

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING					FORM 3 AMENDED REPORT <input type="checkbox"/>			
APPLICATION FOR PERMIT TO DRILL					1. WELL NAME and NUMBER Thurston 13-20-9-24			
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>					3. FIELD OR WILDCAT DEVILS PLAYGROUND			
4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>					5. UNIT or COMMUNITIZATION AGREEMENT NAME			
6. NAME OF OPERATOR THURSTON ENERGY OPERATING					7. OPERATOR PHONE 214 704-3896			
8. ADDRESS OF OPERATOR 365 W. 50 N. Ste W-8, Vernal, UT, 84078					9. OPERATOR E-MAIL rcurton@thurstonenergy.com			
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) U-31266			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			
13. NAME OF SURFACE OWNER (if box 12 = 'fee')					14. SURFACE OWNER PHONE (if box 12 = 'fee')			
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')					16. SURFACE OWNER E-MAIL (if box 12 = 'fee')			
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>		19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>			
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE		856 FSL 685 FWL		SWSW	20	9.0 S	24.0 E	S
Top of Uppermost Producing Zone		856 FSL 685 FWL		SWSW	20	9.0 S	24.0 E	S
At Total Depth		856 FSL 685 FWL		SWSW	20	9.0 S	24.0 E	S
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 685		23. NUMBER OF ACRES IN DRILLING UNIT 1594			
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1400		26. PROPOSED DEPTH MD: 8000 TVD: 8000			
27. ELEVATION - GROUND LEVEL 5368			28. BOND NUMBER UTB-000181		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE White River Permit #49-2286			
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 type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)				<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER				
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP				
NAME Russell H. Cox			TITLE Operations Manager			PHONE 435 789-8580		
SIGNATURE			DATE 10/19/2010			EMAIL russell.cox@thurstonenergy.com		
API NUMBER ASSIGNED 43047513270000			APPROVAL  Permit Manager					

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2000		
Pipe	Grade	Length	Weight			
	Grade J-55 ST&C	2000	36.0			

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Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	5.5	0	8000		
Pipe	Grade	Length	Weight			
	Grade N-80 LT&C	8000	17.0			

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Ten Point Plan

Thurston Energy Operating Company

Thurston 13-20-9-24

Surface Location SW $\frac{1}{4}$ SW $\frac{1}{4}$

Section 20, T.9S. R.24.E.

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1. Surface Formation

Green River

2. Estimated Formation Tops and Datum:

<u>Formation</u>		<u>Depth</u>	<u>Datum</u>
Green River		Surface	+5,368' G.L.
Bird's Nest	Water	1,600	+3,769'
Wasatch	Oil/Gas	4,208	+1,161'
Mesaverda	Oil/Gas	5,948	-579'
TD		8,000	-2,631

A 12 ¼ " hole will be drilled to 2,000' +/- . The hole depth will depend on the depth that the Birds Nest Zone is encountered. The hole will be drilled 400' beyond the top of the Birds Nest. All water and oil and gas bearing zones shall be protected by casing and cement program.

3. Producing Formation Depth:

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

4. Proposed Casing:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight/FT</u>	<u>Grade</u>	<u>Coupling & Tread</u>	<u>Casing Depth</u>	<u>New/Used</u>
12 ¼"	9 5/8"	36#	J-55	STC	2,000	New
7 7/8"	5 1/2"	17#	N-80	LTC	T.D.	New

Cement Program:

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

Note: Cement amounts shown with 50% excess.

<u>Casing Depth</u>	<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Water Mix</u>	<u>Cement Weight</u>
Lead: 0-1,600'	9 5/8	Premium "5" 16% Gel 10 #/sk Gilsonite 3% Salt 3 #/sk GB3 0.25 #/sk Flocele	197 sks. +/-	3.82ft ³ /sk	23	11.0 ppg
Tail: 1,600-2,000'	9 5/8	Class "G" 2% Calcium Chloride 0.25 #/sk Flocele	159 sks. +/-	1.18ft ³ /sk	5	15.6 ppg

Top Job: 9 5/8 Class "G" 10-200 sks. +/- 1.15ft³ /sk 5 15.8 ppg
 4% Calcium Chloride
 0.25 #/sk Flocele

Production casing will be cemented to 1800' or higher as follows:

Note: Tail should be 200' above the Wasatch

Note: Cement amounts shown with 25% excess.

<u>Casing Depth</u>	<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Water Mix</u>	<u>Cement Weight</u>
Lead: 1,800-4,008'	5 ½	Premium Lite II 0.05 #/sk Static Free 0.25 #/sk Cello Flake 5 #/sk KOL Seal 0.005 gps FP-6L 8% Gel 0.5% R-3 0.5% FL-52	149 sks. +/-	3.38ft ³ /sk	20.52	11.0 ppg
Tail: 4,008'-8,000'	5 ½	Class "G" 0.05% Static Free 10% NACL 0.1% R-3 2% Gel	660 sks. +/-	1.31ft ³ /sk	5.91	14.3 ppg

5. BOP and Pressure Containment Data:

A 3000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 9 5/8" surface casing. An upper Kelly cock to the required pressure rating with a handle available shall be employed.

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 program.

6. Mud Program:

<u>Interval</u>	<u>Mud Weight (lbs./gal)</u>	<u>Viscosity (Sec./OT.)</u>	<u>Fluid Loss Ml/30 Mins.</u>	<u>Mud Type</u>
0-2000	Air/Clear Water	-----	No Control	Water/Gel
2000-T.D.	8.4-9.4	30-45	8-10	LSND water based mud system

Note: Mud weights may exceed 9.4 due to solids increasing at or near T.D. Increased weights are not required to control formation pressure. Operator will have on location sufficient mud and weight material to increase mud weight to 9.4 at any

time while drilling the subject well. Visual mud monitoring incorporating pit level indicators shall be used.

7. Testing, Coring, Sampling and Logging:

- a) DST: None are anticipated
- b) Coring: There is the possibility of sidewall coring.
- c) Mud Sampling: Every 10' from 2000' to T.D.
- d) Logging:

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

8. Abnormalities (including sour gas):

Based on off set wells anticipated bottom hole pressure will be less than 3000 psi. No abnormal pressures, temperatures or other hazards are anticipated. Other wells drilled in the area have not encountered over pressured zones or H2S.

9. Other facets of the proposed operation:

Off Set Well information:

Abandon Wells:

PTS Beehive #11-20

Shut in Well:

Dirty Devil Fed. #23-20

Dirty Devil Unit #11-29

Producing Wells:

Southman Cyn #2D-30

10. Drilling Schedule:

The anticipated starting date is _____. Duration of operations is expected to be 30 days.

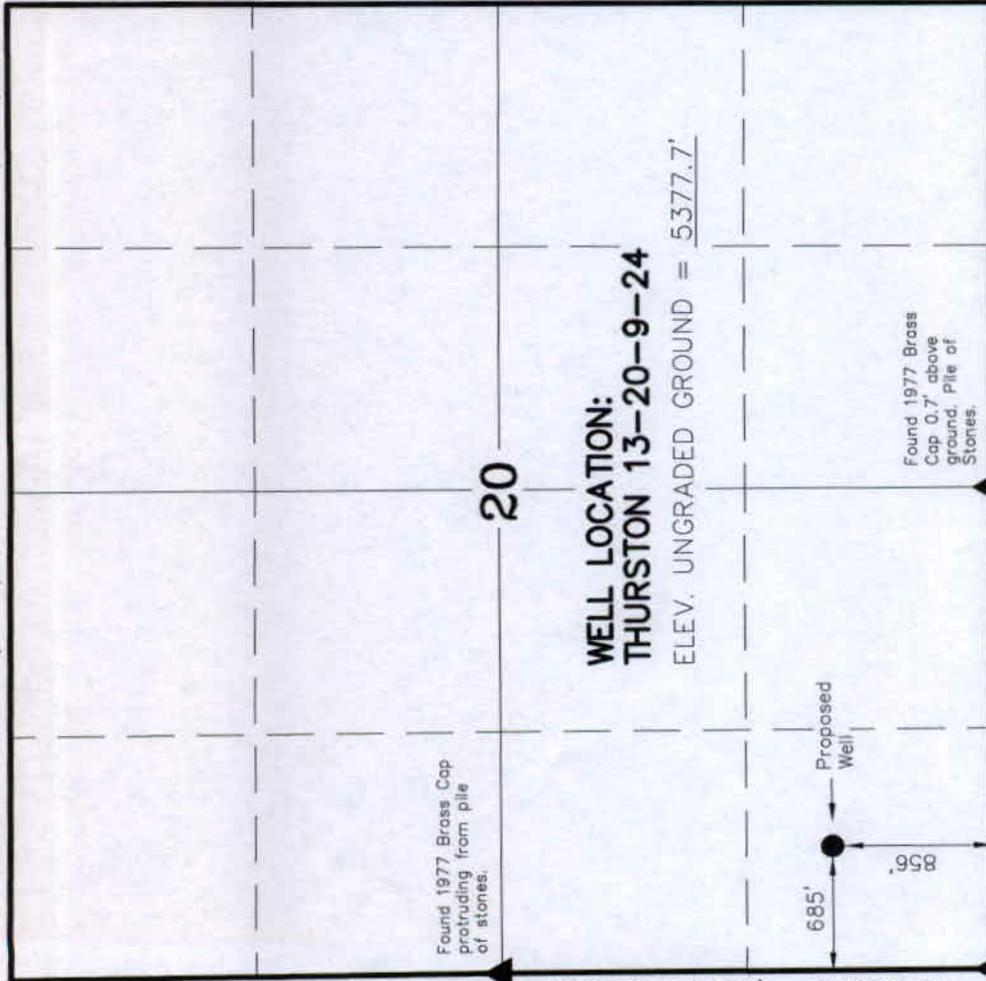
T9S, R24E, S.L.B.&M.

THURSTON ENERGY OPERATING COMPANY

WELL LOCATION, THURSTON 13-20-9-24, LOCATED AS SHOWN IN THE SW 1/4 SW 1/4 OF SECTION 20, T9S, R24E, S.L.B.&M. UINTAH COUNTY, UTAH.

N89°35'W - 40.22 (G.L.O.)

S89°50'W - 39.98 (G.L.O.)



N078'W - 40.14 (G.L.O.)

N02'W - 39.95 (G.L.O.)
 2636.36' (Measured)
 N00°00'25"E - (Basis of Bearings)

Found 1977 Brass Cap protruding from pile of stones.

**WELL LOCATION:
 THURSTON 13-20-9-24**
 ELEV. UNGRADED GROUND = 5377.7'

Found 1977 Brass Cap 0.7' above ground. Pile of Stones.

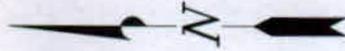
N89°54'42"W - 2635.30' (Meas.)
 N89°57'W - 39.92 (G.L.O.)

N89°50'W - 40.04 (G.L.O.)

N01'E - 80.04 (G.L.O.)

NOTES:

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



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

John R. Slagter
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

TIMBERLINE LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078
 (435) 789-1365

DATE SURVEYED: 10-19-05	SURVEYED BY: K.R.K.	SHEET 2 OF 11
DATE DRAWN: 10-29-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'		Date Last Revised: 08-18-10 M.W.W.

**THURSTON 13-20-9-24
 (Proposed Well Head)**
 NAD 83 Autonomous
 LATITUDE = 40° 00' 59.4"
 LONGITUDE = 109° 14' 41.6"

▲ = 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'.

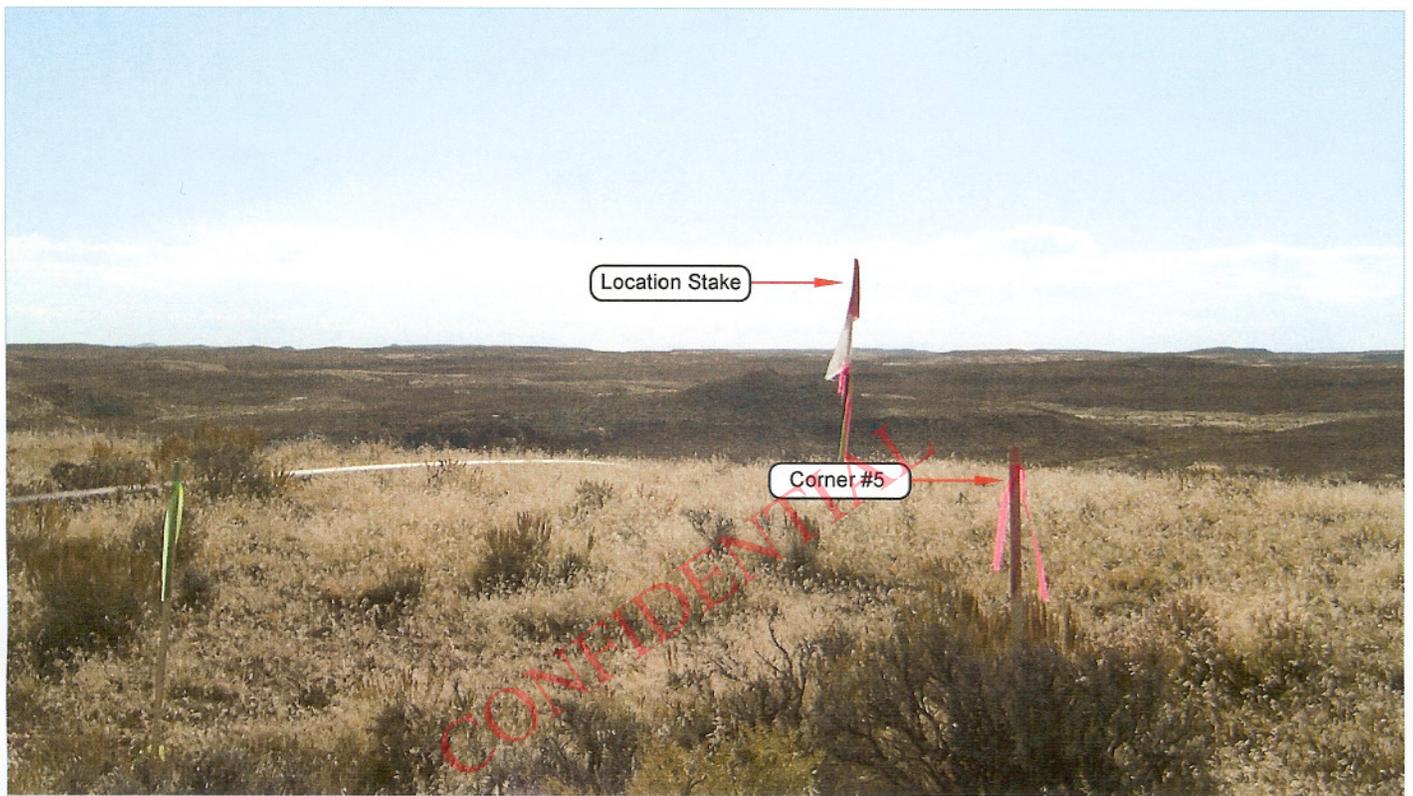


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY

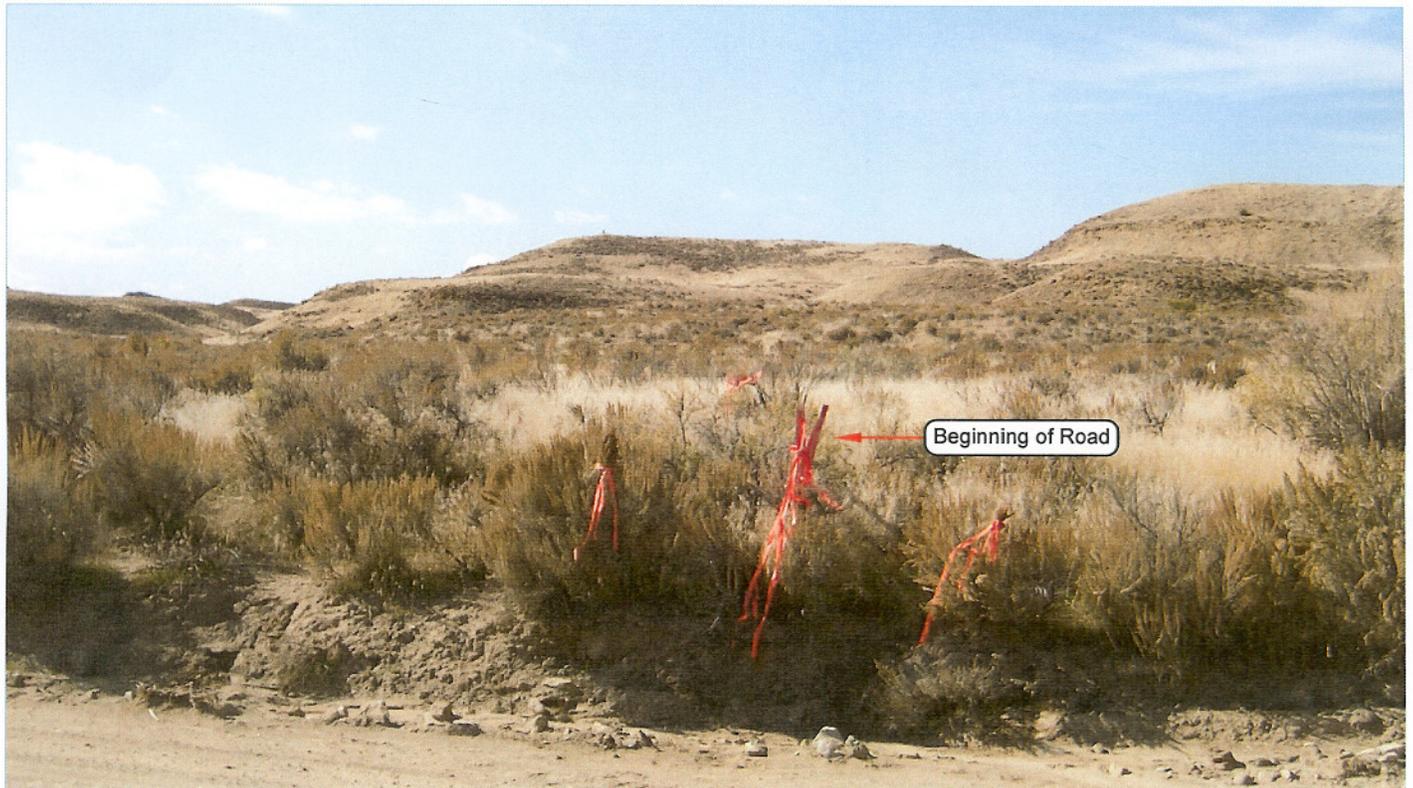


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

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Thurston 13-20-9-24
SECTION 20, T9S, R24E, S.L.B.&M.
856' FSL & 685' FWL

LOCATION PHOTOS

TAKEN BY: K.R.K.

DRAWN BY: M.W.W.

DATE TAKEN: 10-19-05

DATE DRAWN: 11-01-05

REVISED: 08-18-10 M.W.W.

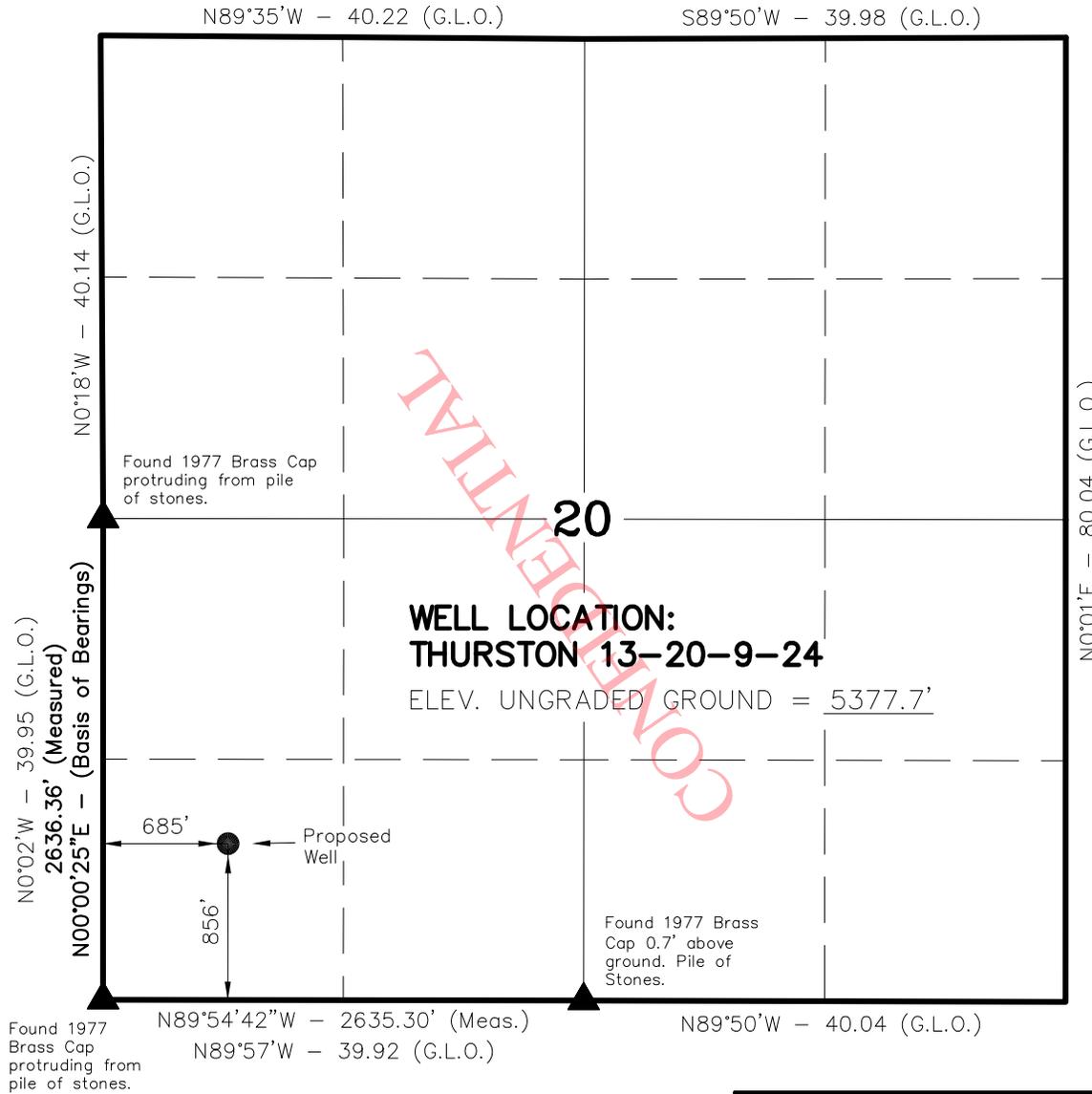
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209 North 300 West Vernal, Utah 84078
(435) 789-1365

SHEET
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OF 11

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

THURSTON ENERGY OPERATING COMPANY

WELL LOCATION, THURSTON 13-20-9-24,
 LOCATED AS SHOWN IN THE SW 1/4 SW 1/4
 OF SECTION 20, T9S, R24E, S.L.B.&M. UINTAH
 COUNTY, UTAH.



NOTES:

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THURSTON 13-20-9-24
(Proposed Well Head)
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 LATITUDE = 40° 00' 59.4"
 LONGITUDE = 109° 14' 41.6"

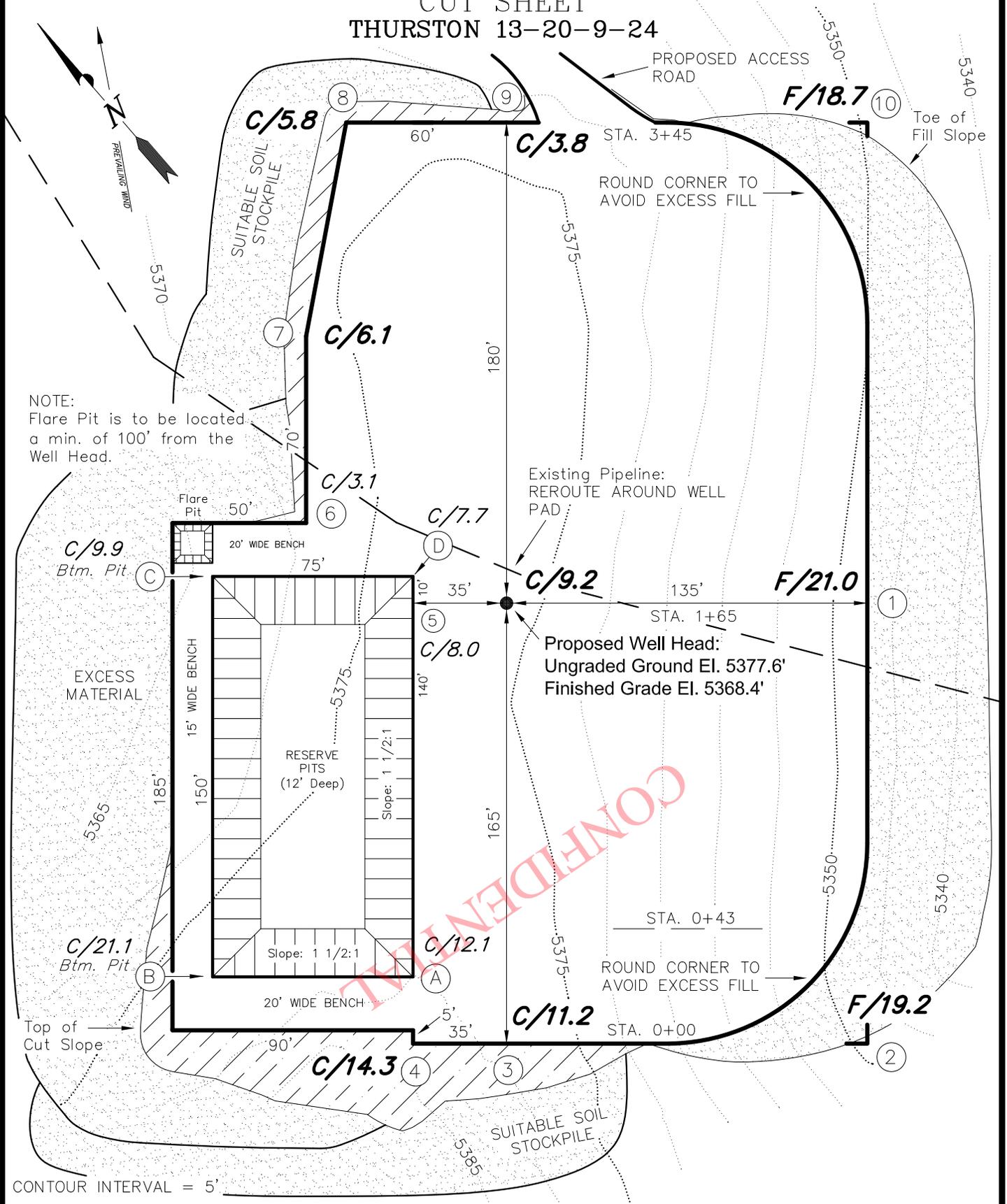
TIMBERLINE LAND SURVEYING, INC.

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DATE SURVEYED: 10-19-05	SURVEYED BY: K.R.K.	SHEET 2 OF 11
DATE DRAWN: 10-29-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'	Date Last Revised: 08-18-10 M.W.W.	

THURSTON ENERGY OPERATING COMPANY

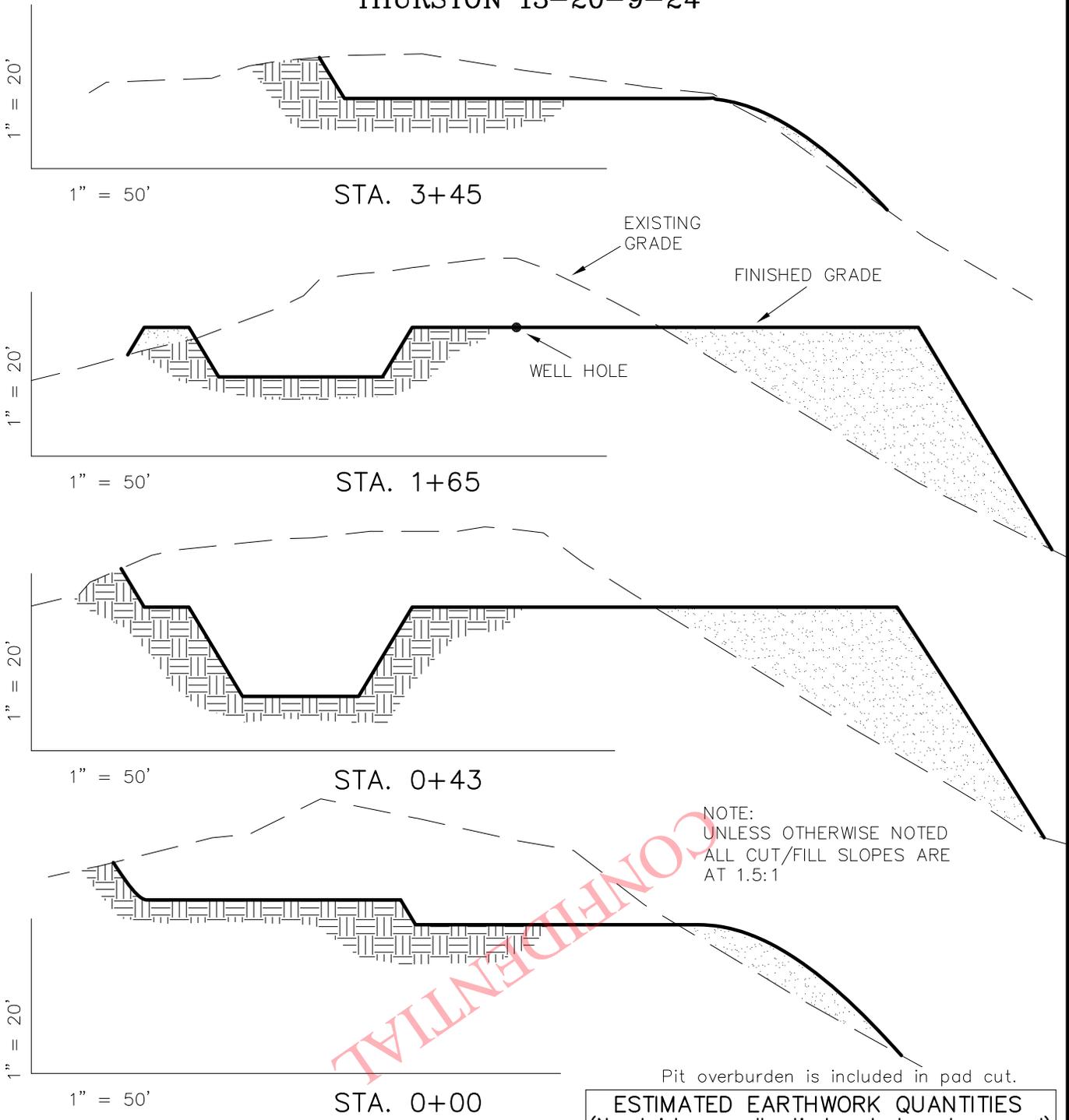
CUT SHEET THURSTON 13-20-9-24



Section 20, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW		Footage Location: 856' FSL & 685' FWL	
Date Surveyed: 10-19-05	Date Drawn: 10-31-05	Date Last Revision: 08-18-10 M.W.W.		Timberline (435) 789-1365 Land Surveying, Inc. 209 NORTH 300 WEST VERNAL, UTAH 84078	
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'			

THURSTON ENERGY OPERATING COMPANY

CROSS SECTIONS THURSTON 13-20-9-24



REFERENCE POINTS

- 185' SOUTHEASTERLY = 5337.4'
- 235' SOUTHEASTERLY = 5329.3'
- 215' SOUTHWESTERLY = 5382.9'
- 265' SOUTHWESTERLY = 5388.2'

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

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	13,250	14,920	Topsoil is not included in Pad Cut	-1,670
PIT	3,340	0		3,340
TOTALS	16,590	14,920	1,500	1,670

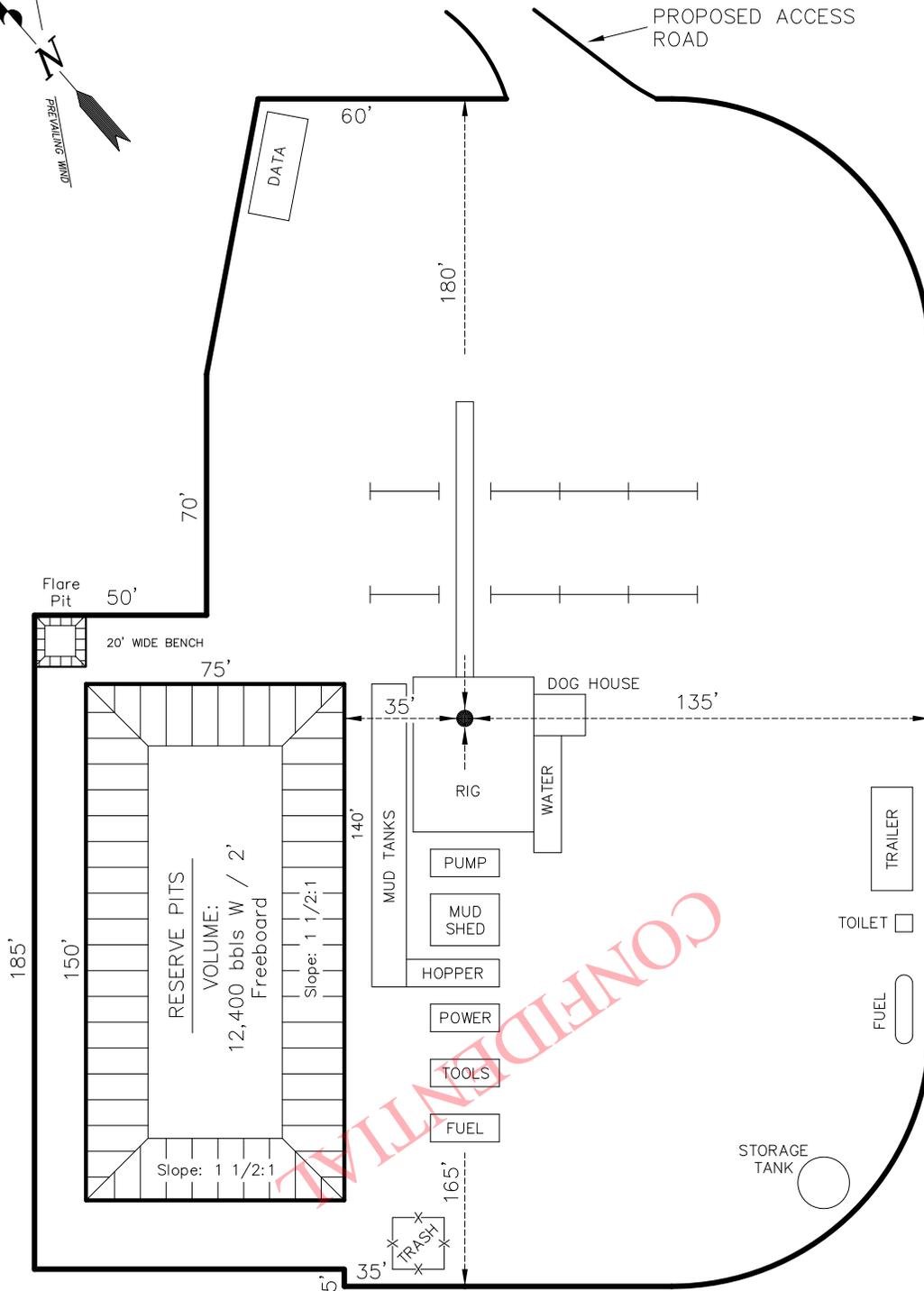
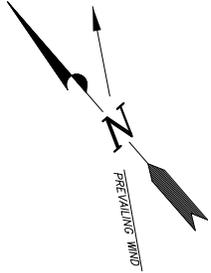
Excess Material after Pit Rehabilitation = 0 Cu. Yds.

Pit overburden is included in pad cut.

Section 20, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 856' FSL & 685' FWL
Date Surveyed: 10-19-05	Date Drawn: 10-31-05	Date Last Revision: 08-18-10 M.W.W.	Timberline (435) 789-1365 Land Surveying, Inc. 209 NORTH 300 WEST VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	

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TYPICAL RIG LAYOUT THURSTON 13-20-9-24



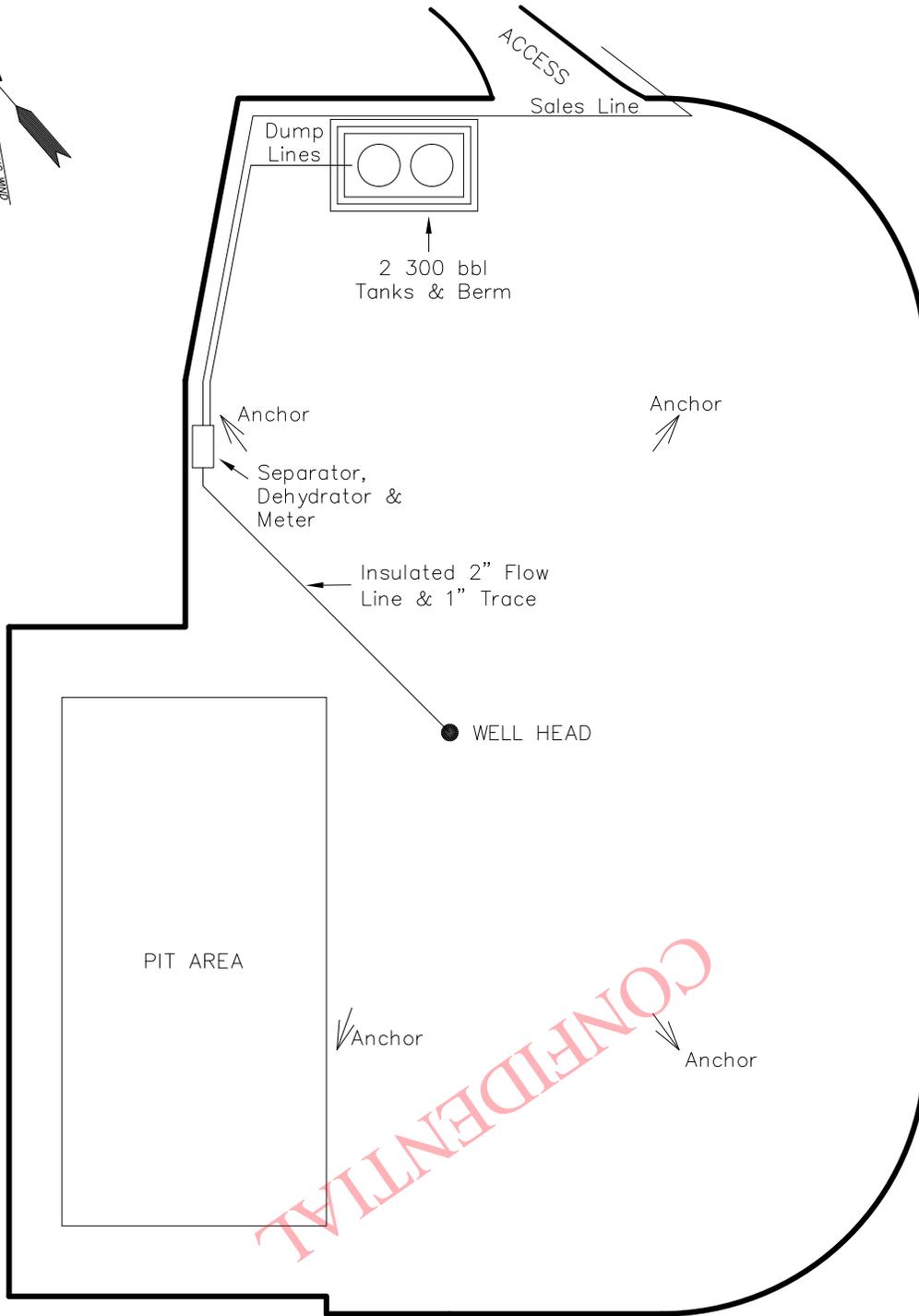
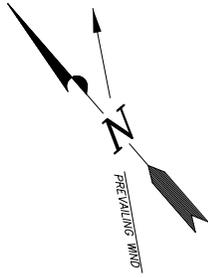
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Section 20, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 856' FSL & 685' FWL
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Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	

SHEET
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OF 11

THURSTON ENERGY OPERATING COMPANY

PRODUCTION LAYOUT THURSTON 13-20-9-24



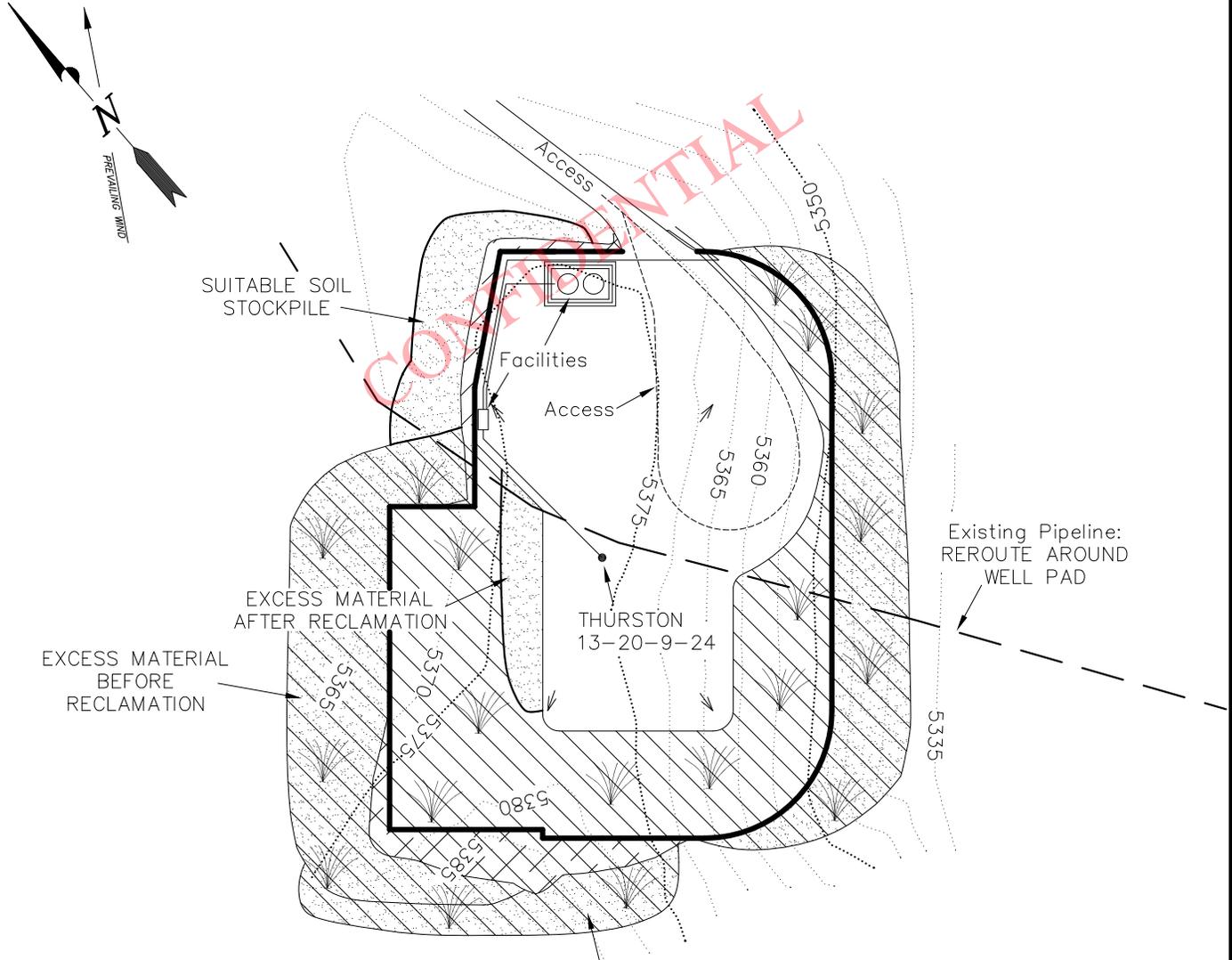
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Section 20, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 856' FSL & 685' FWL
Date Surveyed: 10-19-05	Date Drawn: 10-31-05	Date Last Revision: 08-18-10 M.W.W.	Timberline (435) 789-1365 <i>Land Surveying, Inc.</i> 209 NORTH 300 WEST VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: J.R.S.	Scale: 1" = 50'	

THURSTON ENERGY OPERATING COMPANY

INTERIM RECLAMATION DIAGRAM

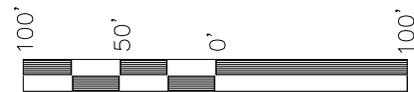
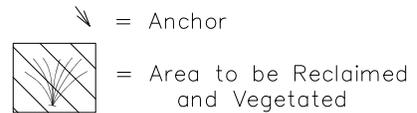
THURSTON 13-20-9-24



NOTE:

1. PRODUCTION EQUIPMENT LOCATION
COULD VARY DUE TO SITE AND OPERATION
EFFECTIVENESS.
2. TOTAL DISTURBED AREA: ±2.96 ACRES
RECLAIMED AREA: ±1.76 ACRES
UN-RECLAIMED AREA: ±1.20 ACRES

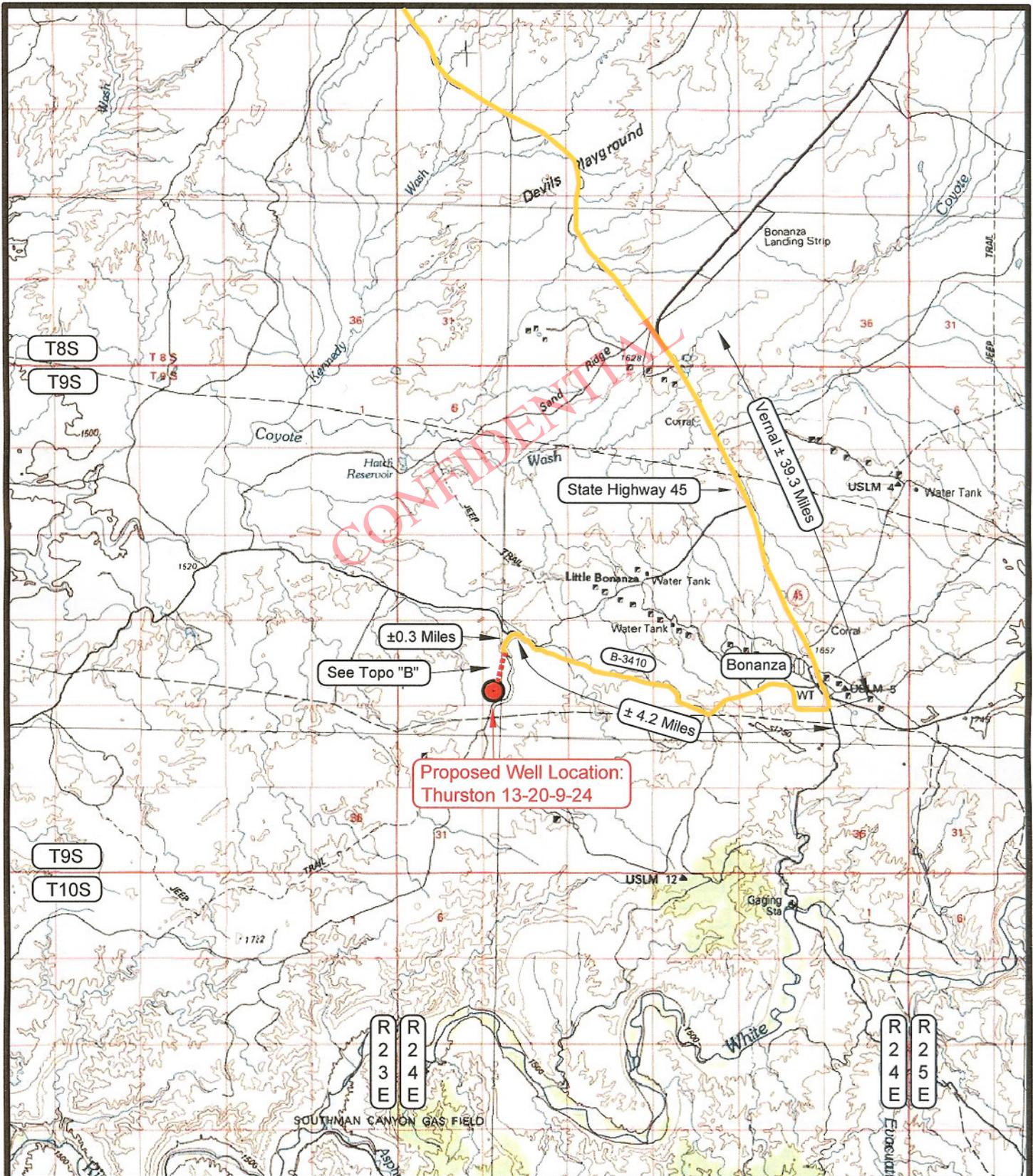
SUITABLE SOIL
STOCKPILE
BEFORE
RECLAMATION



S C A L E

CONTOUR INTERVAL = 5'

Section 20, T9S, R24E, S.L.B.&M.		Qtr/Qtr Location: SW SW	Footage Location: 856' FSL & 685' FWL
Date Surveyed: 10-19-05	Date Drawn: 08-18-10	Date Last Revision:	Timberline (435) 789-1365 <i>Land Surveying, Inc.</i> 209 NORTH 300 WEST VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: M.W.W.	Scale: 1" = 50'	
			SHEET 7 OF 11



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Proposed Well Location:
Thurston 13-20-9-24

LEGEND

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

TOPOGRAPHIC MAP "A"

SCALE: 1:100,000

DRAWN BY: M.W.W.

DATE SURVEYED: 10-19-05

DATE DRAWN: 10-28-05

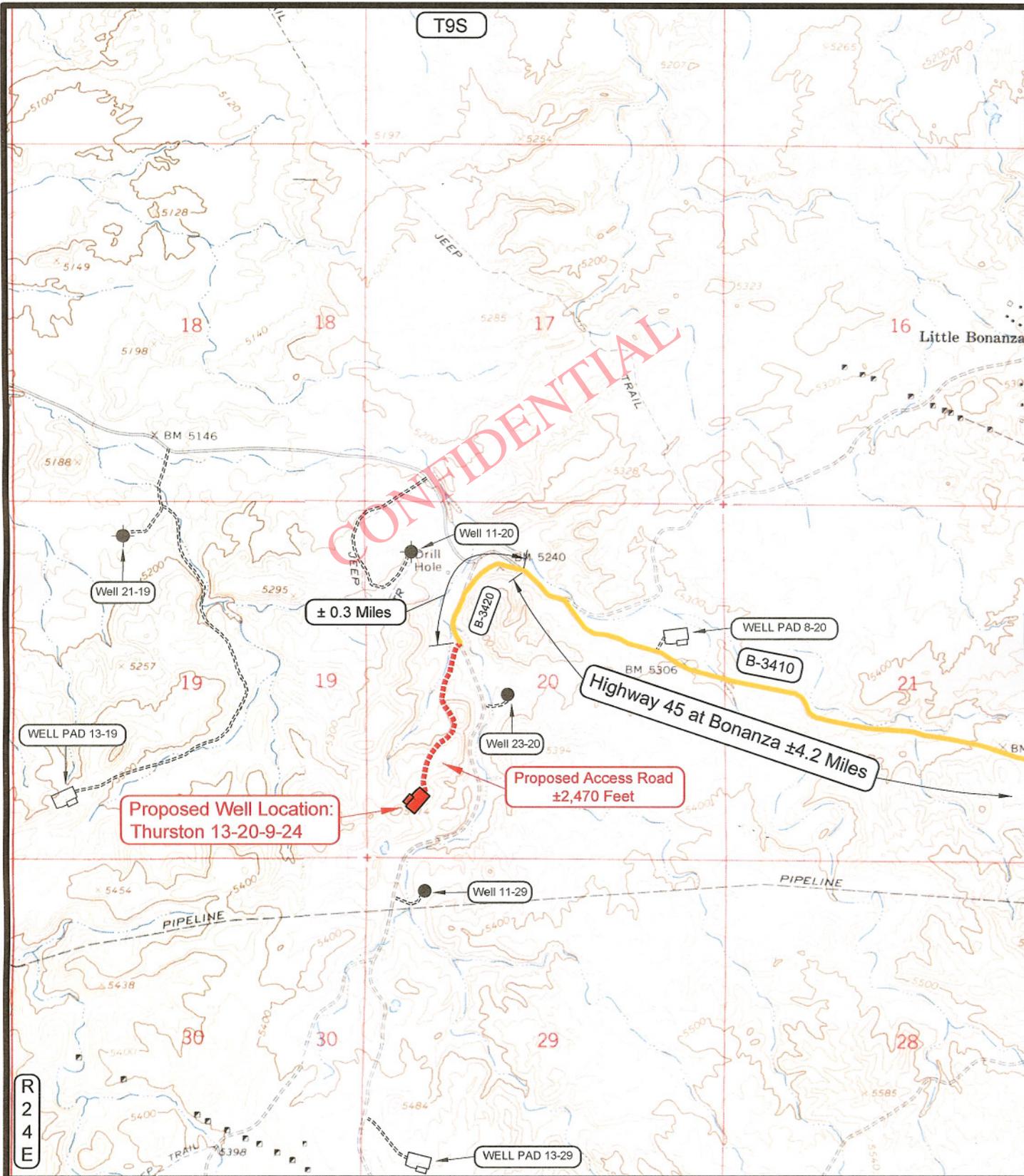
REVISED: 08-18-10 M.W.W.

THURSTON ENERGY OPERATING COMPANY

Thurston 13-20-9-24
SECTION 20, T9S, R24E, S.L.B.&M.
856' FSL & 685' FWL

Timberline Land Surveying, Inc.
 209 North 300 West Vernal, Utah 84078
 (435) 789-1365

SHEET
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OF 11



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

TOPOGRAPHIC MAP "B"

SCALE: 1" = 2000'

DRAWN BY: M.W.W.

DATE SURVEYED: 10-19-05

DATE DRAWN: 10-28-05

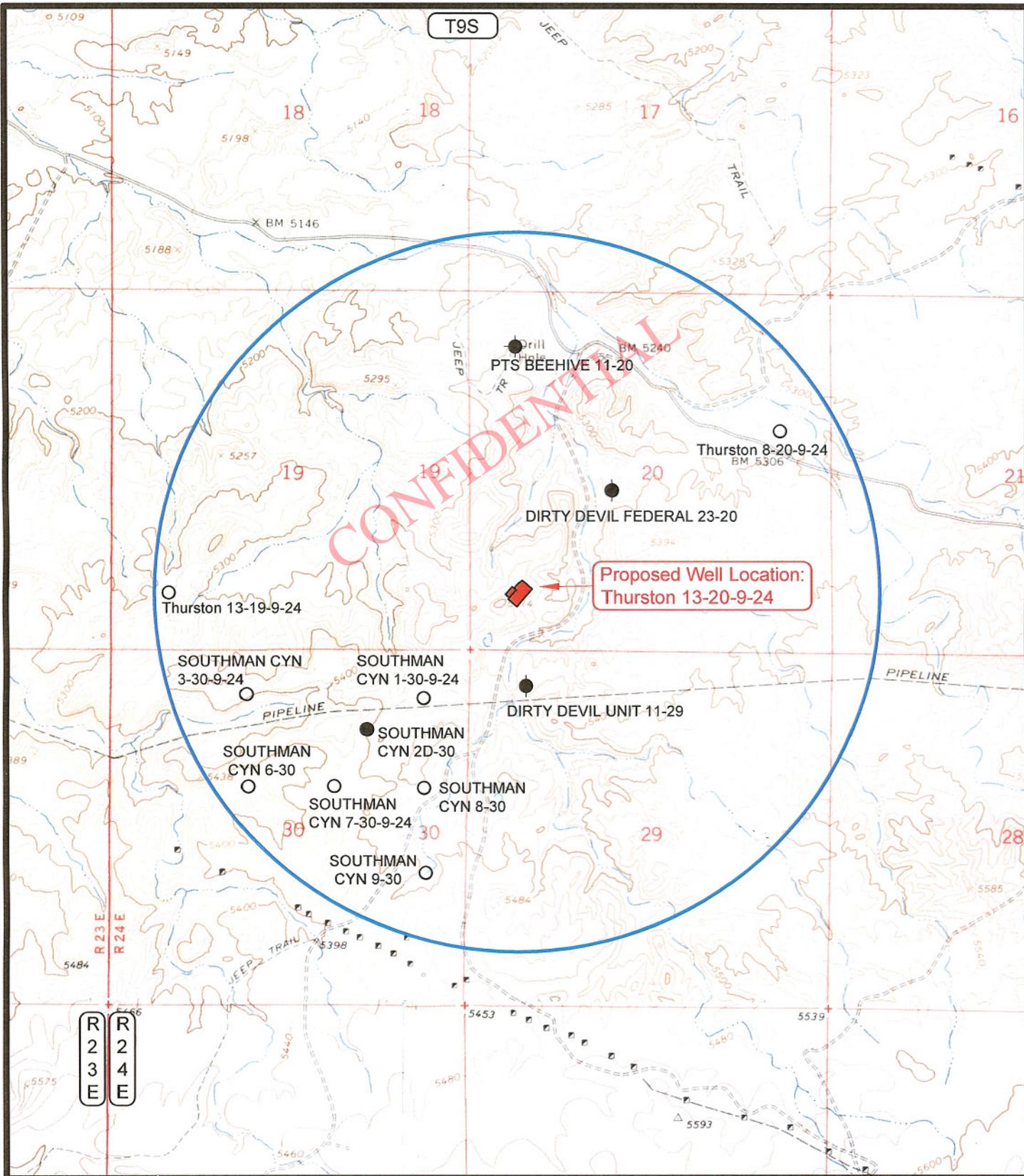
REVISED: 08-18-10 M.W.W.

THURSTON ENERGY OPERATING COMPANY

**Thurston 13-20-9-24
SECTION 20, T9S, R24E, S.L.B.&M.
856' FSL & 685' FWL**

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209 North 300 West Vernal, Utah 84078
(435) 789-1365

**SHEET
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OF 11**



LEGEND

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

THURSTON ENERGY OPERATING COMPANY

Thurston 13-20-9-24
SECTION 20, T9S, R24E, S.L.B.&M.
856' FSL & 685' FWL

TOPOGRAPHIC MAP "C"

DATE SURVEYED: 10-19-05

DATE DRAWN: 11-01-05

SCALE: 1" = 2000'

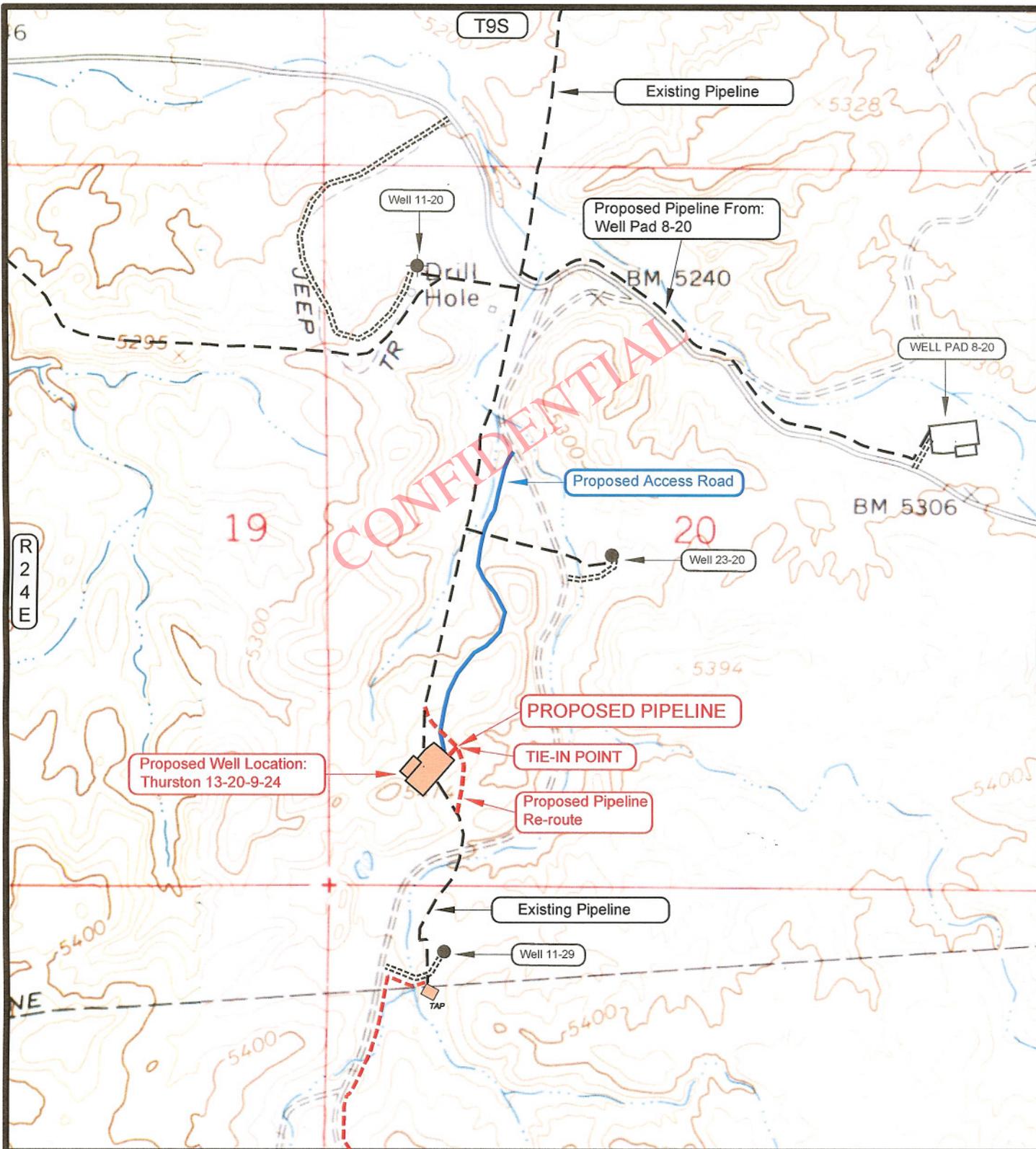
DRAWN BY: M.W.W.

REVISED: 08-18-10 M.W.W.



Timberline Land Surveying, Inc.
 209 North 300 West Vernal, Utah 84078
 (435) 789-1365

SHEET
10
OF 11



APPROXIMATE PIPELINE LENGTH: New = ± 85 Feet, Re-route ±870 Feet

LEGEND

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

THURSTON ENERGY OPERATING COMPANY

Thurston 13-20-9-24
SECTION 20, T9S, R24E, S.L.B.&M.
856' FSL & 685' FWL

TOPOGRAPHIC MAP "D"

DATE SURVEYED: 10-19-05
 DATE DRAWN: 11-01-05
 REVISED: 08-18-10 M.W.W.

SCALE: 1" = 1000' DRAWN BY: M.W.W.

Timberline Land Surveying, Inc.
 209 North 300 West Vernal, Utah 84078
 (435) 789-1365

SHEET
11
OF 11

THURSTON ENERGY OPERATING COMPANY

Thurston 13-20-9-24

Section 20, T9S, R24E, S.L.B.&M.

FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND 500 EAST STREET IN VERNAL, UTAH; PROCEED IN AN EASTERLY THEN SOUTHERLY DIRECTION ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.3 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 45 APPROXIMATELY 36 MILES TO THE JUNCTION OF COUNTY BROAD 3410 (THIS ROAD IS LOCATED APPROXIMATELY 0.5 MILES SOUTH OF BONANZA, UTAH). EXIT RIGHT AND PROCEED IN A WESTERLY DIRECTION ALONG COUNTY BROAD 3410 APPROXIMATELY 4.2 MILES TO THE JUNCTION OF A COUNTY D ROAD. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG THE COUNTY D ROAD APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 2,470 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 44.3 MILES.

THURSTON ENERGY
OPERATING COMPANY

13 POINT SURFACE USE
PLAN

THURSTON 13-20-9-24

LOCATED IN SW $\frac{1}{4}$ SW $\frac{1}{4}$
SECTION 20, TOWNSHIP 9
SOUTH, RANGE 24 EAST,
S.L.B. & M.

UINTAH COUNTY, UTAH
LEASE NUMBER: U-31266
SURFACE OWNERSHIP:
FEDERAL

1. Existing Roads

Thurston Energy Operating Co
 Thurston 13-20-9-24
 Sec. 20, T9S, R24E

Starting in Vernal, Utah:

Proceed in an easterly, then southerly direction from Vernal, Utah along US Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 36 miles to the junction of County B Road 3410. Exit right and proceed in a westerly direction along County B road 3410 approximately 4.2 miles to the junction of a County D road approximately 0.3 miles to the proposed access road; follow road flags in a southerly direction approximately 2,470 feet to the proposed location.

Total Distance from Vernal, Utah to the proposed well location is approximately 43.0 miles.

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

2. Planned Access Road

The proposed access road will be approximately 2,470' of new construction on lease. The road will be graded once per year minimum and maintained.

- A) Approximate length 2,470 ft
- B) Right-of-Way width 30 ft
- C) Running surface 18 ft
- D) Surface material Native Soil

- E) Maximum grade 5%
- F) Fence crossing None
- G) Culvert None
- H) Turnouts None
- I) Major cuts and fills None
- J) Road flagged Yes
- K) Access road surface ownership Federal

L) All new construction on lease Yes

M) Pipeline crossing (4" line) One

The line will be buried or covered with a half culvert.

- N) Construction time 2 weeks
- O) Road crowned and ditched Yes

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.

The equipment used for construction will be the same as used for location construction.

3. Location of existing wells

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

- A) Producing well Southman Canyon 2D-30
- B) Water Well None
- C) Abandoned well PTS Beehive #11-20
- D) Temp abandoned well None
- E) Disposal well None
- F) Drilling/Permitted well Thurston 8-20-9-24
 Thurston 13-19-9-24
 Southman Canyon 3-30-9-24

Southman Canyon 1-30-9-24
Southman Canyon 6-30-9-24
Southman Canyon 8-30-9-24
Southman Canyon 9-30-9-24
Southman Canyon 7-30-9-24

G) Shut in wells

Dirty Devil Fed 23-20-9-24

H) Injection well None

I) Monitoring or observation well
None

Please see the attached map for additional details.

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

All production facilities are to be contained within the proposed location site. Please see the attached plat plan for the 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 *Covert Green* color. Facilities required to comply with O.S.H.A. will be excluded. The required paint color is *Covert Green*.

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.

Pipeline:

Approximately 85' of 3" steel gas gathering surface pipeline will be constructed on Federal Lands. Due to bedrock sandstone, shallow soils and a tie-in with a surface gathering system the line will not be buried. The pipeline will tie into the existing pipeline in Sec 20, T9S R24E. The pipeline will be strung and boomed to the northeast of the location.

A) Staging area None

B) Construction 1 week

C) Additional equipment required
None

D) Stringing method Location
will be used

E) Wash crossing None

F) Road crossing None

An on lease Right-of-Way will not be required.

An existing 8" pipeline will have to be re-routed for approximately 870'. The line will be taken out of service and blown down before it is moved.

Please see the attached location diagrams for pipeline location.

There will be no additional surface disturbances required for the installation of 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-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 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 # 49-2286.

6. Source of construction materials

All construction material for this location site and access road shall borrow material accumulated during construction of the location site and access road. Additional road gravel or pit lining material, if required, 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.

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

B) Produced fluids

Produced water will be confined to the reserve pit or, if deemed necessary, a storage tank will be used, for a period not to exceed 90 days after initial production.

During the 90-day period an application for approval for permanent disposal method and location will be submitted to the authorized officer.

C) Garbage

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

D) Sewage

A portable chemical toilet will be supplied for human waste. A sewage gathering system will be used for all affluent from camp building on location. All affluent will be disposed of at the Ashley Valley water treatment plant.

E) Site clean-up

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

8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen 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 21.1 ft
- G) Max fill 21.0 ft
- H) Total cut yds 16,590 yds
- I) Pit location Southwest end
- J) Suitable soil location North and west ends
- K) Access road location Northeast end
- L) Flare pit Corner C

Please see the attached location diagram for additional details.

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

- A) Thirty-nine inch net wire shall be used with at least one strand of wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- B) The net wire shall be no more than two inches above the ground. The barbed wire shall be three 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

Reclamation activities will be accomplished as approved in the **Thurston Energy Operating Company LLC Bonanza Area Reclamation and Weed Plan.** (The plan and plat of the Interim Reclamation Diagram and Site Specific Plan are enclosed.)

11. Surface ownership

Access road	Federal
Location	Federal
Pipeline	Federal

12. Other information

A) Vegetation

The vegetation coverage is slight. The majority of the existing vegetation consists of sagebrush, milkvetch, shadscale, squireltail, galeta grass, halogeton and cheatgrass.

B) Dwellings

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

C) Weed Control Plan

Weed control will be accomplished as provided in the attached **Thurston Energy Operating Company Reclamation and Weed Plan**

D) Archaeology

The location has been surveyed. See attached Arch report

E) Water

The nearest water is the White river located approximately 4.5 miles to the South.

F) Chemicals

No pesticides, herbicides or other possible hazardous

chemicals will be used without prior application.

G) Notification

a) Location construction
Will occur at least 48-hours prior to construction of location and access roads. A NRS will be requested to be on site during preliminary cutting of access road to insure the proper functioning condition of the drainage near the access road is not impacted.

b) Location completion will occur prior to moving on the drilling rig.

c) Spud notice will occur at least 24 hours prior to spudding the well.

d) Casing string and cementing will occur at least 24 hours prior to running casing and cementing all casing strings.

e) BOP and related equipment tests will occur at least 24 hours prior to initial pressure tests.

f) First production notice will occur within five business days after the new well begins or resumes production it the well as been shut-in for more than 90 days.

H) 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.

I) Paleontology

The location has been surveyed. See attached copy of the Paleo survey.

13. Lessees or Operator's representative and certification

A) Representative

William A Ryan
Thurston Energy Operating Company
Vernal UT 84078

Office (435) 789-8580
Fax (435) 789-8585
Cell (435) 828-0968

which presently exist, that the statements made in this plan are, to the best of my knowledge and belief, true and correct, and that 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:

William A Ryan, Agent
Thurston Energy
Operating Company

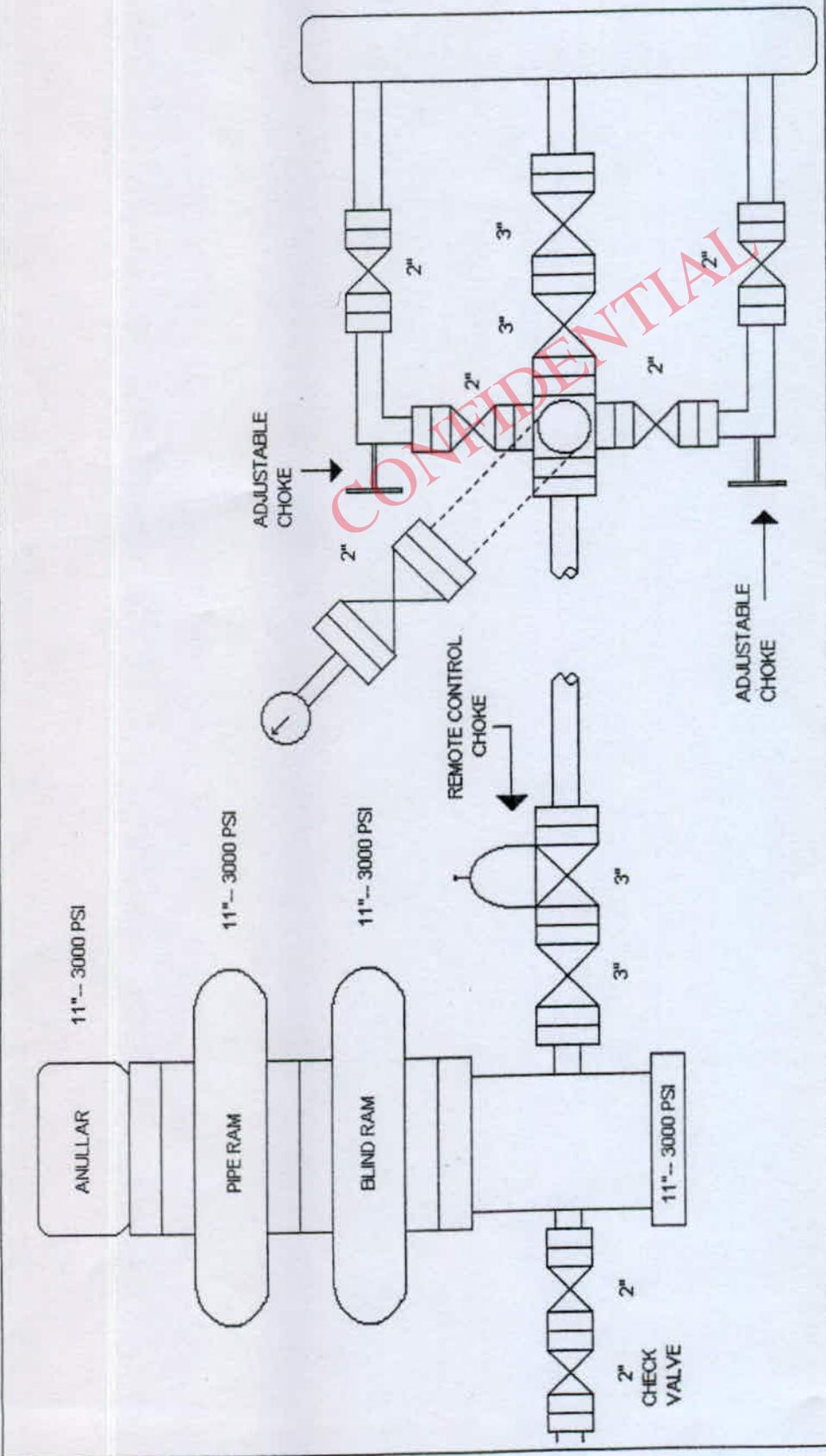
Onsite Dates: 6/22/10

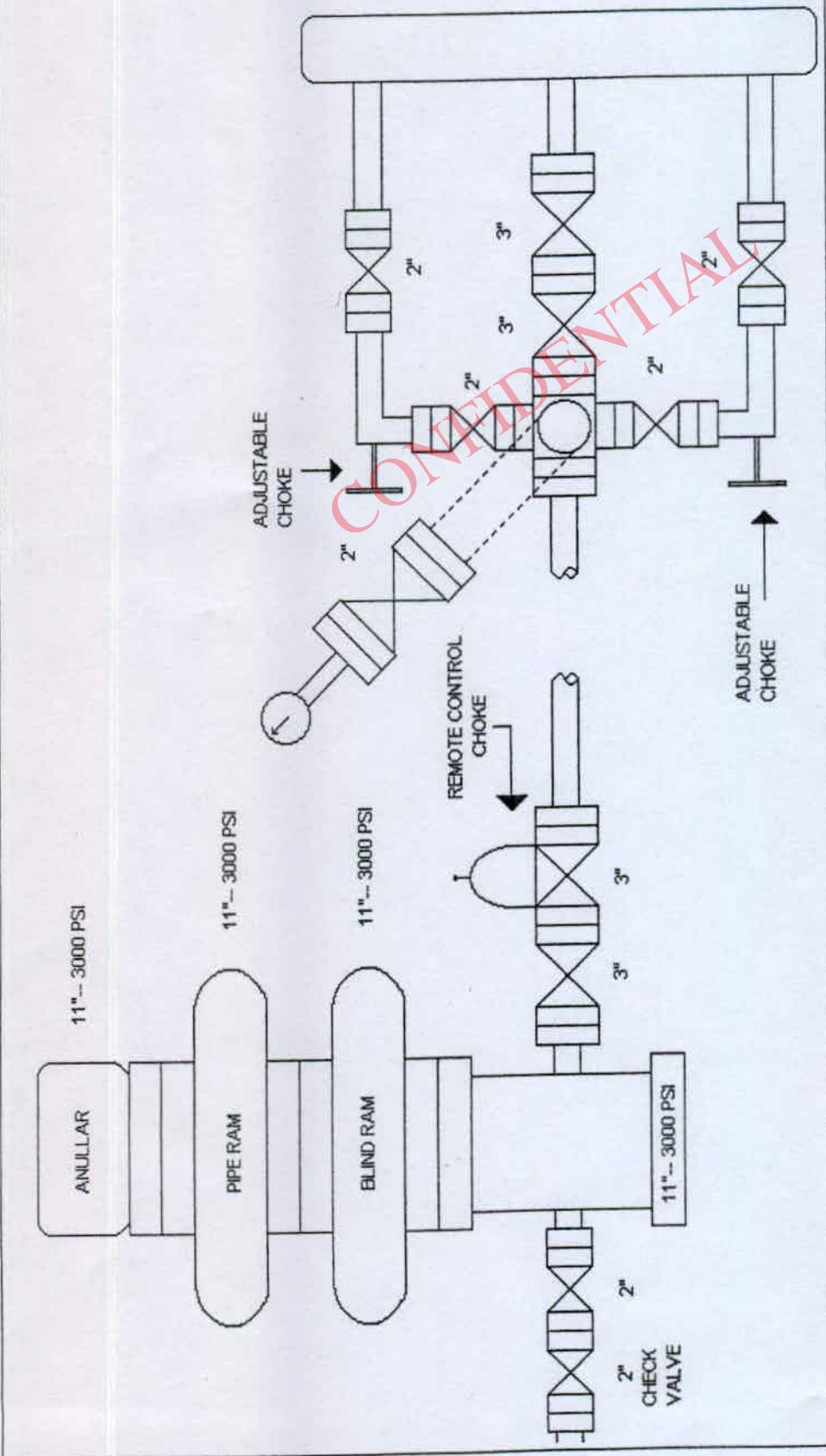
All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions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





Thurston Energy, LLC

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

SELF-CERTIFICATION STATEMENT

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

Please be advised that Thurston Energy Operating Company is considered to the operator of the following well:

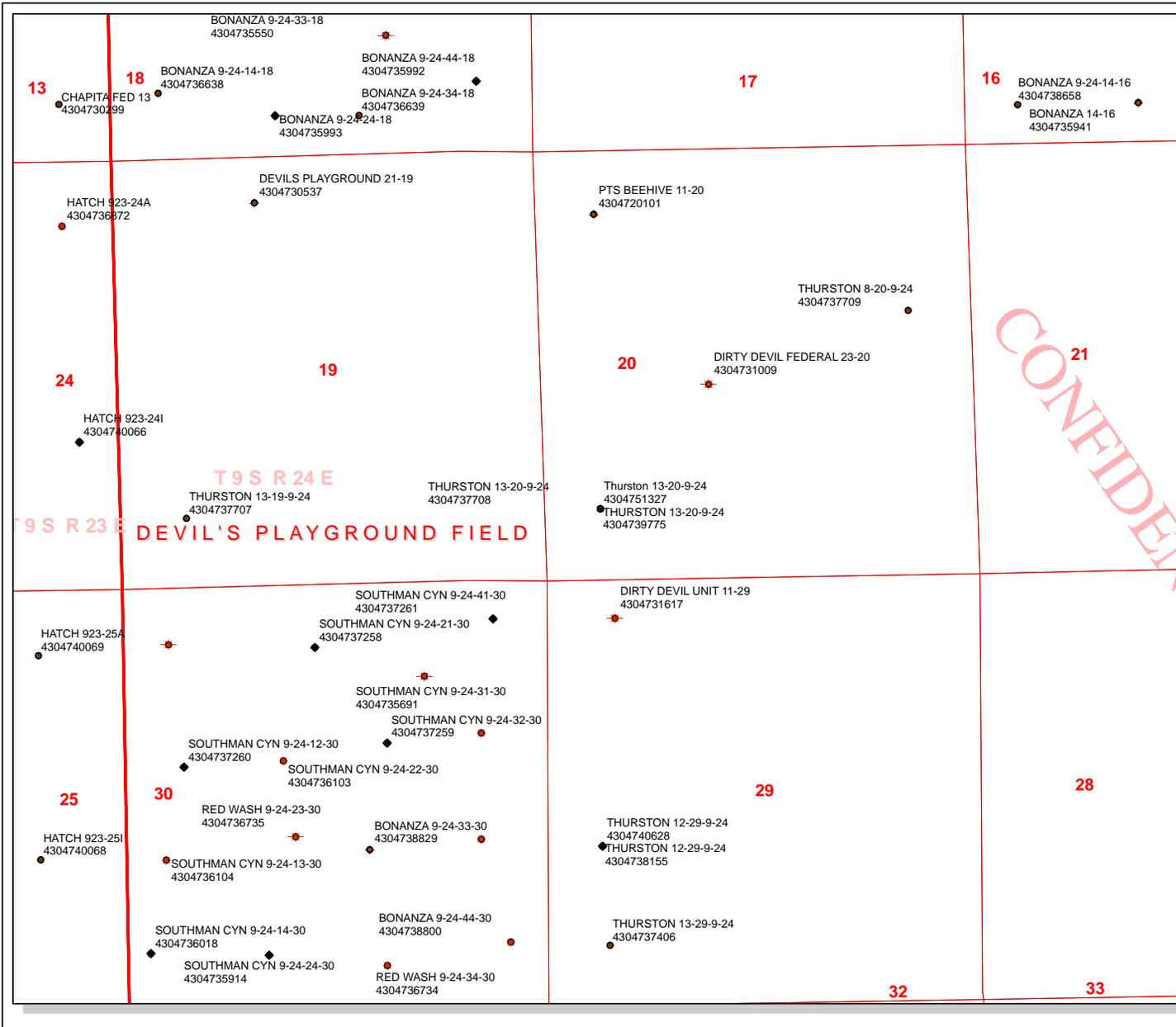
Thurston 13-20-9-24
Section 20, T9S, R24E
SW $\frac{1}{4}$, SW $\frac{1}{4}$
Lease U-31266
Uintah County, Utah

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

Bond UTB-000181 provides statewide bond coverage on all Federal lands.

William A. Ryan
Agent
Thurston Energy Operating Company
365 West 50 North Ste W-8
Vernal, UT 84078

Office: (435) 789-8580
Fax: (435) 789-8585
Email: rmcwar@hotmail.com



API Number: 4304751327
Well Name: Thurston 13-20-9-24
Township 09.0 S Range 24.0 E Section 20
Meridian: SLBM
Operator: THURSTON ENERGY OPERATING

Map Prepared:
 Map Produced by Diana Mason

Units

STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

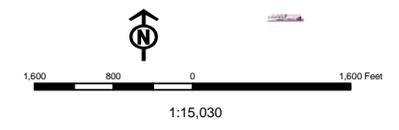
Fields

- Sections
- Township
- Bottom Hole Location - AGRC

Wells Query

Status

- APD - Approved Permit
- DRL - Spudded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LDC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WWI - Water Injection Well
- WSW - Water Supply Well



**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 10/19/2010

API NO. ASSIGNED: 43047513270000

WELL NAME: Thurston 13-20-9-24

OPERATOR: THURSTON ENERGY OPERATING (N2790)

PHONE NUMBER: 435 789-8580

CONTACT: Russell H. Cox

PROPOSED LOCATION: SWSW 20 090S 240E

Permit Tech Review:

SURFACE: 0856 FSL 0685 FWL

Engineering Review:

BOTTOM: 0856 FSL 0685 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01654

LONGITUDE: -109.24414

UTM SURF EASTINGS: 649851.00

NORTHINGS: 4430859.00

FIELD NAME: DEVILS PLAYGROUND

LEASE TYPE: 1 - Federal

LEASE NUMBER: U-31266

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT**
- Bond:** FEDERAL - UTB-000181
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** White River Permit #49-2286
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- R649-2-3.**
 - Unit:**
 - R649-3-2. General**
 - R649-3-3. Exception**
 - Drilling Unit**
 - Board Cause No:** Cause 179-15
 - Effective Date:** 7/17/2008
 - Siting:** 460' From Exterior lease Boundary
 - R649-3-11. Directional Drill**
-

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason



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

Permit To Drill

Well Name: Thurston 13-20-9-24
API Well Number: 43047513270000
Lease Number: U-31266
Surface Owner: FEDERAL
Approval Date: 11/1/2010

Issued to:

THURSTON ENERGY OPERATING, 365 W. 50 N. Ste W-8, Vernal, UT 84078

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-15. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

General:

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

Conditions of Approval:

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

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the 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 5th 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

Approved By:

A handwritten signature in black ink, appearing to read "John Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
U-31266

6. If Indian, Allottee or Tribe Name

1a. Type of work: DRILL REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone

8. Lease Name and Well No.
Thurston 13-20-9-24

2. Name of Operator Thurston Energy Operating Company

9. API Well No.
43-047-51327

3a. Address 365 West 50 North Ste W-8
Vernal, Ut 84078

3b. Phone No. (include area code)
435-789-8580

10. Field and Pool, or Exploratory
Undesignated

4. Location of Well (Report location clearly and in accordance with any State requirements.)*
At surface 856' FSL & 685' FWL SWSW
At proposed prod. zone same as above

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 20, T9S, R24E

14. Distance in miles and direction from nearest town or post office*
44.3 miles south of Vernal, UT

12. County or Parish
Uintah

13. State
UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 685'

16. No. of acres in lease 1,594

17. Spacing Unit dedicated to this well 40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,400'

19. Proposed Depth 8,000

20. BLM/BIA Bond No. on file
UTB-000181

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
5,368' GR

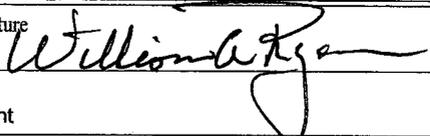
22. Approximate date work will start*
03/15/2011

23. Estimated duration
30 days

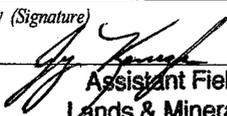
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature  Name (Printed/Typed) William A. Ryan Date 10/08/2010

Title Agent

Approved by (Signature)  Name (Printed/Typed) Jerry Kenczka Date AUG 11 2011

Title Assistant Field Manager Lands & Mineral Resources Office VERNAL FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached. **CONDITIONS OF APPROVAL ATTACHED**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

NOTICE OF APPROVAL

UDOGM

RECEIVED

OCT 20 2010

BLM VERNAL, UTAH

RECEIVED

AUG 18 2011

DIV. OF OIL, GAS & MINING

186V<D210A

1108 210/11



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

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Thurston Energy Operating Company Location: SWSW, Sec. 20, T9S, R24E
Well No: Thurston 13-20-9-24 Lease No: UTU-31266
API No: 43-047-51327 Agreement: N/A

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

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

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

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- Construction and drilling activities are not allowed from January 1 – August 31 to minimize impacts during golden eagle nesting. This timing limitation only applies to Section 19, T9S, and R24E.
- If it is anticipated that construction and drilling activities will occur during any of the given timing restrictions, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be granted by the Authorized Officer.
- See mitigation / applicant committed design features in EA-0317 for more specifics on conditions of approval for potential air quality impacts
- All production tanks except on the 7-9-9-24 location will be placed towards the front of the well pad to maximize interim reclamation, and lessen the potential long term impacts that could occur to soils and vegetation.
- Topsoil shall be wrapped around corner #10 for the 5-27-9-24 location as discussed on the onsite 6/30/2010.
- All access roads shall be built to BLM standards. The crown and ditch method is the standard which helps control runoff from increasing potential erosion rates to the road surfaces. This will also help divert any seasonal flows off the road into vegetated areas to increase the chance for reclamation success on road disturbance areas that should be reseeded after construction has ceased, preferably in the fall before ground freeze.
- All production equipment will be painted Covert Green to help blend in with surrounding vegetation.
- On all locations a permanent reference point must be established prior to any reclamation activities. This reference point helps to establish the criteria for successful reclamation based on the Green River District Reclamation Guidelines.
- A dike/berm will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater-treater). It will be constructed of

compacted subsoil, be impervious, hold 110% of the capacity of the largest tank, and be independent of the back cut.

- The reserve pit will be fenced on three sides during drilling operations and on the fourth side when the rig moves off location. It will be fenced, and the fence maintained, until the pit undergoes reclamation efforts.
- To insure impermeability, the reserve pit will be lined with a 16 ml or greater liner and felt prior to spudding.
- Reserve pits will be closed as soon as possible, but no later than 180 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Pits must be dry of fluids or they must be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop.
- Any hydrocarbons in the reserve pit will be removed immediately upon well completion; in accordance with 43 CFR 3162.7-1. Pits must be free of oil and other liquid and solid wastes prior to filling.
- The road surface and shoulders will be kept in a safe and usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear. The existing access road surface and pad area will be kept free of trash during all operations. All traffic will be confined to the approved disturbed surface area.
- The operator will control noxious weeds and invasive plants along corridors for roads, pipelines, well sites, or other applicable facilities, through a Pesticide Use Permit (PUP).
- An Interim Surface Reclamation Plan for surface disturbance on the well pad, access road, and pipeline has been completed and will be followed for reclamation of the surface. At a minimum, this will include the Best Management Practice of the reshaping of the pad to the original contour to the extent possible; the re-spreading of the top soil up to the rig anchor points; and, reseeding the unused area using appropriate reclamation methods (Thurston's reclamation plan).

The interim/final seed mix for reclamation will be:

Table 2.3.5 Interim/Final Reclamation Seed Mixture

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	<i>Elymus elymoides</i>	3.0	¼ - ½"
Siberian Wheatgrass	<i>Agropyron fragile</i>	2.0	½"
Needle and Thread	<i>Stipa comata</i>	3.0	½"
Bluebunch Wheatgrass	<i>Pseudoroegneria spicata</i>	3.0	½"
Shadscale	<i>Atriplex confertifolia</i>	0.50	½"
Gardner's saltbush	<i>Atriplex gardneri</i>	0.50	½"
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	0.10	⅛ - ¼"

- All pounds are pure live seed.
- All seed and mulch will be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

- Following well plugging and abandonment, the location, access roads, pipelines, and other facilities shall be fully reclaimed. All disturbed surfaces shall be reshaped to approximate the original contour; the top soil re-spread over the surface; and, the surface re-vegetated. The surface of approved staging areas where construction activities did not occur may require disking or ripping and reseeding. In order the Final Abandonment Notice to be approved Thurston must meet the requirement for successful reclamation as outlined in the Green River District Reclamation Guidelines.

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

SITE SPECIFIC DOWNHOLE COAs:

- Gamma Ray Log shall be run from Total Depth to Surface.
- Cement for the production casing must be brought 200 feet above the surface casing shoe.

Variations Granted

Air Drilling:

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100 feet from the well bore. Variance granted for blooie line discharge to be 45 feet from the well bore.
- Compressors located in the opposite direction from the blooie line, a minimum of 100 feet from the well bore. Variance granted for truck/trailer mounted air compressors located within 45 feet of the well.
- In lieu of mud products on location for a "kill medium", water will be pulled from the reserve pit and used as a kill fluid.
- Automatic igniter. Variance granted due to lack of productive formations in the interval for the surface sassing.
- FIT test. Variance granted due to well-known geology and problems that can occur with the FIT test.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order

No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location ($\frac{1}{4}$ $\frac{1}{4}$, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

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



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Green River District
Vernal Field Office
170 South 500 East
Vernal, UT 84078

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



APR 17 2015

IN REPLY REFER TO:
3160 (UTG011)

Chris Curton
Thurston Energy Operating Company
4925 Greenville Ave., #840
Dallas, TX 75206

RECEIVED

MAY 04 2015

DIV. OF OIL, GAS & MINING

43 047 51327

Dear Chris:

The referenced Applications for Permit to Drill (APD) have expired. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced applications has expired. If you intend to drill at these locations in the future, a new Application for Permit to Drill must be submitted.

Lease	Well	Aliquot	Sec., T., R.	Date Rec'd	Date Exp'd
UTSL-071725C	Thurston 5-27-9-24	SWNW	Sec. 27-T9S-R24E	10/20/2010	8/10/2013
UTSL-071725C	Thurston 15-27-9-24	SWSE	Sec. 27-T9S-R24E	10/20/2010	8/10/2013
UTU-0145459	Thurston 9-7-9-24	SWNW	Sec. 7-T9S-R24E	10/20/2010	8/10/2013
UTU-0145459	Thurston 10-7-9-24	NWSE	Sec. 7-T9S-R24E	12/30/2010	8/10/2013
UTU-5217	Thurston 7-9-9-24 WA	SWNE	Sec. 9-T9S-R24E	12/16/2010	8/11/2013
UTU-31266	Thurston 13-19-9-24	Lot 4	Sec. 19-T9S-R24E	10/20/2010	8/16/2013
UTU-31266	Thurston 8-20-9-24	SENE	Sec. 20-T9S-R24E	10/20/2010	8/10/2013
→ UTU-31266	Thurston 13-20-9-24	SWSW	Sec. 20-T9S-R24E	10/20/2010	8/10/2013

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

If you have any questions regarding this matter, please contact Robin R. Hansen at (435) 781-3428.

Sincerely,

/s/ Jerry Kenczka

Jerry Kenczka
Assistant Field Manager
Lands & Mineral Resources

cc: UDOGM
bcc: Well File
I&E Asst.