

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**X RECEIVED**  
 5/3/11  
 2011 FEB 14  
 Holiday STOP #1

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

*San Juan*  
*Navajo*

*30-045-35231*

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]  
 [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[D] Other: Specify \_\_\_\_\_

~~*27300-7500*~~

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

~~*140055*~~

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

William Lucas *WJL* Petroleum Engineer 1-10-11  
 Print or Type Name Signature Title Date  
 william\_lucas@xtoenergy.com  
 e-mail Address

*Maria ZILKERS*  
*505 333 3698*

**HOLIDAY SWD #1**

**PROPOSED SALT WATER DISPOSAL WELL**

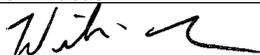
**Sec. 22 T25N - R10W NMPM**

**SAN JUAN COUNTY, NEW MEXICO**

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No
- II. OPERATOR: XTO Energy Inc.  
ADDRESS: 382 CR 3100, Aztec NM 87401  
CONTACT PARTY: William Lucas PHONE: (505) 333-3100
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes  No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: William Lucas TITLE: \_\_\_\_\_

SIGNATURE:  DATE: 1-10-11

E-MAIL ADDRESS: William\_Lucas@xtoenergy.com

- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: XTO Energy Inc.

WELL NAME & NUMBER: 2257' FSL x 1038' FEL      Holiday SWD #1

WELL LOCATION: 2257' FSL x 1038' FEL      UNIT LETTER: I      SECTION: 22      TOWNSHIP: 25N      RANGE: 10W

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75"      Casing Size: 10.75"  
Cemented with: 400 sx.      or 556 ft<sup>3</sup>  
Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Intermediate Casing

Hole Size: 9.5"      Casing Size: 7.625"  
Cemented with: 134 sx.      or \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 6.75"      Casing Size: 5.5"  
Cemented with: 456 sx.      or \_\_\_\_\_ ft<sup>3</sup>  
Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Total Depth: \_\_\_\_\_ ≈ 7,650'

Injection Interval

7538  
7,650'

(Approx) 7,347' feet to \_\_\_\_\_

(Perforated) or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8", 6.5#, N80 Lining Material: Plastic

Type of Packer: \_\_\_\_\_ Baker Model D or its equivalent

Packer Setting Depth: ~~8,900'~~ 7,250'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection?  Yes  No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

2. Name of the Injection Formation: SWD; ENTRADA

3. Name of Field or Pool (if applicable): \_\_\_\_\_

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_ No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Overlying: Fruitland Coal 1155' - 1627', Lower Fruitland Coal 1627' - 1642',

Pictured Cliffs Sandstone 1642' - 1971', Chacra Sandstone 2456' - 3175', Mesa Verde 3175' - 4356',

Mancos Shale 4356' - 5011', Gallup Sandstone 5011' - 6059', Dakota 6157' - 6453'

XTO ENERGY, INC.  
HOLIDAY SWD #1  
2257' FSL & 1038' FEL  
SEC. 22, T. 25 N., R. 10 W.  
SAN JUAN COUNTY, NEW MEXICO

- I. Purpose is produced water disposal.
  
- II. Operator is: XTO Energy, Inc. OGRID 5380 (formerly Cross Timbers Operating Company)  
Operator phone number is: (505) 333-3100
  
- III. Operator address is: 382 CR 3100  
Aztec, NM 87410  
Contact is: William Lucas, Engineer, Phone is (505) 333-3100
  
- IV. Lease number is NMNM-0120923 and contains 1280.00 acres.  
Lease is located in the SE/4 of Section 22, T25N, R10W.

The proposed Holiday SWD #1 is 383' from the closest lease line. Maps indicating all leases (fee or BLM) within a half mile and within 2 miles are attached as Exhibit "A". Wellbore diagrams for the existing XTO wells are Exhibit "A-1".

Well name and number will be the Holiday SWD #1 and is located 2,257' FSL and 1,038' FEL Sec. 22, T25N, R10W, NMPM, San Juan County, New Mexico  
Disposal zone will be SWD; Entrada. Fracture gradient is expected to be a normal  $\approx$  0.8 psi per foot.

- V. Exhibit "B" is a map attached indicating eighteen producing gas wells, six producing oil wells within a one half mile radius and all wells within a two mile radius. Within the area of review none of the producing wells penetrate the SWD: Entrada. The Irish #2 is the closest well to the proposed Holiday SWD #1 and the New Year #1 is the deepest at 6,750'. There is one plugged and abandoned well, three dry hole wells within the area of review. Cement information for the plugged and abandoned well is included as Exhibit "B-1".

*none that deep*

XTO ENERGY, INC.  
HOLIDAY SWD #1  
2257' FSL & 1038' FEL  
SEC. 22, T. 25 N., R. 10 W.  
SAN JUAN COUNTY, NEW MEXICO

**Producing Gas Wells**

<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((25N-10W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
DUGAN PROD.	Spandex Com #90	SWNE Sec. 16	Fruitland Coal	1830	PGW
NOBLE ENERGY	Navajo 11 #13	SWSW Sec. 11	Dakota	6660	PGW
NOBLE ENERGY	Navajo #3E	NESW Sec. 11	Dakota	6640	PGW
REDWOLF PROD.	Sarah #4	NESW Sec. 28	Fruitland Coal	1787	PGW
ROSETTA RES.	Tsah Tah 34 #1	SWNE Sec. 34	Fruitland Coal	1910	PGW
ROSETTA RES.	Tsah Tah 35 #2	NENW Sec. 35	Fruitland Coal	1908	PGW
ROSETTA RES.	Tsah Tah 34 #2	SWNE Sec. 34	Fruitland Coal	1870	PGW
ROSETTA RES.	Tsah Tah 35 #1	SENE Sec. 35	Fruitland Coal	1908	PGW
XTO ENERGY	Arbor #21H	NWNW Sec. 26	Fruitland Coal	5696	PGW
XTO ENERGY	Arbor #22H	NWSW Sec. 26	Fruitland Coal	5505	PGW
XTO ENERGY	Boxer #21H	NWNW Sec. 27	Fruitland Coal	5815	PGW
XTO ENERGY	Boxer #22H	NWSW Sec. 27	Fruitland Coal	5550	PGW
XTO ENERGY	Irish #1	NENW Sec. 22	Fruitland Coal	6650	PGW
XTO ENERGY	Irish #2	NESW Sec. 22	Fruitland Coal	6673	PGW
XTO ENERGY	Labor #21H	NWSW Sec. 23	Fruitland Coal	5096	PGW
XTO ENERGY	New Year #1	SWNW Sec. 15	Fruitland Coal	6750	PGW
XTO ENERGY	Valentine #21H	NWSW Sec. 21	Fruitland Coal	5625	PGW

**Producing Oil Wells**

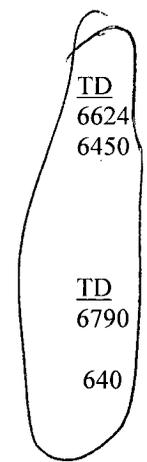
<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((25N-10W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
BURLINGTON RES	Huerfano Unit #221	NESW Sec. 13	Dakota	6721	POW
SKELLY OIL CO.	Atlas #2	SWNW Sec. 34	Bisti Lower Gal.	5400	POW
SKELLY OIL CO.	Atlas A #2	SENE Sec. 34	Bisti Lower Gal.	5437	POW
SKELLY OIL CO.	Lockhart #5	SWSE Sec. 28	Bisti Lower Gal.	5448	POW
SKELLY OIL CO.	Lockhart #6	NESE Sec. 28	Bisti Lower Gal.	5435	POW
SKELLY OIL CO.	Lockhart L E #4	NENE Sec. 33	Bisti Lower Gal.	5471	POW

**Plugged and Abandoned Wells**

<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((25N-10W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
SD JOHNSON	Federal #1	NWSW Sec. 14	Wildcat	6624	P&A
ARCO OIL & GAS	Nav. Allot. A Com #1	NESW Sec. 24	Dakota	6450	P&A

**Dry Hole Wells**

<u>OPERATOR</u>	<u>WELL</u>	<u>LOCATION ((25N-10W)</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>
EPNG	Huerfano Unit #246	NENE Sec. 14	Dakota	6790	DH
SINCLAIR OIL	Francisco Trujillo #1	SWSW Sec. 23			DH
TENNECO OIL CO	Mountview 26 D #1	SWSE Sec. 26	Dakota	640	DH



XTO ENERGY, INC.  
HOLIDAY SWD #1  
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According to the records in the Office of the State Engineer, the U.S. Department of the Interior is the owner of a fresh water well, indicated on Exhibit "C", and is ±937' from the proposed disposal well. The well was drilled in 1964 to a depth of 637' water depth is shown as 250'. The Office of the State Engineer's records indicated there were no other water wells within the two mile radius of the proposed well. No water was indicated by Multichem. See Exhibit "C-1" for the report from Multichem.

No existing underground drinking water sources are below the SWD: Entrada within a two mile radius. Underground sources of drinking water above the SWD: Entrada are generally alluvial and average 165' deep. The deepest bedrock aquifer is the Ojo Alamo sandstone, base of which is 857'. There will be ≈ 6,490' vertical separation between the bottom of the lowest underground drinking water source and the top of the SWD: Entrada. XTO is not aware of any geologic or engineering data which may indicate the SWD: Entrada is in hydrologic connection with any underground sources of water.

- VI. The Holiday SWD #1 has not yet been drilled. It will be drilled for the exclusive purpose of water disposal from present and future XTO wells indicated on Exhibit "D". Water analyses from the Basin Dakota and Fruitland Coal are attached as Exhibit "E".

Zone	Sodium	Bicarbonate	Calcium	Chloride	Iron	Magnesium	pH	Sulfate	TDS
Fruitland Coal	10731	823.5	240	17000	13.06	48.8	7.1	9	28896
Fruitland Coal	9967	643	220	16000	102	70	7.6	0	27078
Fruitland Coal	8935	500.2	160	14000	27.31	24.4	7.2	104	23775
Fruitland Coal	1001	73.20	215	2000	2.8	39	7.4	30	3980
Fruitland Coal	11591	634.4	480	19000	12.53	73.2	7.5	35	31929
Fruitland Coal	6435	939	217	10000	1.30	48	6.8	64	17733
Dakota	11852	514.8	280	19000	24.32	48.8	7	46	31812
Dakota	9985	420.8	280	16000	4.37	24.4	7.6	5	26736
Dakota	12964	427	360	21000	13.44	24.4	7.6	18	34834

Wellbore has not yet been perforated since it has not been drilled. The current perforation plan is from ≈ 7,350' to ≈ 7,450' (logs will determine exact interval after drilling and logging). Top of the SWD Entrada is at ≈ 7,347'. Oil and gas are produced elsewhere in the San Juan Basin from this formation. The closest Entrada field is the Leggs Field which is ≈ 22.3 miles South in Township 21N Range 10W, San Juan County, NM. The bottom of the closest overlying productive formation, is the Dakota Formation is ≈ 2,450' west at a depth of 6,254' in the Irish #2. There will be a minimum 1,096' interval between highest injection perforation and the bottom of the Dakota productive zone. A summary of analysis of the Dakota produced water follows. The sample (see Exhibit "F") is from XTO's Irish #1 at NENW Sec.22, T25N-R10W. XTO will attempt to swab load water back after the acid job and then catch a SWD Entrada water sample. If successful, the analysis will be provided to the NMOCD.

XTO ENERGY, INC.  
HOLIDAY SWD #1  
2257' FSL & 1038' FEL  
SEC. 22, T. 25 N., R. 10 W.  
SAN JUAN COUNTY, NEW MEXICO

- VII. This is not an expansion of an existing injection project.
- VIII. 1. Average injection rate  $\approx$  2,200 bwpd. Maximum  $\approx$  2,500 bwpd.  
2. System will be open (water will be piped). Typical on-site facilities will consist of a wellhead with building, 1 filter and pump building, turbines with buildings, dehydrator or separator, 2 horizontal inlet tanks, 1 sump pit for pump and filter run off, 1 two phase separator and chemical injection pumps. The tank battery will typically be constructed and surrounded by a berm of sufficient capacity to contain 1½ times the storage capacity of the largest tank(s). The tanks typically necessary will be 6 to 11 – 400 bbl or greater steel, above ground tanks for water storage and one 80 bbl pit tank. Various piping to connect tanks, pumps and inlet will be placed inside the berm surrounding the tank battery.  
3. Average injection pressure  $\approx$  1300 psi.
- IX. The SWD: Entrada sandstone is a very porous and permeable sandstone. It produces oil and gas elsewhere in the Basin. The gross estimated thickness of the SWD: Entrada is 191' thick in the wellbore. Estimated wellbore formation tops are:

Ojo Alamo Sandstone: 785'  
Kirtland Shale: 857'  
Fruitland Formation: 1,155'  
Lower Fruitland Coal: 1,627'  
Pictured Cliffs Sandstone: 1,642'  
Huerfanito Bentonite: 1,971'  
Chacra Sandstone: 2,456'  
Cliffhouse Sandstone: 3,175'  
Menefee Formation: 3,208'  
Point Lookout Sandstone: 4,105'  
Mancos Shale: 4,356'  
Gallup Sandstone: 5,011'  
Greenhorn Limestone: 6,059'  
Graneros Shale: 6,123'  
Dakota Sandstone: 6,157'  
Morrison Formation: 6,453'  
Wanakah Formation: 7,193'  
Todilto Limestone: 7,319'  
Entrada Sandstone: 7,347'  
Chinle Group: 7,538'

Estimated Total Depth: 7,650'

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**Surface Casing** 10.75", 40.5#, J-55, ST&C will be set at  $\pm 500'$  in a 14.75" hole and cemented to the surface with  $\pm 400$  sacks type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.. Total slurry volume is 556 ft.<sup>3</sup>, 100% excess of calculated annular volume to 500'. Top will be determined by visual observation.

**Intermediate Casing** 7.625", 26.4#, J-55, ST&C will be set at  $\pm 1,750'$  in 9.5" hole.

Lead: with  $\pm 134$  sx Premium Lite HS (Type III/Poz/Gel) or equivalent with dispersant fluid loss, accelerator & LCM mixed at 12.5 ppc. 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

Tail: 100 sx type III or equivalent cement with bonding additive, LCM, dispersant & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

**Production Casing** 5.5", 15.5#, J-55 ( or K-55), ST&C will be set at  $\pm 7,650'$  in a 6.75" hole with DV tool @  $\pm 4,050'$ .

#### **Cement 1<sup>st</sup> Stage**

Lead: with  $\pm 145$  sx Premium Lite HS (Type III/Poz/Gel) or equivalent with dispersant fluid loss, accelerator & LCM mixed at 12.5 ppc. 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

Tail: 100 sx type III or equivalent cement with bonding additive, LCM, dispersant & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

#### **Cement 2<sup>nd</sup> Stage**

Lead:  $\pm 111$  sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx.

Tail: 100 sx Type III neat mixed at 14.5 ppg 1.39 cuft/sx, 6.3 gal/sx.

Total estimated slurry volume for the 5 1/2" production casing is 865 ft<sup>3</sup>.

The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.

Casing will be hydraulically pressure tested before perforating.

Tubing will be 2-7/8" 6.5# internal plastic lined injection string. It will be set at  $\approx 7,250'$  (disposal interval will be  $\approx 7,300'$  to  $\approx 7,500'$ ).

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If a permanent packer is used, then a Baker Model D packer or its equivalent will be set at  $\approx 7,250'$  (which will be  $\approx 85'$  above top perforation) with an anchor seal assembly stung into the packer. If a retrievable packer is used, then a Baker Lok-set packer or its equivalent with an on/off tool assembly will be set at  $\approx 7,250'$ . Disposal interval will be  $\approx 7,300'$  to  $\approx 7,500'$  (well logs will determine exact interval after drilling).

The well will be perforated (0.40") with four shots per foot.

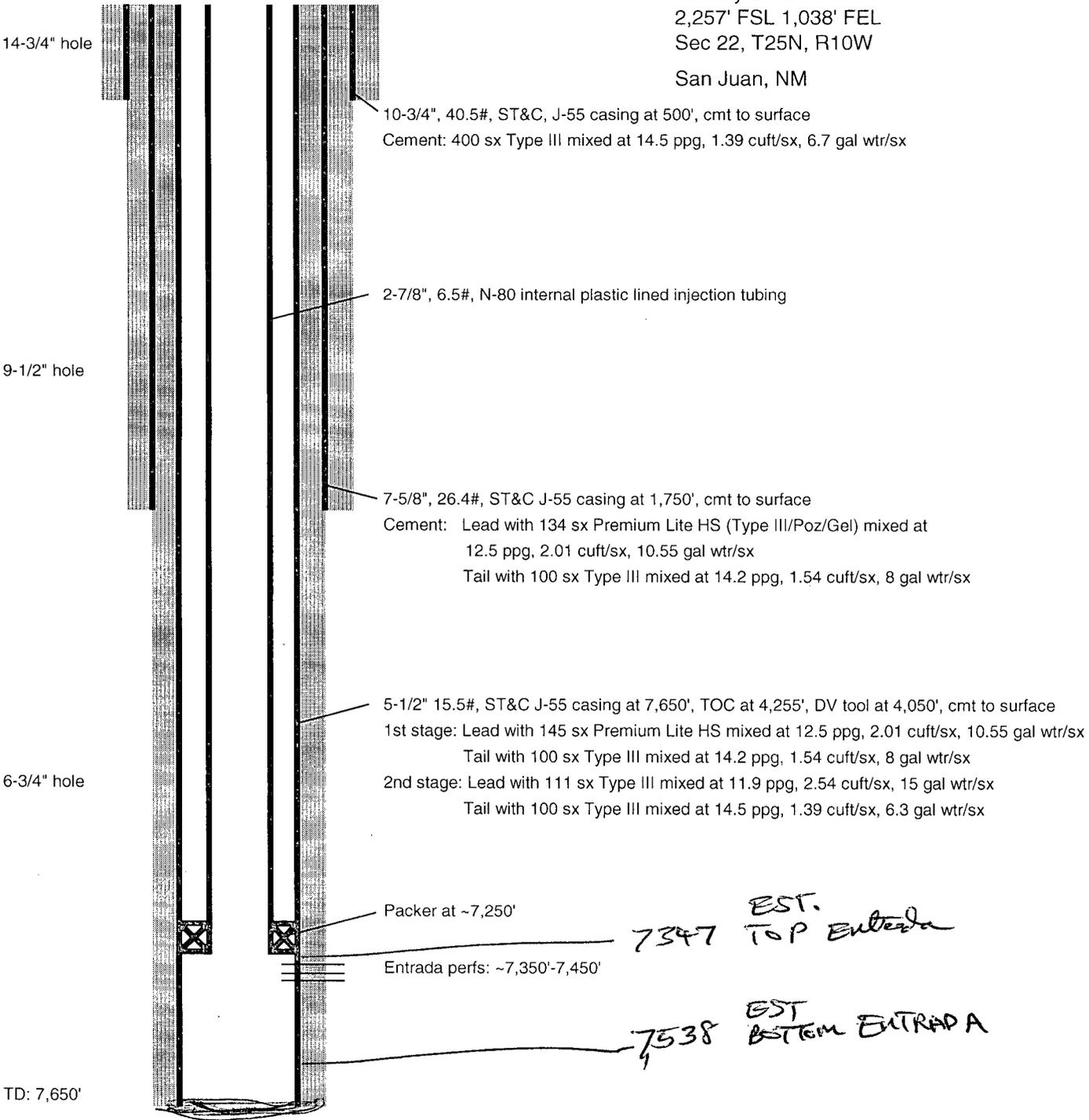
The well will be stimulated with  $\approx 1,000$  to  $\approx 1,500$  gallons of 15% HCL acid. If needed, a small cross linked gel water sand frac job will be done.

Array Induction/SFL/GR/SP will be ran from TD (7,500') to the bottom of the surface casing. Neutron/Lithodensity/Pe/GR/Cal will be run from TD (7,500') to 6,000'. Copies will then be provided to the NMOCD.

- X. Notice (this application) has been sent to Burlington Resources Oil & Gas Company, Inc. (Conoco/Phillips), Arco Oil and Gas, Noble Energy, Inc., Skelly Oil Co., Tenneco Oil Co., Redwolf Production, Dugan Production Corp., Rosetta Resources, El Paso Natural Gas and Sinclair Oil Corp. for the non XTO operated wells within the area of review of the proposed SWD. A copy of the letter with Postal Certification of delivery is attached as Exhibit "G". A legal ad (see Exhibit "H") was published on Thursday October 7, 2010, in the Farmington Daily Times.

SD Johnson is shown to be the operator of the Federal #1,NWSW Sec. 14, T25N,R10W, which is a dry hole.  
No address was found for SD Johnson.

Holiday SWD # 1  
 2,257' FSL 1,038' FEL  
 Sec 22, T25N, R10W  
 San Juan, NM



10-3/4", 40.5#, ST&C, J-55 casing at 500', cmt to surface  
 Cement: 400 sx Type III mixed at 14.5 ppg, 1.39 cuft/sx, 6.7 gal wtr/sx

2-7/8", 6.5#, N-80 internal plastic lined injection tubing

7-5/8", 26.4#, ST&C J-55 casing at 1,750', cmt to surface  
 Cement: Lead with 134 sx Premium Lite HS (Type III/Poz/Gel) mixed at 12.5 ppg, 2.01 cuft/sx, 10.55 gal wtr/sx  
 Tail with 100 sx Type III mixed at 14.2 ppg, 1.54 cuft/sx, 8 gal wtr/sx

5-1/2" 15.5#, ST&C J-55 casing at 7,650', TOC at 4,255', DV tool at 4,050', cmt to surface  
 1st stage: Lead with 145 sx Premium Lite HS mixed at 12.5 ppg, 2.01 cuft/sx, 10.55 gal wtr/sx  
 Tail with 100 sx Type III mixed at 14.2 ppg, 1.54 cuft/sx, 8 gal wtr/sx  
 2nd stage: Lead with 111 sx Type III mixed at 11.9 ppg, 2.54 cuft/sx, 15 gal wtr/sx  
 Tail with 100 sx Type III mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal wtr/sx

Packer at ~7,250'

Entrada perms: ~7,350'-7,450'

*EST. 7347 TOP ENTRADA*

*EST. 7538 BSTEM ENTRADA*

TD: 7,650'

## **TABLE OF EXHIBITS**

<b>EXHIBIT "A"</b>	<b>All leases within 1/2 mile &amp; 2 mile radius</b>
<b>EXHIBIT "B"</b>	<b>All wells within 1/2 mile &amp; 2 mile radius</b>
<b>EXHIBIT "B-1"</b>	<b>Cement information for P&amp;A wells</b>
<b>EXHIBIT "C"</b>	<b>Fresh water well</b>
<b>EXHIBIT "C-1"</b>	<b>Fresh water well analysis</b>
<b>EXHIBIT "D"</b>	<b>XTO operated wells</b>
<b>EXHIBIT "E"</b>	<b>Water analysis for XTO operated wells</b>
<b>EXHIBIT "F"</b>	<b>Water analysis of Dakota formation</b>
<b>EXHIBIT "G"</b>	<b>Proof of notification</b>
<b>EXHIBIT "H"</b>	<b>Affidavit of publication</b>
	<b>Copy of APD follows Exhibit "H"</b>

**EXHIBIT "A"**

**MAP IDENTIFYING ALL LEASES WITHIN**

**1/2 MILE & 2 MILE RADIUS**

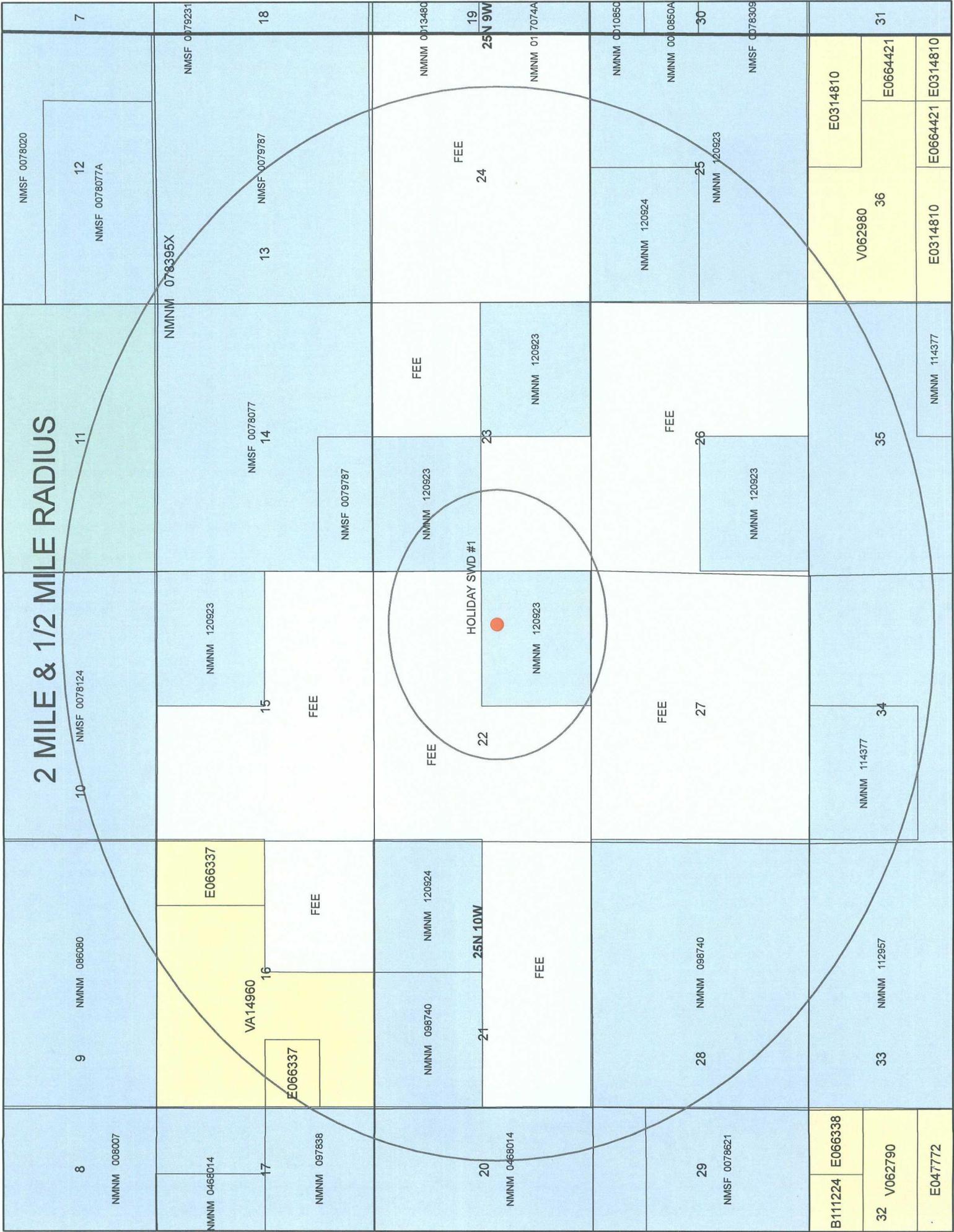
**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# 2 MILE & 1/2 MILE RADIUS





**EXHIBIT "A-1"**

**WELLBORE DIAGRAMS FOR THE EXISTING  
XTO WELLS IN THE 1/2 MILE & 2 MILE RADIUS**

**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

*These were  
Removed Because  
THEY were all  
Too Shallow*



**EXHIBIT "B-1"**  
**CEMENT INFORMATION FOR THE**  
**PLUGGED AND ABANDONED WELLS**  
**XTO ENERGY INC.**  
**HOLIDAY SWD #1**  
**SE/4 Sec. 22 T25N - R10W**  
**SAN JUAN COUNTY, NEW MEXICO**

*all shallow  
- data removed*



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q Q Q			Sec	Tws	Rng	X	Y	Depth	Depth	Water
				64	16	4						Well	Water	Column
SJ 01715	STK		SJ	4	4	22	25N	10W	241895	4030074*	637	250	387	
												Average Depth to Water: <b>250 feet</b>		
												Minimum Depth: <b>250 feet</b>		
												Maximum Depth: <b>250 feet</b>		

**Record Count:** 1

**PLSS Search:**

Section(s): 22      Township: 25N      Range: 10W

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/2/10 8:57 AM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

(P/22/25N/10W)

**EXHIBIT "C-1"**

**FRESH WATER WELL ANALYSIS**

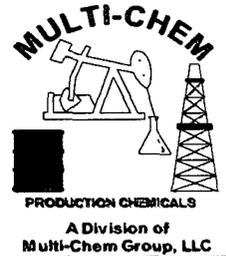
**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# CUSTOMER SERVICE REPORT



COMPANY: XTO Energy	DATE: 8/9/2010	START TIME:	END TIME:	TOTAL TIME:
LOCATION / WELL: Holiday Lease	BY:	PAGE:	OF:	
ATTN:				

COPIES TO:

REASON FOR CALL:  
Water analysis

## FINDINGS:

Multi-Chem personnel was asked to collect a water sample on a water well Southeast fo the Irish #2 production well. The well was dry and there was not water in the tank. Thanks and let me know if you need anything else.

## RECOMMENDATIONS:

Travis Pitcock

SIGNED:

**EXHIBIT "D"**

**XTO OPERATED WELLS**

**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

WELL INFORMATION

Lease	Well #	API	Field	Reservoir	Sec.	TWP	RGE	County	State
ARBOR	21H	3004535033	BASIN	F/COAL	26D	25N	10W	SAN JUAN	NM
ARBOR	22H	3004535029	BASIN	F/COAL	26L	25N	10W	SAN JUAN	NM
BOXER	21H	3004535025	BASIN	F/COAL	27D	25N	10W	SAN JUAN	NM
BOXER	22H	3004535027	BASIN	F/COAL	27L	25N	10W	SAN JUAN	NM
IRISH	1	3004534140	BASIN	F/COAL	22C	25N	10W	SAN JUAN	NM
IRISH	2	3004533743	BASIN	F/COAL	22K	25N	10W	SAN JUAN	NM
LABOR	21H	3004535030	BASIN	F/COAL	23L	25N	10W	SAN JUAN	NM
NEW YEAR	1	3004533745	BASIN	F/COAL	15E	25N	10W	SAN JUAN	NM
VALENTINE	21H	3004535028	BASIN	F/COAL	21L	25N	10W	SAN JUAN	NM

**EXHIBIT "E"**

**WATER ANALYSIS FOR  
XTO OPERATED WELLS**

**XTO ENERGY INC.**

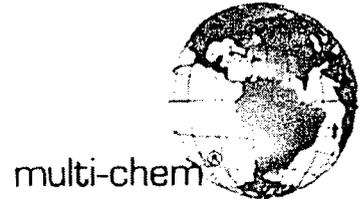
**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# Multi-Chem Group, LLC

Iti-Chem Analytical Laboratory  
 1553 East Highway 40  
 Vernal, UT 84078



## Water Analysis Report

Production Company: **XTO ENERGY (154)**  
 Well Name: **Arbor 21**  
 Sample Point: **Well Head**  
 Sample Date: **3/4/2010**  
 Sales Rep: **Travis Pitcock**  
 Lab Tech: **John Keel**

Sample ID: **WA-38310**

*Formation Tested: Fruitland coal*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	3/4/2010	<b>Cations</b>		<b>Anions</b>	
Temperature (°F):	62	Calcium (Ca):	240.00	Chloride (Cl):	17000.00
Sample Pressure (psig):	0	Magnesium (Mg):	48.80	Sulfate (SO <sub>4</sub> ):	9.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0210	Barium (Ba):	9.00	Dissolved CO <sub>2</sub> :	20.40
pH:	7.1	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	823.50
Turbidity (NTU):	-	Sodium (Na):	10731.00	Carbonate (CO <sub>3</sub> ):	-
		Potassium (K):	-	H <sub>2</sub> S:	1.00
		Iron (Fe):	13.06	Phosphate (PO <sub>4</sub> ):	-
		Manganese (Mn):	0.34	Silica (SiO <sub>2</sub> ):	-
Calculated T.D.S. (mg/L):	28896	Lithium (Li):	-	Fluoride (F):	-
Molar Conductivity (µS/cm):	43782	Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
Resistivity (Mohm):	0.2284	Ammonia (NH <sub>3</sub> ):	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
62	0	1.06	0.08	0.00	-2951.10	0.00	-3509.20	-	-	1.86	4.39	1.46
80	0	1.53	0.63	0.00	-3.96	0.00	-3458.10	-	-	1.23	1.58	0.68
100	0	2.10	1.18	0.00	-2.24	0.00	-3260.30	-	-	0.79	-2.02	0.85
120	0	2.71	1.65	0.00	-1.02	0.00	-2957.00	-	-	0.52	-6.18	0.95
140	0	3.36	2.10	0.00	-0.10	0.00	-2593.30	-	-	0.35	-10.98	1.07
160	0	4.01	2.53	0.00	0.62	0.00	-2208.00	-	-	0.24	-16.48	1.21
180	0	4.63	2.92	0.00	1.17	0.00	-1830.70	-	-	0.17	-22.78	1.33
200	0	5.17	3.24	0.00	1.59	0.00	-1481.10	-	-	0.12	-29.99	1.35
220	2.51	5.52	3.53	0.00	1.90	0.00	-1189.40	-	-	0.08	-38.93	1.36
240	10.3	5.79	3.70	0.00	2.09	0.00	-920.10	-	-	0.06	-48.61	1.38
260	20.76	5.90	3.76	0.00	2.18	0.01	-694.09	-	-	0.04	-59.71	1.41
280	34.54	5.85	3.72	0.00	2.17	0.01	-509.23	-	-	0.03	-72.46	1.44
300	52.34	5.66	3.59	0.00	2.09	0.02	-362.05	-	-	0.02	-87.15	1.46

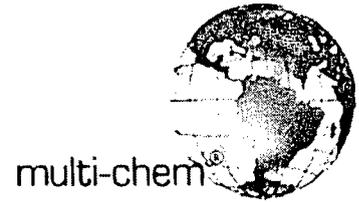
### Conclusions:

Calcium Carbonate scale is indicated at all temperatures from 80°F to 300°F  
 Gypsum Scaling Index is negative from 80°F to 300°F  
 Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
 Strontium Sulfate scaling was not evaluated  
 Barium Sulfate NO CONCLUSION

### Notes:

**Multi-Chem Group, LLC**

Multi-Chem Analytical Laboratory  
 1553 East Highway 40  
 Vernal, UT 84078



**Water Analysis Report**

Production Company: **XTO ENERGY (154)**  
 Well Name: **Boxer 21 H**  
 Sample Point: **Well Head**  
 Sample Date: **3 /25/2010**  
 Sales Rep: **Travis Pitcock**  
 Lab Tech: **John Keel**

Sample ID: **WA-39674**

*Formation Tested: Fruitland Coal*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	4/16/2010	<b>Cations</b>		<b>Anions</b>	
Temperature (°F):	62	Calcium (Ca):	160.00	Chloride (Cl):	14000.00
Sample Pressure (psig):	0	Magnesium (Mg):	24.40	Sulfate (SO <sub>4</sub> ):	104.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0140	Barium (Ba):	12.00	Dissolved CO <sub>2</sub> :	11.88
pH:	7.2	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	500.20
Turbidity (NTU):	-	Sodium (Na):	8935.00	Carbonate (CO <sub>3</sub> ):	-
Calculated T.D.S. (mg/L):	23775	Potassium (K):	-	H <sub>2</sub> S:	-
Molar Conductivity (µS/cm):	36023	Iron (Fe):	27.31	Phosphate (PO <sub>4</sub> ):	-
Resistivity (Mohm):	0.2776	Manganese (Mn):	0.64	Silica (SiO <sub>2</sub> ):	-
		Lithium (Li):	-	Fluoride (F):	-
		Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia (NH <sub>3</sub> ):	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
62	0	0.60	-0.73	0.01	-2819.30	0.00	-3355.00	-	-	34.23	19.74	0.73
80	0	0.87	-0.20	0.01	-8.20	0.00	-3302.40	-	-	22.66	19.40	0.34
100	0	1.22	0.31	0.01	-5.66	0.01	-3109.70	-	-	14.65	18.86	0.43
120	0	1.58	0.75	0.01	-3.86	0.01	-2816.90	-	-	9.69	18.08	0.48
140	0	1.99	1.16	0.01	-2.53	0.01	-2466.80	-	-	6.53	16.98	0.54
160	0	2.41	1.54	0.01	-1.55	0.01	-2096.20	-	-	4.48	15.45	0.61
180	0	2.82	1.88	0.01	-0.81	0.01	-1733.40	-	-	3.12	13.37	0.67
200	0	3.19	2.16	0.01	-0.26	0.02	-1397.20	-	-	2.20	10.59	0.68
220	2.51	3.45	2.40	0.01	0.10	0.03	-1115.20	-	-	1.54	6.66	0.68
240	10.3	3.63	2.53	0.01	0.36	0.04	-855.34	-	-	1.11	1.81	0.70
260	20.76	3.72	2.58	0.01	0.50	0.06	-636.11	-	-	0.81	-4.36	0.71
280	34.54	3.68	2.53	0.01	0.55	0.10	-455.21	-	-	0.59	-12.12	0.72
300	52.34	3.55	2.41	0.01	0.52	0.15	-308.90	-	-	0.43	-21.72	0.73

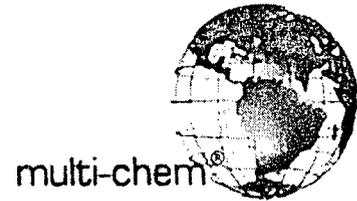
**Conclusions:**

Calcium Carbonate scale is indicated. See graph for appropriate temperature ranges.  
 Gypsum Scaling Index is negative from 80°F to 300°F  
 Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
 Strontium Sulfate scaling was not evaluated  
 Barium Sulfate NO CONCLUSION

**Notes:**

**Multi-Chem Group, LLC**

Multi-Chem Analytical Laboratory  
1553 East Highway 40  
Vernal, UT 84078



**Water Analysis Report**

Production Company: **XTO ENERGY (154)**  
Well Name: **Arbor 22H**  
Sample Point: **Well Head**  
Sample Date: **11/18/2010**  
Sales Rep: **Travis Pitcock**  
Lab Tech: **John Keel**

Sample ID: **WA-50374**

*Formation Tested: Fruitland Coal*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	12/1/2010	<b>Cations</b>	<b>mg/L</b>	<b>Anions</b>	<b>mg/L</b>
Temperature (°F):	52	Calcium (Ca):	220.00	Chloride (Cl):	16000.00
Sample Pressure (psig):		Magnesium (Mg):	70.00	Sulfate (SO <sub>4</sub> ):	-
Specific Gravity (g/cm <sup>3</sup> ):	1.0180	Barium (Ba):	22.00	Dissolved CO <sub>2</sub> :	63.00
pH:	7.6	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	643.00
Turbidity (NTU):	-	Sodium (Na):	9967.00	Carbonate (CO <sub>3</sub> ):	-
		Potassium (K):	-	H <sub>2</sub> S:	-
		Iron (Fe):	102.00	Phosphate (PO <sub>4</sub> ):	-
Calculated T.D.S. (mg/L):	27078	Manganese (Mn):	1.30	Silica (SiO <sub>2</sub> ):	-
Molar Conductivity (µS/cm):	41028	Lithium (Li):	-	Fluoride (F):	-
Resistivity (Mohm):	0.2437	Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia NH <sub>3</sub> :	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
52		2.11	1.73	0.00	-3867.40	0.00	-3446.00	-	-	0.00	-2.76	0.37
80	0	3.77	3.51	0.00	0.20	0.00	-3426.10	-	-	0.00	-4.91	0.18
100	0	5.12	4.62	0.00	1.98	0.00	-3229.00	-	-	0.00	-7.10	0.22
120	0	6.50	5.55	0.00	3.32	0.00	-2928.00	-	-	0.00	-9.94	0.25
140	0	7.89	6.38	0.00	4.39	0.00	-2567.00	-	-	0.00	-13.52	0.28
160	0	9.16	7.04	0.00	5.19	0.00	-2184.26	-	-	0.00	-17.91	0.31
180	0	10.18	7.47	0.00	5.72	0.00	-1808.90	-	-	0.00	-23.21	0.34
200	0	10.82	7.62	0.00	5.97	0.00	-1460.50	-	-	0.00	-29.50	0.35
220	2.51	10.92	7.57	0.00	6.00	0.00	-1168.80	-	-	0.00	-37.68	0.35
240	10.3	10.70	7.18	0.00	5.74	0.00	-900.00	-	-	0.00	-46.47	0.35
260	20.76	10.14	6.60	0.00	5.31	0.00	-674.93	-	-	0.00	-56.81	0.36
280	34.54	9.34	5.92	0.00	4.79	0.00	-492.08	-	-	0.00	-68.82	0.36
300	52.34	8.41	5.22	0.00	4.24	0.00	-348.16	-	-	0.00	-82.75	0.37

**Conclusions:**

Calcium Carbonate scale is indicated at all temps from 80°F to 300°F  
Gypsum Scaling Index is negative from 80°F to 300°F  
Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
Strontium Sulfate scaling was not evaluated  
Barium Sulfate Scaling Index is negative from 80°F to 300°F

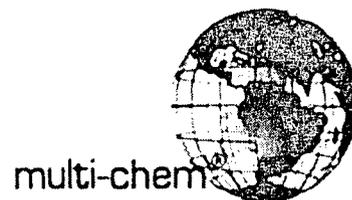
**Notes:**

# Multi-Chem Group, LLC

Multi-Chem Analytical Laboratory

1553 East Highway 40

Vernal, UT 84078



## Water Analysis Report

Production Company: **XTO ENERGY (154)**

Sample ID: **WA-41602**

Well Name: **Boxer #22H**

Sample Point: **Well Head**

Sample Date: **5/17/2010**

Sales Rep: **Travis Pitcock**

Lab Tech: **John Keel**

*Formation Tested: Fruitland coal*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	5/25/2010	<b>Cations</b>	<b>mg/L</b>	<b>Anions</b>	<b>mg/L</b>
Temperature (°F):	72	Calcium (Ca):	215.00	Chloride (Cl):	2000.00
Sample Pressure (psig):	49	Magnesium (Mg):	39.00	Sulfate (SO <sub>4</sub> ):	30.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0120	Barium (Ba):	8.00	Dissolved CO <sub>2</sub> :	610.00
pH:	7.4	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	73.20
Turbidity (NTU):	-	Sodium (Na):	1001.00	Carbonate (CO <sub>3</sub> ):	-
		Potassium (K):	-	H <sub>2</sub> S:	0.50
		Iron (Fe):	2.80	Phosphate (PO <sub>4</sub> ):	-
Calculated T.D.S. (mg/L):	3080	Manganese (Mn):	0.60	Silica (SiO <sub>2</sub> ):	-
Molar Conductivity (µS/cm):	6030	Lithium (Li):	-	Fluoride (F):	-
Resitivity (Mohm):	1.6584	Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia NH <sub>3</sub> :	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
72	49	0.43	-0.28	0.01	-1523.20	0.00	-1860.80	-	-	15.13	12.44	0.08
80	0	0.51	-0.23	0.01	-2.30	0.00	-1826.50	-	-	12.72	12.22	0.04
100	0	0.71	-0.11	0.01	-1.55	0.01	-1686.20	-	-	8.38	11.53	0.04
120	0	0.84	-0.02	0.01	-1.05	0.01	-1499.80	-	-	5.64	10.58	0.05
140	0	1.19	0.06	0.01	-0.70	0.01	-1267.30	-	-	3.87	9.30	0.06
160	0	1.46	0.12	0.01	-0.46	0.01	-1038.70	-	-	2.70	7.65	0.06
180	0	1.72	0.17	0.01	-0.28	0.02	-821.55	-	-	1.91	5.56	0.07
200	0	1.97	0.22	0.01	-0.15	0.02	-626.76	-	-	1.37	3.02	0.07
220	2.51	2.17	0.24	0.02	-0.06	0.03	-465.61	-	-	0.99	-0.12	0.07
240	10.3	2.33	0.26	0.02	0.01	0.05	-328.20	-	-	0.73	-3.70	0.07
260	20.76	2.45	0.27	0.02	0.05	0.08	-220.05	-	-	0.54	-7.82	0.08
280	34.54	2.52	0.27	0.02	0.08	0.13	-138.68	-	-	0.41	-12.49	0.08
300	52.34	2.55	0.27	0.02	0.10	0.22	-80.30	-	-	0.31	-17.77	0.08

**Conclusions:**

Calcium Carbonate scale is indicated. See graph for appropriate temperature ranges.

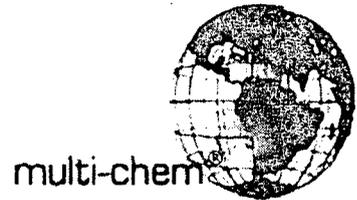
Gypsum Scaling Index is negative from 80°F to 300°F

Calcium Sulfate Scaling Index is negative from 80°F to 300°F

Strontium Sulfate scaling was not evaluated

Barium Sulfate NO CONCLUSION

**Notes:**



**Water Analysis Report**

Production Company: **XTO ENERGY (154)**  
 Well Name: **Valentine 21H**  
 Sample Point: **Well Head**  
 Sample Date: **5 /3 /2010**  
 Sales Rep: **Travis Pitcock**  
 Lab Tech: **John Keel**

Sample ID: **WA-41037**

*Formation Tested: Fruitland coal*

Sample Specifics	
Test Date:	5/11/2010
Temperature (°F):	66
Sample Pressure (psig):	15
Specific Gravity (g/cm³):	1.0140
pH:	6.8
Turbidity (NTU):	-
Calculated T.D.S. (mg/L)	17733
Molar Conductivity (µS/cm):	26867
Resitivity (Mohm):	0.3722

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Calcium (Ca):	217.00	Chloride (Cl):	10000.00
Magnesium (Mg):	48.00	Sulfate (SO₄):	64.00
Barium (Ba):	7.10	Dissolved CO₂:	19.80
Strontium (Sr):	-	Bicarbonate (HCO₃):	939.00
Sodium (Na):	6435.00	Carbonate (CO₃):	-
Potassium (K):	-	H₂S:	0.50
Iron (Fe):	1.30	Phosphate (PO₄):	-
Manganese (Mn):	0.80	Silica (SiO₂):	-
Lithium (Li):	-	Fluoride (F):	-
Aluminum (Al):	-	Nitrate (NO₃):	-
Ammonia (NH₃):	-	Lead (Pb):	-
		Zinc (Zn):	-
		Bromine (Br):	-
		Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO₃		Gypsum CaSO₄·2H₂O		Calcium Sulfate CaSO₄		Strontium Sulfate SrSO₄		Barium Sulfate BaSO₄		Calculated CO₂ psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
66	15	0.61	-0.46	0.01	2541.60	0.00	-3046.40	-	-	13.52	11.09	3.30
80	0	0.82	-0.19	0.01	-3.84	0.00	-2994.50	-	-	9.85	10.73	1.43
100	0	1.14	0.14	0.01	-2.51	0.00	-2812.10	-	-	6.40	10.02	1.80
120	0	1.48	-0.42	0.01	-1.59	0.01	-2538.80	-	-	4.26	9.01	2.04
140	0	1.85	0.68	0.01	-0.93	0.01	-2214.90	-	-	2.89	7.60	2.31
160	0	2.23	0.93	0.01	-0.44	0.01	-1874.00	-	-	1.99	5.71	2.62
180	0	2.61	1.16	0.01	-0.07	0.01	-1543.50	-	-	1.40	3.21	2.90
200	0	2.97	1.39	0.01	0.22	0.02	-1238.90	-	-	1.00	-0.03	2.96
220	2.51	3.26	1.60	0.01	0.43	0.02	-984.35	-	-	0.71	-4.42	3.01
240	10.3	3.52	1.79	0.01	0.59	0.03	-752.73	-	-	0.51	-9.66	3.08
260	20.76	3.73	1.96	0.01	0.71	0.05	-559.33	-	-	0.38	-16.10	3.15
280	34.54	3.87	2.10	0.01	0.78	0.08	-401.51	-	-	0.28	-23.91	3.22
300	52.34	3.95	2.20	0.01	0.81	0.13	-275.30	-	-	0.21	-33.31	3.30

**Conclusions:**

Calcium Carbonate scale is indicated. See graph for appropriate temperature ranges.  
 Gypsum Scaling Index is negative from 80°F to 300°F  
 Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
 Strontium Sulfate scaling was not evaluated  
 Barium Sulfate NO CONCLUSION

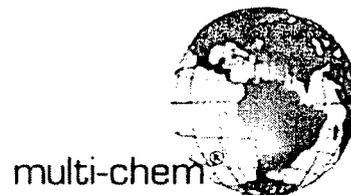
**Notes:**

# Multi-Chem Group, LLC

Multi-Chem Analytical Laboratory

1553 East Highway 40

Vernal, UT 84078



## Water Analysis Report

Production Company: **XTO ENERGY (154)**

Sample ID: **WA-38307**

Well Name: **Irish #1**

Sample Point: **Well Head**

Sample Date: **3/5/2010**

Sales Rep: **Travis Pitcock**

Lab Tech: **John Keel**

*Formation Tested: Dakota*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	3/5/2010	<b>Cations</b>		<b>Anions</b>	
Temperature (°F):	71	Calcium (Ca):	280.00	Chloride (Cl):	19000.00
Sample Pressure (psig):	0	Magnesium (Mg):	48.80	Sulfate (SO <sub>4</sub> ):	46.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0210	Barium (Ba):	5.00	Dissolved CO <sub>2</sub> :	39.60
pH:	7	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	514.80
Turbidity (NTU):	-	Sodium (Na):	11852.00	Carbonate (CO <sub>3</sub> ):	-
Calculated T.D.S. (mg/L):	31812	Potassium (K):	-	H <sub>2</sub> S:	1.00
Molar Conductivity (µS/cm):	48200	Iron (Fe):	24.32	Phosphate (PO <sub>4</sub> ):	-
Resistivity (Mohm):	0.2075	Manganese (Mn):	0.78	Silica (SiO <sub>2</sub> ):	-
		Lithium (Li):	-	Fluoride (F):	-
		Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia (NH <sub>3</sub> ):	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
71	0	0.71	-0.33	0.00	-2998.50	0.00	-3517.60	-	-	3.91	6.16	1.13
80	0	0.85	-0.16	0.00	-4.88	0.00	-3474.20	-	-	3.18	5.64	0.52
100	0	1.18	0.17	0.00	-3.27	0.00	-3271.70	-	-	2.05	4.13	0.65
120	0	1.53	0.44	0.00	-2.15	0.00	-2960.70	-	-	1.34	2.01	0.73
140	0	1.91	0.70	0.01	-1.34	0.00	-2587.30	-	-	0.90	-0.86	0.82
160	0	2.31	0.94	0.01	0.74	0.01	-2191.50	-	-	0.61	-4.62	0.92
180	0	2.69	1.14	0.01	-0.30	0.01	-1803.80	-	-	0.42	-9.43	1.02
200	0	3.03	1.32	0.01	0.03	0.01	-1444.90	-	-	0.30	-15.39	1.03
220	2.51	3.26	1.47	0.01	0.26	0.02	-1146.30	-	-	0.21	-23.23	1.05
240	10.3	3.44	1.56	0.01	0.43	0.02	-871.21	-	-	0.15	-32.17	1.06
260	20.76	3.53	1.60	0.01	0.53	0.04	-641.54	-	-	0.11	-42.78	1.08
280	34.54	3.52	1.59	0.01	0.57	0.06	-455.26	-	-	0.08	-55.28	1.11
300	52.34	3.42	1.54	0.01	0.57	0.09	-308.70	-	-	0.06	-69.94	1.13

**Conclusions:**

Calcium Carbonate scale is indicated. See graph for appropriate temperature ranges.

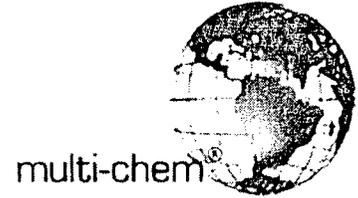
Gypsum Scaling Index is negative from 80°F to 300°F

Calcium Sulfate Scaling Index is negative from 80°F to 300°F

Strontium Sulfate scaling was not evaluated

Barium Sulfate NO CONCLUSION

**Notes:**



**Water Analysis Report**

Production Company: **XTO ENERGY (154)**  
 Well Name: **Irish #2**  
 Sample Point: **Well Head**  
 Sample Date: **3/4/2010**  
 Sales Rep: **Travis Pitcock**  
 Lab Tech: **John Keel**

Sample ID: **WA-38309**

*Formation Tested: Dakota*

Sample Specifics	
Test Date:	3/4/2010
Temperature (°F):	61
Sample Pressure (psig):	0
Specific Gravity (g/cm³):	1.0180
pH:	7.6
Turbidity (NTU):	-
Calculated T.D.S. (mg/L)	26736
Molar Conductivity (µS/cm):	40509
Resistivity (Mohm):	0.2469

Analysis @ Properties in Sample Specifics			
Cations	mg/L	Anions	mg/L
Calcium (Ca):	280.00	Chloride (Cl):	16000.00
Magnesium (Mg):	24.40	Sulfate (SO₄):	5.00
Barium (Ba):	3.00	Dissolved CO₂:	11.88
Strontium (Sr):	-	Bicarbonate (HCO₃):	420.80
Sodium (Na):	9985.00	Carbonate (CO₃):	-
Potassium (K):	-	H₂S:	1.00
Iron (Fe):	4.37	Phosphate (PO₄):	-
Manganese (Mn):	0.34	Silica (SiO₂):	-
Lithium (Li):	-	Fluoride (F):	-
Aluminum (Al):	-	Nitrate (NO₃):	-
Ammonia (NH₃):	-	Lead (Pb):	-
		Zinc (Zn):	-
		Bromine (Br):	-
		Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO₃		Gypsum CaSO₄ · 2H₂O		Calcium Sulfate CaSO₄		Strontium Sulfate SrSO₄		Barium Sulfate BaSO₄		Calculated CO₂ psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
61	0	2.18	1.33	0.00	-2809.10	0.00	-3370.40	-	-	0.37	-4.38	0.24
80	0	3.18	2.13	0.00	-7.34	0.00	-3318.90	-	-	0.24	-7.14	0.12
100	0	4.35	2.88	0.00	-4.41	0.00	-3122.30	-	-	0.16	-10.53	0.15
120	0	5.56	3.51	0.00	-2.29	0.00	-2822.50	-	-	0.10	-14.48	0.16
140	0	6.82	4.07	0.00	-0.71	0.00	-2463.60	-	-	0.07	-19.06	0.18
160	0	8.00	4.54	0.00	0.45	0.00	-2083.80	-	-	0.05	-24.34	0.21
180	0	8.98	4.86	0.00	1.26	0.00	-1712.20	-	-	0.03	-30.40	0.22
200	0	9.63	4.99	0.00	1.78	0.00	-1368.40	-	-	0.02	-37.36	0.23
220	2.51	9.78	4.99	0.00	2.03	0.00	-1082.10	-	-	0.02	-46.03	0.23
240	10.3	9.63	4.76	0.00	2.07	0.00	-819.92	-	-	0.01	-55.40	0.23
260	20.76	9.15	4.39	0.00	1.96	0.00	-602.70	-	-	0.01	-66.16	0.23
280	34.54	8.42	3.95	0.00	1.74	0.01	-428.87	-	-	0.01	-78.53	0.24
300	52.34	7.56	3.48	0.00	1.47	0.01	-294.92	-	-	0.00	-92.77	0.24

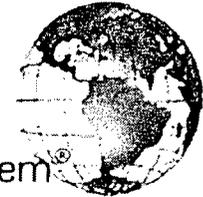
**Conclusions:**

Calcium Carbonate scale is indicated at all temperatures from 80°F to 300°F  
 Gypsum Scaling Index is negative from 80°F to 300°F  
 Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
 Strontium Sulfate scaling was not evaluated  
 Barium Sulfate Scaling Index is negative from 80°F to 300°F

**Notes:**

# Multi-Chem Group, LLC

Iti-Chem Analytical Laboratory  
1553 East Highway 40  
Vernal, UT 84078



## Water Analysis Report

Production Company: **XTO ENERGY (154)**  
Well Name: **Labor 21 H**  
Sample Point: **Well Head**  
Sample Date: **4/7/2010**  
Sales Rep: **Travis Pitcock**  
Lab Tech: **John Keel**

Sample ID: **WA-39675**

*Formation Tested: Fruitland coal*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	4/16/2010	<b>Cations</b>	<b>mg/L</b>	<b>Anions</b>	<b>mg/L</b>
Temperature (°F):	63	Calcium (Ca):	480.00	Chloride (Cl):	19000.00
Sample Pressure (psig):	0	Magnesium (Mg):	73.20	Sulfate (SO <sub>4</sub> ):	35.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0230	Barium (Ba):	58.00	Dissolved CO <sub>2</sub> :	43.56
pH:	7.5	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	634.40
Turbidity (NTU):	-	Sodium (Na):	11591.00	Carbonate (CO <sub>3</sub> ):	-
		Potassium (K):	-	H <sub>2</sub> S:	0.50
		Iron (Fe):	12.53	Phosphate (PO <sub>4</sub> ):	-
Calculated T.D.S. (mg/L):	31929	Manganese (Mn):	1.09	Silica (SiO <sub>2</sub> ):	-
Molar Conductivity (µS/cm):	48378	Lithium (Li):	-	Fluoride (F):	-
sitivity (Mohm):	0.2067	Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia NH <sub>3</sub> :	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub>
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	psi
63	0	4.23	2.31	0.01	-2684.50	0.00	-3277.40	-	-	39.68	61.13	0.45
80	0	5.87	3.08	0.01	-0.80	0.00	-3228.10	-	-	26.69	58.26	0.22
100	0	7.93	3.86	0.01	0.81	0.00	-3031.30	-	-	17.13	54.49	0.27
120	0	9.99	4.51	0.01	1.97	0.00	-2727.30	-	-	11.24	50.22	0.30
140	0	12.04	5.08	0.01	2.86	0.01	-2362.10	-	-	7.52	45.35	0.34
160	0	13.91	5.53	0.01	3.52	0.01	-1975.40	-	-	5.12	39.79	0.38
180	0	15.39	5.81	0.01	3.96	0.01	-1597.70	-	-	3.55	33.43	0.42
200	0	16.35	5.91	0.01	4.18	0.01	-1249.90	-	-	2.49	26.12	0.42
220	2.51	16.51	5.89	0.01	4.26	0.02	-962.85	-	-	1.73	17.21	0.42
240	10.3	16.26	5.64	0.01	4.12	0.03	-702.98	-	-	1.24	7.30	0.43
260	20.76	15.50	5.26	0.01	3.87	0.05	-492.24	-	-	0.89	-4.16	0.43
280	34.54	14.38	4.80	0.01	3.54	0.07	-328.82	-	-	0.65	-17.39	0.44
300	52.34	13.04	4.32	0.01	3.17	0.12	-207.94	-	-	0.48	-32.70	0.45

### Conclusions:

Calcium Carbonate scale is indicated at all temperatures from 80°F to 300°F  
Gypsum Scaling Index is negative from 80°F to 300°F  
Calcium Sulfate Scaling Index is negative from 80°F to 300°F  
Strontium Sulfate scaling was not evaluated  
Barium Sulfate NO CONCLUSION

### Notes:

# Multi-Chem Group, LLC

Multi-Chem Analytical Laboratory

1553 East Highway 40

Vernal, UT 84078



## Water Analysis Report

Production Company: **XTO ENERGY (154)**

Sample ID: **WA-38308**

Well Name: **New Year #1**

Sample Point: **Well Head**

Sample Date: **3/4/2010**

Sales Rep: **Travis Pitcock**

Lab Tech: **John Keel**

*Formation Tested: Dakota*

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	3/4/2010	<b>Cations</b>	<b>mg/L</b>	<b>Anions</b>	<b>mg/L</b>
Temperature (°F):	61	Calcium (Ca):	360.00	Chloride (Cl):	21000.00
Sample Pressure (psig):	0	Magnesium (Mg):	24.40	Sulfate (SO <sub>4</sub> ):	18.00
Specific Gravity (g/cm <sup>3</sup> ):	1.0270	Barium (Ba):	9.00	Dissolved CO <sub>2</sub> :	15.84
pH:	7.6	Strontium (Sr):	-	Bicarbonate (HCO <sub>3</sub> ):	427.00
Turbidity (NTU):	-	Sodium (Na):	12964.00	Carbonate (CO <sub>3</sub> ):	-
		Potassium (K):	-	H <sub>2</sub> S:	1.00
		Iron (Fe):	13.44	Phosphate (PO <sub>4</sub> ):	-
Calculated T.D.S. (mg/L):	34834	Manganese (Mn):	0.83	Silica (SiO <sub>2</sub> ):	-
Molar Conductivity (µS/cm):	52778	Lithium (Li):	-	Fluoride (F):	-
Resistivity (Mohm):	0.1895	Aluminum (Al):	-	Nitrate (NO <sub>3</sub> ):	-
		Ammonia (NH <sub>3</sub> ):	-	Lead (Pb):	-
				Zinc (Zn):	-
				Bromine (Br):	-
				Boron (B):	-

Test Conditions		Scale Values @ Test Conditions - Potential Amount of Scale in lb/1000bbl										
Temp °F	Gauge Press. psi	Calcium Carbonate CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> · 2H <sub>2</sub> O		Calcium Sulfate CaSO <sub>4</sub>		Strontium Sulfate SrSO <sub>4</sub>		Barium Sulfate BaSO <sub>4</sub>		Calculated CO <sub>2</sub> psi
		Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	Sat Index	Scale	
61	0	2.55	1.54	0.00	-2937.50	0.00	-3533.10	-	-	3.21	8.88	0.23
80	0	3.72	2.34	0.00	-8.27	0.00	-3482.80	-	-	2.06	6.20	0.12
100	0	5.06	3.08	0.00	-5.12	0.00	-3277.10	-	-	1.32	2.71	0.14
120	0	6.42	3.69	0.00	-2.86	0.00	-2960.30	-	-	0.87	-1.52	0.16
140	0	7.80	4.22	0.00	-1.19	0.00	-2579.40	-	-	0.58	-6.54	0.18
160	0	9.04	4.63	0.00	0.02	0.00	-2175.20	-	-	0.40	-12.40	0.20
180	0	10.00	4.87	0.00	0.85	0.00	-1779.10	-	-	0.27	-19.20	0.22
200	0	10.54	4.91	0.00	1.34	0.01	-1412.60	-	-	0.19	-27.05	0.22
220	2.51	10.50	4.81	0.00	1.56	0.01	-1108.60	-	-	0.13	-36.84	0.22
240	10.3	10.13	4.50	0.00	1.58	0.01	-830.21	-	-	0.10	-47.50	0.23
260	20.76	9.44	4.08	0.00	1.45	0.02	-600.94	-	-	0.07	-59.78	0.23
280	34.54	8.53	3.61	0.00	1.23	0.03	-419.28	-	-	0.05	-73.93	0.23
300	52.34	7.53	3.14	0.00	0.96	0.05	-281.19	-	-	0.04	-90.28	0.23

**Conclusions:**

Calcium Carbonate scale is indicated at all temperatures from 80°F to 300°F

Gypsum Scaling Index is negative from 80°F to 300°F

Calcium Sulfate Scaling Index is negative from 80°F to 300°F

Strontium Sulfate scaling was not evaluated

Barium Sulfate NO CONCLUSION

**Notes:**

**EXHIBIT "F"**

**WATER ANALYSIS OF DAKOTA FORMATION**

**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

# HALLIBURTON

## Water Analysis Report

To: XTO Energy Date: 8/25/2008  
Submitted by: Halliburton Energy Services Date Rec: 8/25/2008  
Attention: Dusty Mecham Report #: FLMM8844  
Well Name: Irish #1

Specific Gravity	1.005	
pH	5.4	
Resistivity	0.96	@ 70° F
Iron (Fe)	50	Mg / L
Potassium (K)	57	Mg / L
Sodium (Na)	3756	Mg / L
Calcium (Ca)	96	Mg / L
Magnesium (Mg)	156	Mg / L
Chlorides (Cl)	5800	Mg / L
Sulfates (SO4)	1000	Mg / L
Carbonates (CO3)	0	Mg / L
Bicarbonates (HCO3)	53	Mg / L
Total Dissolved Solids	10968	Mg / L

Respectfully: Tim Van Guse  
Title: Lab Technician  
Location: Farmington, NM

NO. 003. This report is the property of Halliburton Energy Services. All rights reserved. No part of this report may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Halliburton Energy Services.

**EXHIBIT "G"**

**PROOF OF NOTIFICATION**

**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

**Jones, William V., EMNRD**

---

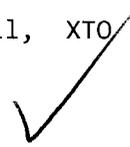
**From:** Malia\_Villers@xtoenergy.com  
**Sent:** Wednesday, April 06, 2011 8:08 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Diane\_Jaramillo@xtoenergy.com; William\_Lucas@xtoenergy.com  
**Subject:** RE: Disposal application from XTO Energy, Inc.: Holiday SWD #1 30-045-35231 Entrada from approx 7347 to 7650

Good morning Will,

Within the 1/2 mile radius of the proposed disposal well, XTO Energy owns the mineral rights in the Entrada.

The leases involved are:

NMNM-120923  
NOG 05031736  
NOG 05031725



If you need anything else, please let me know.

Have a great day!

Malia Villers  
Permitting Tech.  
XTO Energy a subsidiary of ExxonMobil  
Office: 505-333-3698  
Cell: 505-787-7700  
Fax: 505-333-3284  
malia\_villers@xtoenergy.com

"Jones, William  
V., EMNRD"  
<William.V.Jones@  
state.nm.us>

04/05/2011 01:31  
PM

"Malia\_Villers@xtoenergy.com"  
<Malia\_Villers@xtoenergy.com>

To

"William\_Lucas@xtoenergy.com"  
<William\_Lucas@xtoenergy.com>,  
"Diane\_Jaramillo@xtoenergy.com"  
<Diane\_Jaramillo@xtoenergy.com>

cc

Subject

RE: Disposal application from XTO  
Energy, Inc.: Holiday SWD #1  
30-045-35231 Entrada from approx  
7347 to 7650



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

BROG/ConocoPhillips  
Attn: Carol Hines  
P.O. Box 4289  
Farmington NM 87499-4289

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in black ink that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <input type="checkbox"/> Express Mail</p> <p>C. Date of Delivery</p>
<p>1. Article Addressed to:</p> <p><b>ConocoPhillips</b>  <b>Attn: Carol Hines</b>  <b>PO Box 4289</b>  <b>Farmington NM 87499-4289</b></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, enter delivery address below:</p> <p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Registered <input type="checkbox"/> Insured Mail <input type="checkbox"/> Express Mail <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7010 0780 0001 6436 8492</p>
<p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

7010 0780 0001 6436 8492

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Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here  
 FARMINGTON NM 87499  
 JAN 17 2010

Sent To **ConocoPhillips**  
 Street, Apt. No., or PO Box No. **Attn: Carol Hines**  
 City, State, ZIP+4 **PO Box 4289**  
**Farmington NM 87499-4289**

PS Form 3800, A



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Arco Oil and Gas  
4101 Winfield Rd.  
Warrenville IL 60555

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

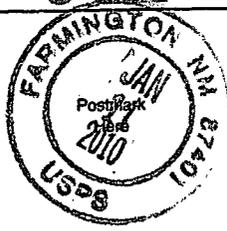
SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> <i>Mel Faustich</i>      <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name)      C. Date of Delivery  <i>Mel Faustich</i>      1/14/11</p>
<p>1. Article Addressed to:</p> <p style="text-align: center;"><b>Arco Oil and Gas</b>  <b>4101 Winfield Rd.</b>  <b>Warenville IL 60555</b></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail      <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered      <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail      <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee)      <input type="checkbox"/> Yes</p>
<p>2. Article Number  (Transfer from service label)</p>	<p>7010 0780 0001 6436 8508</p>
<p>PS Form 3811, February 2004      Domestic Return Receipt      102595-02-M-1540</p>	

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Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	



Sent To

Street, Apt. No.,  
or PO Box No.      **Arco Oil and Gas**  
**4101 Winfield Rd.**  
City, State, ZIP+4      **Warenville IL 60555**

PS Form 3800, Aug

7010 0780 0001 6436 8508



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Noble Energy Inc.  
5802 US HW 64  
Farmington NM 87402

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  <input checked="" type="checkbox"/> <i>gmjazzie</i> <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p>
<p>1. Article Addressed to:</p> <p><b>Noble Energy Inc.</b>  <b>5802 US Hwy 64</b>  <b>Farmington NM 87402</b></p>	<p>B. Received by (Printed Name) <b>LUCINDA M. YARUE</b> C. Date of Delivery <b>1/12/2011</b></p>
<p>2. Article Number (Transfer from service label)</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes          If YES, enter delivery address below: <input type="checkbox"/> No</p>
	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
	<p>7010 0780 0001 6436 8515</p>

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

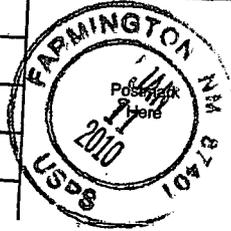
*mailed sub 1*

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



Sent To  
 Street, Apt. No., or PO Box No.  
 City, State, ZIP+4

**Noble Energy Inc.**  
**5802 US Hwy 64**  
**Farmington NM 87402**

PS Form 3800, A

7010 0780 0001 6436 8515



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Skelly Oil Co.  
1860 Lincoln St.  
Denver CO 80203

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

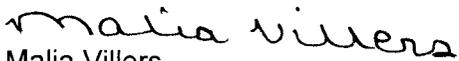
To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

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Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

  
Malia Villers  
Permitting Tech

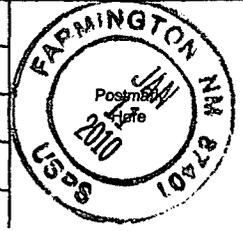
cc: Well Files  
Ft Worth Land Dept

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



7010 0780 0001 6436 8522  
2259 9E49 T000 0R20

Sent To  
**Skelly Oil Co.**  
Street, Apt. No., or PO Box No. **1860 Lincoln St.**  
City, State, ZIP+4 **Denver CO 80203**

PS Form 3800, Aug.

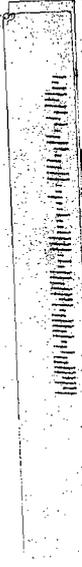
PRIORITY MAIL  
 Haster 01/11/2011  
**US POSTAGE** \$10.05<sup>0</sup>  
 ZIP 87410  
 011D11606251

**First Class Mail**  
**First Class Mail**

REC'D / SAN JUAN  
 JAN 28 2011

Skelly Oil Co.  
 1860 Lincoln St.  
 Denver CO 80203

SKEL860 802032008 IN 14 01/17/11  
 802033082 IN 09 01/21/11  
 NIXIE 2003 1 08 01/26/11  
 RETURN TO SENDER  
 ATTEMPTED - NOT KNOWN  
 UNABLE TO FORWARD  
 RETURN TO SENDER



PS Form 3811, February 2004  
 102595-02-44-1540

2. Article Number  
 (Transfer from service label)  
 7020 0780 0002 6436 6522

1. Article Addressed to:  
 Skelly Oil Co.  
 1860 Lincoln St.  
 Denver CO 80203

3. Service Type  
 Certified Mail  
 Registered Mail  
 Return Receipt for Merchandise  
 Insured Mail  
 Restricted Delivery? (Extra Fee)  
 Yes  
 No

4. Is delivery address different from item 1?  
 Yes  
 No  
 If YES, enter delivery address below:

A. Signature  
 Agent  
 Addressee

B. Received by (Printed Name)  
 C. Date of Delivery

D. Attach this card to the back of the mailpiece, so that we can return the card to you.  
 Print your name and address on the reverse from 4 if Restricted Delivery is desired.  
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.

SENDER: COMPLETE THIS SECTION  
 COMPLETE THIS SECTION ON DELIVERY

XTO ENERGY, INC.  
 382 CR 3100  
 AZTEC, NM 87410



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Tenneco Oil Co.  
1200 Lincoln Tower Bldg.  
Denver CO 80203

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

7010 0780 0001 6436 8539

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Total Postage & Fees	\$



Sent To

Street, Apt. No.,  
or PO Box No.  
City, State, ZIP+

**Tenneco Oil Co.**  
**1200 Lincoln Tower Bldg.**  
**Denver CO 80203**

PS Form 3800, A

01/11/2011

US POSTAGE

\$10.05<sup>9</sup>

ZIP 87410  
011D11606251

XCO ENERGY, INC.  
382 CR 3100  
AZTEC, NM 87410

2014 1 18 01/20/11

NIXIE

RETURN TO SENDER  
UNABLE TO FORWARD  
UNABLE TO FORWARD  
RETURN TO SENDER

**First Class Mail**  
**First Class Mail**

*UTP-344*

Tenneco Oil Co.  
1200 Lincoln Tower Bldg.  
Denver CO 80203

REC'D / SAN JUAN

JAN 25 2011

*Jan 17/11*

<b>SENDER: COMPLETE THIS SECTION</b>	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	
1. Article Addressed to: <b>Tenneco Oil Co. 1200 Lincoln Tower Bldg. Denver CO 80203</b>	
2. Article Number 7010 0780 0001 6436 8539 <small>(Transfer from service label)</small> PS Form 3811, February 2004 <small>Domestic Return Receipt 102595-02-M-1540</small>	
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Registered Mail <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Express Mail	
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes <input type="checkbox"/> No	
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below:	
A. Signature <input checked="" type="checkbox"/> X B. Received by (Printed Name) C. Date of Delivery D. Agent	
<b>COMPLETE THIS SECTION ON DELIVERY</b>	

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS

FIRST CLASS





---

382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Redwolf Production  
1920 Rustic Pl  
Farmington NM 87401

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

  
Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

**Redwolf Production  
1920 Rustic Pl  
Farmington NM 87401**

2. Article Number  
(Transfer from service label)

7004 0750 0003 4802 9513

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  Agent  
 Addressee  
*Anna Richenthal*

B. Received by (Printed Name) C. Date of Delivery  
*Don Delve*

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below.  No



3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

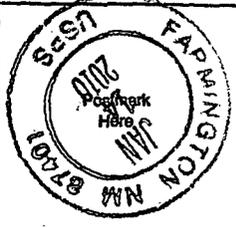
7004 0750 0003 4802 9513

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Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



Sent To  
**Redwolf Production**  
 Street, A or PO Bk **1920 Rustic Pl**  
 City, Sts **Farmington NM 87401**

PS Form

ations



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Dugan Production Corp.  
P.O. Box 420  
Farmington NM 87499-0420

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

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Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech.

cc: Well Files  
Ft Worth Land Dept

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____</p> <p>C. Date of Delivery _____</p>
<p>1. Article Addressed to:</p> <p><b>Dugan Production Corp.</b> <b>PO Box 420</b> <b>Farmington NM 87499-0420</b></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7010 0780 0001 6436 8546</p>
<p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

malda swal

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City, State, ZIP+4

**Dugan Production Corp.**  
**PO Box 420**  
**Farmington NM 87499-0420**

PS Form 3800, At

7010 0780 0001 6436 8546





---

382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

Rosetta Resources  
Attn: Bob Richardson  
1200 17th St, Suite 770  
Denver CO 80202

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in black ink that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

U.S. Postal Service  
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7010 0780 0001 6436 8560

Sent To **Rosetta Resources**  
Street, Apt. No., or PO Box No. **Attn: Bob Richardson**  
City, State, ZIP+4 **1200 17th St., Suite 770**  
**Denver CO 80202**

PS Form 3800, July 2009



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 10, 2011

El Paso Natural Gas  
Attn: Beverly Renchar  
PO Box 1087  
Colorado Springs CO 80944

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

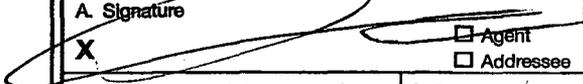
Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>■ Print your name and address on the reverse so that we can return the card to you.</li> <li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li> </ul>	<p>A. Signature  X  <input type="checkbox"/> Agent  <input type="checkbox"/> Addressee</p>
<p>1. Article Addressed to:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>El Paso Natural Gas</b>  <b>Attn: Beverly Renchar</b>  <b>PO Box 1087</b>  <b>Colorado Springs CO 80944</b></p> </div>	<p>B. Received by (Printed Name) _____ C. Date of Delivery <u>1-14</u></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>2. Article Number (Transfer from service label)</p>	<p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>7010 0780 0001 6436 8577</p> <p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

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Sent To

**El Paso Natural Gas**

Street, Apt. No., or PO Box No. **Attn: Beverly Renchar**

City, State, ZIP+4 **PO Box 1087**

**Colorado Springs CO 80944**

PS Form 3800, At

7010 0780 0001 6436 8577



382 CR 3100 AZTEC, NM 87410  
Phone: (505) 333-3100 FAX: (505) 333-3280

January 28, 2011

Sinclair Oil Corp.  
Exploration & Production Office  
PO Box 30825  
Salt Lake City UT 84130-0825

Subject: XTO Energy Inc. Holiday SWD #1  
2257 FSL & 1038 FEL  
Sec. 22 (I), T25N-R10W

To Whom It May Concern:

XTO Energy Inc. is proposing to drill the subject disposal well to the SWD; Entrada formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. A complete copy of the application is enclosed to comply with OCD regulations.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days.

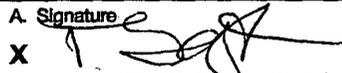
Additional information may be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410, (505) 333-3100.

Sincerely,

A handwritten signature in cursive script that reads 'Malia Villers'.

Malia Villers  
Permitting Tech

cc: Well Files  
Ft Worth Land Dept

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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<p>1. Article Addressed to:</p> <p><b>Sinclair Oil Corporation</b>  <b>PO Box 30825</b>  <b>Salt Lake City UT 84130-0825</b></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number  (Transfer from service label)</p>	<p>7008 0150 0003 4774 3627</p>
<p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

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Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$</b>	



Send to:	<b>Sinclair Oil Corporation</b>
Street or P.O. Box:	<b>PO Box 30825</b>
City:	<b>Salt Lake City UT 84130-0825</b>

PS Instructions Mail

7008 0150 0003 4774 3627

**EXHIBIT "H"**

**AFFIDAVIT OF PUBLICATION**

**XTO ENERGY INC.**

**HOLIDAY SWD #1**

**SE/4 Sec. 22 T25N - R10W**

**SAN JUAN COUNTY, NEW MEXICO**

**AFFIDAVIT OF PUBLICATION**

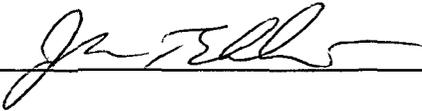
**Ad No. 65243**

**STATE OF NEW MEXICO  
County of San Juan:**

JOHN ELCHERT, being duly sworn says:  
That he is the PUBLISHER of THE DAILY  
TIMES, a daily newspaper of general  
circulation published in English at Farmington,  
said county and state, and that the hereto  
attached Legal Notice was published in a  
regular and entire issue of the said DAILY  
TIMES, a daily newspaper duly qualified for  
the purpose within the meaning of Chapter  
167 of the 1937 Session Laws of the State of  
New Mexico for publication and appeared in  
the Internet at The Daily Times web site on  
the following day(s):

Thursday, October 7, 2010

And the cost of the publication is \$54.10

  
\_\_\_\_\_

ON 10/22/10 JOHN ELCHERT  
appeared before me, whom I know personally  
to be the person who signed the above  
document.

  
\_\_\_\_\_  
My Commission Expires - 11/05/11

**COPY OF PUBLICATION**

*OK*

XTO Energy Inc. is applying to the New Mexico Oil Conservation Division (NMOCD) to drill the Holiday SWD #1, as a water disposal well. The Holiday SWD #1 will be located at 2257' FSL & 1038' FEL, Sec 22, Township 25N, Range 10W, San Juan County, New Mexico. The well will dispose of water produced from oil and gas wells into the SWD; Estimated formation at a depth of 7347' to 7538' at a maximum rate of 2,500 barrels of water per day and a maximum pressure of 1400 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, NM 87505, within 15 days. Additional information can be obtained by contacting Derrick Lucas, 382 CR 3100, Aztec, NM 87410 (505) 333-3100.

Legal No. 65243 published in The Daily Times on October 7, 2010.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No. <b>NMNM 120923</b>	
6. If Indian, Allottee or Tribe Name <b>N/A</b>	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No. <b>HOLIDAY SWD #1</b>	
9. API Well No. <b>30-045-</b>	
10. Field and Pool, or Exploratory <b>SWD; ENTRADA</b>	11. Sec., T. R. M. or Blk. and Survey or Area <b>(I) Sec. 22, T25N, R10W</b>
12. County or Parish <b>San Juan</b>	13. State <b>NM</b>
14. Distance in miles and direction from nearest town or post office* <b>23.25 miles south of the Bloomfield Post Office.</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>1038'</b>	16. No. of acres in lease <b>1280.00</b>
17. Spacing Unit dedicated to this well <b>N/A</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>2443'</b>	19. Proposed Depth <b>7550'</b>
20. BLM/BIA Bond No. on file <b>UTB000138</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6,592'</b>	22. Approximate date work will start* <b>01/01/2011</b>
	23. Estimated duration <b>2 Weeks</b>

**24. Attachments**

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

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

25. Signature <i>Malia Villers</i>	Name (Printed/Typed) <b>Malia Villers</b>	Date <b>11/18/2010</b>
---------------------------------------	--	---------------------------

Title  
**Permitting Tech.**

Approved by (Signature)	Name (Printed/Typed)	Date
-------------------------	----------------------	------

Title  
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.

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.

\*(Instructions on page 2)

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

State Lease - 4 Copies

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, N.M. 87505

Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 96436		3 Pool Name SWD: Entrada	
4 Property Code		5 Property Name HOLIDAY SWD		6 Well Number 1	
7 OGRID No. 5380		8 Operator Name XTO ENERGY, INC.		9 Elevation 6592	

10 Surface Location

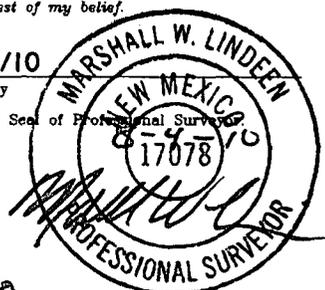
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	22	25 N	10 W		2257	SOUTH	1038	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

2640.50'	16 S 89°50'28" W	2634.66'	S 89°56'25" W	2640.95'	2640.72'	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Maria Villers 11/18/10 Signature Date</p> <p>Maria Villers Printed Name</p>	
	N 0°04'21" W						N 0°02'43" W
SECTION 22						2645.06'	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>07/27/10 Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p>  <p>17078 Certificate Number</p>
2641.93'		LAT: 36.385513° N LONG: 107.878565° W NAD 83	LAT: 36.385503° N LONG: 107.877947° W NAD 27	1038'	N 0°01'43" W		
N 0°00'55" E	S 89°56'55" W	2637.02'	S 89°54'20" W	2639.36'	2257'		

# XTO ENERGY INC.

Holiday SWD #1

APD Data

October 4, 2010

**Location:** 2257' FSL x 1038' FEL Sec 22, T25N, R10W    **County:** San Juan    **State:** New Mexico

GREATEST PROJECTED TD: 7650'

OBJECTIVE: Entrada SS Disposal

APPROX GR ELEV: 6592'

Est KB ELEV: 6604' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 500'	500' to 1750'	1750' to 7650'
HOLE SIZE	14.75"	9.5"	6.75"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6- 9.20
VISCOSITY	28-32	28-32	45-60
WATER LOSS	NC	NC	8-10

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.

## 2. CASING PROGRAM:

Surface Casing: 10.75" casing to be set at  $\pm 500'$  in a 14.75" hole filled with 9.20 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'-500'	500'	40.5#	J-55	ST&C	1580	3130	420	10.05	9.894	6.61	13.08	20.74

Intermediate Casing: 7.625" casing to be set at  $\pm 1750'$  in a 9.5" hole filled with 9.20 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'-1750'	1750'	26.4#	J-55	ST&C	2890	4140	315	6.969	6.844	3.45	4.95	6.82

Production Casing: 5.5" casing to be set at TD ( $\pm 7650'$ ) in 6.75" hole filled with 9.20 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'-7650'	7650'	15.5#	J-55	ST&C	4040	4810	202	4.950	4.825	1.10	1.31	1.70

3. **WELLHEAD:**

- A. Casing Head: 11" x 10-3/4" x 7-5/8" x 5-1/2" 5000 psig WP C-22 Profile.
- B. Tubing Head: 11" x 7-1/16" 5000psig WP TCM.

4. **BOP Equipment (See attached BOP Diagram):**

- A. An 11" x 5M BOP system will be utilized for this well.
- B. Rig will be equipped with upper and lower Kelly cocks with handles available.
- C. Safety valves and subs will be available for all sizes and threads of drill string in use.
- D. All Pressure tests will be performed using clear water.
- E. BOP Ram Type preventers will be tested to 250 psi low and 5,000 psi high against a test plug for 10 minutes each. Accumulator will be tested to 50% of rated working pressure for 10 minutes.

5. **CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):**

- A. Surface: 10.75", 40.5#, J-55, ST&C casing to be set at ± 500' in 14-3/4" hole.

400 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.

*Total slurry volume is 556 ft<sup>3</sup>, 100% excess of calculated annular volume to 500'.*

- B. Intermediate: 7.625", 26.4#, J-55, ST&C casing to be set at ± 1750' in 9-1/2" hole.

LEAD:

±134 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

TAIL:

100 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

*Total slurry volume is 423 ft<sup>3</sup>, 40% excess of calculated annular volume to 1750'*

- C. Production: 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at ±7650' in 6-3/4" hole. DV Tool set @ ±4050'

1<sup>st</sup> Stage

LEAD:

±145 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

TAIL:

100 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

2<sup>nd</sup> Stage

LEAD:

±111 sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx.

TAIL:

100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal/sx.

*Total estimated slurry volume for the 5-1/2" production casing is 865 ft<sup>3</sup>.*

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.*

**6. LOGGING PROGRAM:**

A. Mud Logger: None.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (7650') to the bottom of the Intermediate csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (7650') to the bottom of the Intermediate casing.

**7. FORMATION TOPS:**

Est. KB Elevation: 6604'

FORMATION	Sub-Sea	MD	FORMATION	TV Sub-Sea	MD
Ojo Alamo SS	5819	785	Gallup Ss	1593	5011
Kirtland Shale	5747	857	Greenhorn Ls	545	6059
Farmington SS			Graneros Sh	481	6123
Fruitland Formation	5449	1155	Dakota SS	447	6157
Lower Fruitland Coal	4977	1627	Morrison	151	6453
Pictured Cliffs SS	4962	1642	Wanakah Fm	-589	7193
Huerfanito Bentonite	4633	1971	Todilto Ls	-715	7319
Chacra SS	4148	2456	Entrada Ss*	-743	7347
Cliffhouse SS	3429	3175	Chinle Gp	-934	7538
Menefee	3396	3208			
Point Lookout SS	2499	4105			
Mancos Shale	2248	4356	<b>TD</b>	-1046	<b>7650</b>

\* Primary Objective

\*\* Secondary Objective

\*\*\*\* Maximum anticipated BHP should be <2,300 psig ( <0.30 psi/ft) \*\*\*\*

**8. COMPANY PERSONNEL:**

Name	Title	Office Phone	Home Phone
Justin Niederhofer	Drilling Engineer	505-333-3199	505-320-0158
Bobby Jackson	Drilling Superintendent	505-333-3224	505-486-4706
Brian Henthorn	Project Geologist	817-885-2800	--



Weatherford®

Sketch

Page 2 of 3

**Rotating Head**

11" 5M  
Shorty

32"

Shaffer Spherical  
11" 5M Flanged Bottom and  
studded top  
9550#  
18.67 gal to close & 14.59  
gal to open

41.5"

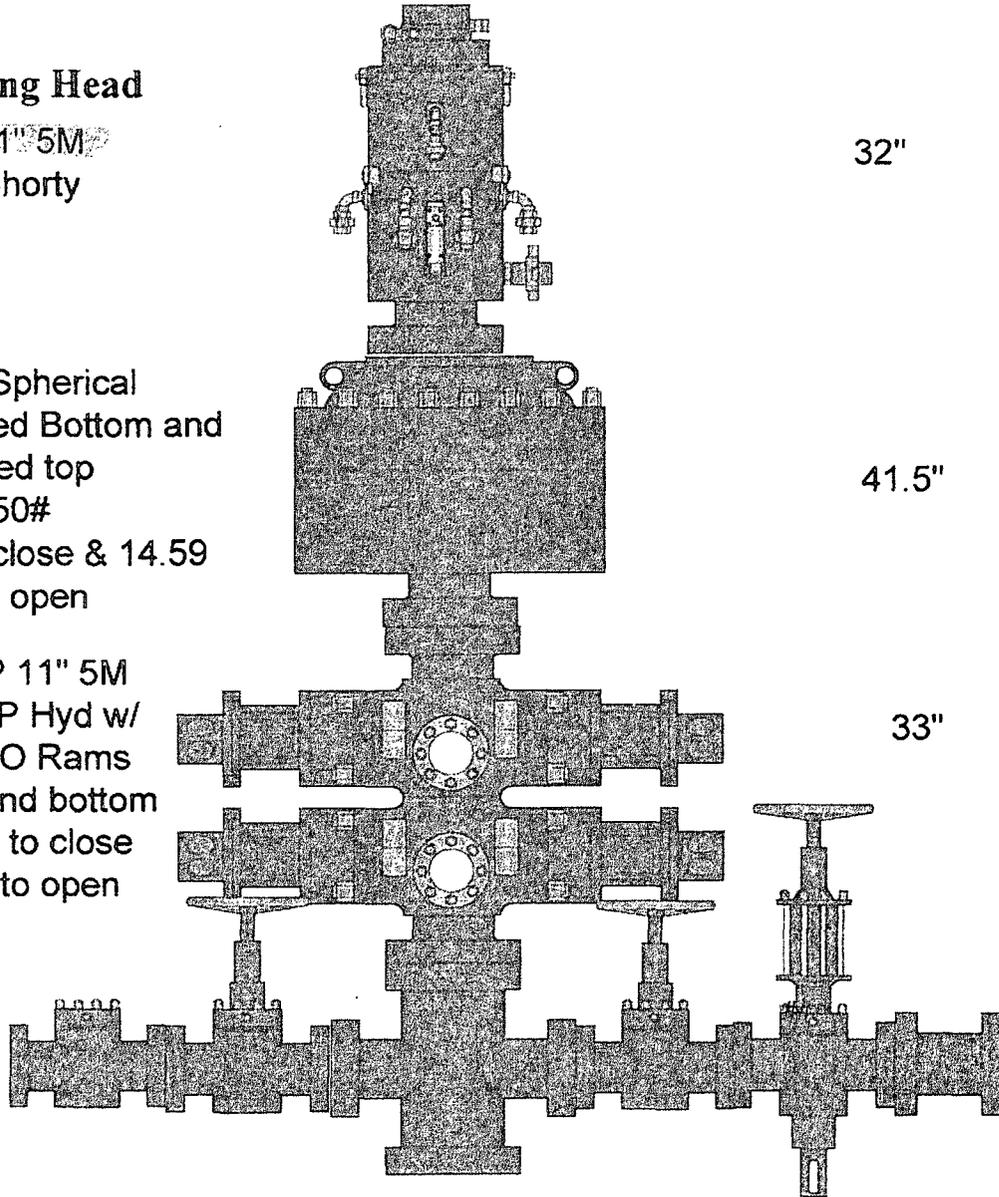
Shaffer LWP 11" 5M  
LWS Dbl BOP Hyd w/  
pipe and CSO Rams  
Studded top and bottom  
7725#- 3 gal to close  
and 2.6 gal to open

33"

Drilling  
Spool 11"  
5M w/ 2  
flanged  
outlets and  
choke and  
kill side  
valves

26"

**11" 5M BOP Stack**



Drawn On:

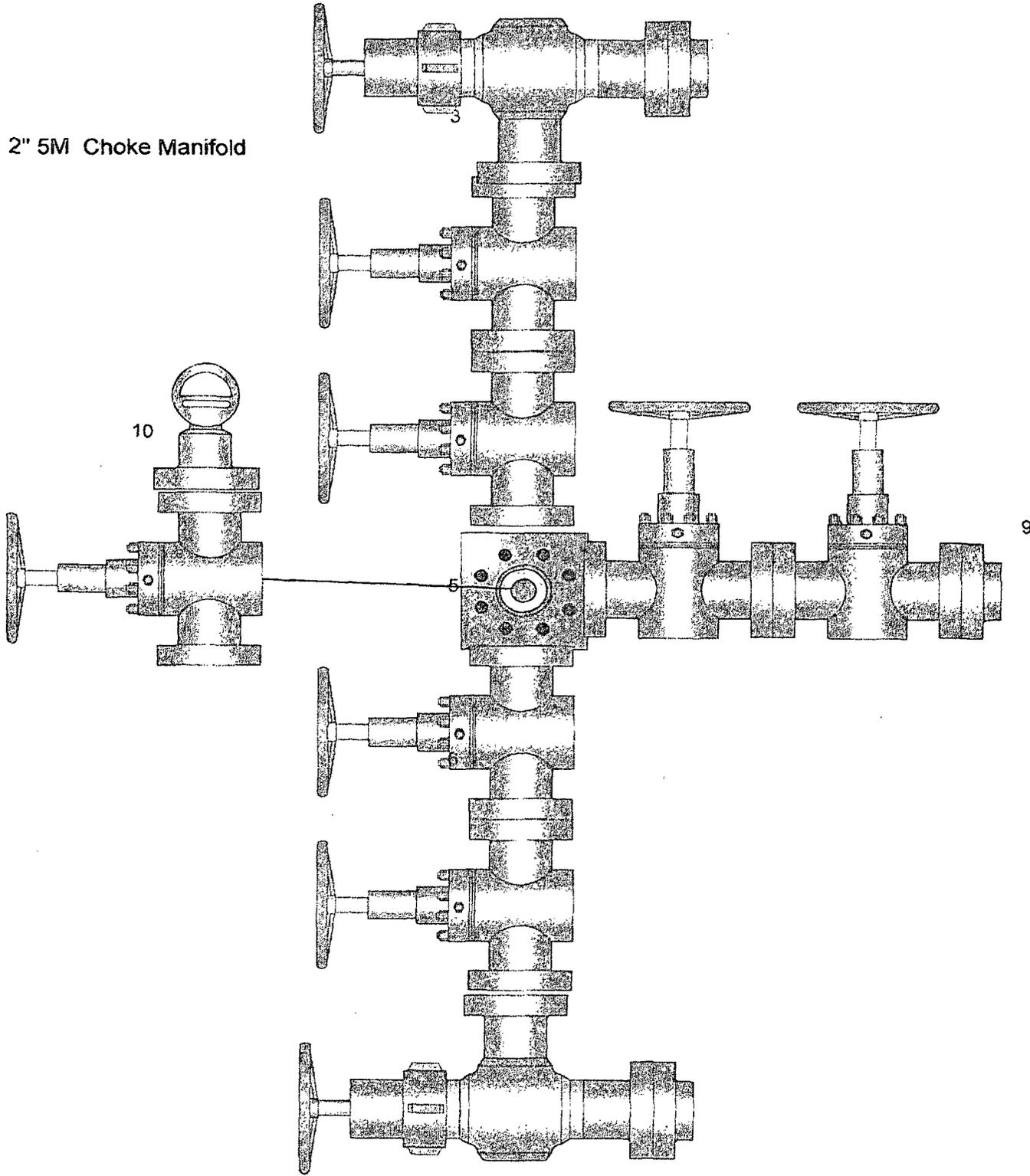
2009 Feb 11

Job Number:

Work Order Number:



2" 5M Choke Manifold



## SURFACE USE PLAN

**XTO Energy Inc.  
Holiday SWD #1  
2257' FSL x 1038' FEL  
Section 22, T25N, R10W  
San Juan County, New Mexico**

### TWELVE POINT SURFACE USE PLAN

The dirt contractor will be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

- a. Proposed route to location is shown on the USGS quadrangle map:  
**See Exhibit "A".**
- b. Location of proposed well in relation to town or other reference point:  
**From the intersection of HWY 64 and US 550 in Bloomfield, NM, Head South on US 550 for 24.3 miles. Turn right onto CR 7500 and follow road 1.7 miles. Turn left onto CR 7515 and follow road 0.4 miles to location.**
- c. All existing roads within 1 mile of the drill site are shown on Exhibit "A". **If necessary, all existing roads that will be used for access to the well location will be maintained to their current condition or better unless BLM approval or consent is given to upgrade the existing road(s).**

2. Planned Access Roads:

- a. Location (centerline): **Starting from a point along an existing road in the SE/4 of Sec 22, T25N, R10W.**
- b. Length of new access to be constructed: **Approx 132.96' feet of new access will be constructed in order to gain safe access to the wellpad. See Exhibit "A".**
- c. Length of existing roads to be upgraded: **None. No additional upgrades should be necessary to existing oilfield service roads.**
- d. Maximum total disturbed width: **Typically both existing roads and new access roads require up to 40' of disturbed width in order to obtain a 20' driving surface. If both the road and pipeline are capable of sharing the ROW, then only 50' of disturbed width may be needed.**
- e. Maximum travel surface width: **25' or less**
- f. Maximum grades: **Maximum grades will not exceed 10% after construction.**
- g. Turnouts: **No turnouts are planned at this time. Turnouts may be specified in the approved APD.**

- h. Surface materials: **Only native materials will be used during construction. If necessary, gravel or rock maybe purchased and used to improve road conditions and travel.**
- i. Drainage (crowning, ditching, culverts, etc): **Roads will be crowned and bar ditches will be located along either side. 18-24" dia CMP culverts will be installed as necessary.**
- j. Cattleguards: **No cattle guards are planned at this time. Cattle guards will be specified in the stipulations if necessary.**
- k. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- l. Length of new and/or existing roads which lie outside the lease or unit boundary for which a BLM/state/fee right-of-way is required: **None**
- m. Other: **See general information below.**

Surface disturbance and vehicular travel will be limited to the approved location and access road only. Any additional surface area needed must be approved by BLM in advance.

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 facility 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 the lease are no longer included in the lease (due to a contraction in the unit or other 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 III) Road Standards within a time period specified by 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 within a one mile radius of the proposed well:  
**"See Exhibit B".**

4. Location of Production Facilities:

- a. On-site facilities: **Typical on-site facilities will consist of a wellhead with building, 1 filter and pump building, 1 Quinuplex 5 plunger pump with 150 horsepower motor, turbines with buildings, dehydrator or separator, 2 future horizontal inlet tanks, 1 sump pit for pump and filter run off, 1 two phase separator and future chemical injection pumps. The tank battery will typically be constructed and surrounded by a berm of sufficient capacity to contain 1½ times the storage capacity of the largest tank(s). The tanks typically necessary will be 6 to 11 – 400 bbl or greater steel, above ground tanks for water storage and one 80 bbl pit tank. Various piping to connect tanks, pumps and inlet will be placed inside the berm surrounding the tank battery. See Exhibit "C".**

**All oil/condensate production and measurement shall conform to the provisions of 43 CFR § 3162.7 and Onshore Oil and Gas Order No. 4, if applicable. Other on-site equipment and system may include methanol injection and winter weather protection.**

All permanent (in place for six months or longer) structures constructed or installed on the well site location will be painted a flat, nonreflective color to match the standard environmental colors, as specified by the COA's in the APD. All facilities will be painted within six months of installation. Facilities required by comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- b. There will be a CDP site on this pad also. **Typical on-site facilities will consist of 2 gathering/inlet receivers or valve settings, 2 future gathering/inlet receivers or valve settings, 1 inlet drip, 1 inlet scrubber, 1 header system, 2 compressors, 2 future compressors, 1 coalescing filter, 1 dehydrator, 1 dry gas scrubber/fuel scrubber, 1 fuel gas meter run, 1 discharge check meter, 1 discharge launcher, 1 genset, 1 instrument air compressor and a tank farm. See Exhibit "D".**
- c. Off-site facilities: **N/A**
- d. Pipelines: **A separate Right of Way will be requested for a 6" gas pipeline, two 8" gas pipelines and a 4" water line going cross country from the Holiday SWD #1 well to the Irish #2 well location. See Exhibit "E".**
- e. Powerlines: **There are no plans to include powerlines in this application. In the event power is required, a ROW application will be submitted to the appropriate agencies.**

5. Location and Type of Water Supply:

All water needed for drilling purposes will be obtained from (describe location and/or show on a map): **Water will be purchased from a commercial water source and trucked via third party to the location over approved access roads.**

Water obtained on private land, or land administered by another agencies, will require approval from the owner or agency for use of said water.

6. Source of Construction Material:

Pad construction material will be obtained from (if the material source is Federally owned, a map will be included showing the location of the material): **All construction material will be purchased from private landowners and or from a commercial gravel/materials pit. All material will be trucked to location via third party trucking using only approved access roads.**

The use of materials under BLM jurisdiction will conform to 43 CFR § 3610.2-3, if applicable.

7. Methods of Handling Waste Disposal:

Describe the methods and locations proposed for safe containment and disposal of waste material, e.g. cuttings, produced water, garbage, sewage, chemicals, etc.

**The reserve pit will typically be lined with a synthetic material, ±20 mils in thickness. The reserve pit shall be located in cut material, with at least 50% of the pit volume being below original ground level. Three sides of the reserve pit will be fenced before drilling starts. The fourth side will be fenced as soon as drilling is completed, and shall remain until the pit is dry. Once dry, the pit liner will be cut and removed at the mud line and the pit will be covered and buried in place.**

**Trash must 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.**

**Sewage from trailers and chemical portable toilets will be removed on a regular basis by a third party contractor and disposed of at an authorized sanitary waste facility.**

**Any and all chemicals used during the drilling and completion of the well will be kept to a minimum and stored within the boundaries of the well pad. The third party chemical contractor will be responsible for containment and clean-up and removal of all spilled chemicals on location.**

8. Ancillary Facilities: **No ancillary facilities will be required during the drilling or completion of the well.**

9. Well Site Layout -depict the pit, rig, cut and fill, topsoil, etc. on a plat with a scale of at least 1"=50'. **See Exhibit "F".**

**During project construction, surface disturbance and vehicle travel shall be limited to the approved location and access routes. Any additional area needed must be approved by the Price BLM Office prior to use.**

**The operator will provide a trash cage for the collection and containment of all trash. The trash will be disposed in an authorized landfill. The location and access roads shall be kept litter free.**

**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.**

**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 specifications in the approved plans.**

**Dust will be controlled during all phases of project implementation through the use of water or approved dust suppressants.**

**All cut and fill slopes will be such that stability can be maintained for the life of the activity.**

**Diversion ditches will be constructed as shown around the well site to prevent surface waters from entering the well site area.**

**The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.**

**Materials obtained from the construction of location, like topsoil and vegetation will be stock piled as indicated and permitted by the approved APD.**

**The topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and contamination**

**Pits will remain fenced until site cleanup.**

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

Prior to disturbance, the topsoil will be separately removed and segregated from other materials. The topsoil depth will be decided by the BLM during the onsite. Topsoil will be segregated from subsoil without mixing them, based upon site specific conditions. **Typically as specified by the approved APD.**

Topsoil along the access road will be reserved in place adjacent to the road as indicted

Within 30-45 days after completion of well, all equipment that is not necessary for production shall be removed.

The reserve pit and that portion of the location not needed for production will be reclaimed in a given time period as specified by the BLM in the approved APD.

Before any dirt work to restore the location takes place, the reserve pit must be dry and ready for burial. If necessary, any approvals needed to commence the burial operation will be obtained.

All road surfacing will be removed prior to the rehabilitation of roads, if necessary.

Reclaimed roads will have the berms and cuts reduced and will be closed to vehicle use.

All disturbed areas will be recontoured to replicate the natural slope.

The stockpiled topsoil will be evenly distributed over the disturbed area.

The operator will control non-native, invasive species (noxious weeds) in accordance with the Federal Noxious Weed Act. Control of non-native, invasive species will be completed on all disturbed sites associated with the development and final reclamation of well pads and pipelines. The use of herbicides will be approved through a pesticide use proposal (PUP) submitted to the BLM prior to the herbicide application.

Prior to reseeding, all disturbed areas, including the access road, will be scarified and left with a rough surface. All seed utilized will be tested prior to application to ensure BLM specifications for PLS, purity, noxious weeds, etc. have been met.

Seed will be broadcast or drilled between during a time specified by the BLM and or state. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure uniform seed coverage.

The following seed mixture will be used: **As specified in the conditions of approval.**

Prior to final abandonment of the site, all disturbed areas, including the access road, will be scarified and left with a rough surface. The site will then be seeded and/or planted as prescribed by the BLM. The BLM recommended seed mix will be detailed within their approval documents.

If necessary, an abandonment marker will be one of the following, as specified by BLM:

- 1) at least four feet above ground level,
- 2) at restored ground level, or
- 3) below ground level.

In any case the marker shall be inscribed with the following: operator name, lease number, well name and surveyed description (township, range, section and either quarter-quarter or footages).

Additional requirements: **None**

11. Surface and Mineral Ownership: **Both the surface and the minerals are property of the United States Federal Government and are managed by the Bureau of Land Management.**

12. Other Information:

a. Archeological Concerns: **A BLM approved contractor will submit the appropriate reports to the agency as required. Special stipulations will be included in the COA's of the approved APD.**

The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the appropriate BLM Field Office for further instructions.

b. Threatened and Endangered Species Concerns: **An BLM approved contractor will submit the appropriate reports to the agency as required. Special stipulation will be included in the COA's of the approved APD.**

c. Wildlife Seasonal Restrictions: **Current wildlife restrictions and closure dates, if applicable, will be specified in the approved APD.**

d. **First on-site took place on May 18, 2010 with Craig Willems-BLM, Sarah Scott-BLM (Riparian Spec.), Marshall Lindeen - United Field Services, Brent Beaty-Rosenbaum Const., Jenni Sudduth - Ellis and Associates, Kurt Hoekstra-XTO, Anne Jones-XTO, Cash Carruth-XTO, Tony Espinosa-XTO, Kyla Vaughan-XTO and Malia Villers-XTO.**

**Issues discussed: The SWD was in a FEMA 100 year flood plain. Craig and Sarah asked that it be moved. The location we decided to look at was to the Southwest of the current site.**

**It was later decided this new location would not work either.**

- e. **Second on-site for location in the N/2 of the SE/4 of section 22 took place on July 26, 2010 with Craig Willems-BLM, Brent Beaty-Rosenbaum Constr., Jenni Sudduth-Ellis & Associates, Marshall Lindeen-United Field Services, Scott Baxstrom-XTO, Dennis Elrod-XTO, Bruce Christianson-XTO, Derick Lucas-XTO, Cash Carruth-XTO, Kyla Vaughan-XTO and Malia Villers-XTO.**

**Issues discussed: The CDP cite will be on the West side of the pad.**

**Tanks will be on the NE corner.**

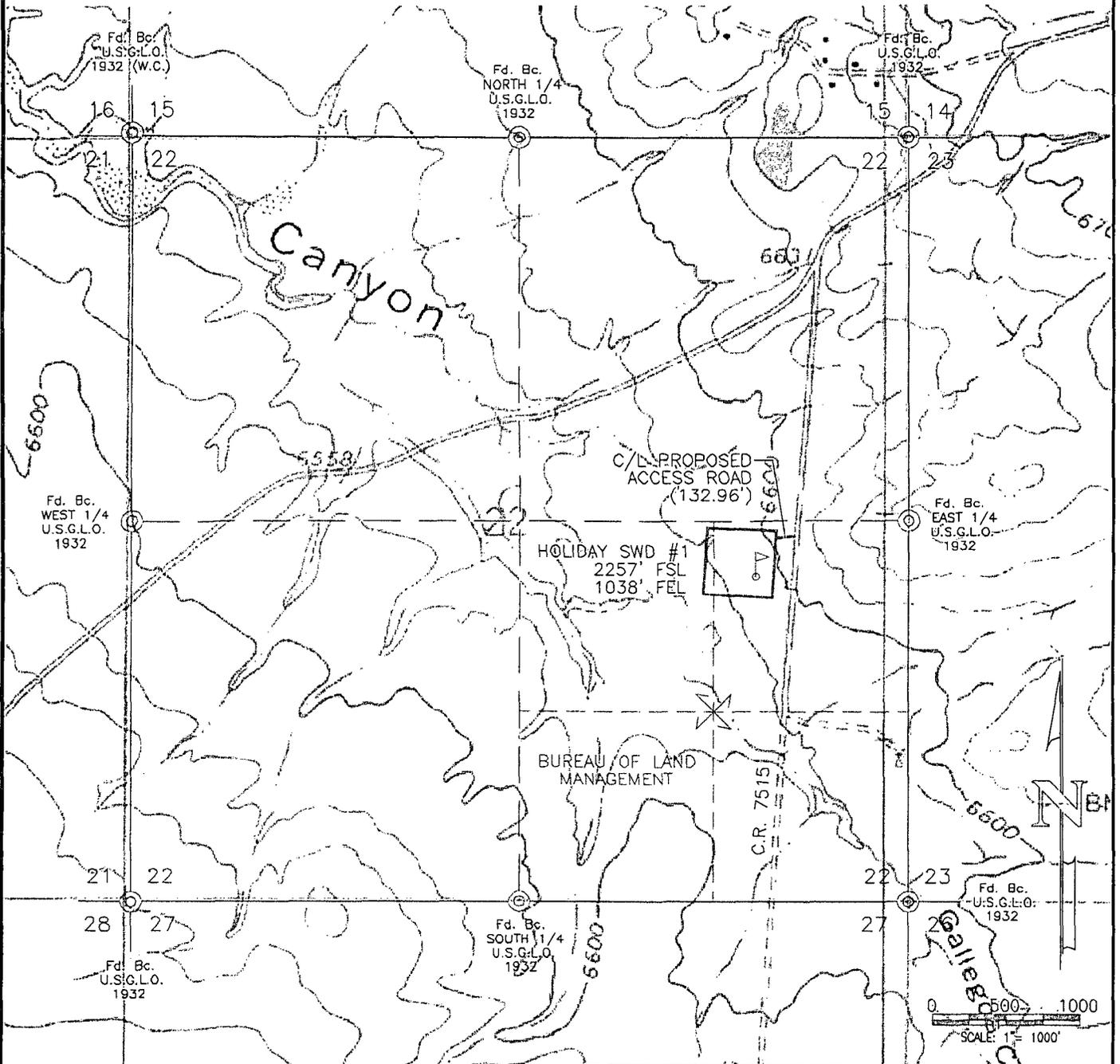
**Pit and wellhead will be in the SE corner.**

**Silt traps will be used to divert water around SE corner.**

**Arch. site will be fenced and monitored by DCA.**

**Migratory bird surveys need to be done if drilling between May 15 and July 31.**

XTO ENERGY, INC.  
 PROPOSED SWD SITE AND ACCESS ROAD  
 LOCATED ON B.L.M. LAND  
 SE 1/4 SECTION 22, T-25-N, R-10-W, N.M.P.M.,  
 SAN JUAN COUNTY, NEW MEXICO



HUERFANO TRADING POST NW  
 & HUERFANO TRADING POST QUADRANGLES



FARMINGTON, NEW MEXICO



P.O. BOX 3631  
 FARMINGTON, NM 87499  
 OFFICE: (505) 334-0405

SURVEYED: 07/27/10	REV. DATE:	CHECKED BY: A.D.
DRAWN BY: H.S.	DATE DRAWN: 11/16/10	FILE NAME: 8377T09

EXHIBIT A

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**25N 10W**

HANSON SWP #1

XTO Energy

T 25N, R 10W



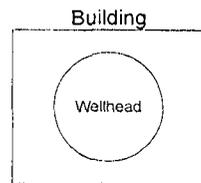
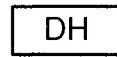
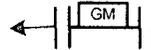
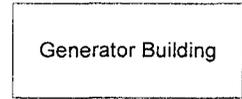
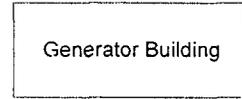
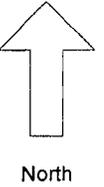
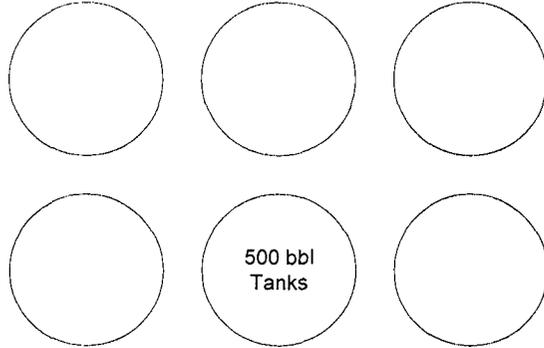
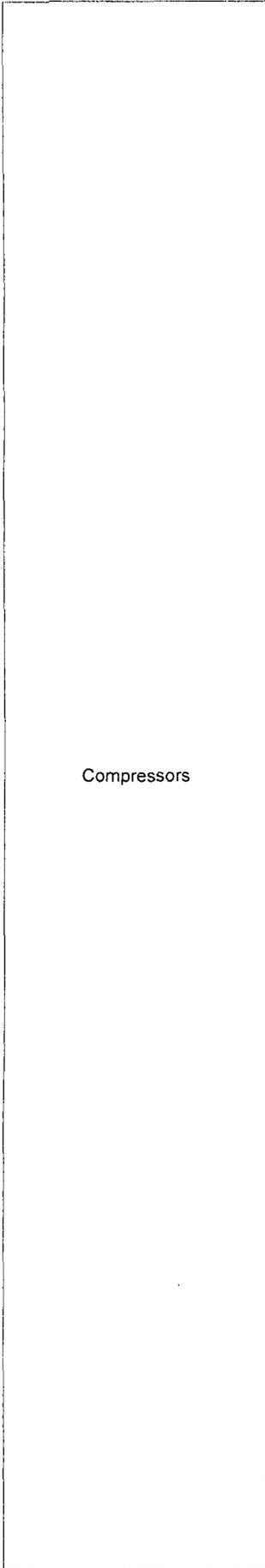
POSTED WELL DATA

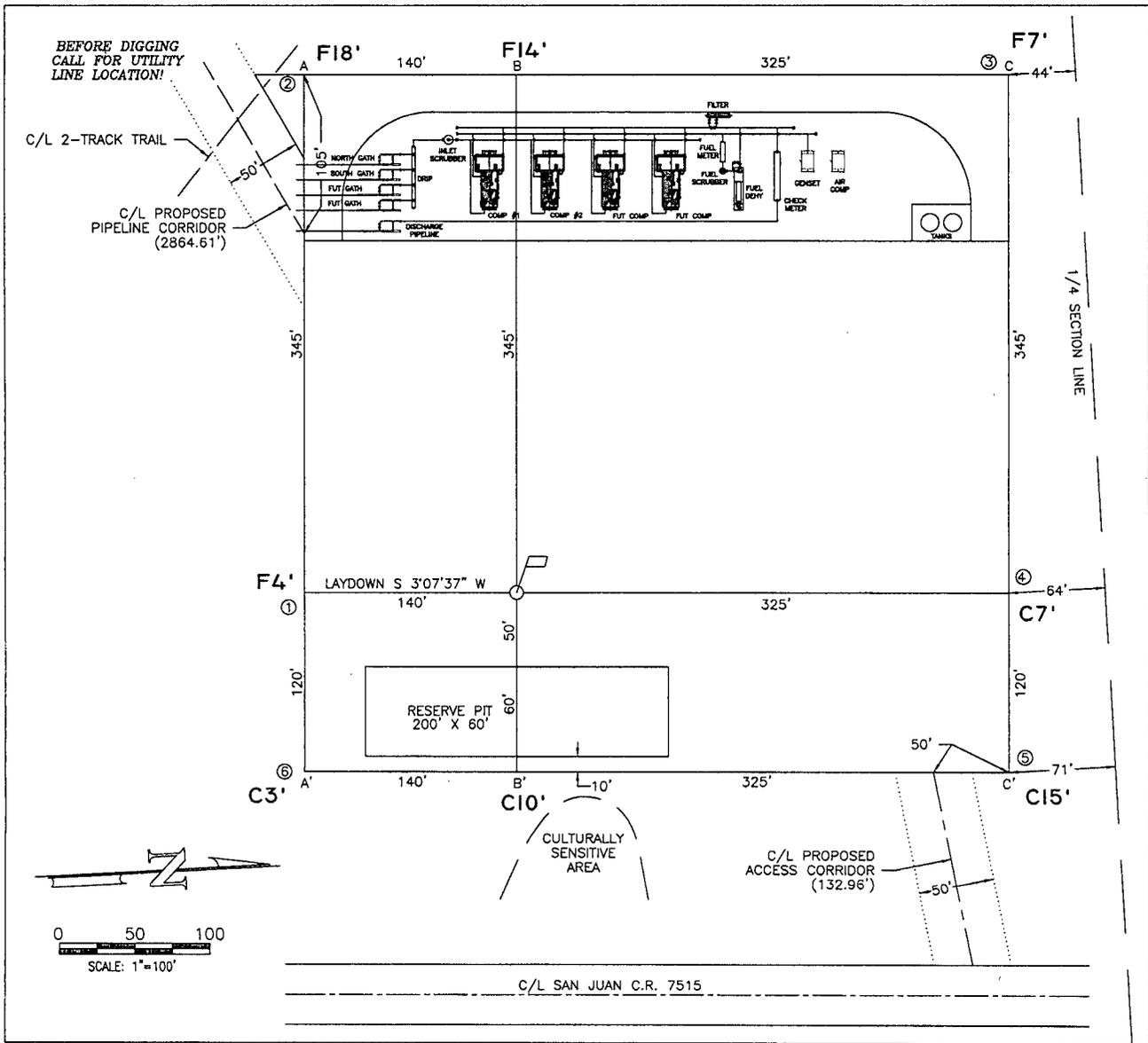
- WELL SYMBOLS
- Location Only
  - Oil Well
  - Gas Well
  - ▼ XTO Location

April 20, 2007

EXHIBIT B

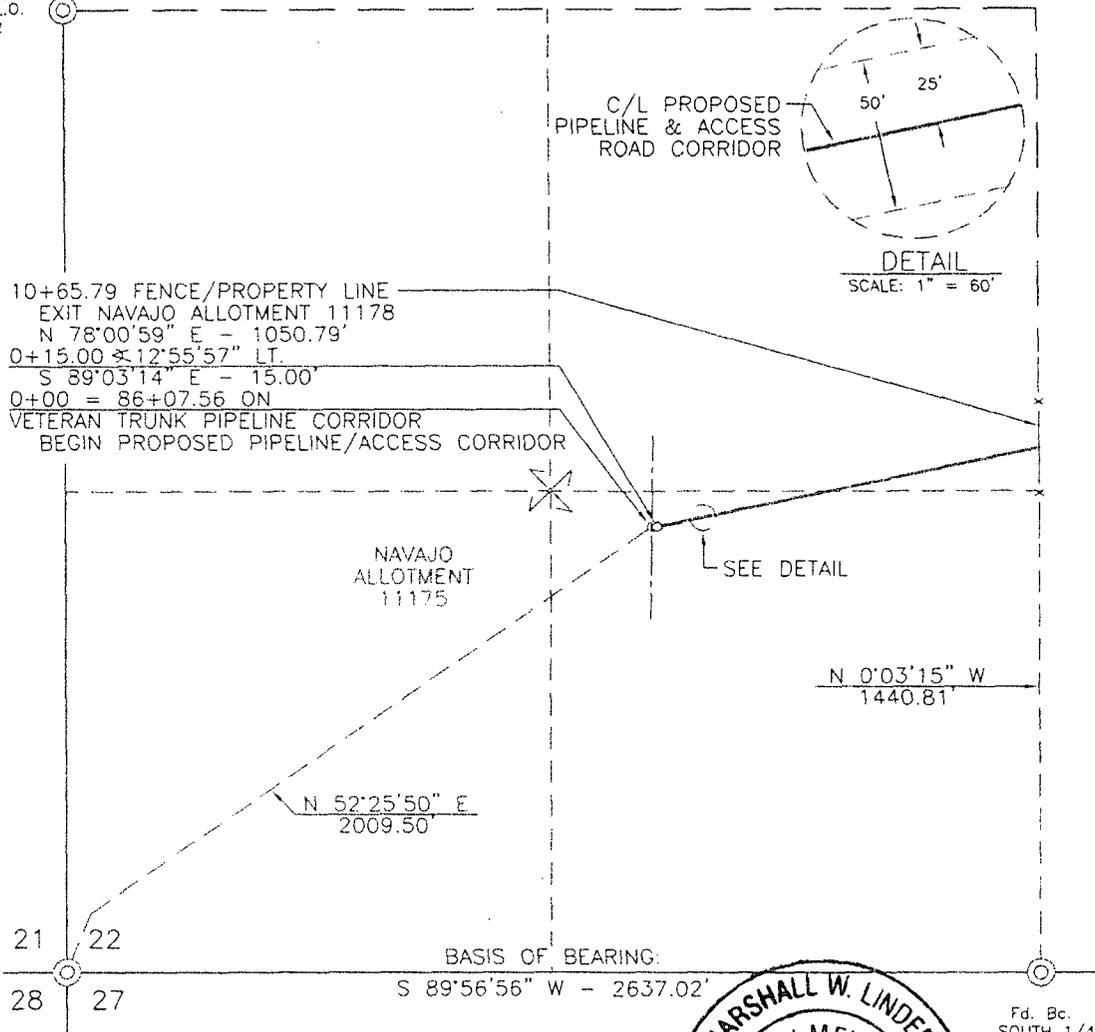
HOLIDAY SWD #1  
PROPOSED EQUIPMENT





**XTO ENERGY, INC.**  
**PROPOSED 6" GAS PIPELINE, (2) 8" GAS PIPELINES,**  
**6" WATER PIPELINE & ACCESS ROAD**  
**LOCATED IN NAVAJO ALLOTMENT 11175**  
**SW 1/4 SECTION 22, T-25-N, R-10-W, N.M.P.M.,**  
**SAN JUAN COUNTY, NEW MEXICO**

Fd. Bc.  
WEST 1/4  
U.S.G.L.O.  
1932

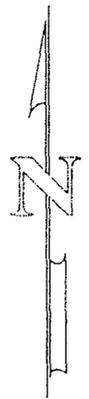


Fd. Bc.  
U.S.G.L.O.  
1932

21 22  
28 27

BASIS OF BEARING:  
S 89°56'56" W - 2637.02'

Fd. Bc.  
SOUTH 1/4  
U.S.G.L.O.  
1932



**NOTES:**

1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SW/4 OF SECTION 22, T-25-N, R-10-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO.  
BEARS: S 89°56'56" W - 2637.02'
2. ALL BEARINGS & DISTANCES SHOWN ARE BASED UPON NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83 (COMBINED SCALE FACTOR: 0.999606)

OWNER	STATION	FEET/RODS
NAVAJO ALLOTMENT 11175	0+00 TO 10+65.79	1065.79/64.593



0 250 500  
SCALE: 1" = 500'

I, MARSHALL W. LINDEEN, BEING A LICENSED PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT ACCURATELY REPRESENTS THIS SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Marshall W. Lindeen* 2-17-10

MARSHALL W. LINDEEN L.P.S #17078

DATE



FARMINGTON, NEW MEXICO



SURVEYED: 03/14/08

REV. DATE: 08/13/09

APP. BY M.W.L.

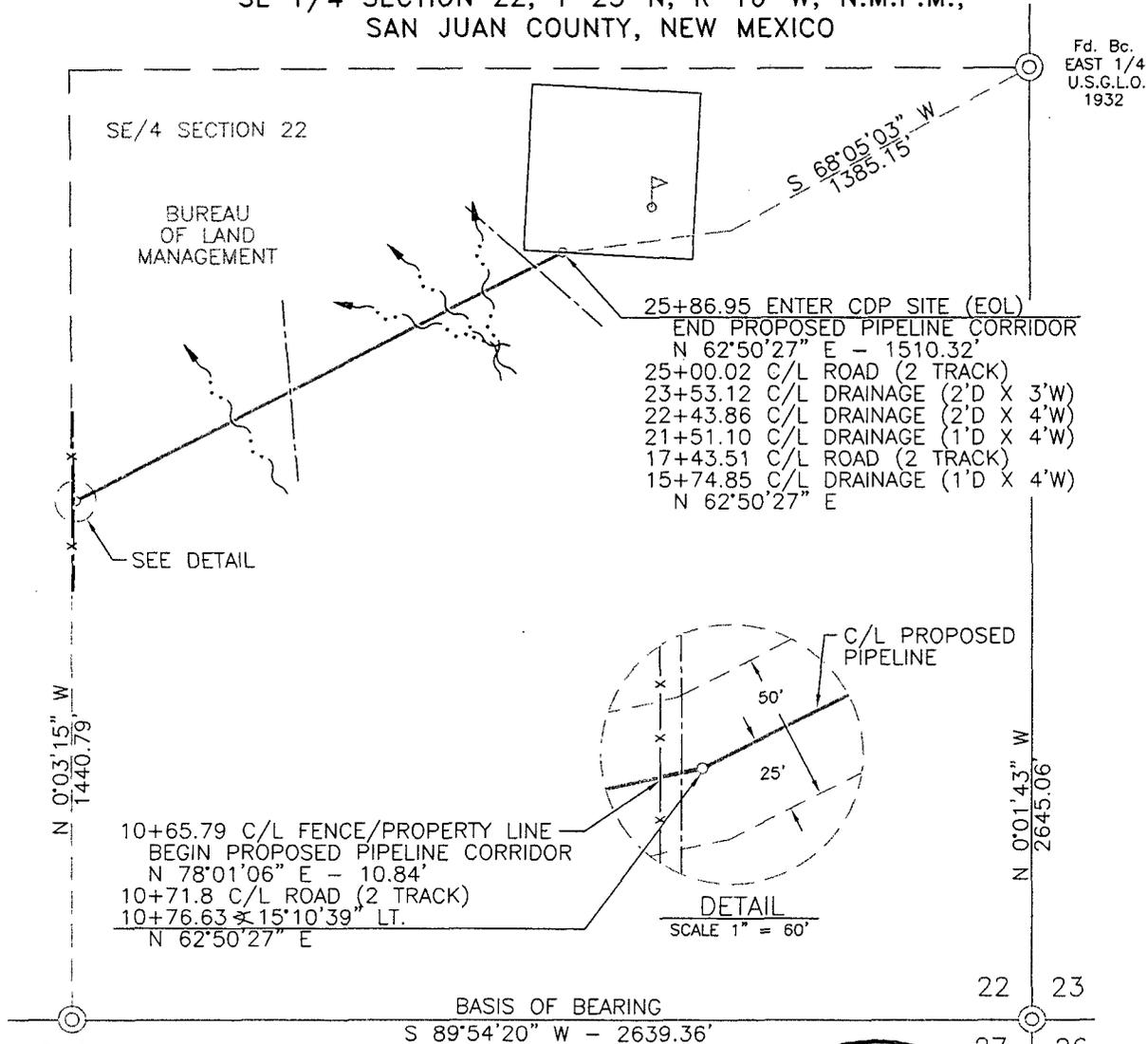
DRAWN BY: M.B.

DATE DRAWN: 07/03/09

FILE NAME: 8377P01

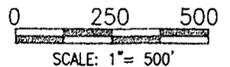
**EXHIBIT E**

**XTO ENERGY, INC.**  
**PROPOSED 6" PIPELINE, (2) 8" GAS PIPELINES,**  
**6" WATER PIPELINE AND SWD SITE**  
**LOCATED ON B.L.M. LAND**  
**SE 1/4 SECTION 22, T-25-N, R-10-W, N.M.P.M.,**  
**SAN JUAN COUNTY, NEW MEXICO**



- NOTES:
1. BASIS OF BEARING: MONUMENTED SOUTH LINE OF THE SE/4 OF SECTION 22, T-25-N, R-10-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO.  
 BEARS: S 89°54'20" W - 2639.36'
  2. ALL BEARINGS & DISTANCES SHOWN ARE BASED UPON THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83  
 (COMBINED SCALE FACTOR: 0.999606)

OWNER	STATION	FEET/RODS
B.L.M.	10+65.79 TO 25+86.95	1521.16/92.192



I, MARSHALL W. LINDEEN, BEING A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE SURVEY REPRESENTED BY THIS PLAT WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT ACCURATELY REPRESENTS THIS SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

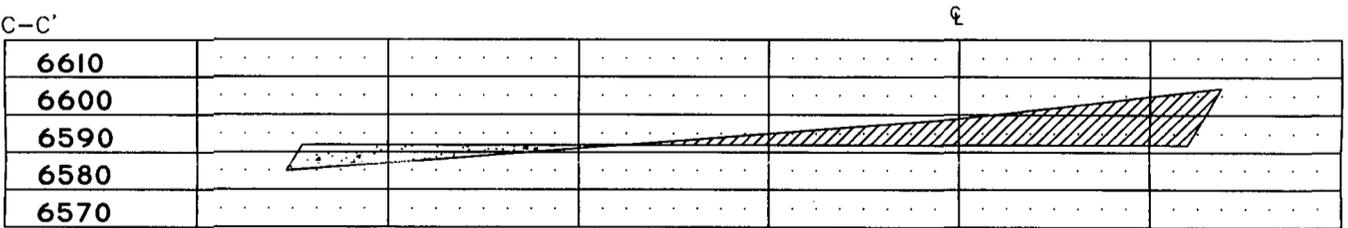
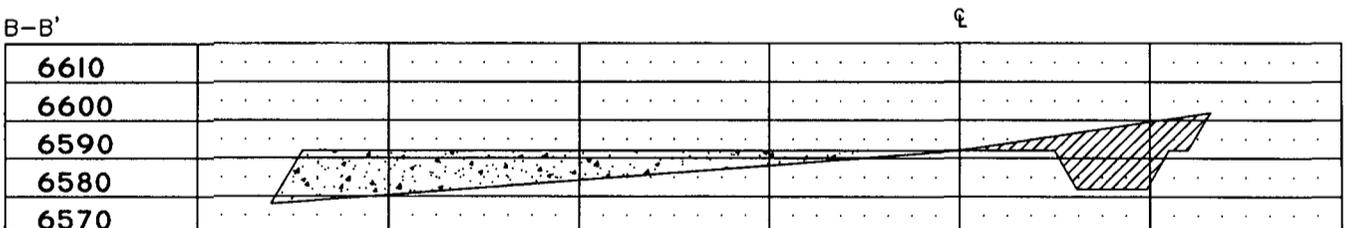
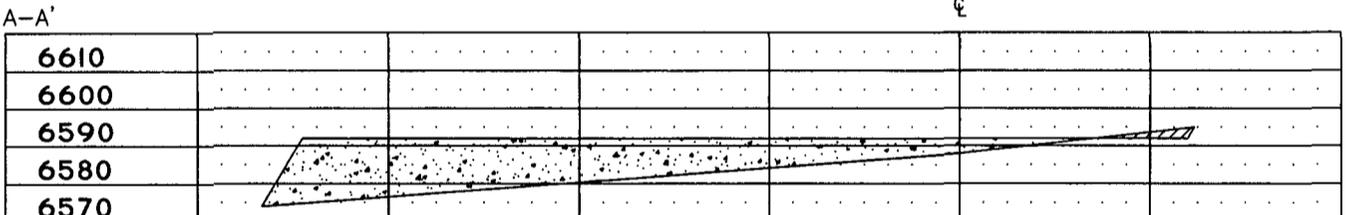
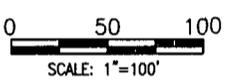
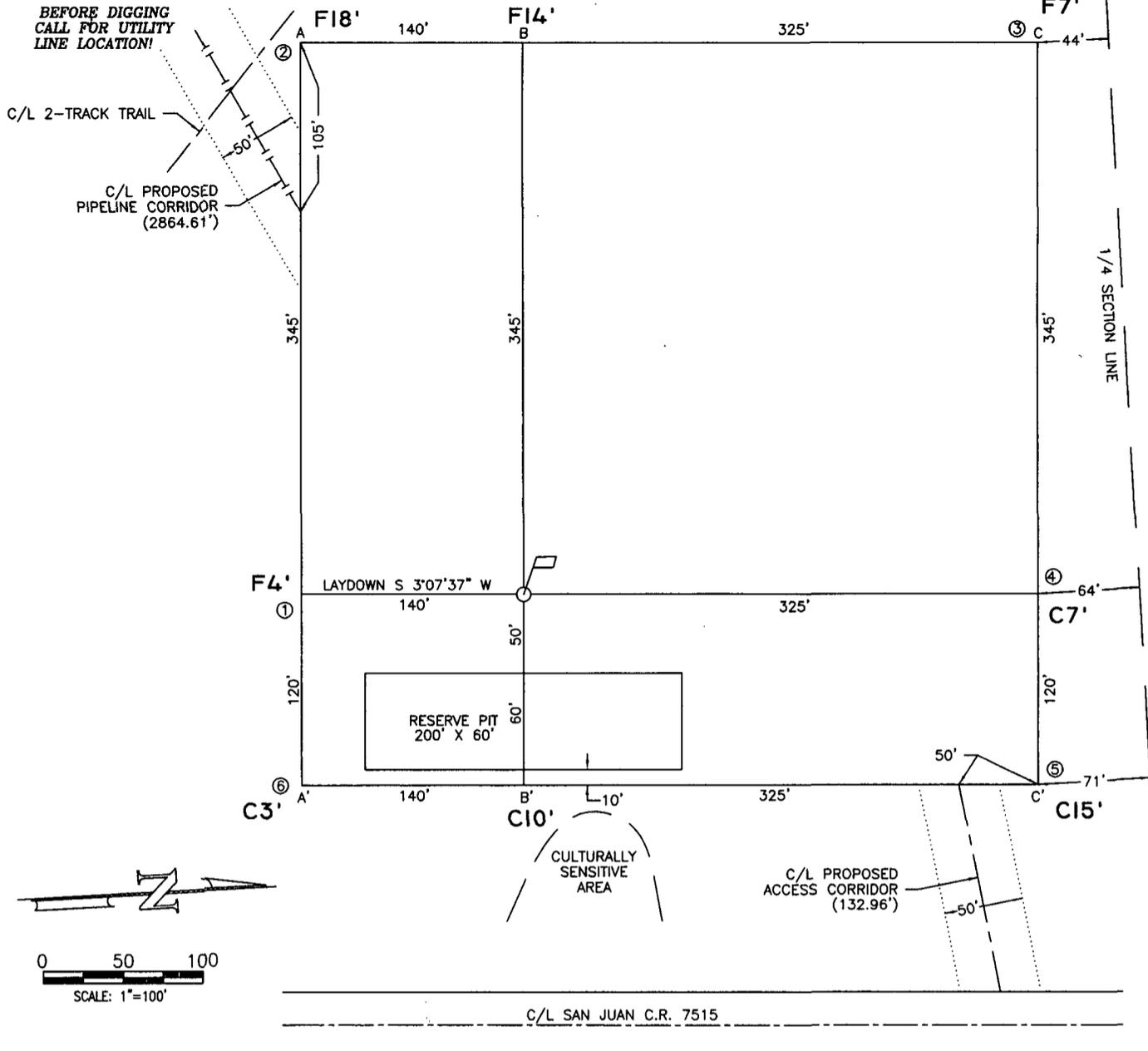
*Marshall W. Lindeen* 8-4-10

MARSHALL W. LINDEEN P.S #17078

DATE

<b>XTO ENERGY</b> FARMINGTON, NEW MEXICO		<b>UNITED FIELD SERVICES INC.</b> P.O. BOX 3651 FARMINGTON, NM 87489 OFFICE: (505) 334-0408	
SURVEYED: 07/27/10	REV. DATE: 08/03/10	APP. BY M.W.L.	
DRAWN BY: C.B.	DATE DRAWN: 07/28/10	FILE NAME: 8377P02	

**EXHIBIT E**



**CROSS SECTIONS**  
 HORIZONTAL: 1"=100'  
 VERTICAL: 1"=50'

LEASE: **HOLIDAY SWD #1**

FOOTAGES: **2257' FSL, 1038' FEL**

SEC. **22** TWN. **25 N** RNG. **10 W** N.M.P.M.

LAT: **N 36.385513°** LONG: **W 107.878565° (NAD 83)**

ELEVATION: **6592**

**SURVEYED:** 07/27/10

**DRAWN BY:** C.B.

**REV. DATE:**

**DATE DRAWN:** 07/29/10

**APP. BY:** M.W.L.

**FILE NAME:** 8377C02

Operator Certification:

a. Permitting and Compliance:

Malia Villers  
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 18th day of November 2010.

Signature: Malia Villers  
Malia Villers

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Tuesday, March 29, 2011 10:07 AM  
**To:** William\_Lucas@xtoenergy.com  
**Cc:** Ezeanyim, Richard, EMNRD; Warnell, Terry G, EMNRD; Perrin, Charlie, EMNRD; 'jlovato@blm.gov'  
**Subject:** Disposal application from XTO Energy, Inc.: Holiday SWD #1 30-045-35231 Entrada from approx 7347 to 7650

Hello Mr. Lucas and Ms. Zillers:  
Hope all is well with you?

I just reviewed your SWD permit application on this well and have a few questions and comments – don't be alarmed, it is normal for me to have questions, hope they are easy to address.

- a. I looked at your records on water well depth in this area (637 feet) and at a nearby gas well resistivity log and it appears to me that "low conductive" sands occur off and on down to almost 1,000 feet in this well. The plan is to set surface pipe at 500 feet and circulate cement and intermediate at 1750 feet. Please confirm you will be circulating cement on the intermediate pipe? You likely have a standard procedure for casing/cementing in this area, but the presence of these sands seems to indicate a DV/Stage tool could be used on the intermediate at about 1,000 feet – or the cement be designed to account for this. This is a federal well, so you could talk this over with the BLM in Farmington?
- b. The top of the Triassic Chinle is shown on your application at 7538 and yet your application says the Entrada will be the only formation used for disposal down to 7650 – so there is a disconnect with depths. Please let me know whether any possible sands in the Chinle are planned to be included in this disposal?
- c. You only advertised to dispose into the Entrada at "approx" depths. If you change your mind and wish to include the sands above or below the Entrada, you will need to re-apply with a new C-108 form.
  - a. Your application does not include a water sample from the Entrada but says you will swab and obtain a sample – is that still your plan? ... or do you plan to run resistivity/porosity logs over the Entrada and infer a TDS salinity from the correlations? Please note, we are not allowed by US EPA and by New Mexico Rules to grant permission to inject into formations with insitu waters below 10,000 mg/l TDS. If this turns out to be the case, XTO will need to present its case to the OCD for an aquifer exemption – your attorney knows more about this process – also Dugan Petroleum knows about it (Kurt Fragrelius).
- d. Is the U.S.A. the surface owner of this well site? If not, please let me know who is and send proof of notice.
- e. You included the copy of APD sent to the BLM, but please [from now on] always send the BLM or the State Land Office copies of the complete application for disposal wells by certified mail – just like other affected parties. The BLM has requested we tell this to applicants.
- f. Please write on all the included water analysis reports, the formation name that was tested.
- g. You sent lots of information with this application concerning wells in the vicinity. However, please [from now on] only list the AOR wells which do not penetrate the target formation. Include details only on those ½ mile AOR wells which DO penetrate the target formation. On those the primary thing we look for is cement coverage of the target formation.

- h. Please send a new Well Bore Diagram of this well as it will be after it is completed for injection – the diagram in the application has incorrect depths on it.
- i. Your application does not identify separate [Entrada] tracts of land in the AOR and provides notice to parties that do not exist anymore. Therefore, I am not sure if notice was properly provided. To be sure, please read the rule as quoted below...

Please pass this request on to your Land dept in Fort Worth:

- a. Within the ½ mile Area of Review around this well, identify all separate identically owned “tracts” of land (entrada formation depths).
- b. For each of these tracts, list the parties having the mineral lease in the Entrada formation. IF the entrada depths are not leased within any tract, list the mineral owners.
- c. Provide certified notice of this SWD application to each of those “affected” parties – see definition below.
- d. Send to me here in Santa Fe, the map showing the tracts identified and evidence of parties noticed.

For convenience, the OCD rules for notice are as copied below:

**19.15.26.7 DEFINITIONS:**

**A. “Affected person”** means the division designated operator; in the absence of an operator, a lessee whose interest is evidenced by a written conveyance document either of record or known to the applicant as of the date the applicant files the application; or in the absence of an operator or lessee, a mineral interest owner whose interest is evidenced by a written conveyance document either of record or known to the applicant as of the date the applicant filed the application for permit to inject.

**19.15.26.8 INJECTION OF FLUIDS INTO RESERVOIRS:**

**B. Method of making application.**

(2) The applicant shall furnish, by certified or registered mail, a copy of the application to each owner of the land surface on which each injection or disposal well is to be located and to each leasehold operator or other **affected person** within any tract wholly or partially contained within one-half mile of the well.

Regards,

William V Jones, P.E.

Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



Malia:

Thanks to all of you for sending the requested info.

I still have a question concerning the provided "notice".  
For disposal applications, there rarely are operated wells in the disposal interval within 1/2 mile. Therefore, the next step is to determine who owns the mineral rights in the Entrada, identify all "identically owned" tracts, and the owners of each tract, and provide notice that way.

It is a hierarchy of notice,  
First you look for "operators" within the disposal interval.  
Then you look for "lessees" within this disposal interval - where there is no "operator".  
Then you look for Mineral Interest Owners within any lands in the Area of Review that have no Operator or Lessee.

In this case, it seems the Lessees should be identified and noticed.  
If the BLM is the only mineral owner within 1/2 mile of this well, then on Entrada depths for lands not leased, notice to the BLM would work.

You may have already done this, but just let me know by identifying all the "tracts".

The Landmanager of this area within XTO would be best to talk to.

Regards,

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

-----Original Message-----

From: Malia\_Villers@xtoenergy.com [mailto:Malia\_Villers@xtoenergy.com]  
Sent: Tuesday, April 05, 2011 6:59 AM  
To: Jones, William V., EMNRD  
Cc: William\_Lucas@xtoenergy.com; Diane\_Jaramillo@xtoenergy.com  
Subject: Fw: Disposal application from XTO Energy, Inc.: Holiday SWD #1  
30-045-35231 Entrada from approx 7347 to 7650

Good Morning Will,

Please see the answers to your questions in red below.  
Also, please see attached requested documents.

Let me know if you have any other questions.

Have a wonderful Tuesday,

Malia Villers  
Permitting Tech.  
XTO Energy a subsidiary of ExxonMobil  
Office: 505-333-3698  
Cell: 505-787-7700  
Fax: 505-333-3284

(See attached file: Holiday SWD #1.Water analysis.pdf) (See attached file: Holiday SWD #1.wellbore diagram.xls) (See attached file: Holiday SWD #1.Producing Zones 2 Mile Radius Map.pdf)

Hello Mr. Lucas and Ms. Villers:  
Hope all is well with you?

I just reviewed your SWD permit application on this well and have a few questions and comments - don't be alarmed, it is normal for me to have questions, hope they are easy to address.

a. I looked at your records on water well depth in this area (637 feet) and at a nearby gas well resistivity log and it appears to me that "low conductive" sands occur off and on down to almost 1,000 feet in this well. The plan is to set surface pipe at 500 feet and circulate cement and intermediate at 1750 feet. Please confirm you will be circulating cement on the intermediate pipe? You likely have a standard procedure for casing/cementing in this area, but the presence of these sands seems to indicate a DV/Stage tool could be used on the intermediate at about 1,000 feet - or the cement be designed to account for this. This is a federal well, so you could talk this over with the BLM in Farmington?

A As stated in section 5 of the drilling program, we will attempt to circulate cement to surface on all casing strings. The cement slurry designs and volumes have been set so as to bring sufficient cement to surface and isolate all zones.

ANSWERS  
Sent 4/5/11

b. The top of the Triassic Chinle is shown on your application at 7538 and yet your application says the Entrada will be the only formation used for disposal down to 7650 - so there is a disconnect with depths. Please let me know whether any possible sands in the Chinle are planned to be included in this disposal?

A The estimated formation top for the Entrada is 7,347' and its base (the top of the Chinle) is 7,538'. The current perforation plan is from the approximate depths of 7,350' to 7,450', an interval completely contained within the Entrada Sandstone. However, the exact depths of the Entrada top and base, as well as the perforation interval will be determined after drilling and logging. The interval below the perforations down to the TD of 7,650' is intended to be the rat hole. The Chinle Formation is not a target for injection.

c. You only advertised to dispose into the Entrada at "approx" depths. If you change your mind and wish to include the sands above or below the Entrada, you will need to re-apply with a new C-108 form.

a. Your application does not include a water sample from the Entrada but says you will swab and obtain a sample - is that still your plan? ... or do you plan to run resistivity/porosity logs over the Entrada and infer a TDS salinity from the correlations? Please note, we are not

allowed by US EPA and by New Mexico Rules to grant permission to inject into formations with insitu waters below 10,000 mg/l TDS. If this turns out to be the case, XTO will need to present its case to the OCD for an aquifer exemption - your attorney knows more about this process - also Dugan Petroleum knows about it (Kurt Fragrelius).

A It is still our plan to swab and obtain a water sample from the Entrada Formation.

d. Is the U.S.A. the surface owner of this well site? If not, please let me know who is and send proof of notice.

A The Bureau of Land Management is the surface owner of this well site.

e. You included the copy of APD sent to the BLM, but please [from now on] always send the BLM or the State Land Office copies of the complete application for disposal wells by certified mail - just like other affected parties. The BLM has requested we tell this to applicants.

f. Please write on all the included water analysis reports, the formation name that was tested.

A Please see attachment titled "water analysis"

g. You sent lots of information with this application concerning wells in the vicinity. However, please [from now on] only list the AOR wells which do not penetrate the target formation. Include details only on those 1/2 mile AOR wells which DO penetrate the target formation. On those the primary thing we look for is cement coverage of the target formation.

h. Please send a new Well Bore Diagram of this well as it will be after it is completed for injection - the diagram in the application has incorrect depths on it.

A Please see attachment titled "wellbore diagram".

i. Your application does not identify separate [Entrada] tracts of land in the AOR and provides notice to parties that do not exist anymore. Therefore, I am not sure if notice was properly provided. To be sure, please read the rule as quoted below...

Please pass this request on to your Land dept in Fort Worth:

a. Within the 1/2 mile Area of Review around this well, identify all separate identically owned "tracts" of land (entrada formation depths).

b. For each of these tracts, list the parties having the mineral lease in the Entrada formation. IF the entrada depths are not leased within any tract, list the mineral owners.

c. Provide certified notice of this SWD application to each of those "affected" parties - see definition below.

d. Send to me here in Santa Fe, the map showing the tracts identified and evidence of parties noticed.

A There are no wells producing in the Entrada Formation or injecting into the Entrada Formation in the AOR within a two (2) mile radius of the Holiday SWD #1.

Map attached reflecting all producing zones.

For convenience, the OCD rules for notice are as copied below: