TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 14, 2013

MS DARA MAYNE
MANAGER REGULATORY COMPLIANCE
XTO ENERGY INC
6141 PALUXY DR
TYLER TX 75703-5976

Permit by Rule Registration Number: 89392

Location:	From Teague at HWY 84 business take FM 80 s go 0.7 mi turn r on Adams St Greenwood Cemetery Rd go 0.4 mi go l on CR 855 go 2.8 mi to location
City/County:	Teague, Freestone County
Project Description/Unit:	Senter Gu #4 Well Site
Regulated Entity Number:	RN105757272
Customer Reference Number:	CN600601348
New or Existing Site:	Existing
30 TAC § 106.352 Effective Date:	09/04/2000

XTO Energy Inc. has registered the emissions associated with the Senter Gu #4 Well Site under the Permit by Rule(s) stated above. For rule information see: www.tceq.texas.gov/permitting/air/nav/numerical_index.html.

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements. In addition, under the General Requirements for all Permit by Rules, § 106.2 states that particular requirements only apply "where construction is commenced on or after the effective date of the relevant permit by rule."

If you have questions, please contact Ms. Salena Bargsley at (512) 239-2254. This action is taken under the authority delegated by the Executive Director of the TCEQ.

Sincerely,

Anne M. Inman, P.E., Manager
Rule Registrations Section
Air Permits Division

cc: Air Section Manager, Region 9 - Waco

Project Number: 199945

Represented Emission Rates
Registration Number: 89392

This table lists the represented emission rates and all sources of air contaminants on the applicant's property covered by this registration. The emission rates shown are those derived from information submitted as part of the registration for PBR.

ESTIMATED EMISSIONS														
EPN / Emission Source	**VOC**		**NOx**		**CO**		**PM_{10}**		**$PM_{2.5}$**		**SO_2**		**H_2S**	
	lbs/hr	**tpy**	**lbs/hr**	**tpy**	**lbs/hr**	**tpy**	**lbs/hr**	**tpy**	**lbs/hr**	**tpy**	**lbs/hr**	**tpy**	**lbs/hr**	**tpy**
TK1/Tank1	<0.01	<0.01											<0.01	<0.01
TRUCK/PW Loading	0.14	<0.01											<0.01	<0.01
MSS/MSS Fugitives	8.87	1.62											0.12	0.02
FUG/Fugitives	0.24	1.05											<0.01	0.01
HTR1/Line Heater	0.03	0.11	0.10	0.45	0.14	0.60	<0.01	0.02	<0.01	0.02	0.03	0.15		
TOTAL EMISSIONS (TPY):		2.79		0.45		0.60		0.02		0.02		0.15		0.04
MAXIMUM OPERATING SCHEDULE:			**Hours/Day**			**Days/Week**			**Weeks/Year**			**Hours/Year**		8760

VOC - volatile organic compounds
NO_x - total oxides of nitrogen
CO - carbon monoxide
PM_{10} - particulate matter equal to or less than 10 microns in size
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in size
SO_2 - sulfur dioxide

**Fugitive emissions are an estimate only and should not be considered as a maximum allowable

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	89392	*Company Name:*	XTO Energy Inc.	*APD Reviewer:*	Ms. Salena Bargsley
Project No.:	199945	*Unit Name:*	Senter Gu #4 Well Site	*PBR No(s).:*	106.352 (2000-SEP-04 TO 2011-FEB-27)

GENERAL INFORMATION			
Regulated Entity No.:	RN105757272	**Project Type:**	Permit by Rule Application
Customer Reference No.:	CN600601348	**Date Received by TCEQ:**	October 14, 2013
Account No.:		**Date Received by Reviewer:**	November 12, 2013
City/County:	Teague, Freestone County	**Physical Location:**	From Teague at HWY 84 business take FM 80 s go 0.7 mi turn r on Adams St Greenwood Cemetery Rd go 0.4 mi go l on CR 855 go 2.8 mi to location

CONTACT INFORMATION					
Responsible Official/ Primary Contact Name and Title:	Ms. Dara Mayne Manager Regulatory Compliance	**Phone No.:** **Fax No.:**	(903) 579-3073 (903) 579-3088	**Email:**	dara_mayne@xtoenergy.com
Technical Contact/ Consultant Name and Title:	Mr. John Mcmichael Environmental Engineer	**Phone No.:** **Fax No.:**	(817) 885-3782 (817) 885-2683	**Email:**	john_mcmichael@xtoenergy.com

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there affected NSR or Title V permits for the project?		X	
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?		X	
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	
Does NOx Cap and Trade apply to this registration?		X	
Is the facility in compliance with all other applicable rules and regulations?	X		
Is Registration Certified?		X	
Does the site handle sour oil or gas?	X		Distance to receptor if Sour: >1340 ft
Did the company use a Simulator program (such as ProMax?)		X	
Is planned MSS included in the registration?	X		

DESCRIBE OVERALL PROCESS AT THE SITE

Associated gas from the well flows through a 500,000 Btu line heater (HTR1), where it is periodically heated to reduce the formation of hydrates. The associated gas then flows into the two-stage separator, where the liquids (water) are separated from the gas. The gas is flows to the gas sales meter while the liquids flow into the produced water tank on the site. The tank vapor are vented to atmosphere, while the liquids are eventually trucked offsite.

DESCRIBE PROJECT AND INVOLVED PROCESS

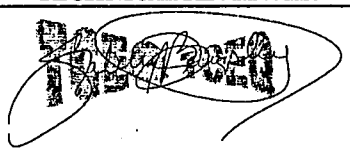
XTO Energy, Inc. has submitted a PI-7 to revise registered emissions at this site.

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	89392	***Company Name:***	XTO Energy Inc.	***APD Reviewer:***	Ms. Salena Bargsley
Project No.:	199945	***Unit Name:***	Senter Gu #4 Well Site	***PBR No(s).:***	106.352 (2000-SEP-04 TO 2011-FEB-27)

ESTIMATED EMISSIONS

EPN / Emission Source	VOC		NOx		CO		PM_{10}		$PM_{2.5}$		SO_2		H_2S	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
TK1/Tank1	<0.01	<0.01											<0.01	<0.01
TRUCK/PW Loading	0.14	<0.01											<0.01	<0.01
MSS/MSS Fugitives	8.87	1.62											0.12	0.02
FUG/Fugitives	0.24	1.05											<0.01	0.01
HTR1/Line Heater	0.03	0.11	0.10	0.45	0.14	0.60	<0.01	0.02	<0.01	0.02	0.03	0.15		
TOTAL EMISSIONS (TPY):		2.79		0.45		0.60		0.02		0.02		0.15		0.04
MAXIMUM OPERATING SCHEDULE:		**Hours/Day**				**Days/Week**			**Weeks/Year**			**Hours/Year**		8760

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			See Hard Copy.
PRINTED NAME:	Ms. Salena A. Bargsley	Mr. James Nolan	Ms. Anne M. Inman, P.E., Manager
DATE:	November 14, 2013	November 14, 2013	November 14, 2013

Email

11/14/2013 ----------NSR IMS - PROJECT RECORD ----------

PROJECT#: 199945 PERMIT#: 89392 STATUS: PENDING DISP CODE: C
RECEIVED: 10/14/2013 PROJTYPE: REVISION AUTHTYPE: PBR ISSUED DT: 11/14/13
RENEWAL:
PROJECT ADMIN NAME: SENTER GU #4 WELL SITE
PROJECT TECH NAME: SENTER GU #4 WELL SITE

Q2

Assigned Team: RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

MONROE , SHEILA	- REVIEWR1_2 -	AP INITIAL REVIEW
BARGSLEY , SALENA	- REVIEW ENG -	RR TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)
ISSUED TO: XTO ENERGY INC.
COMPANY NAME: XTO Energy Inc.
CUSTOMER REFERENCE NUMBER: **CN600601348**

REGULATED ENTITY/SITE INFORMATION
REGULATED ENTITY NUMBER: **RN105757272** ACCOUNT:
PERMIT NAME: SENTER GU #4 WELL SITE

REGULATED ENTITY LOCATION: FROM TEAGUE AT HWY 84 BUSINESS TAKE FM 80 S GO 0.7 MI TURN R ON ADAMS ST GREENWOOD CEMETERY RD GO 0.4 MI GO L ON CR 855 GO 2.8 MI TO LOCATION
REGION 09 - WACO NEAR CITY: TEAGUE COUNTY: FREESTONE

CONTACT DATA

CONTACT NAME: MS DARA MAYNE CONTACT ROLE: RESPONSIBLE OFFICIAL
JOB TITLE: MANAGER REGULATORY COMPLIANCE ORGANIZATION: XTO ENERGY INC
MAILING ADDRESS: 6141 PALUXY DR, TYLER, TX, 75703-5976
PHONE: (903) 579-3073 Ext: 0
FAX: (903) 579-3088 Ext: 0
EMAIL:DARA_MAYNE@XTOENERGY.COM

-

CONTACT NAME: MR JOHN MCMICHAEL CONTACT ROLE: TECHNICAL CONTACT
JOB TITLE: ENVIRONMENTAL ENGINEER ORGANIZATION: XTO ENERGY INC
MAILING ADDRESS: 810 HOUSTON ST, FORT WORTH, TX, 76102-6203
PHONE: (817) 885-3782 Ext: 0
FAX: (817) 885-2683 Ext: 0
EMAIL:JOHN_MCMICHAEL@XTOENERGY.COM

PROJECT NOTES:

10/15/2013 DFC 10/15/2013

PERMIT NOTES:

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
7451585		450.00		CHECK

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	10/14/2013	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	10/15/2013	
CENTRAL REGISTRY UPDATED	10/15/2013	10/15/2013
PROJECT RECEIVED BY ENGINEER (DATE)	11/12/2013	
ENGINEER INITIAL REVIEW COMPLETED (DATE)	11/14/2013	
PEER / MANAGER REVIEW PERIOD	11/14/2013	11/14/2013

Permit Unit Type:

PROJECT RULES:

Unit Desc	Rule Desc	Request Type	On Application	Approve
OIL AND GAS PRODUCTION FACILITIES	106.352 2000-SEP-04 TO 2011-FEB-27 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date
OIL AND GAS PRODUCTION FACILITIES	106.352 2000-SEP-04 TO 2011-FEB-27	07/21/2009	
FLARES	106.492	07/21/2009	

PROJECT ATTRIBUTES:

Attributes	Value
MSS- 101.222(H)(1)	E
PROJECT POINT	

2.79 tpy VOC saw

10/15/2013 ----------NSR IMS - PROJECT RECORD ----------

PROJECT#: 199945 PERMIT#: 89392 STATUS: PENDING DISP CODE: _____
RECEIVED: 10/14/2013 PROJTYPE: REVISION AUTHTYPE: PBR ISSUED DT: _____
RENEWAL:
PROJECT ADMIN NAME: SENTER GU #4 WELL SITE
PROJECT TECH NAME: SENTER GU #4 WELL SITE

Assigned Team:RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

MONROE , SHEILA	- REVIEWR1_2 -	AP INITIAL REVIEW
TEAM LEADER , RR	- REVIEW ENG -	RULE REG SECTION

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)
ISSUED TO: XTO ENERGY INC.
COMPANY NAME: XTO Energy Inc.
CUSTOMER REFERENCE NUMBER: **CN600601348**

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MAILING ADDRESS: 6141 PALUXY DR, TYLER, TX, 75703-5976
PHONE: (903) 579-3073 Ext: 0
FAX: (903) 579-3088 Ext: 0
EMAIL:DARA_MAYNE@XTOENERGY.COM

CONTACT NAME: MR JOHN MCMICHAEL CONTACT ROLE: TECHNICAL CONTACT
JOB TITLE: ENVIRONMENTAL ENGINEER ORGANIZATION: XTO ENERGY INC
MAILING ADDRESS: 810 HOUSTON ST, FORT WORTH, TX, 76102-6203
PHONE: (817) 885-3782 Ext: 0
FAX: (817) 885-2683 Ext: 0
EMAIL:JOHN_MCMICHAEL@XTOENERGY.COM

PROJECT NOTES:

10/15/2013 DFC 10/15/2013

PERMIT NOTES:

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
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TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	10/14/2013	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	10/15/2013	
CENTRAL REGISTRY UPDATED	10/15/2013	10/15/2013

ENGINEER INITIAL REVIEW COMPLETED (DATE)
PEER / MANAGER REVIEW PERIOD
PROJECT RECEIVED BY ENGINEER (DATE)

Permit Unit Type:

PROJECT RULES:

Unit Desc	Rule Desc	Request Type	On Application	Approve
OIL AND GAS PRODUCTION FACILITIES	106.352 2000-SEP-04 TO 2011-FEB-27 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date
OIL AND GAS PRODUCTION FACILITIES	106.352 2000-SEP-04 TO 2011-FEB-27	07/21/2009	
FLARES	106.492	07/21/2009	

PROJECT ATTRIBUTES:

Attributes	Value
PROJECT POINT	

Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form

I. REGISTRANT INFORMATION			
A. TCEQ Customer Reference Number:	CN- 600601348	TCEQ Regulated Entity Number:	RN- 105757272
New Core Data Form Information: If there is no CN or RN number, a Core Data Form must be completed and submitted with an original signature.			
B. Company or Other Legal Customer Name: XTO Energy, Inc.			
Company Official Contact Name: Dara Mayne		Title: Manager / Regulatory Compliance	
Mailing Address: 6141 Paluxy Drive			
City: Tyler		State: Texas	Zip Code: 75703
Phone No.: (903) 579-3073	Fax No.: (903) 579-3088	E-mail Address: dara_mayne@xtoenergy.com	
C. Technical Contact Name: John McMichael		Title: Environmental Engineer	
Company: XTO Energy Inc.			
Mailing Address: 810 Houston St.			
City: Fort Worth		State: TX	Zip Code: 76102-6298
Phone No. : 817-885-3782	Fax No.: 817-885-2683	E-mail Address: john_mcmichael@xtoenergy.com	
D. Facility Location Information - Street Address:			
If "NO," street address, provide written driving directions to the site: (attach description if additional space is needed)			
From Teague, TX at Hwy 84 Business take FM 80 south. Go ~ 0.7 miles. Turn right onto Adams Street (Greenwood Cemetery Road). Go ~ 0.4 miles. Turn left onto CR 855. Go ~ 2.8 miles to location.			
City: Teague	County: Freestone		Zip Code: 75860
II. FACILITY AND SITE INFORMATION			
A. Name and Type of Facility: Senter GU # 4 Well Site			☑ Permanent ☐ Portable
B. PBR claimed under **30 TAC § 106** *(List all that apply in hard copy, or choose all that apply from the drop down menus in electronic version):*			
§ 106. **352 Oil and Gas Production Facilities**		§ 106.	
§ 106.		§ 106.	
§ 106.		§ 106.	
Are you claiming a **historical standard exemption or PBR?**			☐ YES ☑ NO
If "YES," enter effective date and Rule Number:			

Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form

II. FACILITY AND SITE INFORMATION		
C. Is there a previous Standard Exemption or PBR for the facility in this registration? (Attach details regarding changes)		☑ YES ☐ NO
If "YES," enter Registration Number and Rule Number:	105757272	**352 Oil and Gas Production F**
D. Are there any **other facilities** at this **site** which are **authorized by an Air Standard Exemption or PBR?**		☐ YES ☑ NO
If "YES," enter Registration Number and Rule Number:		
E. Are there any **other air preconstruction permits** at this site?		☐ YES ☑ NO
If "YES," enter Permit Numbers:		
Are there any other air preconstruction permits at this site that would be directly associated with this project?		☐ YES ☑ NO
If "YES," enter Permit Numbers:		
F. Is this facility located at a site which is required to obtain a federal operating permit pursuant to 30 TAC Chapter 122?		☐ YES ☑ NO ☐ To be Determined
If the site currently has an existing federal operating permit, enter the permit number:		
Identify the requirements of 30 TAC Chapter 122 that will be triggered if this claim is accepted: (*check all that apply*) ☐ Initial Application for an FOP ☐ Significant Revision for SOP ☐ Minor Revision for SOP ☐ Operational Flexibility/Off Permit Notification for an SOP ☐ Revision for GOP ☐ To be Determined ☐ None		
Identify the type(s) issued and/or FOP application(s) submitted/pending for the site: (*check all that apply*) ☐ SOP ☐ GOP ☐ GOP application/revision application: *(submitted or under APD review)* ☐ SOP application/revision application: *(submitted or under APD review)* ☑ N/A		
G. TCEQ Account Identification Number: *(if known)*		
III. FEE INFORMATION		
See Section VI. for an address to send fee or go to www.2.tceq.state.tx.us/epay to pay online.		
A. Is this registration an update to a previously registered facility and accompanied by a Form APD-CERT solely to establish a federally enforceable emission limit and will not authorize new facilities? *(If "YES," a fee is not required. If "NO," then go to Section III.B.)*		☐ *YES* ☑ *NO*
B. *If "YES," to any of the following three questions, a **$100** fee is required. Otherwise, a **$450** fee is required.*		
Does this business have less than 100 employees or have less than 6 million dollars in annual gross receipts?		☐ YES ☑ NO
Is this registration submitted by a governmental entity with a population of less than 10,000?		☐ YES ☑ NO

Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form

III. FEE INFORMATION (continued)			
C. Check/Money Order or Transaction Number *(Payable to TCEQ)*: 7451585 (SW)		*Was fee Paid online?*	☐ YES ☑ NO
Company name of check: XTO Energy Inc.		Fee amount:	$450.00
IV. SELECTED FACILITY REVIEWS ONLY–TECHNICAL INFORMATION ***Note: If claiming one of the following PBRs, complete this section, then skip to Section VI., "Submitting your registration" below:*** ***Animal Feeding Operations § 106.161, Livestock Auction Facilities § 106.162, Saw Mills § 106.223, Grain Handling, Storage and Drying § 106.283, Auto Body Refinishing Facilities § 106.436, Air Curtain Incinerator § 106.496***			
A. Is the applicable PBR checklist attached which shows the facility meets all general and specific requirements of the PBR(s) being claimed?			☐ YES ☐ NO
B. Distance from this facility's emission release point to the nearest property line:			feet
Distance from this facility's emission release point to the nearest off-property structure:			feet
V. TECHNICAL INFORMATION INCLUDING STATE AND FEDERAL REGULATORY REQUIREMENTS ***Registrants must be in compliance with all applicable state and federal regulations and standards to claim a PBR.***			
A. Is Confidential information submitted and properly marked "CONFIDENTIAL" with this registration?			☐ YES ☑ NO
B. Is a process flow diagram or a process description attached?			☑ YES ☐ NO
C. Are emissions data and calculations for this claim attached?			☑ YES ☐ NO
D. Is information attached showing how the **general** requirements (**30 TAC § 106.4**) of the PBR is met for this Registration? (**PBR checklists** may be used, but are optional)			☑ YES ☐ NO
*Note: Please be reminded that if the facilities listed in this registration are subject to the Mass Emissions Cap & Trade program under **30 TAC Chapter 101, Subchapter H, Division 3**, the owner/operator of these facilities must possess NO_x allowances equivalent to the actual NO_x emissions from these facilities.*			
E. Is information attached showing how the **specific PBR** requirements are met for this registration? (***PBR checklist** may be used, but are optional*)			☑ YES ☐ NO
F. Distance from this facility's emission release point to the nearest property line:			200 feet
Distance from this facility's emission release point to the nearest off-property structure:			>1340 feet
Note: In limited cases, a map or drawing of the site and surrounding land use may be requested during the technical review or at the request of the TCEQ Regional Office or local air pollution control program during an investigation.			

Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form

VI. SUBMITTING YOUR REGISTRATION		
A. FEES – Pick one of the two options below for payment:		
Who	*Where*	*What*
1. Fee Paid Online	**Go to Website www6.tceq.state.tx.us/epay**	No Additional Action Needed
2. Fee Mailed to Revenue Section, TCEQ	Regular, Certified, Priority Mail MC 214, P.O. Box 13088 Austin, Texas 78711-3088 Hand Delivery, Overnight Mail MC 214, 12100 Park 35 Circle, Building A, Third Floor, Austin, Texas 78753	Original Money Order or Check Copy of Form PI-7 and Core Data Form
B. COPIES OF THE REGISTRATION – Copies must be sent as listed below: Processing delays may occur if copies are not sent as noted.		
1. Hard Copy Only Air Permits Initial Review Team (APIRT)	Regular, Certified, Priority Mail MC161, P.O. Box 13087 Austin, Texas 78711-3087 Hand Delivery, Overnight Mail MC 161, 12100 Park 35 Circle, Building C, Third Floor, Austin, Texas 78753 Fax No.: (512) 239-2123 *(do not follow fax with paper copies)*	Originals Form PI-7, Core Data Form, and all attachments
2. Appropriate local and TCEQ Regional Office Programs	To Find your local or Regional Air Pollution Control Programs go to the TCEQ, APD Website at www.tceq.state.tx.us/nav/permits/air_permits.html or call (512) 239-1250	Copy of Form PI-7, Core Data Form, and all attachments to each office.
3. Print	(Blank for Print Button)	Prints a Hard Copy of the Form PI-7

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☐ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ■ Other: Permit Modification

2. Attachments — Describe Any Attachments: *(ex. Title V Application, Waste Transporter Application, etc.)*

■ Yes ☐ No: Permit By Rule Application

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 600601348		RN 105757272

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy): 03/22/2010

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☐ Owner ☐ Operator ■ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ■ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	■ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)*	*If new Customer, enter previous Customer below*	*End Date:*
XTO Energy, Inc.		

10. Mailing Address:								
	810 Houston St.							
	City	Fort Worth	State	TX	ZIP	76102	ZIP + 4	6298

11. Country Mailing Information *(if outside USA)*	12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
(817) 885-3782		( ) -

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*
75-2347769	17523477697		

20. Number of Employees: ☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ■ 501 and higher

21. Independently Owned and Operated? ☐ Yes ■ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ■ Update to Regulated Entity Information ☐ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

Senter GU # 4 Well Site

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*								
	City		State		ZIP		ZIP + 4	
25. Mailing Address:	810 Houston St.							
	City	Fort Worth	State	TX	ZIP	76102	ZIP + 4	6298

26. E-Mail Address:	john_mcmichael@xtoenergy.com

27. Telephone Number	28. Extension or Code	29. Fax Number *(if applicable)*
(817) 885 - 3782		(817) 885-2683

30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)
1311			

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Oil and Gas Exploration and Production

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	From Teague, TX at Hwy 84 Business take FM 80 south. Go ~ 0.7 miles. Turn right onto Adams Street (Greenwood Cemetery Road). Go ~ 0.4 miles. Turn left onto CR 855. Go ~ 2.8 miles to location.

36. Nearest City	County	State	Nearest ZIP Code
Teague	Freestone	TX	75860

37. Latitude (N) In Decimal:			38. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	36	21.60	96	19	19.74

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
■ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Tammy Miller	41. Title:	Environmental Specialist

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(903) 579-7738		( ) -	tammy_miller@xtoenergy.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	XTO Energy, Inc.	Job Title:	Manager / Regulatory Compliance
Name *(In Print)*:	Dara Mayne	Phone:	(903) 579-3073
Signature:	Dara Mayne	Date:	10/01/13

XTO ENERGY

October 9, 2013 **CERTIFIED MAIL # 7004 1160 0000 1312 1740**

Texas Commission on Environmental Quality
Air Permits Division
MC-161
P.O. Box 13087
Austin, TX 78711-3087

RE: XTO Energy, Inc
Black GU # 2 Well Site
Cosson GU # 7 Well Site
Curry GU # 3 Well Site
Keils GU # 5 Well Site
Senter GU # 4 Well Site
Freestone County, Texas

Air Permits Division:

XTO Energy, Inc. is submitting applications to the Texas Commission on Environmental Quality (TCEQ) for a Permit By Rule (PBR) for the locations referenced above. These sites are oil and gas production properties with produced water tanks, line heater, and other oil, gas, and water handling equipment typical to a production site. These facilities are authorized under 30 Texas Administrative Code (TAC) § 106.352.

If you have any questions or need any additional information to process these applications, please feel free to contact John McMichael at 817.885.3782 or by email at john_mcmichael@xtoenergy.com.

Sincerely,

Tammy Miller

Tammy Miller
Environmental Specialist
XTO Energy, Inc.

cc:

Texas Commission on Environmental Quality
Region 9 – Waco Texas
6801 Sanger Avenue, Suite 2500
Waco, Texas 76710-7826
CERTIFIED MAIL # 7012 1010 0000 7131 0303

SENTER GU # 4 WELL SITE
PERMIT BY RULE (PBR) APPLICATION

PREPARED BY:
TAMMY MILLER
ENVIRONMENTAL SPECIALIST
XTO ENERGY, INC
10/01/2013

XTO Energy, Inc.
PBR Permit Application

Table of Content

Attachment # 1
Project Description

Project Description
Senter # 4 Well Site
XTO Energy, Inc.
Freestone County, Texas

The purpose of this Permit By Rule (PBR) Application is to resubmit Permit # 89392 with updated emission calculations. We are requesting that the flare at this location be removed since it is no longer required.

This site is an oil and gas production site with a produced water tank, line heater, and other oil, gas, and water handling equipment typical to a production site. This facility is authorized under 30 TAC § 106.352.

This location has not produced any condensate/oil. XTO Energy Inc. (XTO) used the default values in the low pressure gas option in E&P tanks because in the past the labs have been unable to determine the Gas to Oil Ratio (GOR). E&P Tanks is used to determine an over estimated GOR in order to calculate emissions. The emissions are calculated as if they were from 100% condensate/oil and then reduced by 99%. This is to estimate the emissions of trace hydrocarbons in the water tank (per TCEQ).

The Average Natural Gas Throughput is approximately 60 MSCFD.

Attachment # 2
Site Wide Emission Summary Table

XTO Energy, Inc.
Site Wide Emission Summary

Emission Summary Table (TPY)							
Emission Source	EPN	NO_X	CO	VOC	PM	SO_2	H_2S
Line Heater	HTR1	0.45	0.60	0.11	0.02	0.15	0.002
Water Tank	TK1	---	---	0.00	---	---	0.002
Truck Loading - Water	TRUCK	---	---	0.00	---	---	0.000
MSS Emissions	MSS	---	---	1.62	---	---	0.022
Fugitives	FUG	---	---	1.05	---	---	0.015

	NO_X	CO	VOC	PM	SO_2	H_2S
TOTAL EMISSIONS (TPY)	0.45	0.60	2.79	0.02	0.15	0.04

Attachment # 3
TCEQ Core Data Form

Attachment # 4
Form PI-7

Attachment # 5
Table 1a

XTO Energy, Inc.

TABLE 1(a)
EMISSION SOURCES

AIR CONTAMINANT DATA						EMISSION POINT DISCHARGE PARAMETERS											
EMISSION POINT [1]			COMPONENT OR AIR CONTAMINANT NAME [2]	AIR CONTAMINANT EMISSION RATE		UTMA COORDINATES OF EMISSION PT. [5]			SOURCE								
									HEIGHT ABOVE GROUND [ft.]	HEIGHT ABOVE STRUCT. [ft.] [6(A)]	STACK EXIT DATA			FUGITIVES			
EMISSION POINT NUMBER	FACILITY IDENTIFICATION NUMBER	NAME		#/HR [3]	TONS/ YR [4]	ZONE	EAST [meters]	NORTH [meters]			DIA. [ft.] [6(B)]	VEL. [fps] [6(C)]	TEMP. [°F] [6(D)]	LENGTH [ft.] [7(A)]	WIDTH [ft.] [7(B)]	AXIS DEG. [7(C)]	E/W OF NORTH [7(D)]
EPN: TK1	FIN: TK1	Water Tank	VOC	0.0008	0.0034												
			H_2S	0.0005	0.0020												
EPN: TRUCK	FIN: TRUCK	Truck Loading (Water)	VOC	0.1415	0.0025												
			H_2S	0.0020	0.0000												
EPN: FUG	FIN: MSS	MSS Fugitive Emissions	VOC	8.8744	1.6196												
			H_2S	0.1233	0.0225												
EPN: FUG	FIN: FUG	Fugitive Emissions	VOC	0.2392	1.0476												
			H_2S	0.0033	0.0146												
EPN: HTR1	FIN: HTR1	Line Heater	NOx	0.1035	0.4533												
			CO	0.1378	0.6033												
			VOC	0.0260	0.1141												
			PM	0.0037	0.0161												
			SO_2	0.0340	0.1491												

Attachment # 6
Table 23

TABLE 23

PETROLEUM PRODUCTION FACILITY
TANK OR TANK BATTERY DATA

TANK BATTERY THROUGHPUT INFORMATION

Start Up: 12 bbl/day Gas/Oil Ratio: 10.94 SCF/bbl

Max. Anticipated: 12 bbl/day Produced Gas H_2S: _____ gr/100 SCF

ABATEMENT DATA SECTION

For each equipment item listed on the left, mark the appropriate box describing the method used to control the hydrocarbon gs stream from the equipment item. Use blank headings for equipment items and/or control methods not listed.

	To Gas Sales	To Flare	To Atmosphere	To Vapor Recovery Unit	
Oil-Gas Separator(s)	X				
Heater-Treater(s)					
Oil Tank(s)					
Water Tank (s) Vapor			X		

Is a gas sales line available at this site? (yes or no) Yes. If no, give approximate distance from tank battery to nearest gas sales line: _____.

HEATER-TREATER STACK, VENT, OR FLARE DATA

	Heater Stack(s)		Vents (including tanks)		Flare(s)	
Emission No. (from Plot Plan)	HTR1					
Stack Height, ft.	20 ft.					
Stack Internal Diameter, ft.	0.5 ft.					
Firebox Capacity, BTU/hr	500,000					
H_2S in Fuel, gr/100 SCF						
Waste Gas Flow Rate, SCF/hr						
Waste Gas H_2S, gr/100 SCF						
Supplemental Fuel Flow Rate, SCF/hr						
Suppl. Fuel H_2S Content, gr/100 SCF						

TANK INFORMATION

Complete one column for each tank storing crude oil, condensate, or salt water.
Give total non-methane, non-ethane hydrocarbon emission rate from tankage (submit documentation) 0.00342 tons/year.

Emission No. (from Plot Plan)	TK1					
Capacity, bbl.	400 bbl.					
Diameter, ft.	12 ft.					
Height, ft.	20 ft					
Service (Continuous or Standby)	Continuous					
Max. Filling Rate, bbl/hr.	0.458 bbl/hr					
Oil Density, lbs/gal.	Water					
Oil Vapor Pressure, lbs. Reid	Water					

Attachment # 7
30 TAC §106.352 Verification

Title 30 Texas Administrative Code § 106.352
Permit By Rule (PBR) Checklist
Oil and Gas Production Facilities

The following checklist is designed to help you confirm that you meet Title 30 Texas Administrative Code § 106.352 (30 TAC § 106.352) requirements. If you do not meet all the requirements, you may alter the project design or operation in such a way that all the requirements of the PBR are met or you may obtain a construction permit. The PBR forms, tables, checklists and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ), Air Permits Division Web site at www.tceq.state.tx.us/nav/permits/air_permits.html.

CHECK THE MOST APPROPRIATE ANSWER		
	Check the type of facilities covered by this registration(check all that are applicable): ☑ oil or gas production facility ☐ carbon dioxide separation facility ☐ oil or gas pipeline facility	
	The facilities at the site include (check all that apply): ☑ one or more tanks ☑ separators ☐ dehydration units ☐ free water knockouts ☐ gunbarrels ☐ heater treaters ☐ natural gas liquids recovery units ☐ gas sweetening and other gas conditioning facilities ☐ sulfur recovery units	☑ YES ☐ NO
	Will gas sweetening, sulfur recovery, or other gas conditioning facilities only condition gas that contains less than two (2) long tons per day of sulfur compounds as sulfur?	☑ YES ☐ NO
1	Do all compressors and flares fully meet the requirements of 30 TAC § 106.512 and 30 TAC § 106.492, respectively? Attach data showing how the exemptions are met. Checklists are available.	☑ YES ☐ NO
2	Are total emissions from all facilities, including fugitives and loading emissions, less than 25 tpy SO_2, VOC, or 250 tpy of CO or NO_x?	☑ YES ☐ NO
	Have you attached calculations and other data, such as a gas analysis, showing that the emissions limits of the general rule are met?	☑ YES ☐ NO
3	If the facility handles sour gas, is it located at least 1/4 mile from any recreational area, residence, or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located? Attach a scaled map.	☑ YES ☐ NO
4	Are total emissions of sulfur compounds, excluding sulfur oxides, less than 4.0 pounds per hour? Attach calculations.	☑ YES ☐ NO
	Does the height of each vent emitting sulfur compounds meet or exceed the minimum vent height stated in 30 TAC § 106.352? List stack height: 20 ft	☑ YES ☐ NO

PRINT

Attachment # 8
30 TAC §106.4 Verification

Texas Commission on Environmental Quality
Permit by Rule Applicability Checklist
Title 30 Texas Administrative Code § 106.4

The following checklist was developed by the Texas Commission on Environmental Quality (TCEQ), **Air Permits Division**, to assist applicants in determining whether or not a facility meets all of the applicable requirements. Before claiming a specific Permit by Rule (PBR), a facility must first meet all of the requirements of **Title 30 Texas Administrative Code § 106.4** (30 TAC § 106.4), "Requirements for Permitting by Rule." Only then can the applicant proceed with addressing requirements of the specific Permit by Rule being claimed.

The use of this checklist is not mandatory; however, it is the responsibility of each applicant to show how a facility being claimed under a PBR meets the general requirements of 30 TAC § 106.4 and also the specific requirements of the PBR being claimed. If all PBR requirements cannot be met, a facility will not be allowed to operate under the PBR and an application for a construction permit may be required under 30 TAC § 116.110(a).

Registration of a facility under a PBR can be performed by completing **Form PI-7** (Registration for Permits by Rule) or **Form PI-7-CERT** (Certification and Registration for Permits by Rule). The appropriate checklist should accompany the registration form. Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the question number. The PBR forms, tables, checklists and guidance documents are available from the TCEQ, Air Permits Division Web site at: **www.tceq.state.tx.us/permitting/air/nav/air_pbr.html**.

1. 30 TAC § 106.4(a)(1) & (4): Emission limits

List emissions in tpy for **each** facility (add additional pages or table if needed):

SO_2 = 0.15	PM_{10} = 0.02	VOC = 2.79	NO_x = 0.45	CO = 0.6	Other H2S	= 0.04
SO_2 =	PM_{10} =	VOC =	NO_x =	CO =	Other	=
SO_2 =	PM_{10} =	VOC =	NO_x =	CO =	Other	=
Total 0.15	0.02	2.79	0.45	0.6		0.04

- Are the SO_2, PM_{10}, VOC, or other air contaminant emissions claimed for **each** facility in this PBR submittal less than 25 tpy? ☑ YES ☐ NO
- Are the NO_x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy? ☑ YES ☐ NO

If the answer to both is "Yes," continue to the question below. If the answer to either question is "No," a ***PBR cannot be claimed.***

Has any facility at the property had public notice and opportunity for comment under 30 TAC Section 116 for a regular permit or permit renewal? (This does not include public notice for voluntary emission reduction permits, grandfathered existing facility permits, or federal operating permits.) ☐ YES ☑ NO

If "Yes," skip to Section 2. If "No," continue to the questions below.

If the site has had no public notice, please answer the following:
- Are the SO_2, PM_{10}, VOC, or other emissions claimed for **all** facilities in this PBR submittal less than 25 tpy? ☑ YES ☐ NO
- Are the NO_x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy? ☑ YES ☐ NO

If the answer to both questions is "Yes," continue to Section 2.
If the answer to either question is "No," a ***PBR cannot be claimed.*** *A permit will be required under Chapter 116.*

2. 30 TAC § 106.4(a)(2): Nonattainment check

Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county? ☐ YES ☑ NO

If "Yes," please indicate which county by checking the appropriate box to the right.

(Marginal) - Hardin, Jefferson, and Orange counties *(BPA)* ☐ BPA
(Moderate) - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties *(HGA)* ☐ HGA
(Moderate) - Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties *(DFW)* ☐ DFW

If "Yes," to any of the above, continue to the next question. If "No," continue to Section 3.

Does this project trigger a nonattainment review? To determine the answer, review the information below: • Is the project's potential to emit (PTE) for emissions of VOC or NO_x increasing by 100 tpy or more? *PTE is the maximum capacity of a stationary source to emit any air pollutant under its worst-case physical and operational design unless limited by a permit, rule, or made federally enforceable by a certification.* • Is the site an existing major nonattainment site and are the emissions of VOC or NO_x increasing by 40 tpy or more? If needed, attach contemporaneous netting calculations per nonattainment guidance. Additional information can be found at: www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table8.html and www.tceq.state.tx.us/permitting/air/nav/air_docs_newsource.html *If "Yes," to any of the above, the project is a major source or a major modification and* ***a PBR may not be used.*** *A Nonattainment Permit review must be completed to authorize this project. If "No," continue to Section 3.*	☐YES ☑NO ☐YES ☑NO
3. 30 TAC § 106.4(a)(3): Prevention of Significant Deterioration (PSD) check	
Does this project trigger a review under PSD rules? To determine the answer, review the information below: • Are emissions of any regulated criteria pollutant increasing by 100 tpy of any criteria pollutant at a named source? • Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutant at an unnamed source? • Are emissions increasing above significance levels at an existing major site? PSD information can be found at: www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table9.html and www.tceq.state.tx.us/permitting/air/nav/air_docs_newsource.html *If "Yes," to any of the above,* ***a PBR may not be used.*** *A PSD Permit review must be completed to authorize the project. If "No," continue to Section 4.*	☐YES ☑NO ☐YES ☑NO ☐YES ☑NO
4. 30 TAC § 106.4(a)(6): Federal Requirements	
• Will all facilities under this PBR meet applicable requirements of Title 40 Code of Federal Regulations (40 CFR) Part 60, New Source Performance Standards (NSPS)? If "Yes," which Subparts are applicable?: _____ • Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards? If "Yes," which Subparts are applicable?: _____ • Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs)? If "Yes," which Subparts are applicable?: _____ *If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applicable standards.*	☐YES ☐NO ☑N/A ☐YES ☐NO ☑N/A ☐YES ☐NO ☑N/A
5. 30 TAC § 106.4(a)(7): PBR prohibition check	
Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs? *If "Yes," PBRs may not be used or their use must meet the restrictions of the permit. A new permit or permit amendment may be required.* ***List permit number(s):*** _____ *If "No," continue to Section 6.*	☐YES ☑NO

6. 30 TAC § 106.4(a)(8): NO_x Cap and Trade

- Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? ☐YES ☑NO

If "Yes," answer the question below. If "No," continue to Section 7.

- Will the proposed facility or group of facilities obtain required allowances for NO_x if they are subject to 30 TAC Chapter 101, Subchapter H, Division 3 (relating to the Mass Emissions Cap and Trade Program)? ☐YES ☐NO

7. Highly Reactive Volatile Organic Compounds (HRVOC) check

- Is the facility located in Harris County? *If "Yes," answer the next question. If "No," skip to the box below.* ☐YES ☑NO
- Will the project be constructed after June 1, 2006? *If "Yes," answer the next question. If "No," skip to the box below.* ☐YES ☐NO
- Will one or more of the following HRVOC be emitted as a part of this project? ☐YES ☐NO

If "Yes," complete the information below:	lb/hr	tpy
▸ 1,3-butadiene		
▸ all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene])		
▸ alpha-butylene (ethylethylene)		
▸ beta-butylene (dimethylethylene, including both cis- and trans-isomers)		
▸ ethylene		
▸ propylene		

- Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? ☐YES ☑NO

If "Yes," answer the next question. If "No," the checklist is complete.

- Will the project be constructed after June 1, 2006? ☐YES ☐NO

If "Yes," answer the next question. If "No," the checklist is complete.

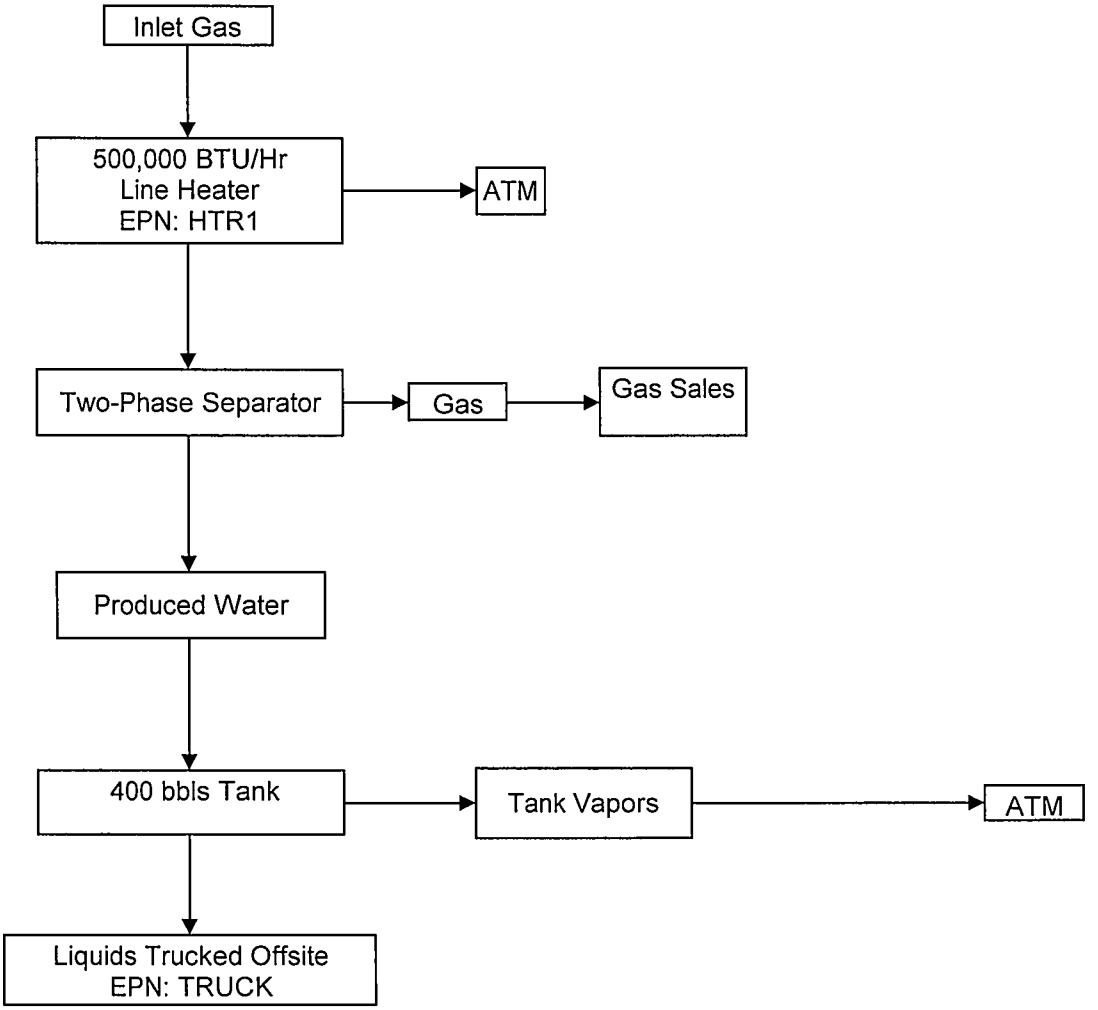
- Will one or more of the following HRVOC be emitted as a part of this project? ☐YES ☐NO

If "Yes," complete the information below:	lb/hr	tpy
▸ ethylene		
▸ propylene		

PRINT

Attachment # 9
Process Description & Process Flow Diagram

Process Flow Diagram



Process Description

Associated gas from the well flows through a 500,000 Btu line heater (HTR1), where it is periodically heated to reduce the formation of hydrates. The associated gas then flows into the two-stage separator, where the liquids (water) are separated from the gas. The gas is flows to the gas sales meter while the liquids flow into the produced water tank on the site. The tank vapor are vented to atmosphere, while the liquids are eventually trucked offsite.

Attachment # 10
Emission Calculations

Gas Analysis Senter # 4 Well Site

Conversion of Mole Percent to Weight Percent

Specific Gravity	0.6265
Gross BTU	1036.16

Component	Mole %	MW	Mole % * MW	Weight %
Carbon Dioxide	2.4380	44	1.0727	5.946%
Nitrogen	0.4439	28	0.1243	0.689%
Hydrogen Sulfide	0.0425	34	0.0145	0.080%
Helium		4	0.0000	0.000%
Methane	91.3953	16	14.6232	81.062%
Ethane	3.8818	30	1.1645	6.455%
Propane	0.8856	44	0.3897	2.160%
Iso-Butane	0.2128	58	0.1234	0.684%
N-Butane	0.1872	58	0.1086	0.602%
Iso-Pentane	0.1101	72	0.0793	0.439%
N-Pentane	0.0502	72	0.0361	0.200%
Methylcyclopentane		86	0.0000	0.000%
n-Hexane		86	0.0000	0.000%
Hexane +	0.3526	86	0.3032	1.681%
2,4-Dimethylpentane		100	0.0000	0.000%
Methycyclohexane		96	0.0000	0.000%
Benzene		78	0.0000	0.000%
Cyclohexane		84	0.0000	0.000%
n-Heptane		100	0.0000	0.000%
Toluene		92	0.0000	0.000%
Ethylbenzene		106	0.0000	0.000%
Xylenes		106	0.0000	0.000%
Octanes+		114	0.0000	0.000%
Nonanes+		128	0.0000	0.000%
Decanes+		142	0.0000	0.000%
Total	100.0000			100.000%
Molecular Weight			18.0396	

HEXANES		
NMHC	2.2049	12.222%
VOCs (NMNEHC)	1.0403	5.767%
HAPs	0.0000	0.00%
H2S Mole Fraction	0.0145	0.080%
Total HC	16.8281	93.284%
THC:VOC Ratio	6.1820	6.182%

XTO Energy, Inc.
FUGITIVE EMISSIONS

	Estimated Components Count	Hours	Factors	%NMNEVOC	%Reduction	Emissions	
						lb/year	tons/year
Valves							
Gas/Vapor	150	8760	0.00992000	5.77%	0	751.7029	0.3759
Light Oil		8760	0.00550000	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00001900	100.00%	0	0.0000	0.0000
Water/Light Oil	25	8760	0.00021600	100.00%	0	47.3040	0.0237
Pumps							
Gas/Vapor		8760	0.00529000	5.77%	0	0.0000	0.0000
Light Oil		8760	0.02866000	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00113000	100.00%	0	0.0000	0.0000
Water/Light Oil		8760	0.00005300	100.00%	0	0.0000	0.0000
Flanges							
Gas/Vapor	150	8760	0.00086000	5.77%	0	65.1678	0.0326
Light Oil		8760	0.00024300	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00000086	100.00%	0	0.0000	0.0000
Water/Light Oil	25	8760	0.00000620	100.00%	0	1.3578	0.0007
Open-ended Lines							
Gas/Vapor		8760	0.00441000	5.77%	0	0.0000	0.0000
Light Oil		8760	0.00309000	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00030900	100.00%	0	0.0000	0.0000
Water/Light Oil		8760	0.00055000	100.00%	0	0.0000	0.0000
Connectors							
Gas/Vapor		8760	0.00044000	5.77%	0	0.0000	0.0000
Light Oil		8760	0.00046300	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00001700	100.00%	0	0.0000	0.0000
Water/Light Oil		8760	0.00024300	100.00%	0	0.0000	0.0000
Other: Compressors, relief valves, process drains, diaphragms, dump arms, hatches, instruments, meters, polished rods, and vents							
Gas/Vapor	15	8760	0.01940000	5.77%	0	147.0064	0.0735
Light Oil		8760	0.01650000	100.00%	0	0.0000	0.0000
Heavy Oil		8760	0.00006800	100.00%	0	0.0000	0.0000
Water/Light Oil	4	8760	0.03090000	100.00%	0	1082.7360	0.5414

Total VOC in tons/year:	1.0476
Total VOC in Lb/hr:	0.2392
Total H2S in tons/year:	0.0146
Total H2S in Lb/hr:	0.0033

Station: MSS Fugitive Emissions: Venting

Quantity Released in SCF	1200000
Duration in hrs	365
Vented	Yes

Component	Estimated Quantity Vented	Total Estimated Quantity Emitted	Emissions (lb/hr)	TPY (365 Hours)
VOCs	3239.144	3239.144	8.874	1.620
Hydrogen Sulfide	44.992	44.992	0.123	0.022
Propane	1213.264	1213.264	3.324	0.607
Iso-Butane	384.295	384.295	1.053	0.192
N-Butane	338.064	338.064	0.926	0.169
Iso-Pentane	246.823	246.823	0.676	0.123
N-Pentane	112.539	112.539	0.308	0.056
Methylcyclopentane	0.000	0.000	0.000	0.000
n-Hexane	0.000	0.000	0.000	0.000
Hexane +	944.160	944.160	2.587	0.472
2,4-Dimethylpentane	0.000	0.000	0.000	0.000
Methycyclohexane	0.000	0.000	0.000	0.000
Benzene	0.000	0.000	0.000	0.000
Cyclohexane	0.000	0.000	0.000	0.000
n-Heptane	0.000	0.000	0.000	0.000
Toluene	0.000	0.000	0.000	0.000
Ethylbenzene	0.000	0.000	0.000	0.000
Xylenes	0.000	0.000	0.000	0.000
Octanes+	0.000	0.000	0.000	0.000
Nonanes+	0.000	0.000	0.000	0.000
Decanes+	0.000	0.000	0.000	0.000

*CALCULATIONS BASED ON API METHODOLOGY

MSS Fugitives:	MSS is for preventative maintenance that is preformed on the equipment at location. When maintenance is being preformed on certain equipment and during well unloading, gas will be vented to atmosphere during the maintenance. This normally equates to 365 Hours/Year

Station: Line Heater

Quantity Released in SCF	11581
Duration in hrs	24
Flared	Yes
BTU / HR	500000

Component	Estimated Quantity Flared	Total Estimated Quantity Emitted	Emissions (lb/hr)	TPY (8760 Hours)
Carbon Monoxide	3.306	3.306	0.138	0.603
Nitric Dioxide	1.242	1.242	0.104	0.453
VOCs	0.625	0.625	0.026	0.114
Sulfur Dioxide	0.817	0.817	0.034	0.149
Carbon Dioxide	0.000	0.000	0.000	0.000
Nitrogen	0.000	0.000	0.000	0.000
Hydrogen Sulfide	0.009	0.009	0.000	0.002
Helium	0.000	0.000	0.000	0.000
Methane	8.785	8.785	0.366	1.603
Ethane	0.700	0.700	0.029	0.128
Propane	0.234	0.234	0.010	0.043
Iso-Butane	0.074	0.074	0.003	0.014
N-Butane	0.065	0.065	0.003	0.012
Iso-Pentane	0.048	0.048	0.002	0.009
N-Pentane	0.022	0.022	0.001	0.004
Methylcyclopentane	0.000	0.000	0.000	0.000
n-Hexane	0.000	0.000	0.000	0.000
Hexane +	0.182	0.182	0.008	0.033
2,4-Dimethylpentane	0.000	0.000	0.000	0.000
Methycyclohexane	0.000	0.000	0.000	0.000
Benzene	0.000	0.000	0.000	0.000
Cyclohexane	0.000	0.000	0.000	0.000
n-Heptane	0.000	0.000	0.000	0.000
Toluene	0.000	0.000	0.000	0.000
Ethylbenzene	0.000	0.000	0.000	0.000
Xylenes	0.000	0.000	0.000	0.000
Octanes+	0.000	0.000	0.000	0.000
Nonanes+	0.000	0.000	0.000	0.000
Decanes+	0.000	0.000	0.000	0.000
PM	0.088	0.088	0.004	0.016

*CALCULATIONS BASED ON API METHODOLOGY

XTO Energy, Inc.

WATER - TRUCK LOADING LOSSES

AP-42,Section 5.2

LL= 12.46 * SPM/T * (1-EFF/100), where

S= Saturation Factor : =	0.6
P= True Vapor Pressure of liquid loaded =	4 psia
T= Temperature of bulk liquid loaded in Rankin =	540.0 degrees
M= Molecular Weight =	50

= 2.769 lb VOC (NMNEHC) emissions per 1,000 gal. throughput

Estimated throughput	183960 gal/year	5110	gal/hr
	184 Mgal/year	121.7	bbl/hr

Estimated Number of Loads: 36
Each load takes approximately 1 hour

Total VOC Loading Losses = 0.2547 tpy
14.1490 lb/hr
= 0.25468 VOC (NMNEHC) Tons per Year

This site's water tanks have small amounts of hydrocarbons. The loading losses associated with truck loading of the water and hydrocarbon mixture is estimated at 1% of the calculated rate of 14.1490 lb/hr.

Adjusted Loading Loss:	**0.003**	**tpy**
	0.141	**lb/hr**

****
* Project Setup Information *
****

Project File : Untitled.Ept
Flowsheet Selection : Oil Tank with Separator
Calculation Method : RVP Distillation
Control Efficiency : 100.0%
Known Separator Stream : Low Pressure Gas
Entering Air Composition : No

Filed Name : Teague, Freestone County, Texas
Well Name : Senter 4 Well SIte
Well ID : Water Tank Emissions: 400 bbls
Permit Number : 89392
Date : 9/30/2013

****
* Data Input *
****

Separator Pressure : 29.00[psig]
Separator Temperature : 68.00[F]
Molar GOR : 0.0500
Ambient Pressure : 14.70[psia]
Ambient Temperature : 70.00[F]
C10+ SG : 0.8990
C10+ MW : 166.00

-- Low Pressure Gas ----------

No.	Component	mol %
1	H2S	0.0425
2	O2	0.0000
3	CO2	2.4380
4	N2	0.4439
5	C1	91.3953
6	C2	3.8818
7	C3	0.8856
8	i-C4	0.2128
9	n-C4	0.1872
10	i-C5	0.1101
11	n-C5	0.0502
12	C6	0.3526
13	C7+	0.0000
14	Benzene	0.0000
15	Toluene	0.0000
16	E-Benzene	0.0000
17	Xylenes	0.0000
18	n-C6	0.0000
19	224Trimethylp	0.0000

C7+ Molar Ratio:	C7 :	C8 :	C9 :	C10+
	1.0000	1.0000	1.0000	1.0000

-- Sales Oil ----------
Production Rate : 12[bbl/day]
Days of Annual Operation : 365 [days/year]
API Gravity : 46.0
Reid Vapor Pressure : 7.70[psia]

****
* Calculation Results *
****

-- Emission Summary ----------

Item	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
Total HAPs	0.000	0.000
Total HC	1.312	0.300
VOCs, C2+	0.500	0.114
VOCs, C3+	0.342	0.078

Uncontrolled Recovery Info.

Vapor	131.3100 x1E-3	[MSCFD]
HC Vapor	125.8500 x1E-3	[MSCFD]
GOR	10.94	[SCF/bbl]

-- Emission Composition ----------

No	Component	Uncontrolled [ton/yr]	Uncontrolled [lb/hr]
1	H2S	0.002	0.000
2	O2	0.000	0.000
3	CO2	0.109	0.025
4	N2	0.002	0.000
5	C1	0.812	0.185
6	C2	0.158	0.036
7	C3	0.066	0.015
8	i-C4	0.022	0.005
9	n-C4	0.020	0.005
10	i-C5	0.015	0.003
11	n-C5	0.007	0.002
12	C6	0.055	0.013
13	C7	0.105	0.024
14	C8	0.038	0.009
15	C9	0.014	0.003
16	C10+	0.001	0.000
17	Benzene	0.000	0.000
18	Toluene	0.000	0.000
19	E-Benzene	0.000	0.000
20	Xylenes	0.000	0.000
21	n-C6	0.000	0.000
22	224Trimethylp	0.000	0.000
	Total	1.426	0.326

-- Stream Data ----------

No.	Component	MW	LP Oil mol %	Flash Oil mol %	Sale Oil mol %	Flash Gas mol %	W&S Gas mol %	Total Emissions mol %
1	H2S	34.80	0.0058	0.0047	0.0047	0.0999	0.0000	0.0999
2	O2	32.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	CO2	44.01	0.1055	0.0576	0.0576	3.9255	0.0000	3.9255
4	N2	28.01	0.0018	0.0002	0.0002	0.1306	0.0000	0.1306
5	C1	16.04	1.4046	0.4176	0.4176	80.0783	0.0000	80.0783
6	C2	30.07	0.3595	0.2599	0.2599	8.2967	0.0000	8.2967
7	C3	44.10	0.2983	0.2722	0.2722	2.3808	0.0000	2.3808
8	i-C4	58.12	0.1831	0.1778	0.1778	0.6067	0.0000	0.6067
9	n-C4	58.12	0.2350	0.2312	0.2312	0.5407	0.0000	0.5407
10	i-C5	72.15	0.3591	0.3595	0.3595	0.3225	0.0000	0.3225
11	n-C5	72.15	0.2250	0.2260	0.2260	0.1475	0.0000	0.1475
12	C6	86.16	4.6424	4.6876	4.6876	1.0382	0.0000	1.0382
13	C7	100.20	23.0261	23.2936	23.2936	1.7059	0.0000	1.7059
14	C8	114.23	23.0461	23.3285	23.3285	0.5370	0.0000	0.5370
15	C9	128.28	23.0522	23.3391	23.3391	0.1847	0.0000	0.1847
16	C10+	166.00	23.0553	23.3445	23.3445	0.0048	0.0000	0.0048
17	Benzene	78.11	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	Toluene	92.13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	E-Benzene	106.17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	Xylenes	106.17	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	n-C6	86.18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	224Trimethylp	114.24	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	MW		119.62	120.84	120.84	22.55	0.00	22.55
	Stream Mole Ratio		1.0000	0.9876	0.9876	0.0124	0.0000	0.0124
	Heating Value	[BTU/SCF]				1256.65	0.00	1256.65

Gas Gravity	[Gas/Air]				0.78	0.00	0.78
Bubble Pt. @ 100F	[psia]	50.06	17.38	17.38			
RVP @ 100F	[psia]	10.31	4.91	4.91			
Spec. Gravity @ 100F		0.728	0.730	0.730			

Attachment # 11
1-Hr NO_x Verification

XTO Energy, Inc.
1-Hr NO_x Verification

1 Hr NO_x NAAQS Verification		
Emission Point	**Distance to Maximum Concentration (m)**	**Maximum Concentration ($\mu g/m^3$)**
HTR1	64	30.34

Background Concentration	90

Total Concentration ($\mu g/m^3$):	**120.34**

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

Line Heater

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.130400E-01
STACK HEIGHT (M)	=	6.1000
STK INSIDE DIAM (M)	=	.3000
STK EXIT VELOCITY (M/S)	=	.5000
STK GAS EXIT TEMP (K)	=	644.0000
AMBIENT AIR TEMP (K)	=	293.0000
RECEPTOR HEIGHT (M)	=	2.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	.0000
MIN HORIZ BLDG DIM (M)	=	.0000
MAX HORIZ BLDG DIM (M)	=	.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = .060 M**4/S**3; MOM. FLUX = .003 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
10.	4.374	1	3.0	3.0	960.0	6.17	3.37	1.60	NO
100.	28.49	4	1.0	1.0	320.0	8.10	8.23	4.71	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:									
64.	30.34	3	1.0	1.0	320.0	8.10	8.40	5.07	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	30.34	64.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

Attachment # 12
Gas Analysis

J-W Measurement Company Upload

Tyler, TX

903-590-2423

Customer	: 1138 - TREND GATHERING & TREATING	**Date Sampled**	: 09/17/2013
Station ID	: 60073124	**Date Analyzed**	: 09/23/2013
Cylinder ID	: 3025	**Effective Date**	: 10/01/2013
Producer	:	**Cyl Pressure**	: 29
Lease	: SENTER #4	**Temp**	: 68
Area	: 107 - TEAGUE	**Cylinder Type**	: Spot
State	: TX	**Sample By**	: BW

COMPONENT	MOL%	GPM@14.65(PSIA)
Nitrogen	0.4439	0.000
Methane	91.3953	0.000
Carbon-Dioxide	2.4380	0.000
Ethane	3.8818	1.035
Propane	0.8856	0.243
Iso-Butane	0.2128	0.069
Normal-Butane	0.1872	0.059
Iso-Pentane	0.1101	0.040
Normal-Pentane	0.0502	0.018
Hexanes++	0.3526	0.153
Hydrogen Sulfide	0.0425	0.000
TOTAL	**100.0000**	**1.617**

Compressibility Factor (Z) @ 14.65 @ 60 Deg. F = 0.9976 **C5+ GPM :** 0.21078

Ideal Gravity: 0.6252 **Real Gravity:** 0.6265 **C5+ Mole % :** 0.5129

BTU @ (PSIA)	@14.65	@14.696	@14.73	@15.025
Ideal GPM	1.613	1.618	1.622	1.654
Ideal BTU Dry	1,048.31	1,051.60	1,054.03	1,075.14
Ideal BTU Sat	1,029.96	1,033.25	1,035.69	1,056.80
Real GPM	1.617	1.622	1.626	1.658
Real BTU Dry	1,050.87	1,054.18	1,056.63	1,077.84
Real BTU Sat	1,032.85	1,036.16	1,038.61	1,059.83

Comments:

Gas Analysis performed in accordance with GPA 2261 **Sample Count :** 211013406

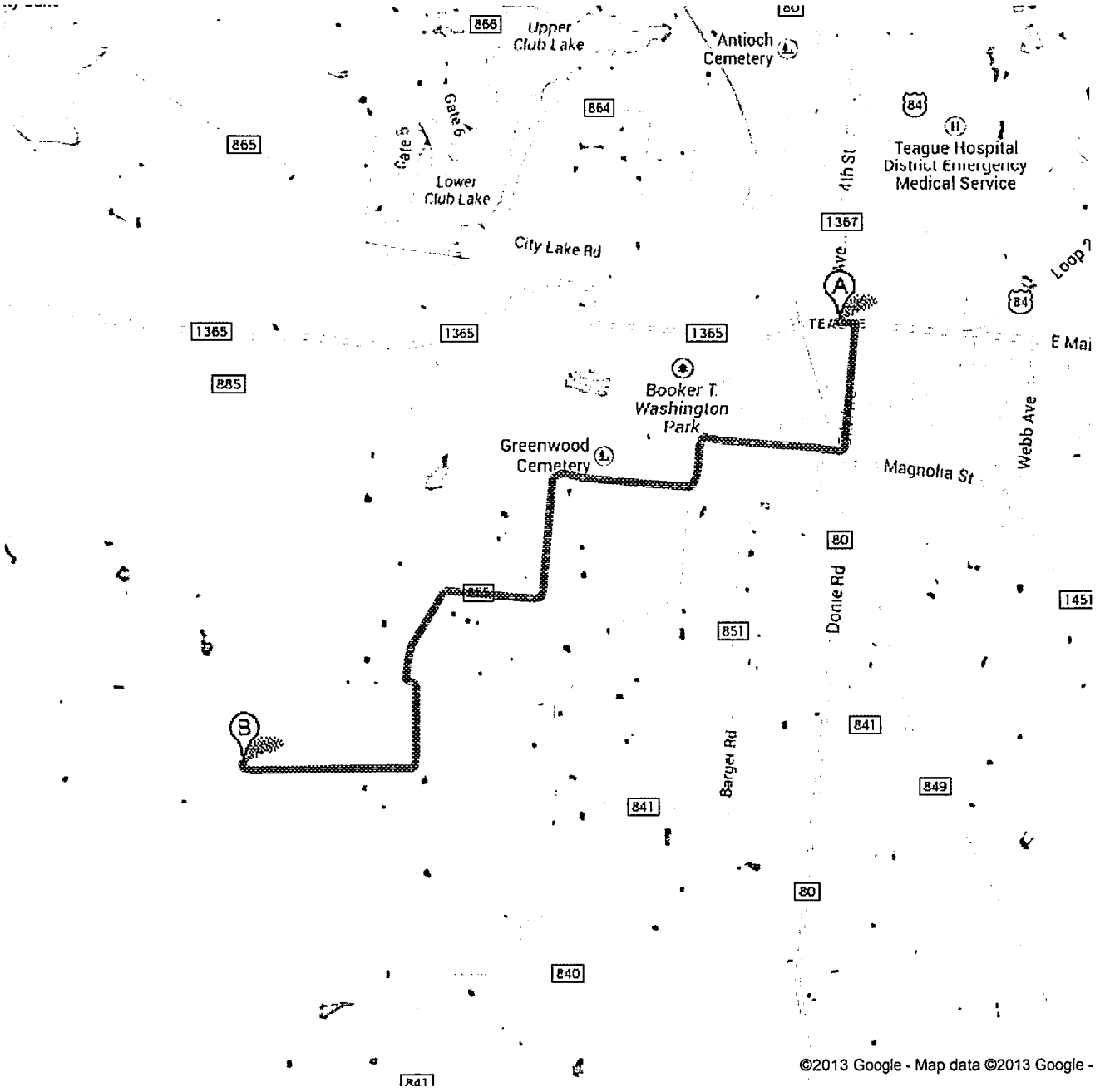
Analytical Calculations performed in accordance with GPA 2172 **COC :**

Lab Technician: _____ **Chelsea Hale**

Attachment # 13
Vicinity Map of Location

Google

Directions to 31.606000, -96.322150
Unknown road
3.5 mi – about **10 mins**



Attachment # 14
Application Fee Payment