

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>		<b>1. WELL NAME and NUMBER</b> BPU 6-36H
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES
<b>4. TYPE OF WELL</b> Gas Well Coalbed Methane Well: NO		<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> BIG PACK
<b>6. NAME OF OPERATOR</b> XTO ENERGY INC		<b>7. OPERATOR PHONE</b> 505 333-3145
<b>8. ADDRESS OF OPERATOR</b> 382 Road 3100, Aztec, NM, 87410		<b>9. OPERATOR E-MAIL</b> Kelly_Kardos@xtoenergy.com
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> ML-48774	<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>		<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>		<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>	<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>	<b>19. SLANT</b> 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	2187 FNL 1967 FWL	SEnw	36	11.0 S	20.0 E	S
Top of Uppermost Producing Zone	2187 FNL 1967 FWL	SEnw	36	11.0 S	20.0 E	S
At Total Depth	2187 FNL 1967 FWL	SEnw	36	11.0 S	20.0 E	S

<b>21. COUNTY</b> UINTAH	<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 2187	<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 640
<b>27. ELEVATION - GROUND LEVEL</b> 5507	<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completion)</b> 5200	<b>26. PROPOSED DEPTH</b> MD: 8555 TVD: 8555
	<b>28. BOND NUMBER</b> 104312762	<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-10991

Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	12.25	9.625	0 - 2200	36.0	J-55 ST&C	8.4	Type V	177	3.82	11.0
							Class G	225	1.15	15.8
PROD	7.875	5.3125	0 - 8555	17.0	N-80 LT&C	9.2	Premium Plus	428	3.12	11.6
							Class G	300	1.75	13.0

**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

<b>NAME</b> Krista Wilson	<b>TITLE</b> Permitting Tech	<b>PHONE</b> 505 333-3647
<b>SIGNATURE</b>	<b>DATE</b> 11/21/2011	<b>EMAIL</b> krista_wilson@xtoenergy.com
<b>API NUMBER ASSIGNED</b> 43047522090000		<b>APPROVAL</b>

Received: July 17, 2012

# XTO ENERGY INC.

Big Pack Unit #6-36H

APD Data

June 27, 2012

Location: 2187' FNL & 1967' FWL, Sec. 36, T11S,R20E

County: Uintah

State: Utah

GREATEST PROJECTED TD: 8,555' MD

OBJECTIVE: Wasatch/Mesaverde

APPROX GR ELEV: 5507'

Est KB ELEV: 5529' (22' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 2200'	2200' to 8555'
HOLE SIZE	12.25"	7.875"
MUD TYPE	FW/Spud Mud	FW LSND / Gel Chemical
WEIGHT	8.4	8.6-9.20
VISCOSITY	NC	30-60
WATER LOSS	NC	6-8

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes. The mud system will be monitored visually/manually.

## 2. CASING PROGRAM:

Surface Casing: 9.625" casing set at  $\pm 2200'$  in a 12.25" hole filled with 8.4 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-2200'	2200'	36#	J-55	ST&C	2020	3.66	394	8.921	8.765	2.10	3.66	4.97

Production Casing: 5.5" casing set at  $\pm 8555'$  in a 7.875" hole filled with 9.2 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-8555'	8555'	17#	N-80	LT&C	6280	7740	348	4.892	4.767	1.93	2.39	2.39

Collapse and burst loads calculated at TVD with 0.1 psi/ft gas gradient back up.

## 3. WELLHEAD:

- A. Casing Head: 11" nominal, 3,000 psig with 9-5/8" 8rnd thread on bottom C-22 profile (or equivalent), (or slip-on, weld-on).
- B. Tubing Head: 11" 3000 psig X 7-1/16" 5,000 psig WP, TCM (or equivalent)

## 4. CEMENT PROGRAM:

- A. Surface: 9.625", 36#, J-55, ST&C casing to be set at  $\pm 2200'$  in 12.25" hole.

### LEAD:

$\pm 177$  sx of Type V cement (or equivalent) typically containing accelerator and LCM mixed at 11.0 ppg, 3.82 cu. ft./sk.

TAIL:

225 sx of Class G (or equivalent) typically containing accelerator and LCM mixed at 15.8 ppg, 1.15 cu. ft./sk.

*Total estimated slurry volume for the 9.625" surface casing is 930 ft<sup>3</sup>. Slurry includes 35% excess of calculated open hole annular volume to 2200'.*

B. Production: 5.5", 17#, N-80 (or equiv.), LT&C casing to be set at ±8555' in 7.875" hole.

LEAD:

±428 sx of Premium Plus V Blend. (Type V/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 11.6 ppg, 3.12 ft<sup>3</sup>/sk, 17.71 gal wtr/sx.

TAIL:

300 sx Class G or equivalent cement with poz, bonding additive, LCM, dispersant, & fluid loss mixed at 13.0 ppg, 1.75 cuft/sx, 9.09 gal/sx.

*Total estimated slurry volume for the 5.5" production casing is 1859 ft<sup>3</sup>. Slurry includes 15% excess of calculated open hole annular volume.*

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 15% or greater excess. The cement is designed to circulate on surface and production casing strings.*

5. LOGGING PROGRAM:

- A. Mud Logger: The mud logger will come on at intermediate casing point and will remain on the hole until TD. The mud will be logged in 10' intervals.
- B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (8555') to the bottom of the surface string. Run Neutron/Lithodensity/Pe/GR/Cal from TD (8555) to 2200'.

6. FORMATION TOPS:

FORMATION	Sub-Sea Elev. (@SHL)	TVD (@SHL)
Green River	5321	208
Mahogany Bench Mbr.	4588	941
Wasatch Tongue	2690	2839
Green River Tongue	2383	3146
Wasatch*	2265	3264
Chapita Wells*	N/A	N/A
Uteland Buttes	N/A	N/A
Mesaverde*	-455	5984
Castlegate	-2825	8354
TD**	<b>-3026</b>	<b>8555</b>

\* Primary Objective

7. ANTICIPATED OIL, GAS, & WATER ZONES:

A.

Formation	Expected Fluids	Well Depth Top
Green River	Water/Oil Shale	208
Mahogany Bench Mbr.	Water/Oil Shale	941
Wasatch Tongue	Oil/Gas/Water	2839
Green River Tongue	Oil/Gas/Water	3146
Wasatch*	Gas/Water	3264
Chapita Wells*	Gas/Water	N/A
Uteland Buttes	Gas/Water	N/A
Mesaverde*	Gas/Water	5984
Castlegate	Gas/Water	8354

- B. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.
- C. There are no known potential sources of H<sub>2</sub>S.
- D. Expected bottom hole pressure 4200 psi.
- E. Base of Moderately Saline Water (USGS) at 3939'.

8. BOP EQUIPMENT:

Surface will not utilize a bop stack.

Production hole will be drilled with a 3000 psi BOP stack.

Minimum specifications for pressure control equipment are as follows:

Ram Type: 11" Hydraulic double ram with annular, 3000 psi w.p.

Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70% of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10% in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

Annular type preventers (if used) shall be tested to 50% of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

As a minimum, the above test shall be performed:

- a. when initially installed:
- b. whenever any seal subject to test pressure is broken
- c. following related repairs: and
- d. at 30 day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) shall be held open or the ball removed.

Annular preventers (if used) shall be functionally operated at least weekly.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

A BOPE pit level drill shall be conducted weekly for each drilling crew.

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No.2 for equipment and testing requirements, procedures, etc., and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests. Pressure tests shall apply to all related well control equipment.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Test pressures for BOP equipment are as follows:

- Annular BOP -- 1500 psi
- Ram type BOP -- 3000 psi
- Kill line valves -- 3000 psi
- Choke line valves and choke manifold valves -- 3000 psi
- Chokes -- 3000 psi
- Casing, casinghead & weld -- 1500 psi
- Upper kelly cock and safety valve -- 3000 psi
- Dart valve -- 3000 psi

Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

The BLM in Vernal, UT shall be notified, at least 24 hours prior to initiating the pressure test, in order to have a BLM representative on location during pressure testing.

- a. The size and rating of the BOP stack is shown on the attached diagram.
- b. A choke line and a kill line are to be properly installed.
- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
- d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.
- e. See attached BOP & Choke manifold diagrams.

**9. COMPANY PERSONNEL:**

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Home Phone</u>
Justin Niederhofer	Drilling Engineer	505-333-3199	505-320-0158
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
Jeff Jackson	Project Geologist	817-885-2800	

T11S, R20E, S.L.B.&M.

XTO ENERGY, INC.

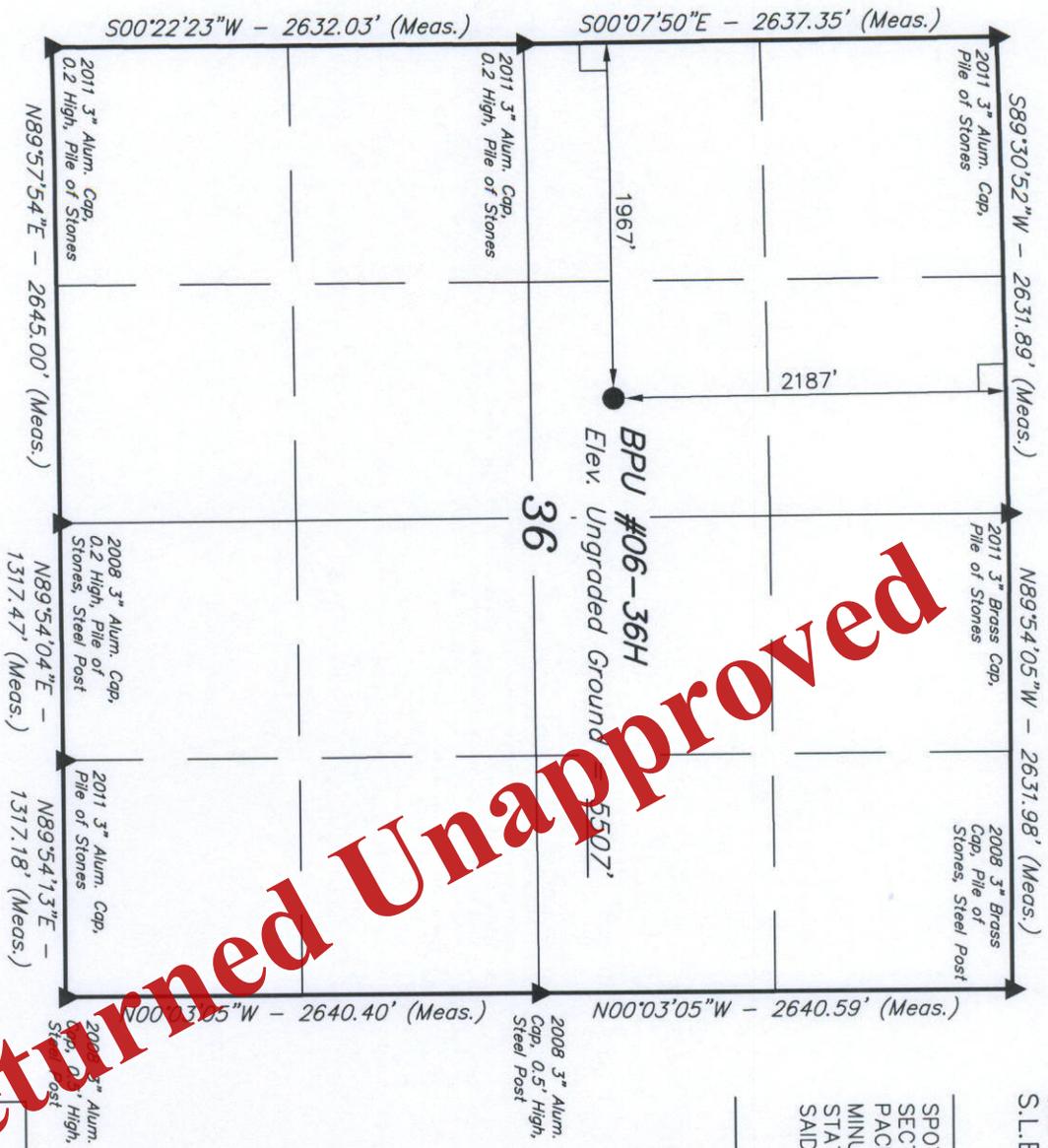
Well location, BPU #06-36H, located as shown in the SE 1/4 NW 1/4 of Section 36, T11S, R20E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

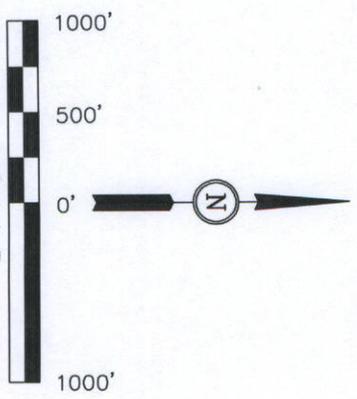
SPOT ELEVATION LOCATED AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M. TAKEN FROM THE BIG PACK MNT. NW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.

BASIS OF BEARINGS

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



Returned Unapproved



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.

**REGISTERED LAND SURVEYOR**  
 STATE OF UTAH  
 REGISTR. NO. 161319  
 DATE 10-25-11

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

**LEGEND:**

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

NAD 83 (SURFACE LOCATION)	LATITUDE = 39°49'05.85" (39.818292)
	LONGITUDE = 109°37'48.37" (109.630103)
NAD 27 (SURFACE LOCATION)	LATITUDE = 39°49'05.97" (39.818325)
	LONGITUDE = 109°37'45.89" (109.629414)

PARTY	B.B. J.G. Z.L.
WEATHER	WARM
DATE SURVEYED:	10-24-11
DATE DRAWN:	10-25-11
REFERENCES	G.L.O. PLAT
FILE	XTO ENERGY, INC.



Returned Unapproved

**PROPOSED LOCATION:  
BPU #06-36H**

**VERNAL 47.5 MI. +/-  
OURAY 16.5 MI. +/-**

**T11S  
T12S**

**R  
20  
E**    **R  
21  
E**

<p><b>LEGEND:</b></p> <p> <b>PROPOSED LOCATION</b></p>	<p><b>N</b></p>	<p><b>XTO ENERGY, INC.</b></p> <p><b>BPU #06-36H</b></p> <p><b>SECTION 36, T11S, R20E, S.L.B.&amp;M.</b></p> <p><b>2187' FNL 1967' FWL</b></p>						
<p><b>Uintah Engineering &amp; Land Surveying</b> 85 South 200 East Vernal, Utah 84078 (435) 789-1017 * FAX (435) 789-1813</p>	<p><b>ACCESS ROAD MAP</b></p> <p>SCALE: 1:100,000    DRAWN BY: J.L.H.    REVISED: 00-00-00</p>	<table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;"><b>11</b></td> <td style="padding: 2px;"><b>01</b></td> <td style="padding: 2px;"><b>11</b></td> </tr> <tr> <td style="font-size: 8px;">MONTH</td> <td style="font-size: 8px;">DAY</td> <td style="font-size: 8px;">YEAR</td> </tr> </table> <p><b>TOPO</b></p>	<b>11</b>	<b>01</b>	<b>11</b>	MONTH	DAY	YEAR
<b>11</b>	<b>01</b>	<b>11</b>						
MONTH	DAY	YEAR						

## SURFACE USE PLAN

**Name of Operator:** XTO Energy Inc.

**Address:** 382 CR 3100  
Aztec, NM 87410

**Well Location:** BPU 6-36H  
2187' FNL & 1967' FWL SE/4 NW/4 Section 36, T11S, R20E  
SLB&M, Uintah County, Utah

The surface owner or surface owner representative and dirt contractor will be provided with an approved copy of the surface use plan of operations and approved conditions of approval before initiating construction.

An on-site inspection for the referenced well was conducted on November 9, 2011. Those present were:

Krista Wilson	Permitting Tech.	XTO Energy Inc.
Jody Mecham	Construction Coordinator	XTO Energy Inc.
Misty Roberts	EH&S	XTO Energy Inc.
Damien Jones	NGO	XTO Energy Inc.
Brandon Bowthorpe	Surveyor	UELS
Jim Davis	Resource Specialist	SNPLA
Ben William	Wildlife Biologist	UDNR
Richard Powell	Petroleum Specialist	UDOGM
Branon Rochelle	NRS	BLM
Katie Nash	ROW Specialist	BLM

### **1. Existing Roads:**

- a. The proposed access route to the location shown on the USGS quadrangle map (see Exhibit "A").
- b. The proposed well site is located approximately 55.2 miles southwest of Vernal, Utah.
- c. Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 for approximately 14.0 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction for approximately 17.0 miles to Ouray, Utah. Proceed in a southerly, then southeasterly direction for approximately 9.1 miles on the Seep Ridge Road to the junction of this road and an existing road to the south. Turn right and proceed in a southerly direction for approximately 2.8 miles to the junction of this road and an existing road to the southwest. Turn left and proceed in a southwesterly, then southerly direction for approximately 4.6 miles to the junction for this road and an existing road to the southwest. Turn right and proceed in southwesterly direction for approximately 0.2 miles to the junction of this road and an existing road to the southeast. Turn left and proceed in a southeasterly direction for approximately 1.0 miles to the existing #9-11 on the beginning of the proposed access for the #13-12 to the southeast. Follow the road flags in a southeasterly direction for approximately 1,584' to the beginning of the proposed access for the #15-13H to the southeast. Follow the road flags in a southeasterly direction for approximately 5,280' to the beginning of the proposed access for the # 1-23 to the southwest. Follow the road flags in a southwesterly direction for approximately 4,470' to the beginning of the proposed access for the #14-01M to the southeast. Follow the road flags in a

- d. All existing roads within a one (1) mile radius of the proposed well site are shown in Exhibit "B1 and B2". If necessary, all existing roads that will be used for access to the proposed well location will be maintained to the current condition, or better, unless BLM or SITLA approval or consent is given to upgrade the existing road(s).
- e. The use of roads under State and County Road Department maintenance are necessary to access the Big Pack Unit Area. However, an encroachment permit is not anticipated since no upgrades to the State or County Road System are anticipated at this time.
- f. All existing roads will be maintained and kept in good repair during all phases of operation.
- g. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- h. Since no improvements are anticipated to the to the State, County, Tribal or BLM access roads, no topsoil stripping will occur.
- i. A Federal Right-of-Way is needed for the portion of the access and pipeline corridor outside of Section 36.

**2. Planned Access Roads:**

- a. Location (centerline): From the existing LCU 9-11H access road, an access is proposed trending southwesterly approximately 5,280 feet to the proposed BPU 1-23H, then continuing southwest to the 6-36H approximately 22,852' to the beginning of the access road to the northwest. The access consists of entirely new construction. Adequate culverts and/or low water crossings will be incorporated where needed.
- b. A road design plan is not anticipated at this time.
- c. The proposed access road will consist of a 24' travel surface within a 30' disturbed area.
- d. SITLA approval to construct and utilize the proposed access road is requested with this application. Federal surface use is being requested through a separate Federal Right-of-Way application.
- e. A maximum grade of 10% will be maintained throughout the project with no cuts and fill required to access this well.
- f. No turnouts are proposed since adequate site distance exists in all directions.
- g. No surfacing material will come from SITLA, Federal or Tribal lands.
- h. No gates or cattle guards are anticipated at this time.
- i. Surface disturbance and vehicular travel will be limited to the approved location access road.

- j. Adequate drainage structures and culverts will be incorporated into the road where needed.
- k. All access roads and surface disturbing activities will conform to the standards outlined in the Bureau of Land Management and Forest Service Publication: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (Gold Book – Fourth Edition – Revised 2007).
- l. The operator will be responsible for all maintenance of the access roads, including any anticipated drainage structures.
- m. Other: See general information below.
  - If any additional Right-of-Way is necessary, no surface disturbing activities shall take place on the subject Right-of-Way until the associated APD is approved. The holder will adhere to conditions of approval in the Surface Use Program of the approved APD, relevant to any Right-of-Way facilities.
  - If a Right-of-Way is secured, boundary adjustments in the lease or unit shall automatically amend this Right-of-Way to include that portion of the facilities no longer contained within the lease or unit. In the event of an automatic amendment to this Right-of-Way grant, the prior on-lease/unit conditions of approval of this facility will not be affected even though they would now apply to facilities outside of the lease/unit as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated based on the conditions of this grant and the regulations in effect at the time of an automatic amendment.
  - If at any time the facilities located on public lands authorized by the terms of this lease are no longer included in the lease (due to a contraction in the unit or lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligations as determined by the BLM.
  - If the well is productive, the access road will be rehabilitated as needed and brought to Resource (Class II) Road Standards within a time period specified by SITLA or the BLM. If upgraded, the access road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Field Office Manager will be notified so that temporary drainage control can be installed along the access road.

**3. Location of Existing Wells:**

- a. All wells in a one (1) mile radius are shown within Exhibit "C".

**4. Location of Existing and or Proposed Production Facilities:**

- a. On-site facilities: Typical on-site facilities will consist of a wellhead, flowlines (typically 3" dia.), artificial lifting system (if necessary), wellhead compression (if necessary), gas/oil/water separator (3 phase), gas measurement and water measurement equipment, and a heated enclosure/building for weather and environmental protection. The tank battery will typically be constructed and surrounded by a berm of sufficient capacity to contain 1 ½ times the storage capacity of the largest tank. The tanks typically necessary for the production of this well will be 1 – 300 bbl steel, above ground tank for oil/condensate and 1 –

- All oil/condensate production and measurement shall conform to the provision of 43 CFR 3162.7 and Onshore Oil and Gas Order No. 4, if applicable. Other on-site equipment and systems may include methanol injection and winter weather protection.
  - All permanent (in place for six (6) months or longer) structures constructed or installed on the well site location will be painted a flat, non-reflective color, matching the ground and not sky, slightly darker than the adjacent landscape, as specified by the COA's in the approved APD. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupations Safety and Health Act (OSHA) may be excluded.
  - Site security guidelines identified in 43 CFR 3163.7-5 and Onshore Oil and Gas Order No. 3 will be adhered to.
- b. Off- site facilities: None.
- c. A gas meter run will be constructed and located on lease within 500 feet of the well head. Meter runs will be housed and/or fenced. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- d. A tank battery will be constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery. All liquid hydrocarbons production and measurement shall conform to the provisions of 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 4 and Onshore Oil and Gas Order No. 5 for natural gas production and measurement.
- e. The site will require periodic maintenance to ensure that drainages are kept open and free of debris, ice, and snow, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- f. A pipeline corridor containing a single steel gas pipeline and a single steel or poly pipe water pipeline is associated with this application and is being applied for at this time. The proposed pipeline corridor will leave the east side of the well site and traverse approximately 207 feet southeasterly to tie into the a proposed pipeline for the proposed BPU 14-01H (see Exhibit D).
- g. The new gas pipeline will be a 24" or less buried line and the water pipeline will be a 12" or less poly pipe buried within a 50' wide disturbed pipeline corridor.
- h. Construction of the pipeline corridor will temporarily utilize a 30' disturbed width for the road for a total disturbed width of 80' for the road and pipeline corridors. The use of the proposed well site and access road will facilitate the staging of the pipeline corridor construction.
- i. XTO Energy Inc. intends to bury the pipeline where possible and connect the pipeline together utilizing conventional welding technology.

**5. Location and Type of Water Supply:**

- a. No water supply pipeline will be laid for this well.
- b. No water well will be drilled for this well.
- c. Drilling water for this well will be hauled on the road(s) shown in Exhibit "B1 and B2".
- d. Water will be hauled from one of the following sources:
  - Water Permit # 43-10991, Section 9, T8S, R20E
  - Water Permit # 43-2189, Section 33, T8S, R20E
  - Water Permit # 49-2158, Section 33, T8S, R20E
  - Water Permit # 49-2262, Section 33, T8S, R20E
  - Water Permit # 49-1645, Section 5, T9S, R22E
  - Water Permit # 43-9077, Section 32, T6S, R20E
  - Tribal Resolution 06-183, Section 22, T10S, R20E.

**6. Source of Construction Material:**

- a. The use of materials will conform to 43 CFR 3610.2-3.
- b. No construction materials will be removed from SMLA, Ute Tribal or BLM Lands.
- c. If any gravel is used, it will be obtained from a state approved gravel pit.

**7. Methods of Handling Waste:**

- a. All wastes associated with this application will be contained and disposed of utilizing approved facilities.
- b. Drill cuttings will be contained and buried on site.
- c. The reserve pit will be located outboard of the location and along the southeast side of the pad.
- d. The reserve pit will be constructed so as not to leak, breach, or allow for any discharge.
- e. The reserve pit will be lined with a 20 ml minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if rock is encountered during excavation. The pit liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe etc., that could puncture the liner will be disposed of in the pit. The pit walls will be sloped not greater than 2:1. A minimum 2-foot of freeboard will be maintained in the pit at all times during the drilling and completion operations.
- f. The reserve pit has been located in cut material. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced and a bird net installed as soon as drilling is completed, and shall remain until the pit is dry. After the reserve pit has dried, all areas not needed for production will be rehabilitated.

- g. No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.
- h. Trash will be contained in a trash cage and hauled away to an approved disposal site as necessary but no later than at the completion of drilling operations. The contents of the trash container will be hauled off periodically to the approved Uintah County Landfill near Vernal, Utah.
- i. Produced fluids from the well other than water will be produced into a test tank until such time as the construction of the production facilities is complete. Any spills of oil, gas, salt water or other produced fluids will be cleaned up and removed.
- j. After initial clean-up, a 400 bbl tank will be installed to contain produced waste water. This water will be transported from the tank to an approved VTO Energy Inc. disposal well for proper disposal.
- k. Produced water from the production well will be disposed of at the RBU 13-11F or RBU 16-19F disposal wells in accordance with Onshore Order No. 7.
- l. Any salts and/or chemical, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid.
- m. Sanitary facilities will be on site at all times during operations. Sewage will be placed in a portable chemical toilet and the toilet replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

**8. Ancillary Facilities:**

- a. Garbage containers and portable toilets are the only ancillary facilities proposed in this application.
- b. No camps, airstrips or staging areas are proposed with this application.

**9. Well Site Layout: (See Exhibit "E")**

- a. The well will be properly identified in accordance with 43 CFR 3162.6.
- b. Access to the well pad will be from the northwest.
- c. The pad and road designs are consistent with BLM and SITLA specifications.
- d. A pre-construction meeting with responsible company representatives, contractors, and SITLA will be conducted at the project site prior to commencement of surface disturbing activities. The pad and road will be construction staked prior to this meeting.

- e. The pad has been staked at its maximum size; however, it will be constructed smaller, if possible, depending on rig availability. Should the layout change, this application will be amended and approved utilizing a sundry notice.
- f. All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specification in the approved plans.
- g. All cut and fill sloped will be such that stability can be maintained for the life of the activity.
- h. Diversion ditches will be constructed and storm water BMP's installed around the well site to prevent surface water from entering the well site.
- i. The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.
- j. The reserve pit will be properly fenced and a bird net installed to prevent any livestock, wildlife or migratory bird entry, and will remain so until site clean-up.
- k. All access roads will be maintained as necessary to prevent erosion and accommodate year-round traffic. The road will be maintained in a safe and useable condition.
- l. The stockpiled topsoil (first 6 inches or maximum available) will be stored in a windrow on the uphill side of the location to prevent possible contamination. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and/or contamination.
- m. The blooie line will be located at least 100 feet from the well head.
- n. Water injection may be implemented if necessary to minimize the amount of fugitive dust.

**10. Plans for Restoration of the Surface (Interim Reclamation and Final Reclamation):**

- a. Site reclamation for the production well will be accomplished for the portions of the site not required for the continued operation of the well.
- b. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. Once the reserve pit is dry, the plastic nylon liner shall be torn and perforated before backfilling of the reserve pit. The reserve pit and that torn portion of the location not needed for production facilities/operations will be re-contoured to match the appropriate natural contours of the area.
- c. Following the BLM published Best Management Practices and per the signed 2009 Reclamation Plan, the interim reclamation will be completed within 90 days of well completion or 120 days of wells spud (weather permitting) to reestablish vegetation, reduce dust and erosion and compliment the visual resources of the area.
  - All equipment and debris will be removed from the area proposed for interim reclamation and the pit area will be backfilled and re-contoured to match the surrounding topography.

- The area outside the rig anchors and other disturbed areas not needed for the operation of the well will be re-contoured to blend in with the surrounding topography and reseeded as prescribed by SITLA.
  - Reclaimed areas receiving incidental disturbance during the life of the producing well will be re-contoured and reseeded as soon as practical.
- d. The operator will control noxious weeds along the access road use authorizations, pipeline route authorizations, well sites, or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the SITLA or the appropriate County Extension Office. On SITLA administered land, it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or other possibly hazardous chemicals.
- e. Prior to final abandonment of the site, all disturbed areas, including access roads will be scarified and left with a rough surface. The site will then be reseeded and/or planted as prescribed by SITLA. A SITLA recommended seed mix will be detailed within their approval documents.

**11. Surface and Mineral Ownership:**

- a. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.
- b. Surface Ownership – State of Utah – under the management of the SITLA – State Office, 675 East 500 South, Salt Lake City, Utah 84102; 801-538-5100.

**12. Other Information:**

- a. SWCA has conducted a Class III archeological survey. A copy of the report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD.
- b. SWCA conducted a paleontological survey. A copy of the original report was submitted under separate cover to the appropriate agencies with the first filing of this proposed APD.
- c. No drainage crossings that require additional State or Federal approval are being crossed.
- d. An off-lease Federal Right-of-Way is necessary prior to any construction outside of State Section 36.

# XTO ENERGY, INC.

BPU #06-36H

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 36, T11S, R20E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHWESTERLY



- Since 1964 -

UELS

Uintah Engineering & Land Surveying

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

LOCATION PHOTOS

11 01 11  
MONTH DAY YEAR

PHOTO

TAKEN BY: B.B.

DRAWN BY: J.L.H.

REVISED: 00-00-00

T11S, R20E, S.L.B.&M.

XTO ENERGY, INC.

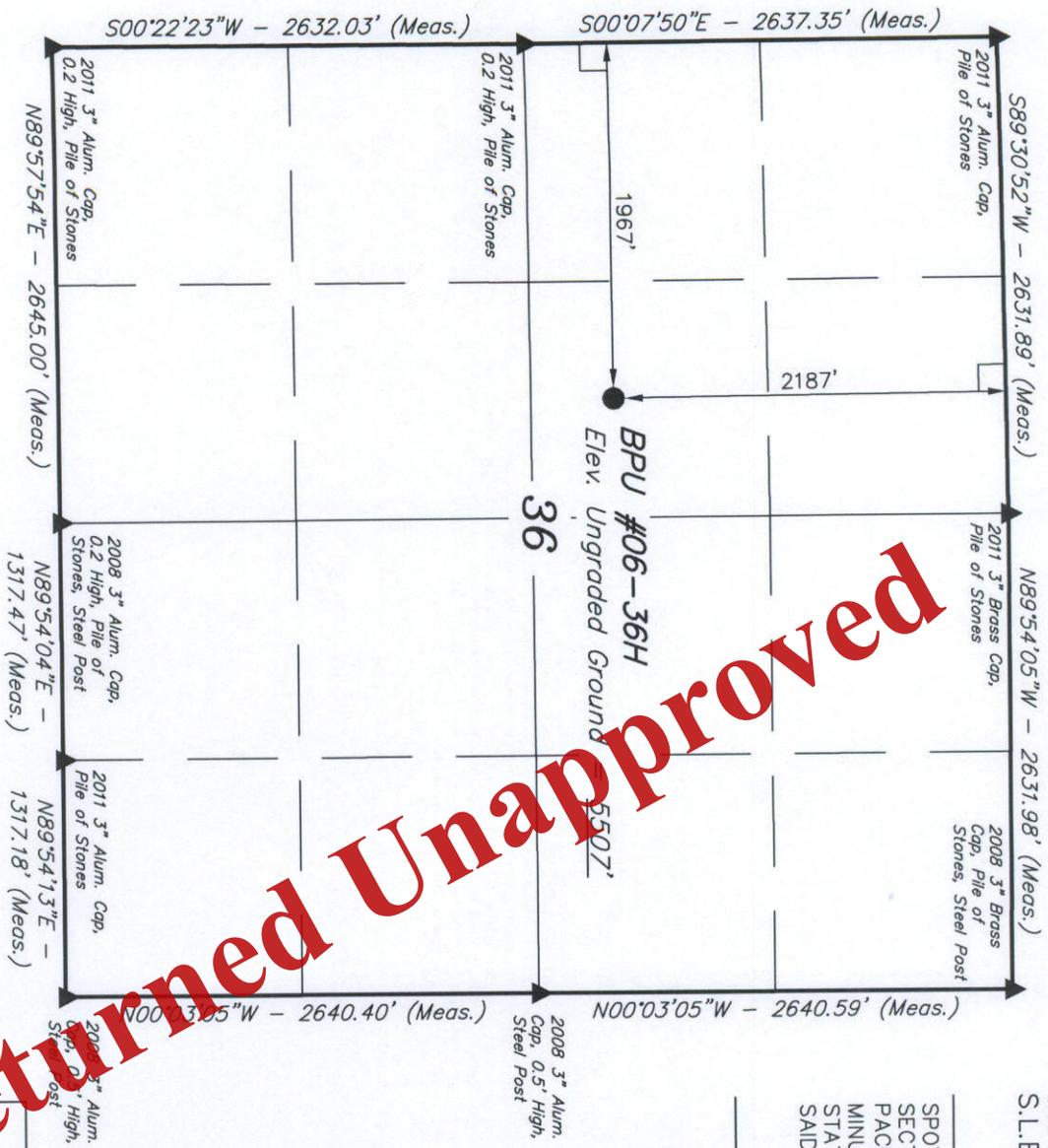
Well location, BPU #06-36H, located as shown in the SE 1/4 NW 1/4 of Section 36, T11S, R20E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

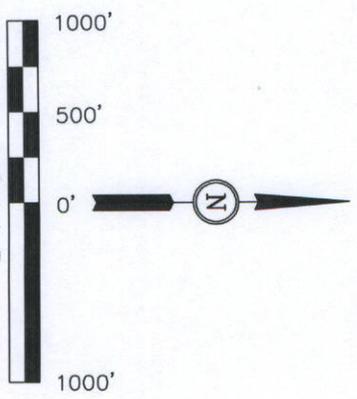
SPOT ELEVATION LOCATED AT THE SOUTHWEST CORNER OF SECTION 20, T10S, R20E, S.L.B.&M. TAKEN FROM THE BIG PACK MNT. NW QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5251 FEET.

BASIS OF BEARINGS

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



Returned Unapproved



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.

**REGISTERED LAND SURVEYOR**  
 STATE OF UTAH  
 REGISTR. NO. 161319  
 DATE 10-25-11

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

**LEGEND:**

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

NAD 83 (SURFACE LOCATION)	LATITUDE = 39°49'05.85" (39.818292)
	LONGITUDE = 109°37'48.37" (109.630103)
NAD 27 (SURFACE LOCATION)	LATITUDE = 39°49'05.97" (39.818325)
	LONGITUDE = 109°37'45.89" (109.629414)

PARTY	B.B. J.G. Z.L.
WEATHER	WARM
DATE SURVEYED:	10-24-11
DATE DRAWN:	10-25-11
REFERENCES	G.L.O. PLAT
FILE	XTO ENERGY, INC.

XTO ENERGY, INC.

LOCATION LAYOUT FOR

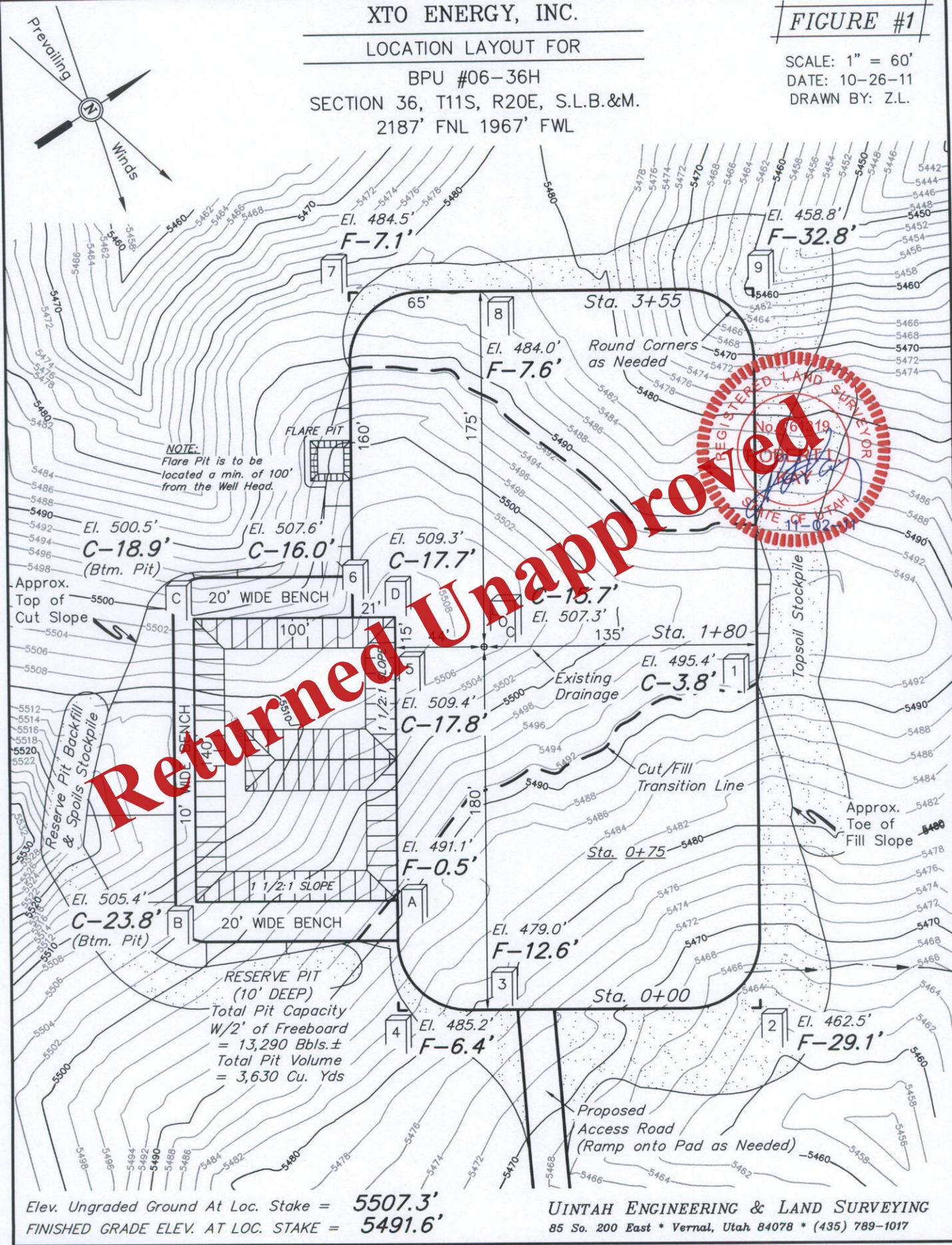
BPU #06-36H  
SECTION 36, T11S, R20E, S.L.B.&M.  
2187' FNL 1967' FWL

FIGURE #1

SCALE: 1" = 60'

DATE: 10-26-11

DRAWN BY: Z.L.



Returned Unapproved

EXHIBIT E

Received: November 21, 2011

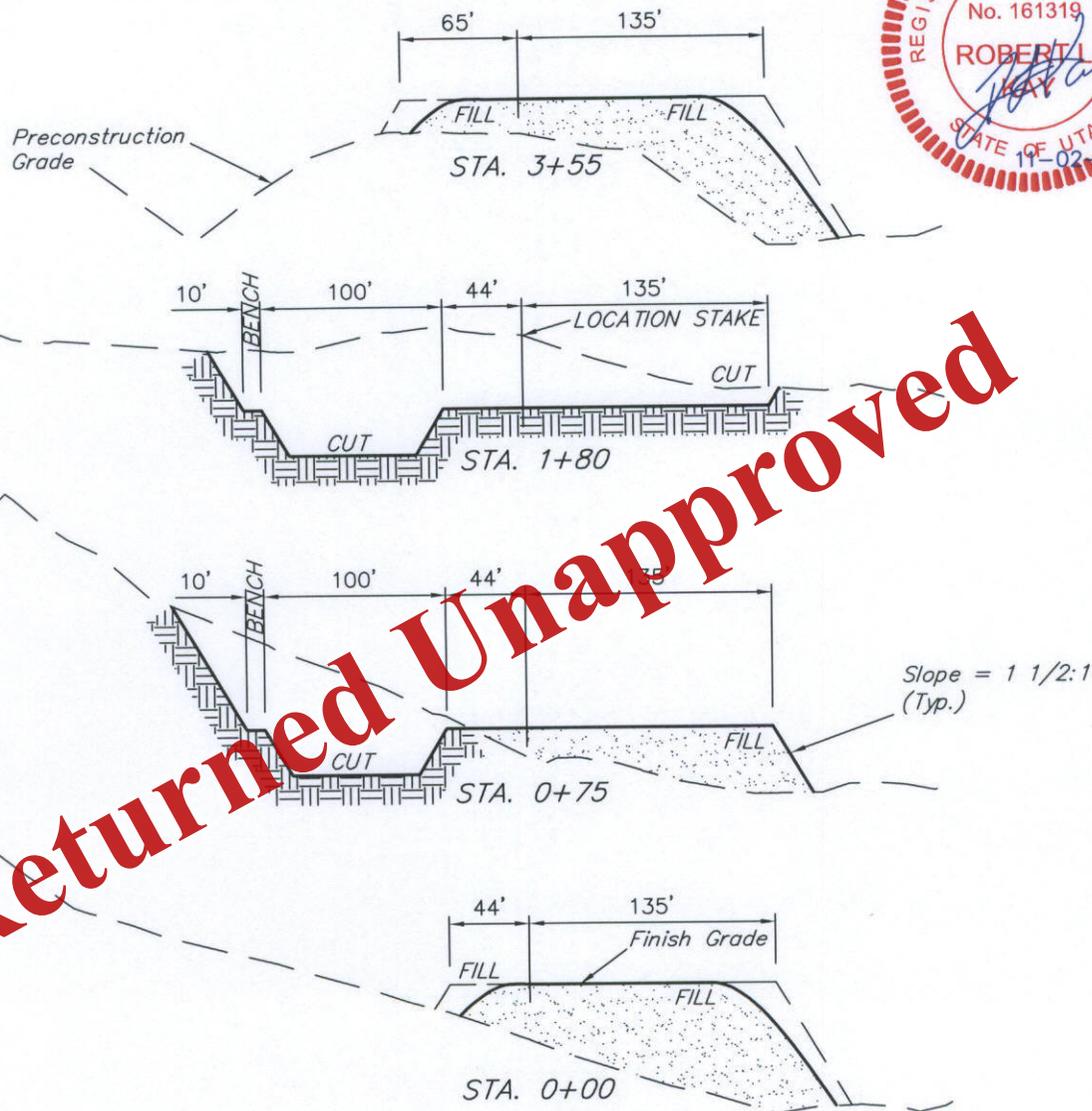
XTO ENERGY, INC.

FIGURE #2

TYPICAL CROSS SECTIONS FOR  
 BPU #06-36H  
 SECTION 36, T11S, R20E, S.L.B.&M.  
 2187' FNL 1967' FWL

1" = 20'  
 X-Section Scale  
 1" = 50'

DATE: 10-26-11  
 DRAWN BY: Z.L.



Returned Unapproved

NOTE:

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

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ± 2.824 ACRES  
 ACCESS ROAD DISTURBANCE = ± 0.165 ACRES  
 PIPELINE DISTURBANCE = ± 0.143 ACRES  
 TOTAL = ± 3.132 ACRES

\* NOTE:  
 FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping = 2,200 Cu. Yds.  
 Remaining Location = 23,070 Cu. Yds.  
 TOTAL CUT = 25,270 CU.YDS.  
 FILL = 21,250 CU.YDS.

EXCESS MATERIAL = 4,020 Cu. Yds.  
 Topsoil & Pit Backfill (1/2 Pit Vol.) = 4,020 Cu. Yds.  
 EXCESS UNBALANCE (After Interim Rehabilitation) = 0 Cu. Yds.

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XTO ENERGY, INC.

TYPICAL RIG LAYOUT FOR

BPU #06-36H  
SECTION 36, T11S, R20E, S.L.B.&M.  
2187' FNL 1967' FWL

FIGURE #3

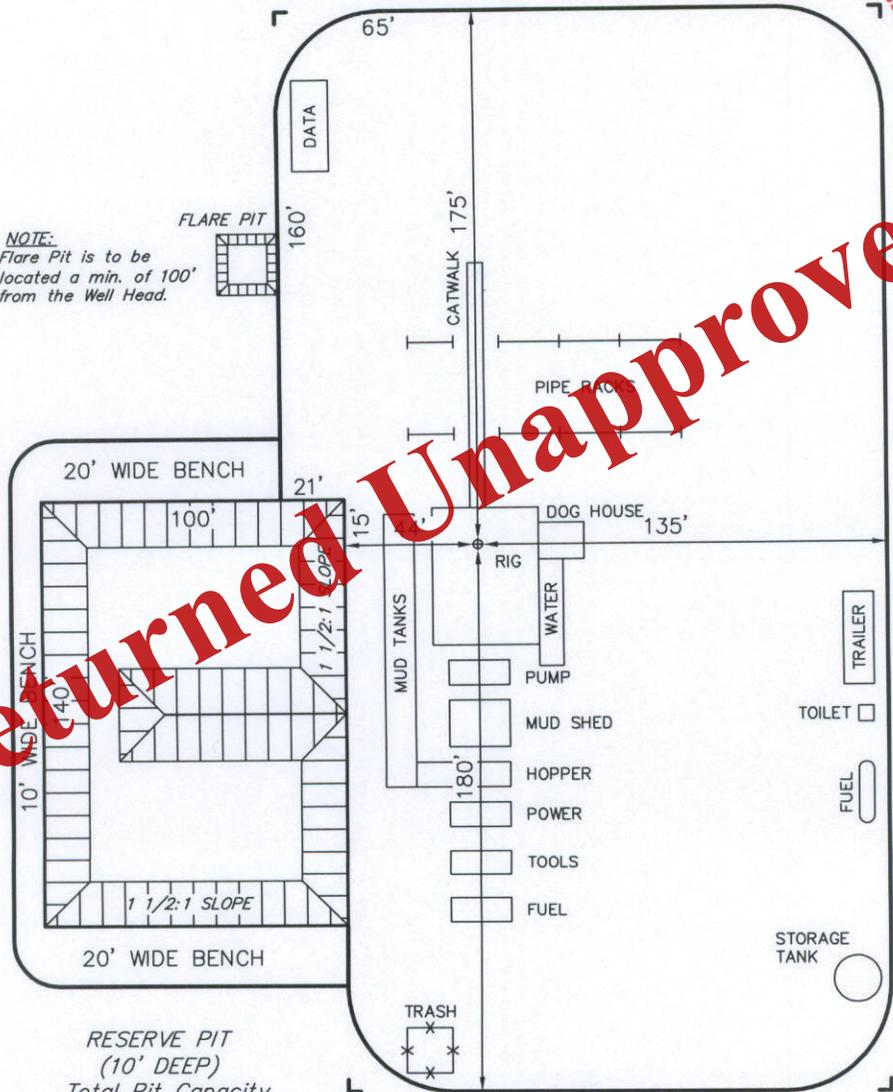
SCALE: 1" = 60'  
DATE: 10-26-11  
DRAWN BY: Z.L.



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



**Returned Unapproved**



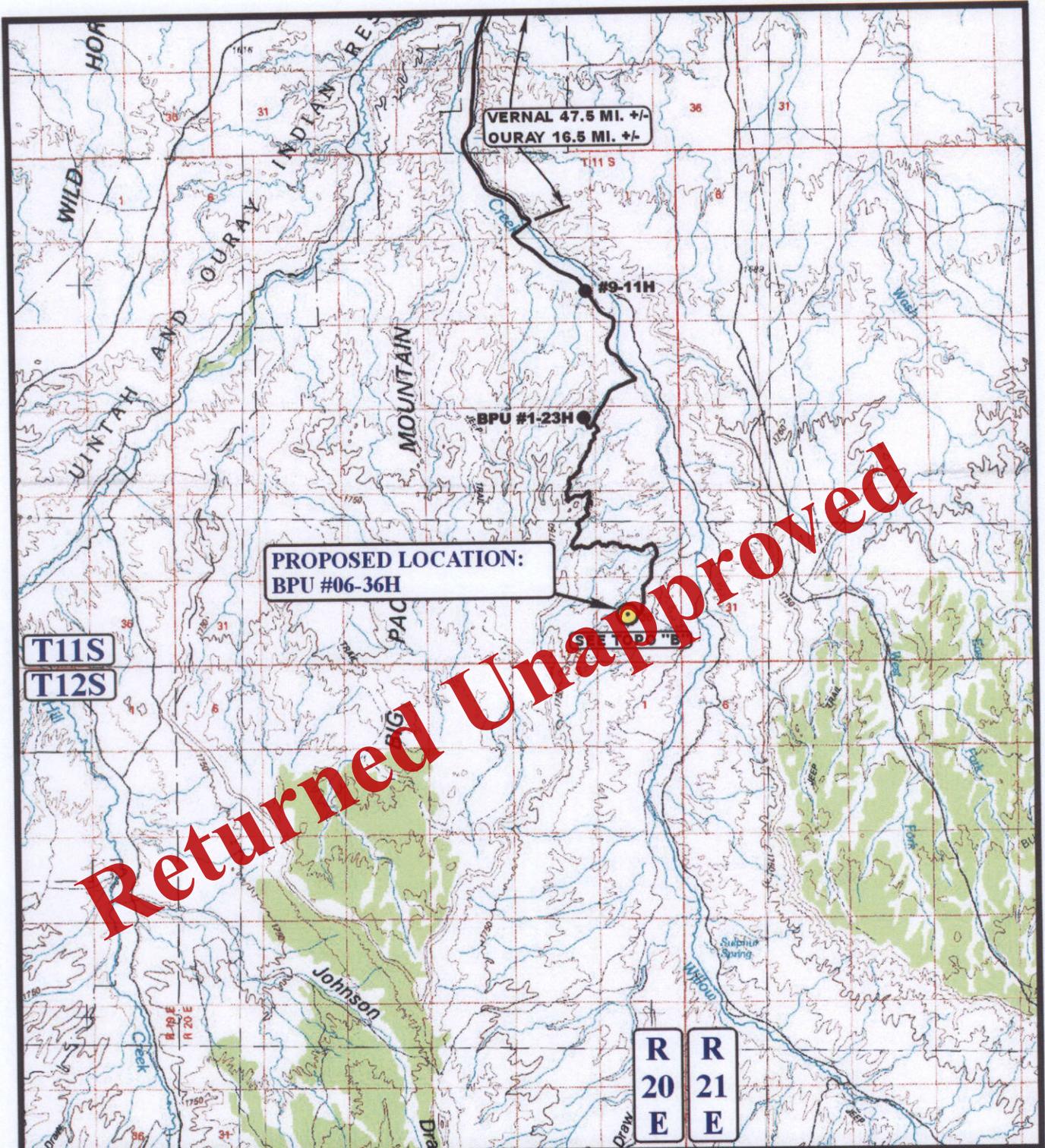
**RESERVE PIT**  
(10' DEEP)  
Total Pit Capacity  
W/2' of Freeboard  
= 13,290 Bbls.±  
Total Pit Volume  
= 3,630 Cu. Yds

Proposed Access Road

XTO ENERGY, INC.  
BPU #06-36H  
SECTION 36, T11S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.1 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 2.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 4.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE EXISTING #9-11H AND THE BEGINNING OF THE PROPOSED ACCESS FOR THE #13-12H TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 1,584' TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #15-13H TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 5,280' TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #1-23H TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 4,470' TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE #14-01M TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A SOUTHEASTERLY, THE SOUTHWESTERLY DIRECTION APPROXIMATELY 22,852' TO THE BEGINNING OF PROPOSED ACCESS TO THE NORTHWEST; FOLLOW ROAD FLAGS IN A NORTHWESTERLY DIRECTION APPROXIMATELY 239' TO PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.2 MILES.

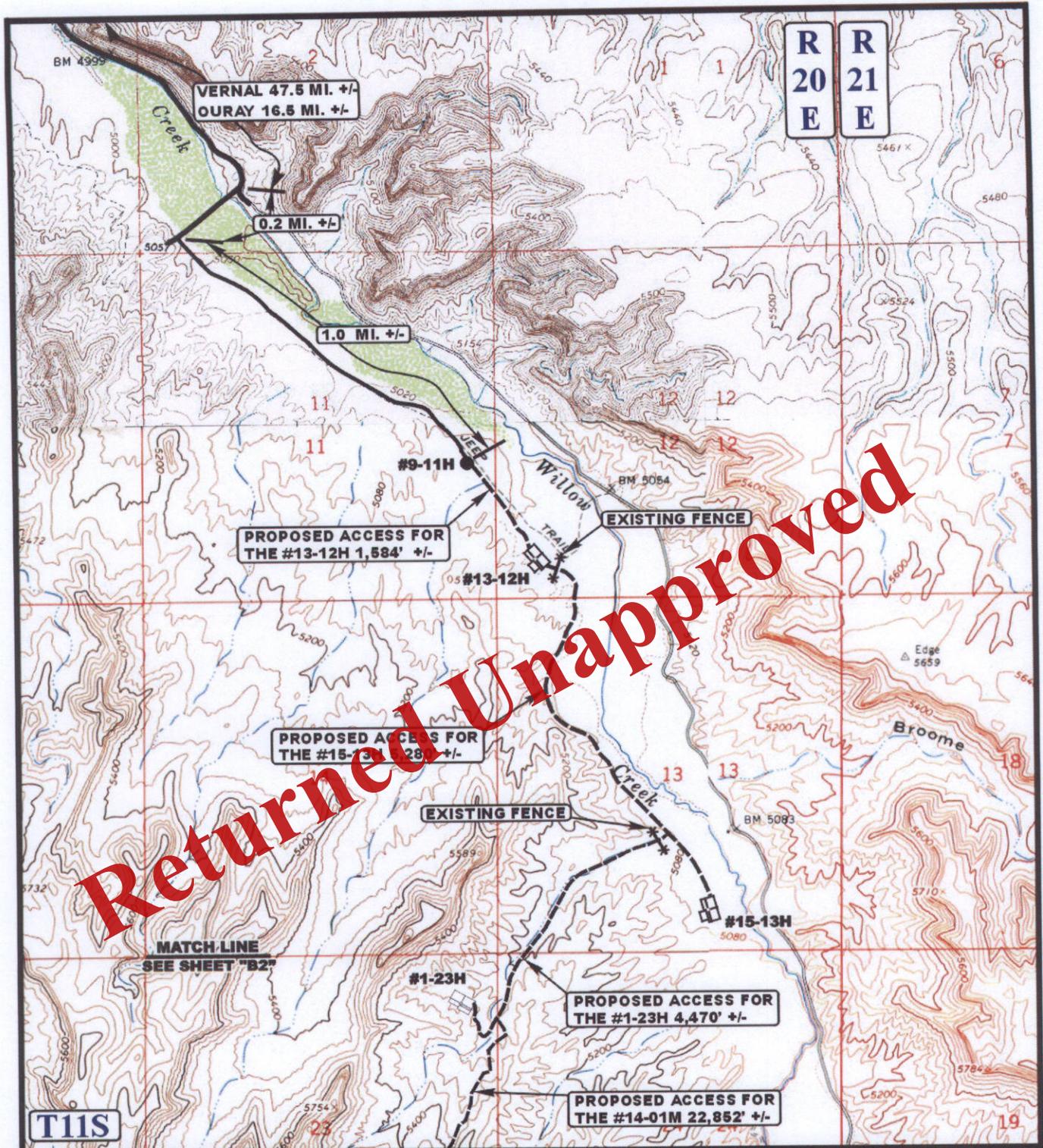


**LEGEND:**  
 PROPOSED LOCATION

**XTO ENERGY, INC.**  
 BPU #06-36H  
 SECTION 36, T11S, R20E, S.L.B.&M.  
 2187' FNL 1967' FWL

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

**ACCESS ROAD MAP**  
 11 01 11  
 MONTH DAY YEAR  
 SCALE: 1:100,000 DRAWN BY: J.L.H. REVISED: 00-00-00 **TOPO**



R  
20  
E

R  
21  
E

T11S

**LEGEND:**

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD
-  EXISTING FENCE



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



XTO ENERGY, INC.

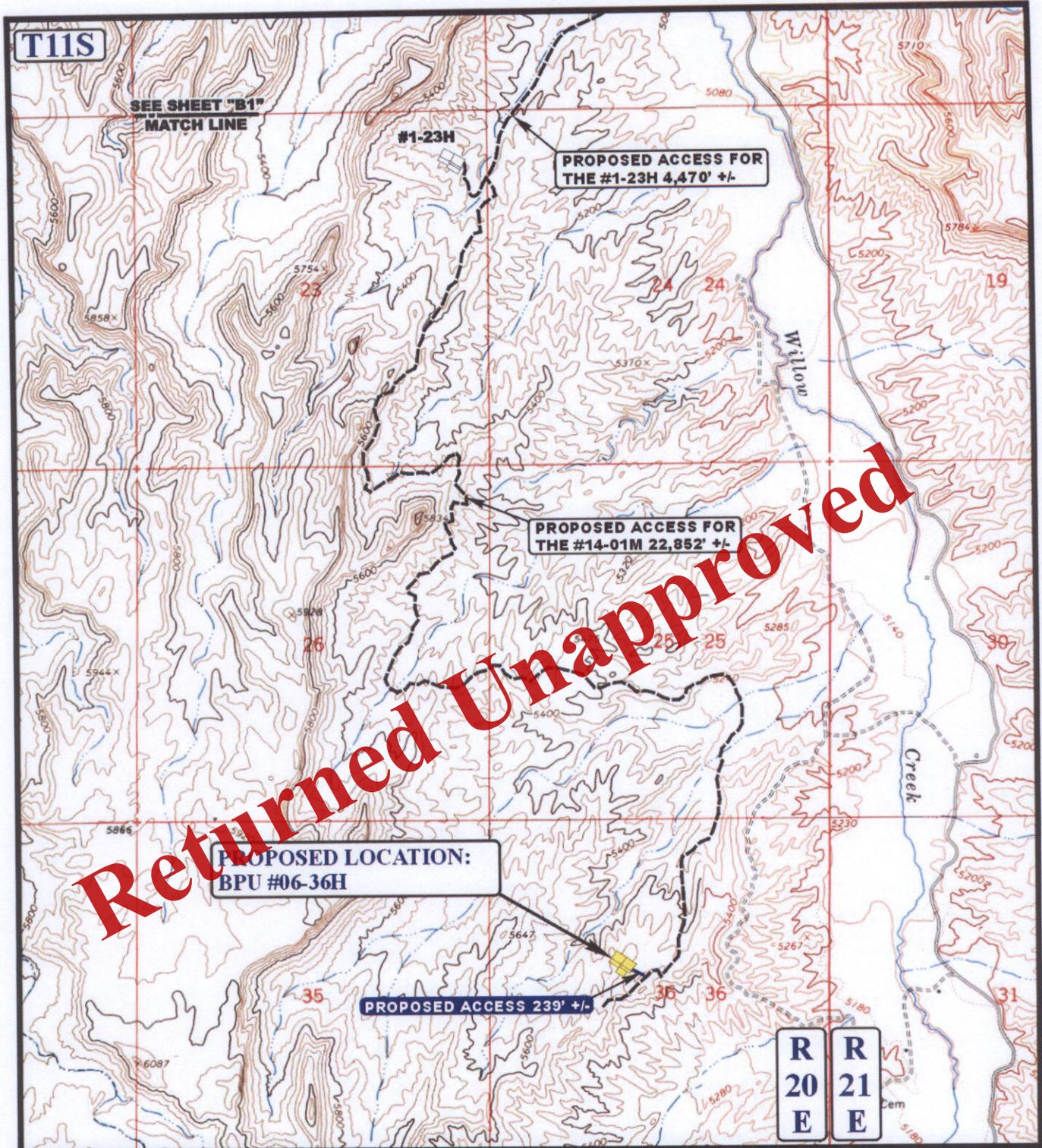
BPU #06-36H  
 SECTION 36, T11S, R20E, S.L.B.&M.  
 2187' FNL 1967' FWL

ACCESS ROAD  
 MAP

11 01 11  
 MONTH DAY YEAR

**B1**  
 TOPO

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



**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD

**XTO ENERGY, INC.**

**BPU #06-36H**  
**SECTION 36, T11S, R20E, S.L.B.&M.**  
**2187' FNL 1967' FWL**



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



**ACCESS ROAD**  
**MAP**  
 SCALE: 1" = 2000' DRAWN BY: J.L.H. REVISED: 00-00-00

**11 01 11**  
 MONTH DAY YEAR

**B2**  
**TOPO**



**PROPOSED LOCATION:  
BPU #06-36H**

**Returned Unapproved**

**LEGEND:**

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

**XTO ENERGY, INC.**

**BPU #06-36H  
SECTION 36, T11S, R20E, S.L.B.&M.  
2187' FNL 1967' FWL**



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

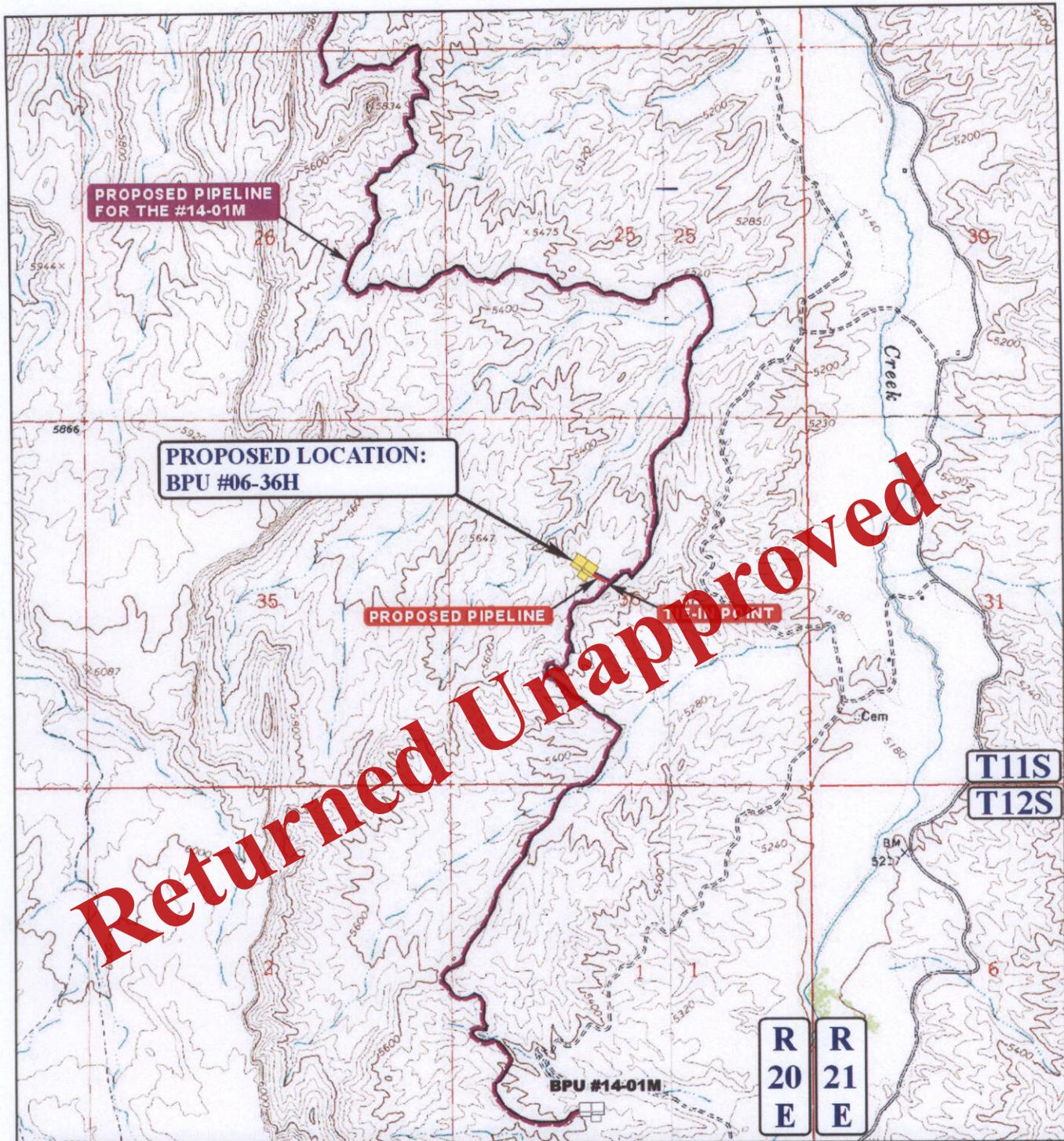


**TOPOGRAPHIC  
MAP**

**11 01 11  
MONTH DAY YEAR**

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





APPROXIMATE TOTAL PIPELINE DISTANCE = 207' +/-

**LEGEND:**

-  PROPOSED ACCESS ROAD
-  PROPOSED PIPELINE
-  PROPOSED PIPELINE (SERVICING OTHER WELLS)



**XTO ENERGY, INC.**

**BPU #06-36H**  
**SECTION 36, T11S, R20E, S.L.B.&M.**  
**2187' FNL 1967' FWL**



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

**TOPOGRAPHIC**  
**MAP**

**11 01 11**  
 MONTH DAY YEAR

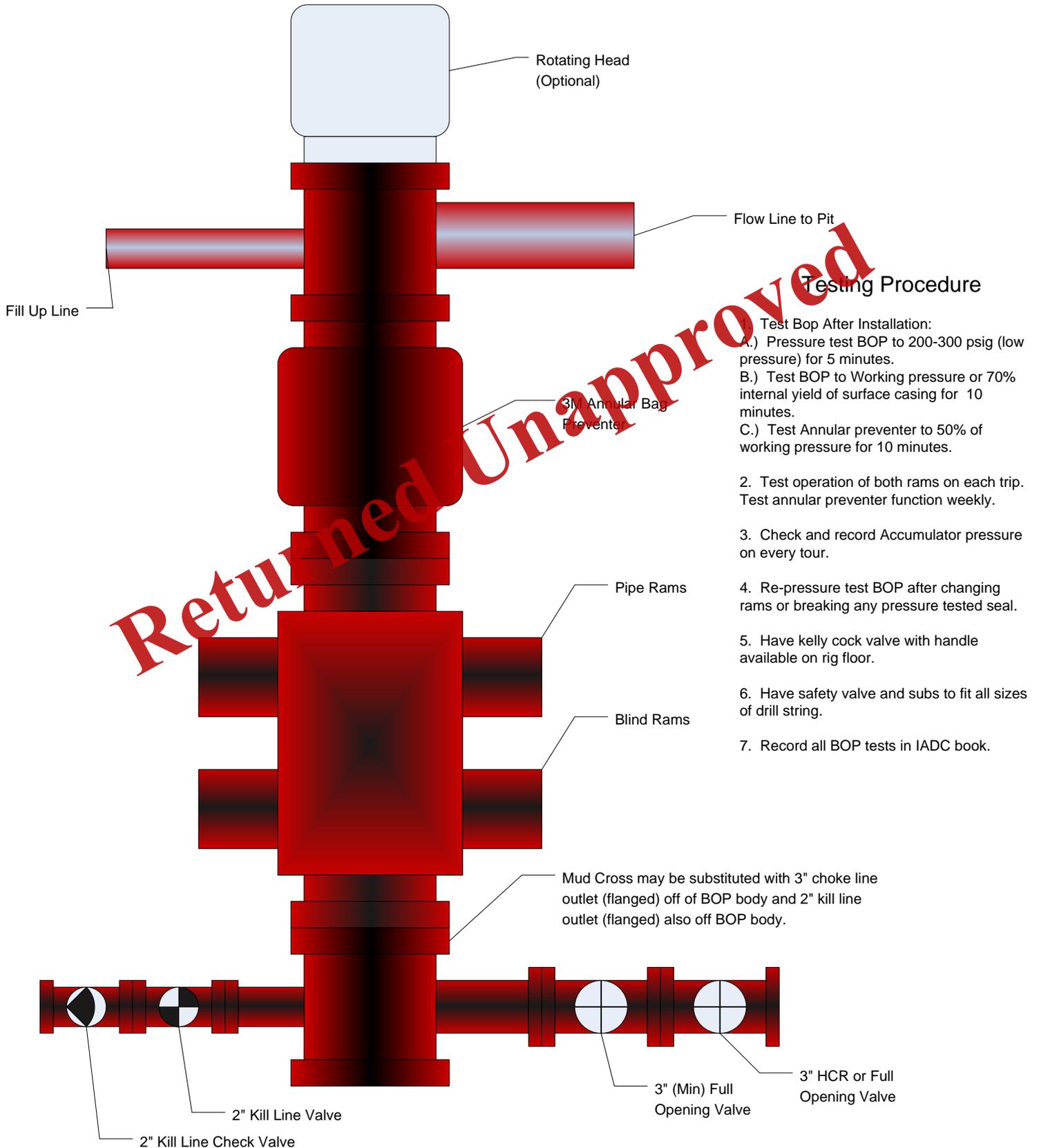
SCALE: 1" = 2000' DRAWN BY: J.L.H. REVISED: 00-00-00



# XTO Energy

3M BOP Stack

11/8/2006



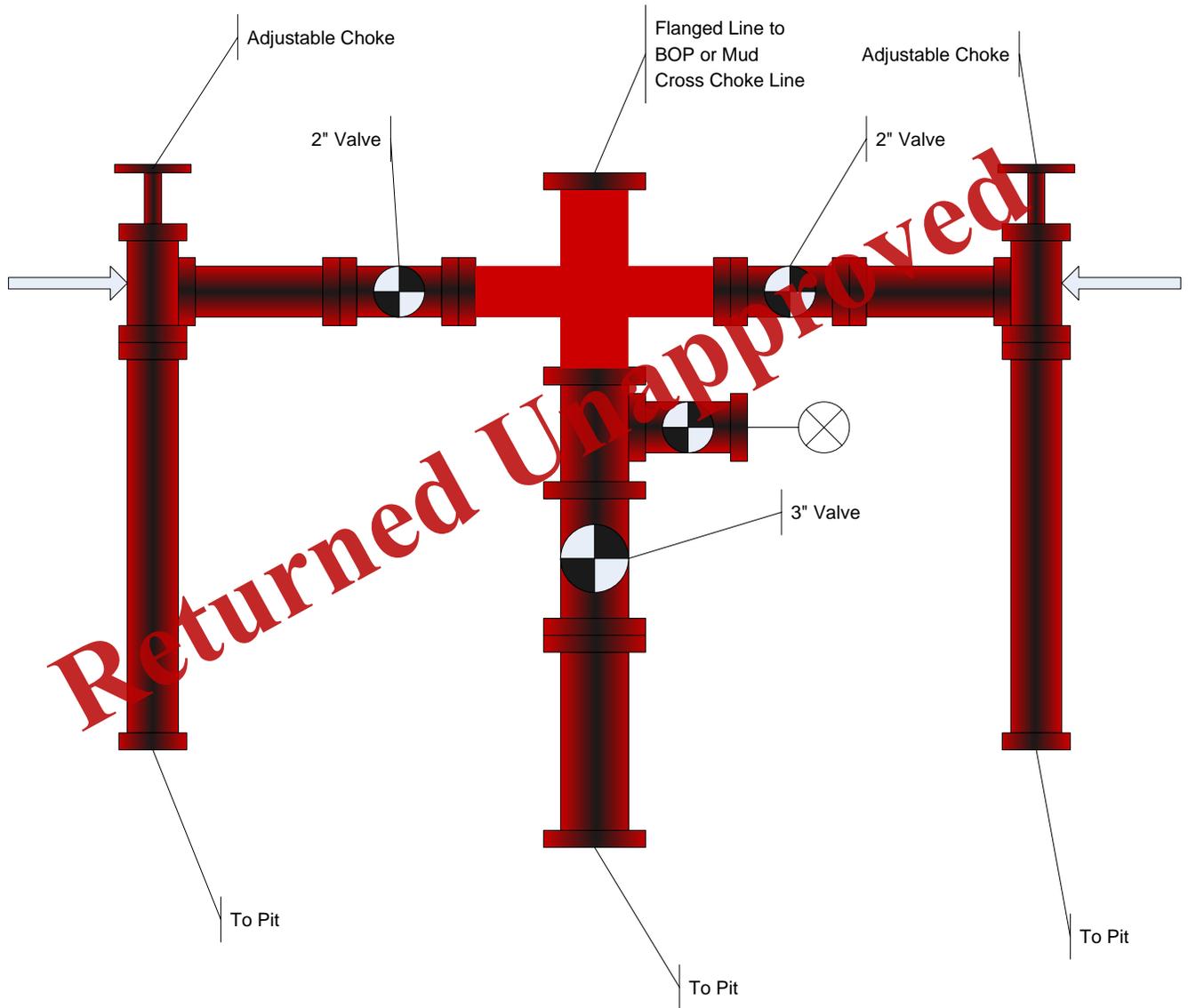
## Testing Procedure

1. Test Bop After Installation:
  - A.) Pressure test BOP to 200-300 psig (low pressure) for 5 minutes.
  - B.) Test BOP to Working pressure or 70% internal yield of surface casing for 10 minutes.
  - C.) Test Annular preventer to 50% of working pressure for 10 minutes.
2. Test operation of both rams on each trip. Test annular preventer function weekly.
3. Check and record Accumulator pressure on every tour.
4. Re-pressure test BOP after changing rams or breaking any pressure tested seal.
5. Have kelly cock valve with handle available on rig floor.
6. Have safety valve and subs to fit all sizes of drill string.
7. Record all BOP tests in IADC book.

# XTO Energy

3M Choke  
Manifold

11/9/2006



Operator Certification:

a. Permitting and Compliance:

Krista Wilson  
Permitting Tech.  
XTO Energy Inc.  
382 CR 3100  
Aztec NM 87410  
505-333-3100

b. Drilling and Completions:

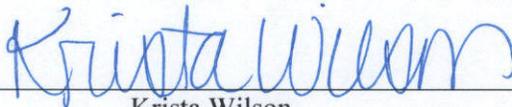
Justin Niederhofer  
XTO Energy Inc.  
382 CR 3100  
Aztec, NM 87410  
505-333-3100

c. Certification:

I hereby certify that, I or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or XTO Energy Inc., are responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 21st day of November, 2011.

Signature: \_\_\_\_\_



Krista Wilson

**Returned Unapproved**

XTO ENERGY, INC.

LOCATION LAYOUT FOR

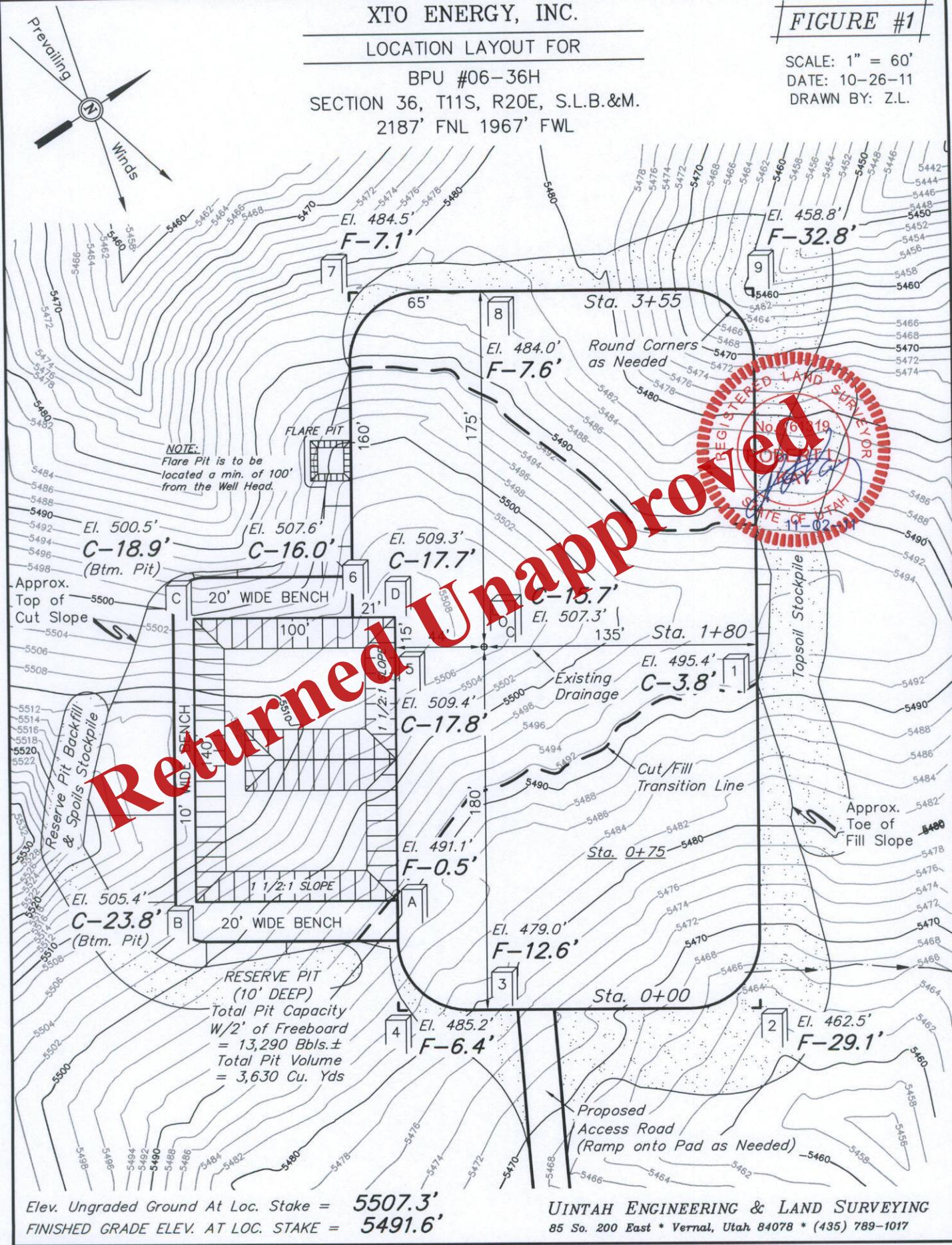
BPU #06-36H  
SECTION 36, T11S, R20E, S.L.B.&M.  
2187' FNL 1967' FWL

FIGURE #1

SCALE: 1" = 60'

DATE: 10-26-11

DRAWN BY: Z.L.



Elev. Ungraded Ground At Loc. Stake = 5507.3'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5491.6'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

EXHIBIT E

Received: November 21, 2011

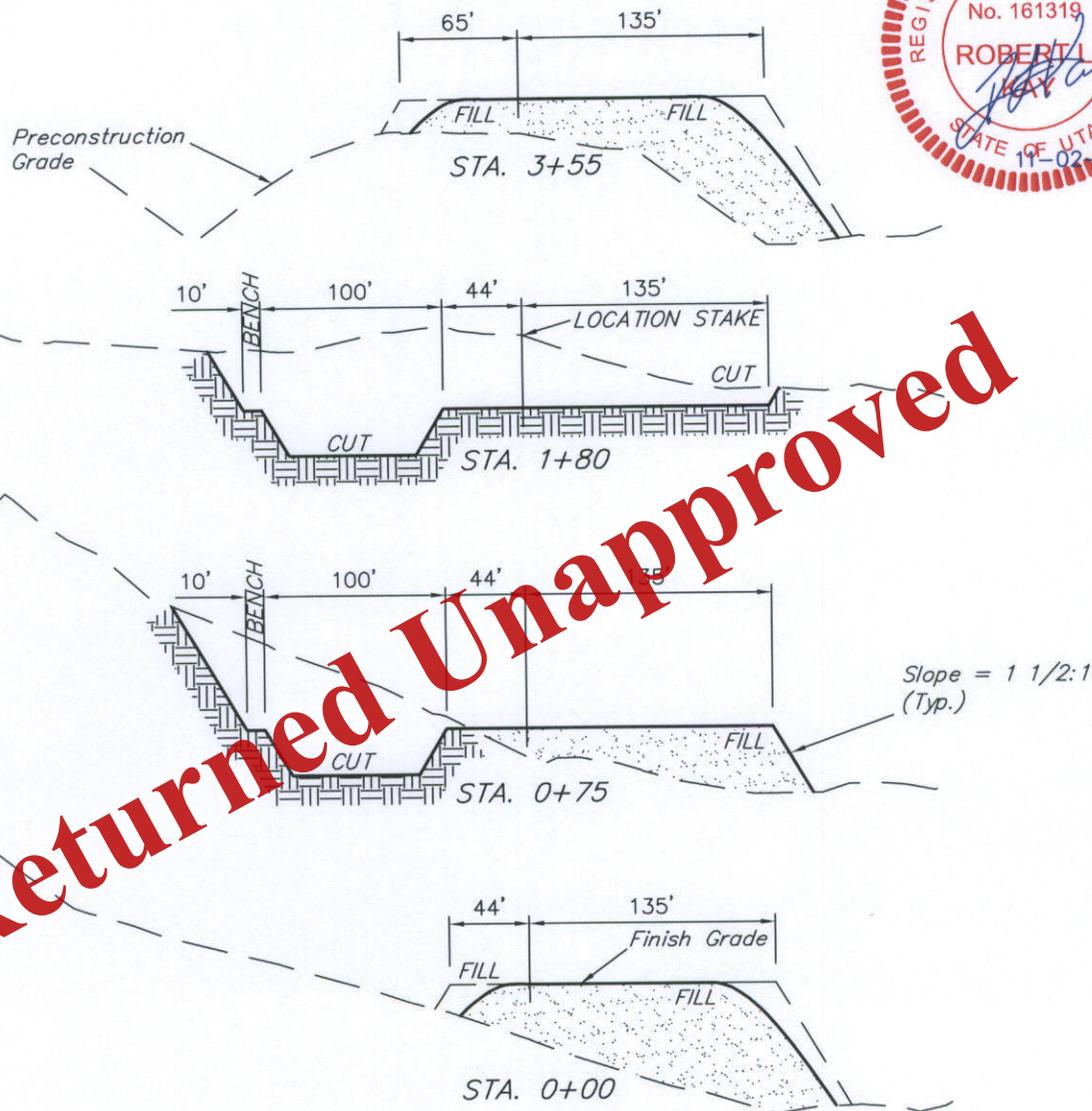
XTO ENERGY, INC.

FIGURE #2

TYPICAL CROSS SECTIONS FOR  
 BPU #06-36H  
 SECTION 36, T11S, R20E, S.L.B.&M.  
 2187' FNL 1967' FWL

1" = 20'  
 X-Section Scale  
 1" = 50'

DATE: 10-26-11  
 DRAWN BY: Z.L.



Returned Unapproved

NOTE:

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

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 ACCESS ROAD DISTURBANCE = ± 0.165 ACRES  
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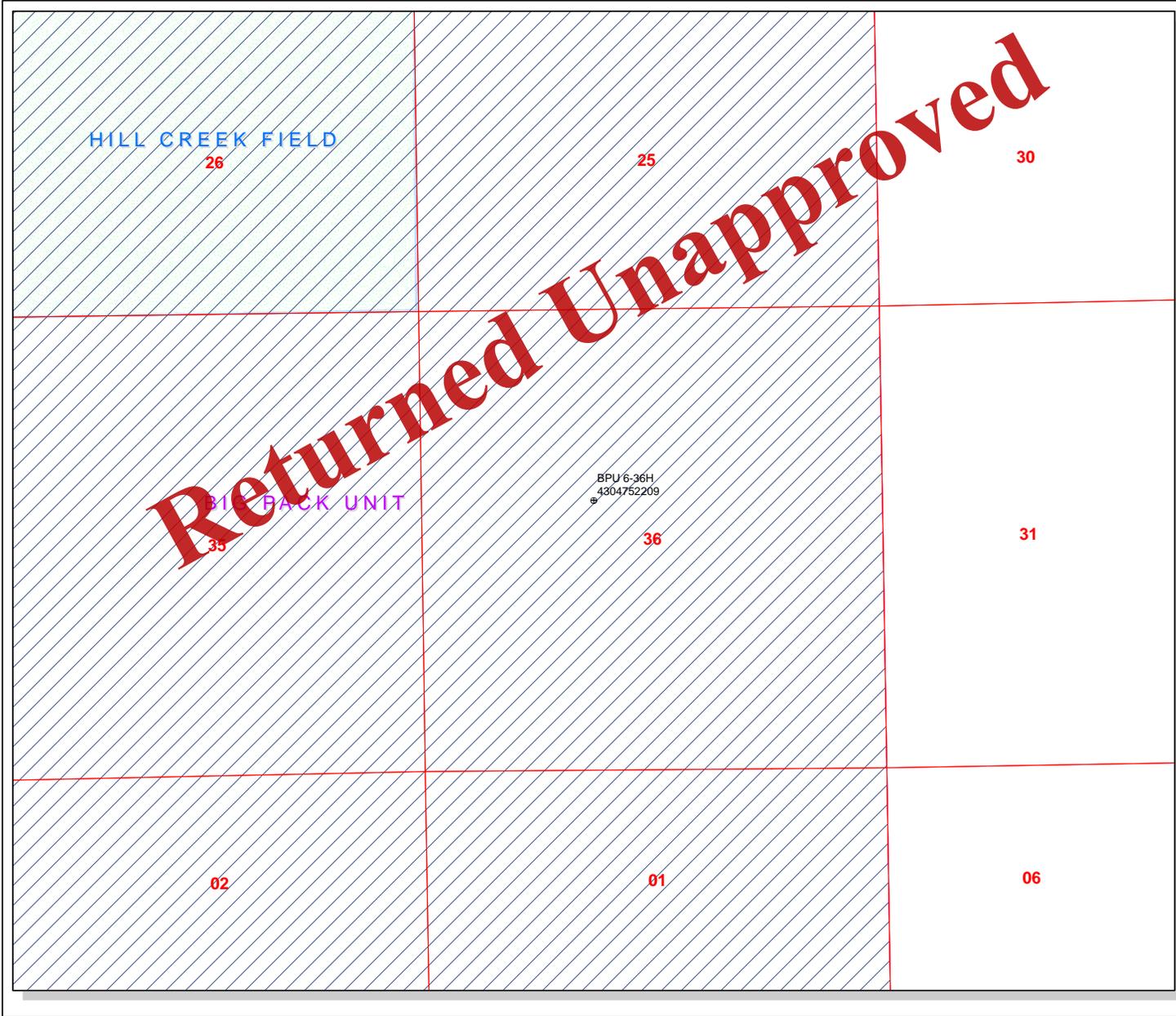
\* NOTE:  
 FILL QUANTITY INCLUDES 5% FOR COMPACTION

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UINTAH ENGINEERING & LAND SURVEYING  
 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017



**API Number: 4304752209**  
**Well Name: BPU 6-36H**  
**Township T1.1 . Range R2.0 . Section 36**  
**Meridian: SLBM**  
**Operator: XTO ENERGY INC**

Map Prepared:  
 Map Produced by Diana Mason

Units Status	Wells Query Status
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LA - Location Abandoned
PI OIL	LOC - New Location
PP GAS	OPS - Operation Suspended
PP GEOTHERM	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
Unknown	SGW - Shut-in Gas Well
ABANDONED	SOW - Shut-in Oil Well
ACTIVE	TA - Temp. Abandoned
COMBINED	TW - Test Well
INACTIVE	WDW - Water Disposal
STORAGE	WW - Water Injection Well
TERMINATED	WSW - Water Supply Well



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

December 2, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Big Pack Unit,  
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2011 within the Big Pack Unit, Uintah County, Utah.

API#	WELL NAME	LOCATION
------	-----------	----------

(Proposed PZ WASATCH-MESA VENTURE)

43-047-52209 BPU 6-361 Sec 36 T11S R20E 2187 FNL 1967 FWL

This office has no objection to permitting the well at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard  
DN: cn=Michael L. Coulthard, o=Bureau of Land Management,  
ou=Branch of Minerals, email=Michael\_Coulthard@blm.gov, c=US  
Date: 2011.12.02 08:02:59 -07'00'

bcc: File - Big Pack Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:12-2-11

Received: December 02, 2011



December 7, 2011

State of Utah  
Division of Oil, Gas and Mining  
PO BOX 145801  
Salt Lake City, UT 84114

RE: Directional Drilling Regulation R649-3-3

Well Name: BPU 6-36H  
Location: 2817" FNL & 1967' FWL, SE/4 NW/4  
Section 36, T11S, R20E, SLB&M, Uintah County, Utah

To Whom It May Concern:

In reference to the State Oil and Gas Conservation rule R649-3-3, the proposed BPU 6-36H is an exception to this rule due to topography and location of the proposed well.

There are no additional lease owners within 400' of the proposed location.

Please feel free to contact me with any questions you may have.

Thank you,

Krista Wilson  
Permitting Tech.  
XTO Energy Inc.  
505-333-6647  
Krista\_wilson@xtoenergy.com

Well Name	XTO ENERGY INC BPU 6-36H 43047522090000			
String	SURF	PROD		
Casing Size(")	9.625	5.500		
Setting Depth (TVD)	2200	8555		
Previous Shoe Setting Depth (TVD)	0	2200		
Max Mud Weight (ppg)	8.4	9.2		
BOPE Proposed (psi)	0	3000		
Casing Internal Yield (psi)	3520	7740		
Operators Max Anticipated Pressure (psi)	4200	9.4		

Calculations	<b>SURF String</b>	<b>9.625</b>	"	
Max BHP (psi)	.052*Setting Depth*MW=	961		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	697	NO	FW spud mud
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	477	NO	
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	477	NO	No expected pressures
Required Casing/BOPE Test Pressure=		2200	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient	

Calculations	<b>PROD String</b>	<b>5.500</b>	"	
Max BHP (psi)	.052*Setting Depth*MW=	4093		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3069	NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2211	YES	OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	2695	NO	OK
Required Casing/BOPE Test Pressure=		3000	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2200	psi *Assumes 1psi/ft frac gradient	

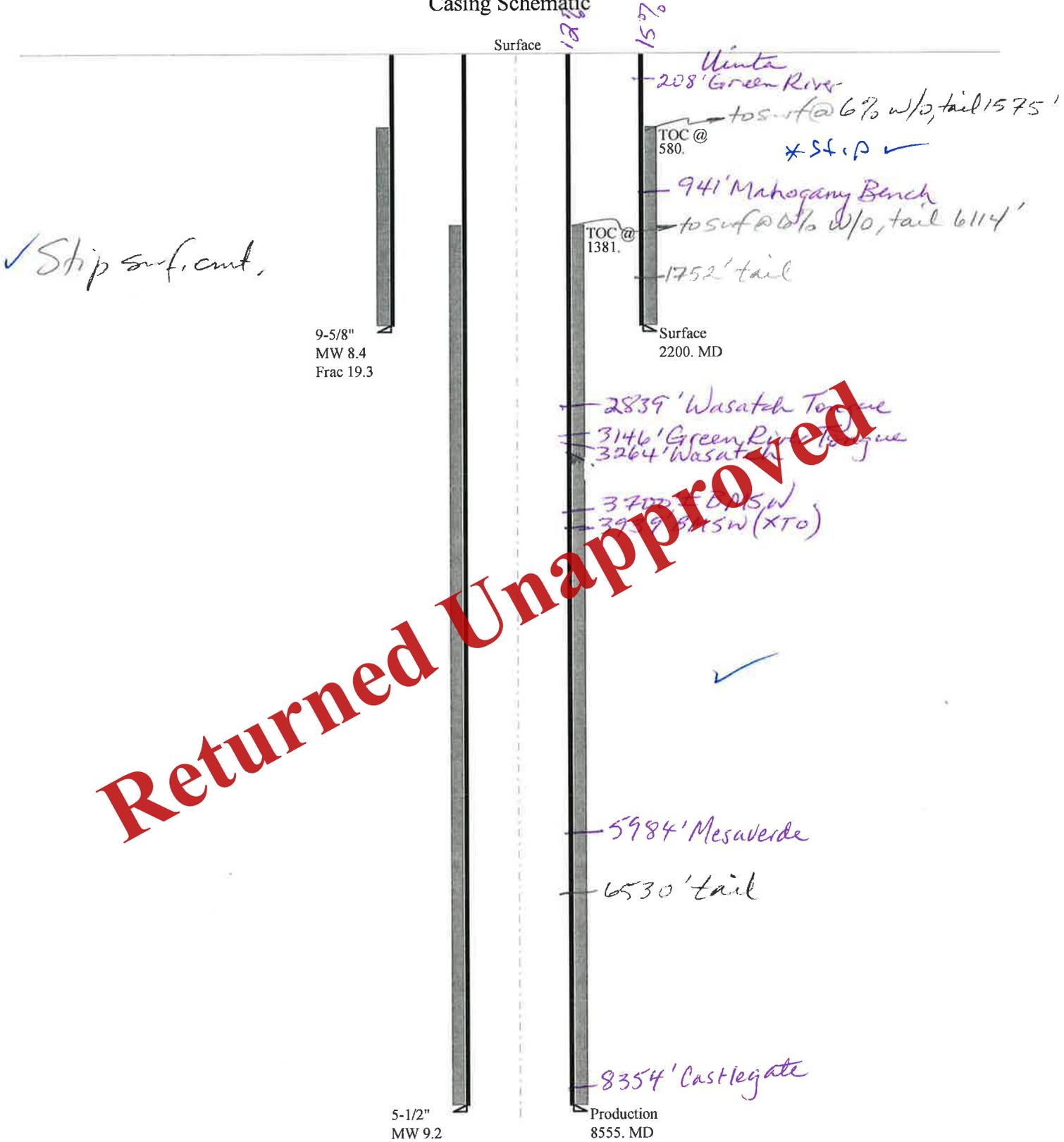
Calculations	<b>String</b>		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

Calculations	<b>String</b>		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient	

Returned Unapproved

43047522090000 BPU 6-36H

Casing Schematic



Well name:	43047522090000 BPU 6-36H	
Operator:	XTO ENERGY INC	Project ID:
String type:	Surface	43-047-52209
Location:	UINTAH COUNTY	

<b>Design parameters:</b>	<b>Minimum design factors:</b>	<b>Environment:</b>
<u>Collapse</u>	<u>Collapse:</u>	H2S considered? No
Mud weight: 8.400 ppg	Design factor 1.125	Surface temperature: 74 °F
Design is based on evacuated pipe.		Bottom hole temperature: 105 °F
		Temperature gradient: 1.40 °F/100ft
		Minimum section length: 100 ft

	<u>Burst:</u>	Cement top: 580 ft
	Design factor 1.00	

<u>Burst</u>	<u>Tension:</u>	<b>Non-directional string.</b>
Max anticipated surface pressure: 1,936 psi	8 Round STC: 1.80 (J)	
Internal gradient: 0.120 psi/ft	8 Round LTC: 1.70 (J)	
Calculated BHP 2,200 psi	Buttress: 1.60 (J)	
No backup mud specified.	Premium: 1.50 (J)	
	Body yield: 1.50 (B)	<b>Re subsequent strings:</b>
	Tension is based on air weight.	Next setting depth: 8,555 ft
	Neutral point: 1,926 ft	Next mud weight: 9,200 ppg
		Next setting BHP: 4,089 psi
		Fracture mud wt: 19,250 ppg
		Fracture depth: 2,200 ft
		Injection pressure: 2,200 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)	Est. Cost (\$)
1	2200	9.625	36.00	J-55	ST&C	2200	2200	8.796	19122
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	960	2020	2.104	2200	3520	1.60	79.2	394	4.97 J

Returned Unapproved

Prepared by: Helen Sadik-Macdonald, Div of Oil, Gas & Mining  
 Phone: 801 538-5357, FAX: 801-359-3940  
 Date: February 8, 2012, Salt Lake City, Utah

Remarks: Collapse is based on a vertical depth of 2200 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & 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.

Received: July 17, 2012

Well name:	43047522090000 BPU 6-36H	
Operator:	XTO ENERGY INC	
String type:	Production	Project ID: 43-047-52209
Location:	UINTAH COUNTY	

**Design parameters:**

**Collapse**  
Mud weight: 9.200 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**  
Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 194 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

**Burst:**  
Design factor 1.00

Cement top: 1,381 ft

**Burst**

Max anticipated surface pressure: 2,207 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 4,089 psi

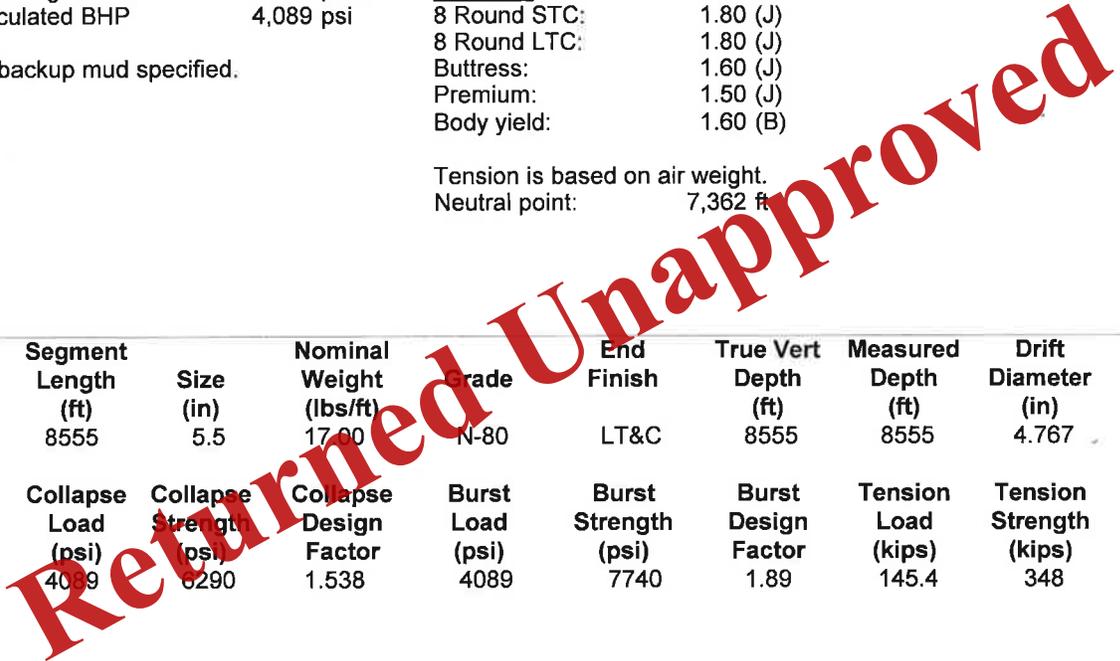
**Tension:**

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

**Non-directional string.**

No backup mud specified.

Tension is based on air weight.  
Neutral point: 7,362 ft



Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8555	5.5	17.00	N-80	LT&C	8555	8555	4.767	48219

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	4089	6290	1.538	4089	7740	1.89	145.4	348	2.39 J

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

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

Date: February 8, 2012  
Salt Lake City, Utah

Remarks:  
Collapse is based on a vertical depth of 8555 ft, a mud weight of 9.2 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.

**Received: July 17, 2012**



GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*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*

November 21, 2013

XTO ENERGY INC  
PO Box 6501  
Englewood, CO 80155

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the BPU 6-36H well, API 43047522090000 that was submitted November 21, 2011 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason  
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah



