation tool and rest of the necessary frac eqpt. Began pumping into the Segro formation at 10:00 AM MST. The job went well. As you can see from the treating charts there was a little sensitivity seen during the first sand ramp exceeding 1 ppg concentration, but I would not say that the concentration was too high because we placed the rest of the job up to 1.5 ppg. Overall, the treating pressure seemed to track inverse hydrostatic closely and the net pressure derivative seemed to indicate good fracture extension with limited height growth. All proppant brought to location was placed and the eqpt rigged down and moved to store on the 31-15. Well was turned over to flowback and gave up <1 bwph on a 12/64" choke. The job highlights: 2727 psi ISIP, 2349 psi 5-minute, 2174 psi 15-minute, average treating pressure 4265 psi, average rate 50.2 bpm. We pumped a total of 2340 bbls 3% KCl with 62,640 lbs of 30/50 sand. There is no executive summary in the attached word doc, I will make sure HES gets me one to send out.

Today we will continue flowing back the well

#### **Thursday, 9/30/2010**

All,

Yesterday we rigged up line and shot additional Segro perfs from 7437 – 7440 and 7454 – 7457 ft. Frac eqpt started showing up, so we began rigging up for frac operations.

Today we install the wellhead isolation tool and frac the Segro formation with ~94K gallons of 3% KCl and ~60K lbs of 30/50 sand. Scheduled pumping time ~ 1 hr, then RDMO frac and wellhead isolation tool and turn well over to flow back through choke manifold.

**Wednesday, 9/29/2010**

All,

I acknowledge that there seems to be some funny numbering with the reports and I assure you this issue will be resolved and all the reports will be sent out properly. Yesterday there was 1322 psi on the wellhead when the EMR gauges were pulled to finalize the DFIT. The data was analyzed and suggests that the Segro has flow capacity and is a good candidate for hydraulic stimulation and production potential. A stimulation design is being built in accordance with the DFIT data for tomorrow's frac job. Today we will haul in sand and start spotting frac eqpt. We have e-line rigged up to shoot additional Segro perforations from 7437 – 7440 and 7454 – 7457.

**Monday, 9/27/2010**

All,

Sorry for the delay getting reports started here. Things have been very busy on location and in office, but despite that, they are going very smooth. Last Wednesday we ran a gauge ring prior to running the cement bond log, which stacked out on cement at 7470 ft. This was cement left, most likely from poor displacement techniques on the cementing crew. We found TOC at 3640 ft, which is well below the casing shoe at 2023 ft. Tested casing to 5000 psi, casing held.

On Thursday/Friday we waited on perf orders, and started hauling in tanks.

On Saturday we continued hauling in tanks and filling with 3% KCl. Also, NU 5K Frac valve with a 90 at the casing wing valve for flowback. Pressure tested casing, and frac valve to 5000 psi, test ok.

On Sunday we rigged up e-line to perforate the well, and perforated the Segro formation from 7396 – 7406 at 3 spf, 120 degree phasing with a 3-3/8" gun and 23 gram charges.

Today we are pumping a DFIT (Diagnostic Fracture Injection Test) into the Segro perms to analyze production potential for this zone. Once pumping is complete the well will be left for an overnight shut in period and the EMR gauges will be pulled tomorrow morning.

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

**CONFIDENTIAL**

AMENDED REPORT  FORM 8  
(highlight changes)

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML 28042**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:  
**Thurston 10-15-9-24**

9. API NUMBER:  
**4304740626**

10. FIELD AND POOL, OR WILDCAT  
**Undesignated**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NWSE 15 9S 24E**

12. COUNTY  
**Uintah**

13. STATE  
**UTAH**

14. DATE SPURRED:  
**8/30/2010**

15. DATE T.D. REACHED:  
**9/5/2010**

16. DATE COMPLETED:  
**12/6/2010**

ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**5383 KB**

18. TOTAL DEPTH: MD **7,600** TVD **7,600**

19. PLUG BACK T.D.: MD **6,786** TVD **6,786**

20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD **6,786** PLUG SET: TVD **6,786**

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

23. WAS WELL CORED? NO  YES  (Submit analysis)  
WAS DST RUN? NO  YES  (Submit report)  
DIRECTIONAL SURVEY? NO  YES  (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12 1/4"	8 5/8" J55	24		2,023		PremV 230	47	CIR	
						PremG 250	51	CIR	
						PremG 1,296	264	CIR	
7 7/8"	5 1/2" LTC	17		7,600		PremV 110	51	CAL	
						PremG 620	138	CAL	

25. TUBING RECORD

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

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Neslen				
(B) <b>MVRD</b>				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
6,706 7,173	3 3/8	81	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6706-7173	1000 gal acid 4007 total fluid 103,600# sand 50 bbls per min

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

30. WELL STATUS:  
**SI**

**31. INITIAL PRODUCTION**

**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE: 10/31/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 0	WATER - BBL: 798	PROD. METHOD: Flow
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

**INTERVAL B (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

**INTERVAL C (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

**INTERVAL D (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

**32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**

**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

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

**34. FORMATION (Log) MARKERS:**

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

**35. ADDITIONAL REMARKS (Include plugging procedure)**

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

NAME (PLEASE PRINT) Russell Cox

TITLE Operations Manager

SIGNATURE 

DATE 12/8/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340  
Fax: 801-359-3940

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-28042
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.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
		<b>7. UNIT or CA AGREEMENT NAME:</b>
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> THURSTON 10-15-9-24	
<b>2. NAME OF OPERATOR:</b> THURSTON ENERGY OPERATING	<b>9. API NUMBER:</b> 43047406260000	
<b>3. ADDRESS OF OPERATOR:</b> 365 W. 50 N. Ste W-8 , Vernal, UT, 84078	<b>PHONE NUMBER:</b> 214 704-3896 Ext	<b>9. FIELD and POOL or WILDCAT:</b> UNDESIGNATED
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1864 FSL 2085 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSE Section: 15 Township: 09.0S Range: 24.0E Meridian: S	<b>COUNTY:</b> UINTAH	
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 7/11/2011  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="perforate"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Please be advised that Thurston Energy Operating Company perforate the Thurston 10-15-9-24 well in the Wasatch formation. See attached work over procedure. Well was returned to production immediately following the workover.		
<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY</b>		
<b>NAME (PLEASE PRINT)</b> Patti Cox	<b>PHONE NUMBER</b> 435 789-8580	<b>TITLE</b> Business Manager
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/11/2011	

# Thurston Energy Operating Company, LLC

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365 West 50 North Suite W-8 • Vernal, UT 84078 USA

Phone 435-789-8580 fax 435-789-8585

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## 10-15 Work Over Procedure

Day 1: move in rig, RU, blow down or kill well (3% KCL) NDWH, NUBOP, POOH w/ TBG., rig up wire line, RIH w/ CIBP, SET AT 6000', POOH, RIH & dump 2 sacks cement, POOH, RD,MO wireline, SDFN

Day 2: Safety meeting, RIH w/ packer and shoot 6' 4spf @ 4743'-4749, POOH, RIH w/ packer and break down with rig pump @ 15 bbls., test and swab, SDFN

Day 3: Safety meeting, RIH w/ swab & check, POOH, unseat packer, pooh, pick up RBP, RIH & set @ 4575', POOH, SDFN

Day 4: safety meeting, rig up wire line RIH w/ perf. Gun & perf. 6' @ 4spf @ 4553'-4561', POOH, pick up packer RIH, set @ 4545', break down w/ rig pump & swab test, SDFN

Day 5: Safety meeting, RIH & swab test, unseat packer POOH, lay down packer, RIH & unseat RBP, MOVE UP AND SET @ 4400', POOH, RIH w/ wire line & perf. 22' at 4 spf. @ 4367'-4389', POOH, pick up packer, RIH & set @ 4350', break down w/ rig pump & swab test, SDFN.

Day 6: Safety meeting, RIH swab test, unseat packer POOH RIH and retrieve RBP, RIH w/ notch collar S/N, 2 3/8 TBG., hang off, NDBOP, NUWH, SWAB, Rig down and turn over to pumper

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

C  
FORM 6

**ENTITY ACTION FORM**

Operator: Thurston Energy Operating Company Operator Account Number: N 2790  
 Address: 365 W. 50 N Suite W-8  
city Vernal  
state UT zip 84078 Phone Number: (435) 789-8580

**Well 1**

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740626	Thurston 10-15-9-24		nwse	15	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
E	17773	<u>17773</u>				7/11/2011	
Comments: Change formation to WSTC from MVRD			<b>CONFIDENTIAL</b>			<u>7/26/11</u>	

**Well 2**

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304730339	Devils Playground 41-9		NENE	9	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
E	6195	<u>6195</u>				7/17/2011	
Comments: Change Formation from WSTC to <u>GRRV</u>						<u>7/26/11</u>	

**Well 3**

API Number	Well Name		QQ	Sec	Twp	Rng	County
4204740628	Thurston 12-29-9-24		NWSW	29	9S	24E	Uintah
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A			7/5/2011				
Comments: new well			<u>Duplicate - Original processed 7/20/11</u>				

**ACTION CODES:**

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

Patti Cox

Name (Please Print)

Patti Cox  
Signature  
Business Manager

7/22/2011

Date

**RECEIVED**

**JUL 26 2011**

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-28042	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>7. UNIT or CA AGREEMENT NAME:</b>	
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> THURSTON 10-15-9-24	
<b>2. NAME OF OPERATOR:</b> THURSTON ENERGY OPERATING		<b>9. API NUMBER:</b> 43047406260000	
<b>3. ADDRESS OF OPERATOR:</b> 365 W. 50 N. Ste W-8 , Vernal, UT, 84078	<b>PHONE NUMBER:</b> 214 704-3896 Ext	<b>9. FIELD and POOL or WILDCAT:</b> UNDESIGNATED	
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1864 FSL 2085 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSE Section: 15 Township: 09.0S Range: 24.0E Meridian: S		<b>COUNTY:</b> UINTAH	
		<b>STATE:</b> UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/27/2011  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
Please be advised that Thurston Energy Operating Company is planning to test zones in the Wasatch formation on the Thurston 10-15-9-24			
<b>REQUEST DENIED</b> <b>Utah Division of</b> <b>Oil, Gas and Mining</b>  <b>Date:</b> <u>08/02/2011</u> <b>By:</b> <u>Derek Quist</u>			
<b>NAME (PLEASE PRINT)</b> Patti Cox	<b>PHONE NUMBER</b> 435 789-8580	<b>TITLE</b> Operations Manager	
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/17/2011		

**Please Review Attached Reasons for Denial**

**RECEIVED** Jun. 17, 2011



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices**

**Sundry Conditions of Approval Well Number 43047406260000**

**Did not provide the requested detail on proposed interval or method of plug back of existing Mesaverde formation. Work has been completed without proper approval. Work was done on 7/11/2011. Approval must be obtained prior to doing work.**

**CONFIDENTIAL**

5. LEASE DESIGNATION AND SERIAL NUMBER:  
ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:  
Thurston 10-15-9-24

9. API NUMBER:  
4304740626

10. FIELD AND POOL, OR WILDCAT  
undesignated

11. QTR/QTR, SECTION, TOWNSHIP, RANGE,  
MERIDIAN:  
NWSE 15 T9S 24E S

12. COUNTY  
Uintah

13. STATE  
UTAH

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

2. NAME OF OPERATOR:  
Thurston Energy Operating Company

3. ADDRESS OF OPERATOR:  
365 West 50 North CITY Vernal STATE UT ZIP 84078

PHONE NUMBER:  
435-789-8580

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: 1864 FSL 2085 FEL  
AT TOP PRODUCING INTERVAL REPORTED BELOW:  
AT TOTAL DEPTH:

**RECEIVED**  
OCT 03 2011

14. DATE SPUDDED: 8/16/10

15. DATE T.D. REACHED: 9/6/10

16. DATE COMPLETED: 7/12/11

ABANDONED  READY TO PRODUCE

18. TOTAL DEPTH: MD 7624 TVD 7624

19. PLUG BACK T.D.: MD TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? \* 6

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
SPECTRAL DENSITY/DUAL SPACED NEUTRON ARRAY COMPENSATED/TRUE RESISTIVITY

23. WAS WELL CORED? NO  YES  (Submit analysis)  
WAS DST RUN? NO  YES  (Submit report)  
DIRECTIONAL SURVEY? NO  YES  (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
17 3/4	14		0	40		50		SURFACE	CBL
12 1/4	8 5/8 J55	24	0	2022		G 1260	350	SURFACE	CBL
7 7/8	5 1/2 L80	17	0	7622		LP 110		SURFACE	CBL
						POZ 620		SURFACE	CBL

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	4768	4408						

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) WASATCH	4367	4389	4367	4389	4367 4389	14	56	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) WASATCH	4556	4559	4556	4559	4556 4559	3	12	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(C) WASATCH	4746	4749	4746	4749	4746 4749	3	12	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

30. WELL STATUS:  
producing

## 31. INITIAL PRODUCTION

## INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 7/15/11		TEST DATE: 7/15/11		HOURS TESTED: 3		TEST PRODUCTION RATES: →		OIL - BBL:		GAS - MCF: N/A		WATER - BBL: 63		PROD. METHOD: SWAB	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS: SI					

## INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED: 7/13/11		TEST DATE: 7/13/11		HOURS TESTED: 5		TEST PRODUCTION RATES: →		OIL - BBL:		GAS - MCF: N/A		WATER - BBL: 24		PROD. METHOD: SWAB	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:					

## INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED: 7/11/11		TEST DATE: 7/11/11		HOURS TESTED: 7		TEST PRODUCTION RATES: →		OIL - BBL:		GAS - MCF: 32		WATER - BBL:		PROD. METHOD: FLOWING	
CHOKE SIZE:	TBG. PRESS. 200	CSG. PRESS. 1200	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF: 182	WATER - BBL:	INTERVAL STATUS: producing					

## INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →		OIL - BBL:		GAS - MCF:		WATER - BBL:		PROD. METHOD:	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:					

## 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

sold- Anadarko

## 33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
WASATCH	4367	4389	water and gas		
WASATCH	4556	4559	LITTLE GAS		
WASATCH	4746	4749	good gas		
MESA VERDE	6050	6055	water		
	6376	6379	water		
	6706	6811	WATER, very little gas (FRAC)		
	6916	7173	WATER, very little gas		
Nielsen	7396	7457	water		

## 34. FORMATION (Log) MARKERS:

## 35. ADDITIONAL REMARKS (Include plugging procedure)

cibp set @ 7340, cibp set @ 6786, cibp set @ 6530, cibp set @ 6010

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

NAME (PLEASE PRINT) Chris CurtonTITLE V.P. of Business development

SIGNATURE \_\_\_\_\_

DATE 9/29/11

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

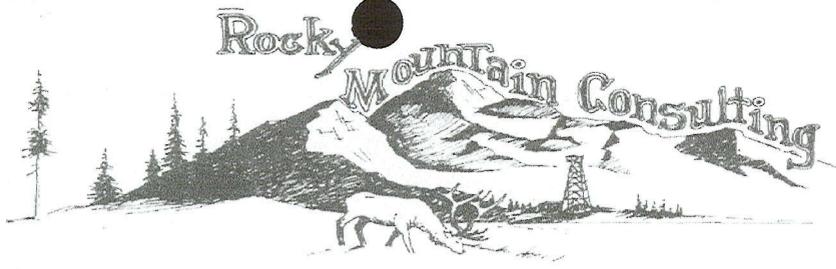
\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940



Office 435-789-0968  
 Cell 435-828-0968  
 Fax 435-789-0970  
 E-mail [mcwar@hotmail](mailto:mcwar@hotmail.com)

		Date	9/29/11-CHRIS CURTON		
Operator	Thurston Operating	GL			
Well Number	10-15-9-24	KB			
Location	NWSE 15 T9S 24E S		Size	Wt	Gr
Wellhead Manufacture		Tbg	2 3/8		
Working Pressure		Csg	5 1/2		
API number	4304740626		Burst	Ten	Collapse
Lease #	ML-28042	Tbg			
		Csg			

	14' CONDUCTOR				
		Tbg detail			
	8 5/8 SURFACE J55 24# 2022'	2 3/8			
	5 1/2 L80 17# 7622'				
					4768
	PERFS. @ 4367-4389-LITTLE GAS				
		Green River			
	PACKER SET @ 4408'	Wasatch			
	PERFS @ 4556-4559- LITTLE GAS	Mesaverde			
		TD			
	PERFS @ 4746-4749- FLOW RATE OF 182 MCF/ SOLD 32 MCF IN 7 HOURS				
	CIBP SET @ 6010				
	PERFS @ 6050-6055				
	PERFS @ 6376-6379				
CIBP SET @ 6530					
6706-6709					
6752-6755					
CIBP SET @ 6786					
6808-6811					
6916-6919- NESLEN PERFS					
6930-6933					
7001-7004					
7069-7072					
7090-7093					
7170-7173					
CEMENT ON TOP OF BP, 7322'					
CIBP SET @ 7340'					
7396-7406- SEGO PERFS					
7437-7440					
7454-7457					
PBTD					
TD					

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML-28042**

**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 10-15-9-24**

2. NAME OF OPERATOR:  
**THURSTON ENERGY OPERATING COMPANY LLC**

9. API NUMBER:  
**4304740626**

3. ADDRESS OF OPERATOR:  
**4925 Greenville ave. #840**    CITY **Dallas**    STATE **TX**    ZIP **75206**

PHONE NUMBER:  
**469-726-2222**

10. FIELD AND POOL, OR WILDCAT:  
**DEVILS PLAYGROUND**

4. LOCATION OF WELL  
FOOTAGES AT SURFACE: **1864 FSL 2085 FEL**

COUNTY: **UINTAH**

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NWSE 15 T9S 24E S**

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: <b>12/1/2012</b>	<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"/> 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 <b>CLOSE PIT</b>
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<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.  
**OPERATOR WISHES TO CLOSE PIT, RECEIVED VERBAL CONFIRMATION NOVEMBER 26TH FROM RICHARD POWELL, WORK SHOULD START ASAP, HOPING TO HAVE WORK STARTED BY DEC. 1ST**

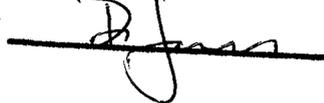
**COPY SENT TO OPERATOR**

Date: **12-13-2012**

Initials: **KS**

Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: **12/11/12**

By: 

NAME (PLEASE PRINT) **CHRIS CURTON**

TITLE **C.O.O.**

SIGNATURE 

DATE **11/27/2012**

(This space for State use only)

**RECEIVED**  
**DEC 04 2012**

Effective Date: 9/10/2014

<b>FORMER OPERATOR:</b> Thurston Energy Operating Company P.O. Box 1667 Vernal, UT 84078	<b>NEW OPERATOR:</b> Shiny One Operating Company, LLC P.O. Box 1667 Vernal, UT 84078
CA Number(s):	Unit(s):

**WELL INFORMATION:**

Well Name	Sec	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
See attached list									

**OPERATOR CHANGES DOCUMENTATION:**

- Sundry or legal documentation was received from the **FORMER** operator on: 12/10/2014
- Sundry or legal documentation was received from the **NEW** operator on: 12/10/2015
- New operator Division of Corporations Business Number: 5917957-0161

**REVIEW:**

- Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: N/A
- Receipt of Acceptance of Drilling Procedures for APD on: N/A
- Reports current for Production/Disposition & Sundries: 1/4/2015
- OPS/SI/TA well(s) reviewed for full cost bonding: 1/4/2015
- UIC5 on all disposal/injection/storage well(s) approved on: N/A
- Surface Facility(s) included in operator change: N/A
- Inspections of PA state/fee well sites complete on (only upon operators request): N/A

**NEW OPERATOR BOND VERIFICATION:**

- Federal well(s) covered by Bond Number: UTB000181
- Indian well(s) covered by Bond Number:
- State/fee well(s) covered by Bond Number(s):  
579-146262-4  
579-146263-2  
579-146264-0  
579-146265-7

**DATA ENTRY:**

- Well(s) update in the **OGIS** on: 1/4/2015
- Entity Number(s) updated in **OGIS** on: 1/4/2015
- Unit(s) operator number update in **OGIS** on: N/A
- Surface Facilities update in **OGIS** on: N/A
- State/Fee well(s) attached to bond(s) in **RBDMS** on: 1/4/2015
- Surface Facilities update in **RBDMS** on: N/A

**LEASE INTEREST OWNER NOTIFICATION:**

- The **NEW** operator of the Fee (Mineral) wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 1/4/2015

**COMMENTS:**

---

From: Thurston Energy Operating N2790  
 To: Shiny One Operating Company, LLC N4185

Effective 10 September 2014

Well Name	Section	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
RED WASH FED 1-18	18	090S	240E	4304730124	6200	Federal	Federal	GW	P
DEVILS PLAYGROUND 41-9	9	090S	240E	4304730339	6195	Federal	Federal	OW	P
DIRTY DEVIL FEDERAL 23-20	20	090S	240E	4304731009	10698	Federal	Federal	GW	P
DIRTY DEVIL 22X-27	27	090S	240E	4304734825	15109	Federal	Federal	GW	P
THURSTON 7-9-9-24 GR	9	090S	240E	4304740625	17771	Federal	Federal	OW	P
THURSTON 10-15-9-24	15	090S	240E	4304740626	17773	State	Federal	GW	P
THURSTON 12-29-9-24	29	090S	240E	4304740628	18119	State	Federal	GW	P
THURSTON 8-9-9-24	9	090S	240E	4304751428	18135	Federal	Federal	OW	P
DEVILS PLAYGROUND 23-17	17	090S	240E	4304730568	6136	Federal	Federal	GW	S
DIRTY DEVIL UNIT 11-29	29	090S	240E	4304731617	9586	State	Fee	GW	S
THURSTON 5-15-9-24	15	090S	240E	4304740627	17772	State	Federal	GW	S

# Delaware

The First State

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SEP 30 2014  
PAGE 1  
Div. of Oil, Gas & Mining

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "THURSTON ENERGY OPERATING COMPANY, LLC", CHANGING ITS NAME FROM "THURSTON ENERGY OPERATING COMPANY, LLC" TO "SHINY ONE OPERATING COMPANY, LLC", FILED IN THIS OFFICE ON THE TWENTY-FIRST DAY OF AUGUST, A.D. 2014, AT 3:24 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE TENTH DAY OF SEPTEMBER, A.D. 2014.

3972888 8100

141350778

You may verify this certificate online  
at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)



  
Jeffrey W. Bullock, Secretary of State  
AUTHENTICATION: 1824738

DATE: 10-30-14

**STATE OF DELAWARE  
CERTIFICATE OF AMENDMENT**

1. Name of Limited Liability Company: Thurston Energy Operating Company, LLC
2. The Certificate of Formation of the limited liability company is hereby amended as follows:

The name of Thurston Energy Operating Company, LLC shall be changed to Shiny One Operating Company, LLC, to be effective September 10, 2014.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on the 20 day of August, A.D. 2014.

By:

Crystal Meeks  
Authorized Person(s)

Name: Crystal Meeks - Manager

Print or Type

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

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: <u>Stinky One Operating Company, LLC</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: CITY <u>Vernal</u> STATE <u>UT</u> ZIP <u>84079</u> PHONE NUMBER: <u>435-789-8580</u>		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: _____ COUNTY: <u>Uintah</u>		8. WELL NAME and NUMBER: <u>Thurston 10-15-9-24</u>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <u>15-0906-2400-17773-6state</u>		9. API NUMBER:
10. FIELD AND POOL, OR WILDCAT:		STATE: <u>UTAH</u>

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"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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 checked="" 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 type="checkbox"/> OTHER: _____
	<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.

effective 9.10.14

RECEIVED

DEC 11 2014

Div. of Oil, Gas & Mining

Thurston Energy operating company shall be known as  
Stinky one operating company .llc

NAME (PLEASE PRINT) <u>Crystal Moore</u>	TITLE <u>Assistant Manager</u>
SIGNATURE <u>Crystal Moore</u>	DATE <u>12-8-14</u>

(This space for State use only)

APPROVED

JAN 04 2016

DIV. OIL, GAS & MINING  
BY: Rachel Medina