



June 2, 2020

Kirby Olson
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico, 87505

RE: Application for NSR Modification
Wildcat Compressor Station – NSR Permit 7474
XTO Energy Inc.

Dear Ms. Olson:

XTO Energy Inc. is submitting the attached New Source Review permit application for the referenced facility. A detailed list of proposed changes are included in Section 3 of the application. Also included is a check for the filing fee. The electronic files will be provided via email or secure transfer. Please contact me at 865-850-2007 or etullos@pei-tx.com should you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Evan Tullos'. The signature is written in a cursive, flowing style.

Evan Tullos
Vice President

WILDCAT COMPRESSOR STATION
Eddy County, NM
NSR Permit Modification Application



PREPARED FOR:
Ben Schneider
ENVIRONMENTAL ENGINEER
XTO ENERGY INC.
5/24/2020

WILDCAT COMPRESSOR STATION
NSR Permit Modification Application

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Tab 1

UA1 Form - Company and Facility Information

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Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. Equipment exemptions under 2.72.202 NMAC do not apply to 20.2.73 NMAC. Identify process equipment that is used to reroute emissions back into the process or sales pipeline in Table 2-A, such as a VRU, VRT, ULPS, Flashing Vessel, or Blowcase.

Unit Number ¹	Source Description	Make	Model #	Serial #	Manufacturer's Rated Capacity ³ (Specify Units)	Requested Permitted Capacity ³ (Specify Units)	Date of Manufacture ²	Controlled by Unit #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB) ⁴	Replacing Unit No.
							Date of Construction/ Reconstruction ²	Emissions vented to Stack #				
ENG1	Natural Gas Compressor Engine	Caterpillar	G3616	ZZY00803	5000	5000	6/22/2018	ENG1	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							1/31/2020	CAT1				
ENG2	Natural Gas Compressor Engine	Caterpillar	G3616	ZZY00809	5000	5000	7/5/2018	ENG2	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							7/15/2019	CAT2				
ENG3	Natural Gas Compressor Engine	Caterpillar	G3616	ZZY00797	5000	5000	6/14/2018	ENG3	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							2/3/2020	CAT3				
ENG4	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG4	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT4				
ENG5	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG5	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT5				
ENG6	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG6	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT6				
ENG7	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG7	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT7				
ENG8	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG8	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT8				
ENG9	Natural Gas Compressor Engine	Caterpillar	G3616	TBD	5000	5000	TBD	ENG9	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT9				
ENG11	Natural Gas Compressor Engine	Caterpillar	3516J TA	N6W01025	1380	1380	11/1/2018	ENG11	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							12/11/2019	CAT11				
ENG12	Natural Gas Compressor Engine	Caterpillar	3516J TA	N6W01015	1380	1380	11/3/2018	ENG12	20200254	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							12/11/2019	CAT12				
ENG10	Natural Gas Compressor Engine	Caterpillar	G3606T A	TBD	1775	1775	TBD	ENG10	20200254	<input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SLB	N/A
							TBD	CAT10				
ENG13	Natural Gas Compressor Engine	Caterpillar	G3306T A	TBD	203	203	TBD	ENG13	20200254	<input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	4SRB	N/A
							TBD	CAT13				
HTR1	Fuel Line Heater	Wenco Energy Corp	SB20-12H	1118-936	0.75 MMBtu/hr	0.75 MMBtu/hr	2019	TBD	31000228	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
RB1	Glycol Regenerator Heater	Flameco	N/A	N/A	2.0 MMBtu/hr	2.0 MMBtu/hr	2019	N/A	31000404	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
							N/A	RB1				
RB2	Glycol Regenerator Reboiler	Flameco	N/A	N/A	2.0 MMBtu/hr	2.0 MMBtu/hr	2019	N/A	31000404	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
							N/A	RB2				
RB3	Glycol Regenerator Reboiler	N/A	N/A	N/A	2.0 MMBtu/hr	2.0 MMBtu/hr	TBD	N/A	31000404	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
							N/A	RB3				
HTR2	Fuel Line Heater	N/A	N/A	N/A	0.75 MMBtu/hr	0.75 MMBtu/hr	TBD	N/A	31000228	<input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
							N/A	HTR2				
HTR3	Fuel Line Heater	N/A	N/A	N/A	1.5 MMBtu/hr	1.5 MMBtu/hr	TBD	N/A	31000228	<input type="checkbox"/> Existing (unchanged) <input checked="" type="checkbox"/> To Be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To Be Replaced	N/A	N/A
							N/A	HTR3				

Unit Number ¹	Source Description	Make	Model #	Serial #	Manufacturer's Rated Capacity ³ (Specify Units)	Requested Permitted Capacity ³ (Specify Units)	Date of Manufacture ²	Controlled by Unit #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB) ⁴	Replacing Unit No.
							Date of Construction/ Reconstruction ²	Emissions vented to Stack #				
FL1	Flare 1	Tornado	N/A	N/A	70 mmscfd	70 mmscfd	2019	N/A	31000205	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
FL2	Flare 2	Tornado	N/A	N/A	70 mmscfd	70 mmscfd	2019	N/A	31000205	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
FL3	Flare 3	Tornado	TBD	TBD	70 mmscfd	70 mmscfd	TBD	N/A	31000205	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
SKT1	Skim Tank	Palmer	TK-5052	N/A	1000	1000	2019	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
SKT2	Skim Tank (Backup)	TBD	TBD	N/A	1000	1000	TBD	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
OT1	Condensate Tank	Palmer	TK-5054	N/A	500	500	2019	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
OT2	Condensate Tank	Palmer	TK-5062	N/A	500	500	2019	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
OT3	Condensate Tank	Palmer	TK-5063	N/A	500	500	2019	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
OT4	Condensate Tank	Palmer	TK-5064	N/A	500	500	2019	FL1-FL3	40400311	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
WT1	Produced Water Tank	Palmer	TK-5051	N/A	500	500	2019	FL1-FL3	40400315	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
WT2	Produced Water Tank	Palmer	TK-5053	N/A	500	500	2019	FL1-FL3	40400315	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
VRU1	Low Pressure Separator VRU #1	Tamrotor	SB20-12H	C-5010 FE02502683 4	125 HP	125 HP	2019	FL1-FL3	N/A	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
VRU2	Low Pressure Separator VRU Backup	Tamrotor	SB20-12H	C-5020 FE02502683 1	125 HP	125 HP	2019	FL1-FL3	N/A	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
DEHY1	TEG Dehydrator with Condenser	N/A	N/A	N/A	80 MMscfd	80 MMscfd	2019	COND1	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
DEHY2	TEG Dehydrator with Condenser	N/A	N/A	N/A	80 MMscfd	80 MMscfd	2019	COND2	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
DEHY3	TEG Dehydrator with Condenser	N/A	N/A	N/A	80 MMscfd	80 MMscfd	TBD	COND3	31000227	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
LPS	Low Pressure Separator	N/A	N/A	N/A	N/A	N/A	2019	FL1-FL3	N/A	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
LOAD	Condensate Truck Loading	N/A	N/A	N/A	656 BOPD	656 BOPD	N/A	N/A	40400250	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
FUG	Fugitive Emissions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31088811	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A
SSM	SSM Activities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31088811	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input checked="" type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced	N/A	N/A

¹ Unit numbers must correspond to unit numbers in the previous NOI unless a complete cross reference table of all units in both NOIs is provided.

² Specify dates required to determine regulatory applicability.

³ To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.

⁴ "4SLB" means four stroke lean burn engine, "4SRB" means four stroke rich burn engine, "2SLB" means two stroke lean burn engine, "CI" means compression ignition, and "SI" means spark ignition

Table 2-B: Insignificant Activities¹ (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

All 20.2.70 NMAC (Title V) applications must list all Insignificant Activities in this table. All 20.2.72 NMAC applications must list Exempted Equipment in this table. If equipment listed on this table is exempt under 20.2.72.202.B.5, include emissions calculations and emissions totals for 202.B.5 "similar functions" units, operations, and activities in Section 6, Calculations. Equipment and activities exempted under 20.2.72.202 NMAC may not necessarily be Insignificant under 20.2.70 NMAC (and vice versa). Unit & stack numbering must be consistent throughout the application package. Per Exemptions Policy 02-012.00 (see http://www.env.nm.gov/aqb/permit/aqb_pol.html), 20.2.72.202.B NMAC Exemptions do not apply, but 20.2.72.202.A NMAC exemptions do apply to NOI facilities under 20.2.73 NMAC. List 20.2.72.301.D.4 NMAC Auxiliary Equipment for Streamline applications in Table 2-A. The List of Insignificant Activities (for TV) can be found online at <http://www.env.nm.gov/aqb/forms/InsignificantListTitleV.pdf>. TV sources may elect to enter both TV Insignificant Activities and Part 72 Exemptions on this form.

Unit Number	Source Description	Manufacturer	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction ²	For Each Piece of Equipment, Check One
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Installation /Construction ²	
ROAD	Haul Road Emissions	N/A	N/A	N/A	20.2.72.202.B.5	N/A	<input checked="" type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
			N/A	N/A	20.2.72.202.B.5	N/A	<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced
							<input type="checkbox"/> Existing (unchanged) <input type="checkbox"/> To be Removed <input type="checkbox"/> New/Additional <input type="checkbox"/> Replacement Unit <input type="checkbox"/> To Be Modified <input type="checkbox"/> To be Replaced

¹ Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

² Specify date(s) required to determine regulatory applicability.

Table 2-C: Emissions Control Equipment

Unit and stack numbering must correspond throughout the application package. The permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions. Flares, Enclosed Combustion Devices, Catalytic Converters and Air Fuel Ratio (AFR) Controllers shall be reported on Table 2-C. For each AFR, note whether the AFR are aftermarket or integral to the engine.

Control Equipment Unit No.	Control Equipment Description	Date Installed	Controlled Pollutant(s)	Controlling Emissions for Unit Number(s) ¹	Efficiency (% Control by Weight)	Method used to Estimate Efficiency
FL1	Flare 1	TBD	VOC, HAP	Facility Inlet, OT1-OT4, WT1-WT2, SKTK1/SKTK2, LPS	98	Engineering Est.
FL2	Flare 2	TBD	VOC, HAP	Facility Inlet, OT1-OT4, WT1-WT2, SKTK1/SKTK2, LPS	98	Engineering Est.
FL3	Flare 3	TBD	VOC, HAP	Facility Inlet, OT1-OT4, WT1-WT2, SKTK1/SKTK2, LPS	98	Engineering Est.
RB1	Still Vent Emissions	TBD	VOC, HAP	DEHY1 - BTEX Condensor Vapors	98	Engineering Est.
RB2	Still Vent Emissions	TBD	VOC, HAP	DEHY2 - BTEX Condensor Vapors	98	Engineering Est.
RB3	Still Vent Emissions	TBD	VOC, HAP	DEHY3 - BTEX Condensor Vapors	98	Engineering Est.
VRU1	Low Pressure Separator VRU #1	2019	VOC, HAPs	LPS	98	Engineering Est.
VRU2	Low Pressure Separator VRU Backup	2019	VOC, HAPs	LPS	98	Engineering Est.
COND1-COND3	BTEX Condenser	2019	VOC, HAP	DEHY1-DEHY3	98	Engineering Est.
CAT1-CAT12	Engine Catalysts	2019	CO, VOC, HAP	ENG1-ENG12	CO-85, VOC/HAP-73	Engineering Est.

¹ List each control device on a separate line. For each control device, list all emission units controlled by the control device.

Table 2-D: Maximum Emissions (under normal operating conditions)

Maximum Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) & Toxic Air Pollutants (TAPs) in Table 2-1. Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM ¹		PM10 ¹		PM2.5 ¹		H ₂ S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
ENG1	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG2	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG3	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG4	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG5	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG6	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG7	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG8	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG9	4.13	18.11	33.62	147.26	14.32	62.72	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG11	1.90	8.33	8.91	39.04	6.06	26.56	0.14	0.59	0.12	0.53	0.12	0.53	0.12	0.53	-	-	-	-
ENG12	1.90	8.33	8.91	39.04	6.06	26.56	0.14	0.59	0.12	0.53	0.12	0.53	0.12	0.53	-	-	-	-
HTR1	0.11	0.50	0.10	0.42	0.01	0.03	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	-	-	-	-
RB1	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
RB2	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
RB3	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
FL1-FL3 Pilot	0.67	2.94	1.34	5.86	0.98	4.29	0.01	0.02	0.03	0.13	0.03	0.13	0.03	0.13	-	-	-	-
FL1-FL3 Norm	Emissions are not routed to flare in uncontrolled scenario.																	
FL1-FL3 SSM	Emissions are not routed to flare in uncontrolled scenario.																	
SKT1	-	-	-	-	13.83	60.58	-	-	-	-	-	-	-	-	-	-	-	-
SKT2	-	-	-	-	13.83	60.58	-	-	-	-	-	-	-	-	-	-	-	-
OT1	-	-	-	-	128.38	290.48	-	-	-	-	-	-	-	-	-	-	-	-
OT2	-	-	-	-	128.38	290.48	-	-	-	-	-	-	-	-	-	-	-	-
OT3	-	-	-	-	128.38	290.48	-	-	-	-	-	-	-	-	-	-	-	-
OT4	-	-	-	-	128.38	290.48	-	-	-	-	-	-	-	-	-	-	-	-
WT1	-	-	-	-	0.50	2.20	-	-	-	-	-	-	-	-	-	-	-	-
WT2	-	-	-	-	0.50	2.20	-	-	-	-	-	-	-	-	-	-	-	-
DEHY1	-	-	-	-	29.63	129.79	-	-	-	-	-	-	-	-	-	-	-	-
DEHY2	-	-	-	-	29.63	129.79	-	-	-	-	-	-	-	-	-	-	-	-
DEHY3	-	-	-	-	29.63	129.79	-	-	-	-	-	-	-	-	-	-	-	-
LPS	-	-	-	-	343.16	173.88	-	-	-	-	-	-	-	-	-	-	-	-
LOAD	-	-	-	-	62.76	10.28	-	-	-	-	-	-	-	-	-	-	-	-
FUG	-	-	-	-	2.48	10.87	-	-	-	-	-	-	-	-	-	-	-	-
SSM	-	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-
ROAD	-	-	-	-	-	-	-	-	0.15	0.02	0.15	0.02	0.15	0.02	-	-	-	-
Totals	42.71	187.06	322.61	1413.05	1181.52	2494.00	4.23	18.54	-	-	3.82	16.73	3.82	16.73	-	-	-	-

¹ Condensable Particulate Matter: Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-E: Requested Allowable Emissions

Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "--" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E⁻⁴).

Unit No.	NOx		CO		VOC		SOx		PM ¹		PM10 ¹		PM2.5 ¹		H ₂ S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
ENG1	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG2	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG3	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG4	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG5	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG6	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG7	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG8	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG9	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.39	1.69	0.39	1.69	-	-	-	-
ENG11	1.90	8.33	1.34	5.86	1.64	7.17	0.14	0.59	0.12	0.53	0.12	0.53	0.12	0.53	-	-	-	-
ENG12	1.90	8.33	1.34	5.86	1.64	7.17	0.14	0.59	0.12	0.53	0.12	0.53	0.12	0.53	-	-	-	-
HTR1	0.11	0.50	0.10	0.42	0.01	0.03	0.01	0.04	0.01	0.04	0.01	0.04	0.01	0.04	-	-	-	-
RB1	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
RB2	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
RB3	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	0.02	0.10	-	-	-	-
FL1-FL3 Pilot	0.67	2.94	1.34	5.86	0.98	4.29	0.01	0.02	0.03	0.13	0.03	0.13	0.03	0.13	-	-	-	-
FL1-FL3 Norm	1.75	7.36	3.50	14.69	10.98	26.28	0.01	0.05	0.03	0.14	0.03	0.14	0.03	0.14	-	-	-	-
FL1-FL3 SSM	387.69	4.97	773.97	9.92	727.00	10.99	3.18	0.05	15.88	0.19	15.88	0.19	15.88	0.19	-	-	-	-
SKT1	Emissions Represented at FL1-FL3																	
SKT2	Emissions Represented at FL1-FL3																	
OT1	Emissions Represented at FL1-FL3																	
OT2	Emissions Represented at FL1-FL3																	
OT3	Emissions Represented at FL1-FL3																	
OT4	Emissions Represented at FL1-FL3																	
WT1	Emissions Represented at FL1-FL3																	
WT2	Emissions Represented at FL1-FL3																	

Table 2-E: Requested Allowable Emissions

Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "--" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E⁻⁴).

Unit No.	NOx		CO		VOC		SOx		PM ¹		PM10 ¹		PM2.5 ¹		H ₂ S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
DEHY1	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01	0.00	0.01	-	-	-	-
DEHY2	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01	0.00	0.01	-	-	-	-
DEHY3	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01	0.00	0.01	-	-	-	-
LPS	Emissions Represented at FL1-FL3																	
LOAD	-	-	-	-	62.76	10.28	-	-	-	-	-	-	-	-	-	-	-	-
FUG	-	-	-	-	2.48	10.87	-	-	-	-	-	-	-	-	-	-	-	-
SSM	-	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-
ROAD	-	-	-	-	-	-	-	-	0.15	0.02	0.15	0.02	0.15	0.02	-	-	-	-
Totals	432.49	200.87	828.41	247.74	844.10	247.49	7.63	19.52	19.89	17.12	19.89	17.12	19.89	17.12	-	-	-	-

¹**Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-F: Additional Emissions during Startup, Shutdown, and Routine Maintenance (SSM)

This table is intentionally left blank since all emissions at this facility due to routine or predictable startup, shutdown, or scheduled maintenance are no higher than those listed in Table 2-E and a malfunction emission limit is not already permitted or requested. If you are required to report GHG emissions as described in Section 6a, include any GHG emissions during Startup, Shutdown, and/or Scheduled Maintenance (SSM) in Table 2-P. Provide an explanations of SSM emissions in Section 6 and 6a.

All applications for facilities that have emissions during routine or predictable startup, shutdown or scheduled maintenance (SSM)¹, including NOI applications, must include in this table the Maximum Emissions during routine or predictable startup, shutdown and scheduled maintenance (20.2.7 NMAC, 20.2.72.203.A.3 NMAC, 20.2.73.200.D.2 NMAC). In Section 6 and 6a, provide emissions calculations for all SSM emissions reported in this table. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (https://www.env.nm.gov/aqb/permit/aqb_pol.html) for more detailed instructions. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM ²		PM10 ²		PM2.5 ²		H ₂ S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
SSM	-	-	-	-	-	10.00												
Totals					-	10.00												

¹ For instance, if the short term steady-state Table 2-E emissions are 5 lb/hr and the SSM rate is 12 lb/hr, enter 7 lb/hr in this table. If the annual steady-state Table 2-E emissions are 21.9 TPY, and the number of scheduled SSM events result in annual emissions of 31.9 TPY, enter 10.0 TPY in the table below.

² Condensable Particulate Matter: Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-G: Stack Exit and Fugitive Emission Rates for Special Stacks

I have elected to leave this table blank because this facility does not have any stacks/vents that split emissions from a single source or combine emissions from more than one source listed in table 2-A. Additionally, the emission rates of all stacks match the Requested allowable emission rates stated in Table 2-E.

Use this table to list stack emissions (requested allowable) from split and combined stacks. List Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) in Table 2-I. List all fugitives that are associated with the normal, routine, and non-emergency operation of the facility. Unit and stack numbering must correspond throughout the application package. Refer to Table 2-E for instructions on use of the “-” symbol and on significant figures.

Stack No.	Serving Unit Number(s) from Table 2-A	NOx		CO		VOC		SOx		PM		PM10		PM2.5		<input type="checkbox"/> H ₂ S or <input type="checkbox"/> Lead	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
RB1	RB1	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10	-	-	-	-
	DEHY1	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01				
RB2	RB2	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10				
	DEHY2	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01				
RB3	RB3	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.02	0.10				
	DEHY3	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.00	0.01	0.00	0.01				
Totals:		1.26	5.50	1.44	6.33	1.83	8.01	0.28	1.23	0.08	0.34	0.07	0.34				

Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions.

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H=Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
ENG1	ENG1	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG2	ENG2	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG3	ENG3	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG4	ENG4	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG5	ENG5	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG6	ENG6	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG7	ENG7	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG8	ENG8	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG9	ENG9	V	No	25	809	522.93	Unknown	Unknown	295.92	1.50
ENG11	ENG11	V	No	20	997	152.75	Unknown	Unknown	194.49	1.00
ENG12	ENG12	V	No	20	997	152.75	Unknown	Unknown	194.49	1.00
HTR1	HTR1	V	N	15	800	5.05	Unknown	Unknown	6.43	0.75
RB1	RB1	V	N	15	800	13.47	Unknown	Unknown	7.62	1.00
RB2	RB2	V	N	15	800	13.47	Unknown	Unknown	7.62	1.00
RB3	RB3	V	N	15	800	13.47	Unknown	Unknown	7.62	1.00
FL1	FL1	V	No	145	1832	0.11	Unknown	Unknown	65.60	0.83
FL2	FL2	V	No	145	1832	0.11	Unknown	Unknown	65.60	0.83
FL3	FL3	V	No	145	1832	0.11	Unknown	Unknown	65.60	0.83

Table 2-I: Stack Exit and Fugitive Emission Rates for HAPs and TAPs

In the table below, report the Potential to Emit for each HAP from each regulated emission unit listed in Table 2-A, only if the entire facility emits the HAP at a rate greater than or equal to one (1) ton per year. For each such emission unit, HAPs shall be reported to the nearest 0.1 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources calculated to the nearest 0.1 ton per year. Per 20.2.72.403.A.1 NMAC, facilities not exempt [see 20.2.72.402.C NMAC] from TAP permitting shall report each TAP that has an uncontrolled emission rate in excess of its pounds per hour screening level specified in 20.2.72.502 NMAC. TAPs shall be reported using one more significant figure than the number of significant figures shown in the pound per hour threshold corresponding to the substance. Use the HAP nomenclature as it appears in Section 112 (b) of the 1990 CAAA and the TAP nomenclature as it listed in 20.2.72.502 NMAC. Include tank-flashing emissions estimates of HAPs in this table. For each HAP or TAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above.

Stack No.	Unit No.(s)	Total HAPs		Formaldehyde <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		n-Hexane <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Benzene <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Acetaldehyde <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
ENG1	ENG1	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG2	ENG2	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG3	ENG3	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG4	ENG4	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG5	ENG5	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG6	ENG6	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG7	ENG7	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG8	ENG8	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG9	ENG9	0.53	2.33	0.4	2.0	-	-	-	-	0.1	0.4								
ENG11	ENG11	0.36	1.56	0.3	1.4	-	-	-	-	0.0	0.1								
ENG12	ENG12	0.36	1.56	0.3	1.4	-	-	-	-	0.0	0.1								
HTR1	HTR1	2.16E-03	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
RB1	RB1	0.01	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
RB2	RB2	0.01	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
RB3	RB3	0.01	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
FL1-FL3 Pilot	FL1-FL3 Pilot	0.01	0.03	-	-	0.0	0.0	3.9E-04	1.7E-03	-	-								
FL1-FL3 Norm	FL1-FL3 Norm	0.5	1.1	-	-	0.4	0.8	0.0	0.1	-	-								
FL1-FL3 SSM	FL1-FL3 SSM	17.0	0.3	-	-	13.9	0.2	0.7	0.0	-	-								
RB1	DEHY1	0.1	0.2	-	-	0.0	0.1	0.0	0.1	-	-								
RB2	DEHY2	0.1	0.2	-	-	0.0	0.1	0.0	0.1	-	-								
RB3	DEHY3	0.1	0.2	-	-	0.0	0.1	0.0	0.1	-	-								

Stack No.	Unit No.(s)	Total HAPs		Formaldehyde <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		n-Hexane <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Benzene <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Acetaldehyde <input checked="" type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP		Provide Pollutant Name Here <input type="checkbox"/> HAP or <input type="checkbox"/> TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
FL1-FL3	SKT1	Emissions Represented at FL1-FL3																	
FL1-FL3	SKT2	Emissions Represented at FL1-FL3																	
FL1-FL3	OT1	Emissions Represented at FL1-FL3																	
FL1-FL3	OT2	Emissions Represented at FL1-FL3																	
FL1-FL3	OT3	Emissions Represented at FL1-FL3																	
FL1-FL3	OT4	Emissions Represented at FL1-FL3																	
FL1-FL3	WT1	Emissions Represented at FL1-FL3																	
FL1-FL3	WT2	Emissions Represented at FL1-FL3																	
FL1-FL3	LPS	Emissions Represented at FL1-FL3																	
N/A	LOAD	2.6	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N/A	FUG	0.3	1.4	-	-	0.3	1.1	0.0	0.1	-	-	-	-	-	-	-	-	-	-
N/A	SSM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROAD	ROAD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals:		26.0	28.1	4.7	20.5	14.6	2.4	0.9	0.5	0.8	3.6								

Table 2-J: Fuel

Specify fuel characteristics and usage. Unit and stack numbering must correspond throughout the application package.

Unit No.	Fuel Type (low sulfur Diesel, ultra low sulfur diesel, Natural Gas, Coal, ...)	Fuel Source: purchased commercial, pipeline quality natural gas, residue gas, raw/field natural gas, process gas (e.g. SRU tail gas) or other	Specify Units				
			Lower Heating Value (btu/scf)	Hourly Usage (scf)	Annual Usage (mmscf)	% Sulfur	% Ash
ENG1	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG2	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG3	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG4	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG5	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG6	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG7	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG8	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG9	Natural Gas	Field Gas	1158	33088.9	289.86	Negligible	0
ENG11	Natural Gas	Field Gas	1158	10440.9	91.46	Negligible	0
ENG12	Natural Gas	Field Gas	1158	10440.9	91.46	Negligible	0
HTR1	Natural Gas	Field Gas	1158	588.7	5.16	Negligible	0
RB1	Natural Gas	Field Gas	1158	1570.0	13.75	Negligible	0
RB2	Natural Gas	Field Gas	1158	1570.0	13.75	Negligible	0
RB3	Natural Gas	Field Gas	1158	1570.0	13.75	Negligible	0
FL1	Natural Gas	Field Gas	1158	1270.8	11.13	Negligible	0
FL2	Natural Gas	Field Gas	1158	1270.8	11.13	Negligible	0
FL3	Natural Gas	Field Gas	1158	1270.8	11.13	Negligible	0

Table 2-K: Liquid Data for Tanks Listed in Table 2-L

For each tank, list the liquid(s) to be stored in each tank. If it is expected that a tank may store a variety of hydrocarbon liquids, enter "mixed hydrocarbons" in the Composition column for that tank and enter the corresponding data of the most volatile liquid to be stored in the tank. If tank is to be used for storage of different materials, list all the materials in the "All Calculations" attachment, run the newest version of TANKS on each, and use the material with the highest emission rate to determine maximum uncontrolled and requested allowable emissions rate. The permit will specify the most volatile category of liquids that may be stored in each tank. Include appropriate tank-flashing modeling input data. Use additional sheets if necessary. Unit and stack numbering must correspond throughout the application package.

Tank No.	SCC Code	Material Name	Composition	Liquid Density (lb/gal)	Vapor Molecular Weight (lb/lb*mol)	Average Storage Conditions		Max Storage Conditions	
						Temperature (°F)	True Vapor Pressure (psia)	Temperature (°F)	True Vapor Pressure (psia)
SKT1	40400311	Produced Water	Produced Water	8.2	53	72.59	11.20	81.88	12.88
SKT2	40400311	Produced Water	Produced Water	8.2	53	72.59	11.20	81.88	12.88
OT1	40400311	Condensate	Condensate	6.6	55	66.49	8.66	75.67	10.09
OT2	40400311	Condensate	Condensate	6.6	55	66.49	8.66	75.67	10.09
OT3	40400311	Condensate	Condensate	6.6	55	66.49	8.66	75.67	10.09
OT4	40400311	Condensate	Condensate	6.6	55	66.49	8.66	75.67	10.09
WT1	40400315	Produced Water	Produced Water	8.2	0	85.02	11.18	94.20	12.83
WT2	40400315	Produced Water	Produced Water	8.2	0	85.02	11.18	94.20	12.83

Table 2-L: Tank Data

Include appropriate tank-flashing modeling input data. Use an addendum to this table for unlisted data categories. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary. See reference Table 2-L2. Note: 1.00 bbl = 10.159 M3 = 42.0 gal

Tank No.	Date Installed	Materials Stored	Seal Type <small>(refer to Table 2-LR below)</small>	Roof Type <small>(refer to Table 2-LR below)</small>	Capacity		Diameter (M)	Vapor Space (M)	Color <small>(from Table VI-C)</small>		Paint Condition <small>(from Table VI-C)</small>	Annual Throughput <small>(gal/yr)</small>	Turn-overs <small>(per year)</small>
					(bbl)	(M ³)			Roof	Shell			
SKT1	2019	Produced Water	N/A	FX	1,000	1,590	4.75	9.1	Tan	Tan	Good	3,409,921	81
SKT2	TBD	Produced Water	N/A	FX	1,000	1,590	4.75	9.1	Tan	Tan	Good	3,409,921	81
OT1	2019	Condensate	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	2,515,601	120
OT2	2019	Condensate	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	2,515,601	120
OT3	2019	Condensate	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	2,515,601	120
OT4	2019	Condensate	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	2,515,601	120
WT1	2019	Produced Water	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	3,294,962	120
WT2	2019	Produced Water	N/A	FX	500	795	3.66	4.9	Tan	Tan	Good	3,294,962	120

Table 2-L2: Liquid Storage Tank Data Codes Reference Table

Roof Type	Seal Type, Welded Tank Seal Type		Seal Type, Riveted Tank Seal Type		Roof, Shell Color	Paint Condition
	Mechanical Shoe Seal	Liquid-mounted resilient seal	Vapor-mounted resilient seal	Seal Type		
FX: Fixed Roof					WH: White	Good
IF: Internal Floating Roof	A: Primary only	A: Primary only	A: Primary only	A: Mechanical shoe, primary only	AS: Aluminum (specular)	Poor
EF: External Floating Roof	B: Shoe-mounted secondary	B: Weather shield	B: Weather shield	B: Shoe-mounted secondary	AD: Aluminum (diffuse)	
P: Pressure	C: Rim-mounted secondary	C: Rim-mounted secondary	C: Rim-mounted secondary	C: Rim-mounted secondary	LG: Light Gray	
					MG: Medium Gray	
					BL: Black	
					OT: Other (specify)	

Note: 1.00 bbl = 0.159 M³ = 42.0 gal

Table 2-M: Materials Processed and Produced (Use additional sheets as necessary.)

Material Processed				Material Produced			
Description	Chemical Composition	Phase (Gas, Liquid, or Solid)	Quantity (specify units)	Description	Chemical Composition	Phase	Quantity (specify units)
Mixed Hydrocarbons	Oil (BOPD)	Liquid	656	Mixed Hydrocarbons	Oil (BOPD)	Liquid	656
	Produced Water (BWPD)	Liquid	430		Produced Water (BWPD)	Liquid	430
	Natural Gas (MMSCFD)	Gas	240		Natural Gas (MMSCFD)	Gas	240

Table 2-N: CEM Equipment

Enter Continuous Emissions Measurement (CEM) Data in this table. If CEM data will be used as part of a federally enforceable permit condition, or used to satisfy the requirements of a state or federal regulation, include a copy of the CEM's manufacturer specification sheet in the Information Used to Determine Emissions attachment. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Stack No.	Pollutant(s)	Manufacturer	Model No.	Serial No.	Sample Frequency	Averaging Time	Range	Sensitivity	Accuracy
N/A									

Table 2-O: Parametric Emissions Measurement Equipment

Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Unit No.	Parameter/Pollutant Measured	Location of Measurement	Unit of Measure	Acceptable Range	Frequency of Maintenance	Nature of Maintenance	Method of Recording	Averaging Time
N/A								

Table 2-P: Greenhouse Gas Emissions

Applications submitted under 20.2.70, 20.2.72, & 20.2.74 NMAC are required to complete this Table. Power plants, Title V major sources, and PSD major sources must report and calculate all GHG emissions for each unit. Applicants must report potential emission rates in short tons per year (see Section 6.a for assistance). Include GHG emissions during Startup, Shutdown, and Scheduled Maintenance in this table. For minor source facilities that are not power plants, are not Title V, or are not PSD, there are three options for reporting GHGs 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHG as a second separate unit; OR 3) check the following box By checking this box, the applicant acknowledges the total CO₂e emissions are less than 75,000 tons per year.

		CO ₂ ton/yr	N ₂ O ton/yr	CH ₄ ton/yr	SF ₆ ton/yr	PFC/HFC ton/yr ²										Total GHG Mass Basis ton/yr ⁴	Total CO ₂ e ton/yr ⁵
Unit No.	GWPs ¹	1	298	25	22,800	footnote 3											
ENG1	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.714	11.028704	9.2522682													22181.0
ENG2	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.71	11.03	9.25													22181.0
ENG3	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.714	11.028704	9.2522682													22181.0
ENG4	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.71	11.03	9.25													22181.0
ENG5	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.714	11.028704	9.2522682													22181.0
ENG6	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.71	11.03	9.25													22181.0
ENG7	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.714	11.028704	9.2522682													22181.0
ENG8	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.71	11.03	9.25													22181.0
ENG9	mass GHG	22160.71	0.04	0.37												22161.1	
	CO ₂ e	22160.714	11.028704	9.2522682													22181.0
ENG11	mass GHG	6716.00	0.01	0.12												6716.1	
	CO ₂ e	6716.00	3.48	2.92													6722.4
ENG12	mass GHG	6716.00	0.01	0.12												6716.1	
	CO ₂ e	6716	3.4800165	2.9194769													6722.4
HTR1	mass GHG	519.93	0.00	0.31												520.2	
	CO ₂ e	519.93	0.22	7.76													527.9
RB1	mass GHG	1386.47	0.00	0.83												1387.3	
	CO ₂ e	1386.4718	0.5755123	20.692649													1407.7
RB2	mass GHG	1386.47	0.00	0.83												1387.3	
	CO ₂ e	1386.47	0.58	20.69													1407.7
RB3	mass GHG	1386.47	0.00	0.83												1387.3	
	CO ₂ e	1386.4718	0.5755123	20.692649													1407.7
FL1	mass GHG	5744.12	0.01	6.26												5750.4	
	CO ₂ e	5744.12	2.42	156.57													5903.1
FL2	mass GHG	5744.12	0.01	6.26												5750.4	
	CO ₂ e	5744.1155	2.4227229	156.56876													5903.1
FL3	mass GHG	5744.12	0.01	6.26												5750.4	
	CO ₂ e	5744.12	2.42	156.57													5903.1
RB1	mass GHG	582.01	0.00	0.08												582.1	
	CO ₂ e	582.00581	0.5168966	1.9812999													584.5
RB2	mass GHG	582.01	0.00	0.08												582.1	
	CO ₂ e	582.01	0.52	1.98													584.5
RB3	mass GHG	582.01	0.00	0.08												582.1	
	CO ₂ e	582.00581	0.5168966	1.9812999													584.5
Total	mass GHG	236,536	0	25												236,562	
	CO ₂ e	236,536	117	635													237,288

¹ GWP (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP value

² For HFCs or PFCs describe the specific HFC or PFC compound and use a separate column for each individual compound.

³ For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

⁴ Green house gas emissions on a mass basis is the ton per year green house gas emission before adjustment with its GWP.

⁵ CO₂e means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

⁶ For Heaters/Boilers, CO₂, CH₄, N₂O emissions calculated according to §98.233(z)(1) and (2).

Tab 3
Section 3 - Application Summary

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will affect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

The **Process Summary** shall include a brief description of the facility and its processes.

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions: Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

XTO Energy Inc. is planning modification of the Wildcat Compressor Station in Eddy County, NM. The facility is a typical compressor station with natural gas engines, dehydration, storage tanks, and flares. Site construction is planned under NSR Permit 7474. This is a New Source Review permit application being submitted in accordance with 20.2.72 NMAC.

Routine SSM combustion emissions are included with the regular emissions of the facility. SSM emissions from equipment maintenance are routed to either the low pressure or high pressure flare header (FL1/FL2/FL3). SSM-related VOC emissions (tank landings/cleanings) are included at a rate of 10 tons per year per NMAQB guidance. Detailed calculations are included in the application.

The facility is proposing the following modifications:

- 1) Remove HTR2 and HTR3;
- 2) Remove ENG10 and ENG13;
- 3) Increase glycol circulation rate for more conservative approach;
- 4) Update RB1-RB3 heat input to 2.0 MMBtu/hr;
- 5) Increase flare purge gas rates;
- 6) Update tank throughputs;
- 7) Add produced gas flaring;
- 8) Update engine VOC/formaldehyde control efficiencies to 73%;
- 9) Update flare height to 145'.

Tab 4
Section 4 - Process Flow Sheet

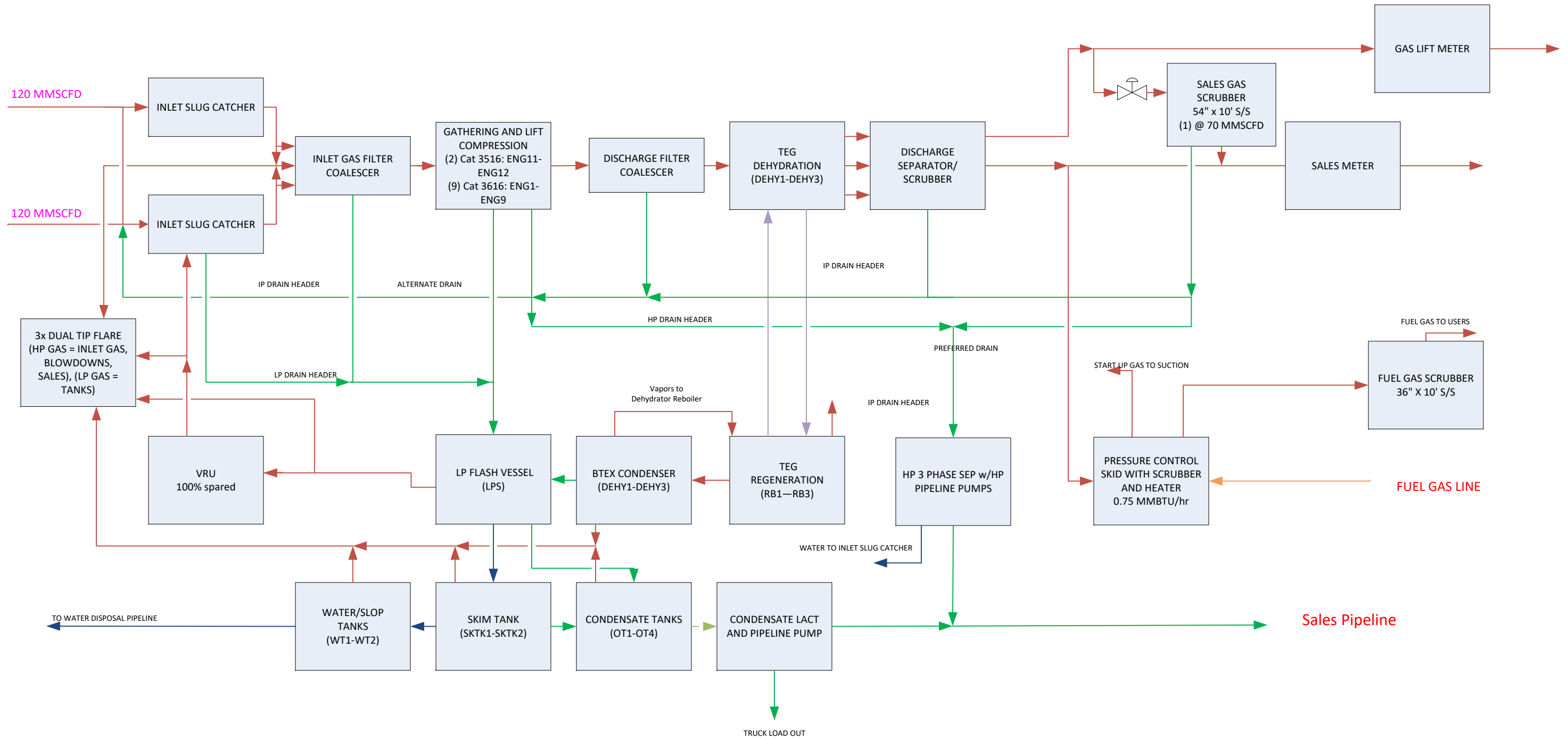
Section 4

Process Flow Sheet

A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.

A process flow diagram is presented on the following page.

XTO DELAWARE BASIN GEN 1.5 COMPRESSOR STATION



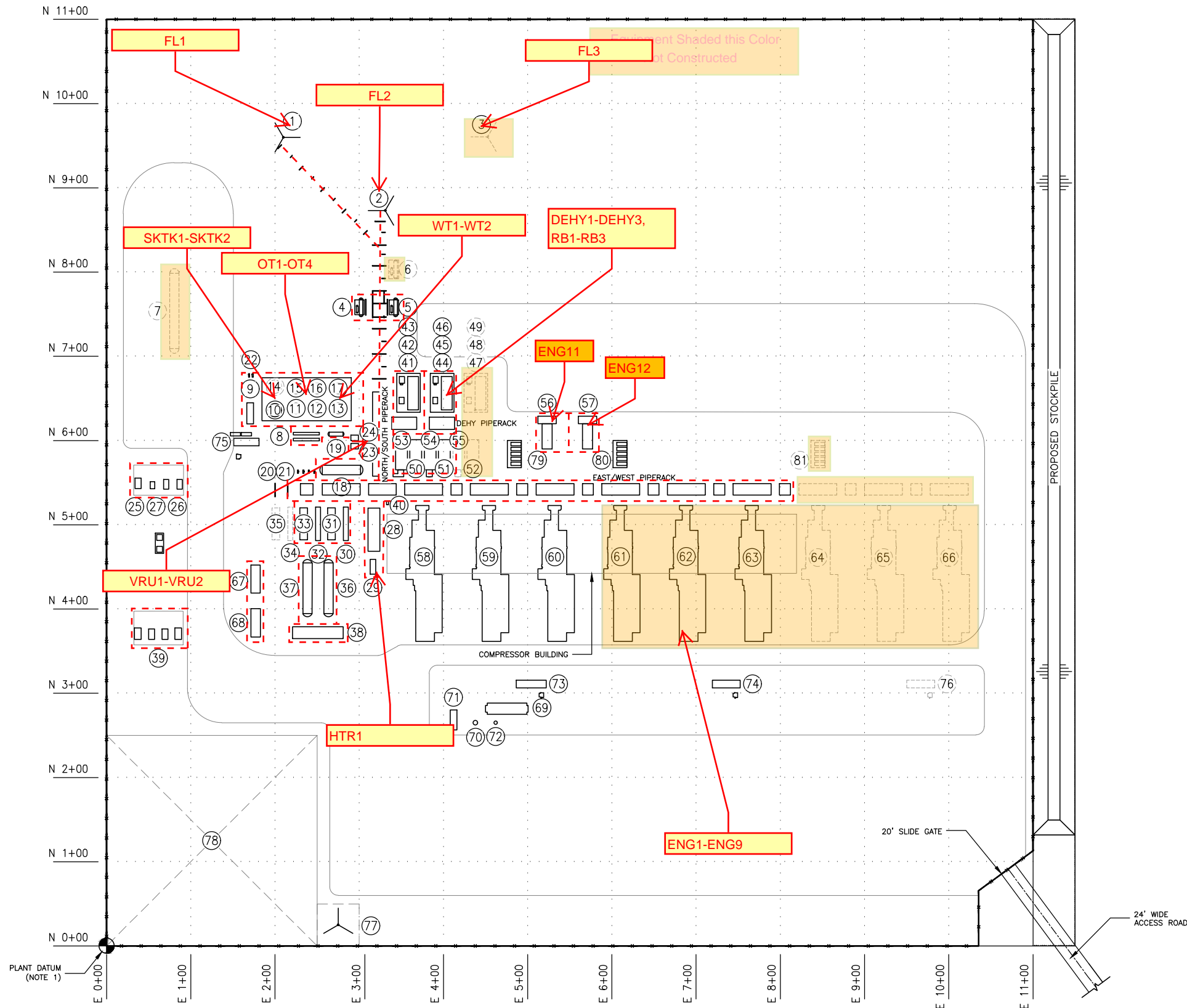
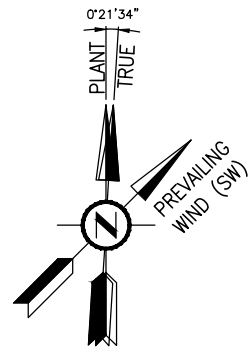
Tab 5
Section 5 - Plot Plan Drawn To Scale

Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.

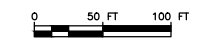
A proposed plot plan is presented on the following page.



LEGEND:

1. FL-1505 TR. 1 HP/LP FLARE
2. FL-2505 TR. 2 HP/LP FLARE
3. FL-3505 TR. 3 HP/LP FLARE (FUTURE)
4. PK-1501 TR. 1 FLARE KNOCKOUT SKID
5. PK-2501 TR. 2 FLARE KNOCKOUT SKID
6. PK-3501 TR. 3 FLARE KNOCKOUT SKID (FUTURE)
7. TK-5071 NGL STORAGE (FUTURE)
8. P-5072/73 NGL PIPELINE PUMPS
9. PK-5074 LACT UNIT
10. TK-5051 SKIM TANK
11. TK-5052 PRODUCED WATER TANK
12. TK-5053 CONDENSATE TANK
13. TK-5054 CONDENSATE TANK
14. TK-5061 SKIM TANK (FUTURE)
15. TK-5062 PRODUCED WATER TANK
16. TK-5063 CONDENSATE TANK
17. TK-5064 CONDENSATE TANK
18. PV-5001 L.P. 3-PHASE SEPARATOR
19. PV-5041 H.P. 3-PHASE SEPARATOR
20. P-5002/03 CONDENSATE TRANSFER PUMPS
21. P-5004/05 WATER TRANSFER PUMPS
22. P-5066/67 PRODUCED WATER PIPELINE PUMPS
23. C-5010 VAPOR RECOVERY UNIT
24. C-5020 VAPOR RECOVERY UNIT
25. PL-4003 SALES GAS PIG LAUNCHER
26. PL-4012/13 LIFT GAS PIG LAUNCHERS
27. PL-4014 CONDENSATE PIG LAUNCHER
28. PK-7001 FUEL GAS SCRUBBER SKID
29. PK-7004 LINE HEATER
30. F-1001 TR. 1 INLET GAS FILTER COALESCER
31. PK-1001A TR. 1 INLET FILTER SKID
32. F-2001 TR. 2 INLET GAS FILTER COALESCER
33. PK-2001A TR.2 INLET FILTER SKID
34. F-3001 TR. 3 INLET GAS FILTER COALESCER (FUTURE)
35. PK-3001A TR. 3 INLET FILTER SKID (FUTURE)
36. PV-0031 TR. 1 INLET SLUG CATCHER
37. PV-0041 TR. 2 INLET SLUG CATCHER
38. PK-0100 INLET HEADER SKID
39. PR-0011/12/13/14 INLET PIG RECEIVERS
40. PV-1700 TR. 1&2 HP FLARE HEADER BLOWCASE
41. PK-1420 TR. 1 TEG REGEN SKID REBOILER
42. PK-1430 TR. 1 BTEX SKID
43. TK-1421 TR. 1 GLYCOL MAKE-UP TANK
44. PK-2420 TR. 2 TEG REGEN SKID REBOILER
45. PK-2430 TR. 2 BTEX SKID
46. TK-2421 TR. 2 GLYCOL MAKE-UP TANK
47. PK-3420 TR. 3 TEG REGEN SKID REBOILER (FUTURE)
48. PK-3430 TR. 3 BTEX SKID (FUTURE)
49. TK-3421 TR. 3 GLYCOL MAKE-UP TANK (FUTURE)
50. PK-1410 TR. 1 DEHY/DISCHARGE SKID
51. PK-2410 TR. 2 DEHY/DISCHARGE SKID
52. PK-3410 TR. 3 DEHY/DISCHARGE SKID (FUTURE)
53. PK-1400 TR. 1 OUTLET FILTER SKID
54. PK-2400 TR. 2 OUTLET FILTER SKID
55. PK-3400 TR. 3 OUTLET FILTER SKID (FUTURE)
56. C-1040 3 STG. GAS SUPPLEMENTAL COMPRESSOR. 1
57. C-1050 3 STG. GAS SUPPLEMENTAL COMPRESSOR. 2
58. C-1010 TR. 1 4 STG. GAS COMPRESSOR 1
59. C-1020 TR. 1 4 STG. GAS COMPRESSOR 2
60. C-1030 TR. 1 4 STG. GAS COMPRESSOR 3
61. C-2010 TR. 2 4 STG. GAS COMPRESSOR 1
62. C-2020 TR. 2 4 STG. GAS COMPRESSOR 2
63. C-2030 TR. 2 4 STG. GAS COMPRESSOR 3
64. C-3010 TR. 3 4 STG. GAS COMPRESSOR 1 (FUTURE)
65. C-3020 TR. 3 4 STG. GAS COMPRESSOR 2 (FUTURE)
66. C-3030 TR. 3 4 STG. GAS COMPRESSOR 3 (FUTURE)
67. PK-4002 LIFT GAS SCRUBBER SKID
68. PK-4020 SALES GAS SCRUBBER SKID
69. PK-6001 INSTRUMENT AIR SKID
70. PV-6002 INSTRUMENT AIR RECEIVER
71. PV-6003 START AIR VOLUME TANK
72. PV-6004 INSTRUMENT AIR WET TANK
73. PDC-1000 TR. 1 MCC BUILDING
74. PDC-2000 TR. 2 MCC BUILDING
75. PDC-4000 MCC BUILDING
76. PDC-3000 TR. 3 MCC BUILDING (FUTURE)
77. SCADA TOWER
78. SUB STATION
79. TK-1601/02/03/04/05 TR. 1 DAY TANKS
80. TK-2601/02/03/04/05 TR. 2 DAY TANKS
81. TK-3601/02/03/04/05 TR. 3 DAY TANKS (FUTURE)

GRAPHIC SCALE



NOTES:
 1. PLANT DATUM N 0+00.00, E 0+00.00 IS EQUAL TO UTM COORDINATE NAD83 NEW MEXICO PLAIN EAST ZONE N 437031.42' AND E 712393.10'.
 2. EQUIPMENT TAGGED WITH A 'TRAIN 3' IDENTIFIER ARE TO BE DEEMED AS FUTURE INSTALLATIONS.

DWG NO	DWG TITLE	REV	DATE	PROJECT	XTO PROJ	XTO APP	EPCM CO	EPCM NO	REV	ISSUED FOR	DATE	BY	CHK	APP
0301-ME-0100-01	WCS, OVERALL SITE PLAN													
		1	2018.10.31	WILDCAT COMPRESSOR STATION		RS	FEL	18103	A	ISSUED FOR CONSTRUCTION	2019.02.01			
REFERENCE DRAWINGS														
PROJECT DESCRIPTION														
ISSUE STAGE														



XTO FACILITY: WILDCAT COMPRESSOR STATION
 WILDCAT COMPRESSOR STATION FACILITY PLOT PLAN

Tab 6
Section 6 - All Calculations

Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rationale for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:

A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.

B. At least 5 significant figures shall be retained in all intermediate calculations.

C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

- (1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;
- (2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**
- (3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.
- (4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device

regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

Caterpillar 3616TA (E-1 to E-9) and 3516TA (E-11 to E-12)

Emission factors for nitrogen oxides (NO_x), carbon monoxide (CO), formaldehyde, and volatile organic compounds (VOC) are based on manufacturer's data. Emissions of particulate matter (PM/PM₁₀ and PM_{2.5}) were calculated using AP-42 Table 3.2-3 factors. PM₁₀ and PM_{2.5} emissions are set equal to PM emissions. SO₂ emissions are based on the units' fuel consumption and a sulfur content of 5 grains per 100 standard cubic feet (5 gr/100 scf). Hazardous Air Pollutants (HAPs) except for formaldehyde were calculated using AP-42 factors.

Line Heater (HTR1) and Glycol Regenerator Heaters (RB1 to RB3)

Emission of NO_x, CO, VOC, HAP, and PM/PM₁₀/PM_{2.5} are based on AP-42 Table 3.2-3 emission factors. PM₁₀ and PM_{2.5} emissions are set equal to PM emissions. SO₂ emissions were based on the unit's fuel consumption and a maximum sulfur content of 5 grains per 100 standard cubic feet (5 gr/100 scf).

SSM/Emergency Flares (FL1 – FL3)

The facility will use three (3) dual-tip flares. NO_x and CO emissions are based on factors from the Texas Commission on Environmental Quality (TCEQ) publication RG-360A/09. VOC emissions were calculated using a material balance and the manufacturer's guaranteed destruction efficiency (98%). Since gas can be routed to any or all of the flares, they are illustrated as one combine emission point. The flares have a control efficiency of 98%, with manufacturer documentation provided in Section 7 of the application. SSM activities routed to the flares could include process vessel purging and maintenance blowdowns for process equipment, high pressure gas flaring, and low pressure separator gas during VRU downtime. Tank vapors and 2% of the low pressure separator gas not collected by the VRU are continuously routed to the low pressure side of the flare.

Triethylene Glycol Dehydrators (DEHY1-DEHY3)

Emissions from the dehydrators are calculated using BR&E ProMax simulation software. Flash tank vapors are routed back to mixing with the inlet gas. Each dehydrator is equipped with a condenser. Condensed liquids are routed to the skim tank and any remaining gas is burned in the reboilers (RB1-RB3). The emissions being released at RB1-RB3 from the dehydration process (and not direct fuel combustion) are represented as a separate emission point (DEHY1-DEHY3).

Storage Tanks (SKT1-SKT2, OT1-OT4, WT1-WT2)

Flashing, working and breathing emissions from the skim tank, oil tanks, and water tanks were calculated using BR&E ProMax simulation software. Emissions from the tanks are controlled using FL1-FL3. The simulation reports are included in Section 7.

Truck Loading (LOAD)

Uncontrolled emissions from oil loading of trucks were calculated using Equation 1 of AP-42 Section 5.2. Maximum slop oil loading rates are calculated using 656 BOPD. Relevant portions of AP-42 Section 5.2 are included in Section 7. Oil truck loading will be uncontrolled.

Piping Component Fugitive Emissions (FUG)

Facility fugitive emissions were calculated using TCEQ's "Air Permit Technical Guidance for Chemical Sources – Fugitive Guidance" document, and conservatively assumed component counts. Reduction efficiencies were obtained from EPA's Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017). Relevant portions of the TCEQ document are included in Section 7.

Startup, Shutdown, and Maintenance (SSM)

SSM emissions not routed to the flare system were assumed equal to the flat 10 tpy of VOC per State guidance. Specific SSM emissions include small equipment blowdowns, tank emptying and refilling, tank roof landing, and miscellaneous activities. Other SSM emissions are routed to the flare and calculated in accordance with the flare methodology above.

Haul Road Fugitive Emissions

Fugitive haul road emissions were calculated using Equations 1a and 2 of AP-42 Section 13.2.2. Relevant portions of AP-42 Section 13.2.2 are included in Section 7.

Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO₂e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO₂e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO₂e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO₂e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following By checking this box, the applicant acknowledges the total CO₂e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at <http://www.epa.gov/ttn/chief/ap42/index.html>
- EPA's Internet emission factor database WebFIRE at <http://cfpub.epa.gov/webfire/>
- 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at <http://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases>:

Global Warming Potentials (GWP):

Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO₂ over a specified time period.

"Greenhouse gas" for the purpose of air permit regulations is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. **(20.2.70.7 NMAC, 20.2.74.7 NMAC)**. You may also find GHGs defined in 40 CFR 86.1818-12(a).

Metric to Short Ton Conversion:

Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.

1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
FACILITY EMISSIONS SUMMARY

EMISSIONS SUMMARY TABLE

EMISSION SOURCE DESCRIPTION	FACILITY IDENTIFICATION NUMBER	STACK NUMBER	NOx		CO		VOC (INCLUDES HAPs)		SO ₂		PM _{10 & 2.5}		HAPs		CO _{2e}
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
Caterpillar G3616 Natural Gas Compressor Engine	ENG1	ENG1	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG2	ENG2	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG3	ENG3	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG4	ENG4	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG5	ENG5	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG6	ENG6	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG7	ENG7	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG8	ENG8	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar G3616 Natural Gas Compressor Engine	ENG9	ENG9	4.13	18.11	5.04	22.09	3.87	16.93	0.43	1.88	0.39	1.69	0.53	2.33	22181
Caterpillar 3516J TA Natural Gas Compressor Engine	ENG11	ENG11	1.90	8.33	1.34	5.86	1.64	7.17	0.14	0.59	0.12	0.53	0.36	1.56	6722
Caterpillar 3516J TA Natural Gas Compressor Engine	ENG12	ENG12	1.90	8.33	1.34	5.86	1.64	7.17	0.14	0.59	0.12	0.53	0.36	1.56	6722
Fuel Line Heater (0.75 MMBtu/hr)	HTR1	HTR1	0.11	0.50	0.10	0.42	0.01	0.03	0.01	0.04	0.01	0.04	0.002	0.01	528
Glycol Regenerator Heater (2.0 MMBtu/hr)	RB1	RB1	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.006	0.03	1408
Glycol Regenerator Reboiler (2.0 MMBtu/hr)	RB2	RB2	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.006	0.03	1408
Glycol Regenerator Reboiler (2.0 MMBtu/hr)	RB3	RB3	0.31	1.34	0.26	1.13	0.02	0.07	0.03	0.12	0.02	0.10	0.006	0.03	1408
Total Flare Pilot/Purge Emissions	FL1-FL3 Pilot	FL1-FL3 Pilot	0.67	2.94	1.34	5.86	0.98	4.29	0.01	0.02	0.03	0.13	0.01	0.03	3519
Total Flare Normal Operations	FL1-FL3 Norm	FL1-FL3 Norm	1.75	7.36	3.50	14.69	10.98	26.28	0.01	0.05	0.03	0.14	0.46	1.09	7958
Total Flare SSM	FL1-FL3 SSM	FL1-FL3 SSM	387.69	4.97	773.97	9.92	727.00	10.99	3.18	0.05	15.88	0.19	16.96	0.27	6232
TEG Dehydrator with Condenser	DEHY1	RB1	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.003	0.01	0.05	0.23	585
TEG Dehydrator with Condenser	DEHY2	RB2	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.003	0.01	0.05	0.23	585
TEG Dehydrator with Condenser	DEHY3	RB3	0.11	0.49	0.22	0.98	0.59	2.60	0.07	0.29	0.003	0.01	0.05	0.23	585
Skim Tank	SKT1	FL1-FL3	Emissions Represented at FL1-FL3												
Skim Tank (Backup)	SKT2	FL1-FL3	Emissions Represented at FL1-FL3												
Condensate Tank	OT1	FL1-FL3	Emissions Represented at FL1-FL3												
Condensate Tank	OT2	FL1-FL3	Emissions Represented at FL1-FL3												

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
FACILITY EMISSIONS SUMMARY

EMISSIONS SUMMARY TABLE

EMISSION SOURCE DESCRIPTION	FACILITY IDENTIFICATION NUMBER	STACK NUMBER	NOx		CO		VOC (INCLUDES HAPs)		SO ₂		PM _{10 & 2.5}		HAPs		CO _{2e}
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
Condensate Tank	OT3	FL1-FL3	Emissions Represented at FL1-FL3												
Condensate Tank	OT4	FL1-FL3	Emissions Represented at FL1-FL3												
Produced Water Tank	WT1	FL1-FL3	Emissions Represented at FL1-FL3												
Produced Water Tank	WT2	FL1-FL3	Emissions Represented at FL1-FL3												
Low Pressure Separator	LPS	FL1-FL3	Emissions Represented at FL1-FL3												
Condensate Truck Loading	LOAD	N/A	-	-	-	-	62.76	10.28	-	-	-	-	2.57	0.42	-
Fugitive Emissions	FUG	N/A	-	-	-	-	2.48	10.87	-	-	-	-	0.33	1.42	-
SSM Activities	SSM	N/A	-	-	-	-	-	10.00	-	-	-	-	-	-	-
ROAD EMISSIONS	ROAD	ROAD	-	-	-	-	-	-	-	-	0.15	0.02	-	-	-
TOTAL FACILITY WIDE EMISSIONS			NOx		CO		VOC (INCLUDES HAPs)		SO ₂		PM _{10 & 2.5}		HAPs		CO _{2e}
			lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
			432.49	200.87	828.41	247.74	844.10	247.49	7.63	19.52	19.89	17.12	26.01	28.14	237,288

XTO ENERGY, INC.
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Methodology for Burner Calculations

Burner Emission Calculations

AP 42 Emission Factors: Tables 1.4-1, 1.4-2, & 1.4-3

$$\text{Emission Rate}_x (\text{lb/hr}) = \text{Burner Rating (MMBTU/hr)} * \text{EF}_x (\text{lb/MMSCF}) / 1020 (\text{Btu/scf}) * \text{Heating Value of Fuel Gas (BTU/SCF)} / 1020 (\text{Btu/scf}) + 25\%$$

$$\text{Annual Emission Rate}_x (\text{TPY}) = \text{Emission Rate (lb/hr)} * 8760 (\text{hour/year}) / 2000 (\text{lb/ton})$$

Mass Balance - SO₂ & H₂S Calculations

$$\text{H}_2\text{S Mass Flow Rate (lb/hr)} = P * V / 10.73 / T * \text{MW}_{\text{GAS}} * \text{H}_2\text{S}_{\text{WEIGHT}} \% * (1 - \text{DRE})$$

P = Pressure (psia), V = Fuel Consumed in a hour (ft³/hr), 10.73 = Ideal Gas Constant, T = Temperature (°R)

$$\text{Uncontrolled H}_2\text{S Mass Flow Rate (lb/hr)} = P * V / 10.73 / T * \text{MW}_{\text{GAS}} * \text{H}_2\text{S}_{\text{WEIGHT}} \%$$

$$\text{SO}_2 \text{ Emission Rate (lb/hr)} = \text{Uncontrolled H}_2\text{S Mass Rate (lb/hr)} * \text{SO}_2 \text{ Conversion Efficiency} * (\text{MW of SO}_2 (\text{lb/lb-mol}) / \text{MW of H}_2\text{S (lb/lb-mol)})$$

$$\text{Annual Emission Rate (TPY)} = \text{Emission Rate (lb/hr)} * 8760 (\text{hour/year}) / 2000 (\text{lb/ton})$$

MW_{GAS} = Molecular Weight of the Gas, H₂S_{WEIGHT} % = Weight Percent of the H₂S in the Fuel Gas, DRE = Burner Combustion Efficiency of H₂S

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Methodology for Engine Calculations

Engine Emission Calculations

Manufacturer's Data or NSPS Subpart JJJJ Limit Calculations

$$\text{Emission Rate}_x \text{ (lb/hr)} = \text{Emission Factor}_x \text{ (g/hp-hr)} * \text{Rated hp} / 453.6 \text{ (g/lb)}$$

$$\text{Annual Emission Rate}_x \text{ (TPY)} = \text{Emission Rate (lb/hr)} * 8760 \text{ (hour/year)} / 2000 \text{ (lb/ton)}$$

AP 42 Emission Factors

$$\text{Emission Rate}_x \text{ (lb/hr)} = \text{Fuel Consumption (MMBTU/hp-hr)} * \text{EF}_x \text{ (lb/MMBTU)} * \text{Rated hp}$$

$$\text{Annual Emission Rate}_x \text{ (TPY)} = \text{Emission Rate}_x \text{ (lb/hr)} * 8760 \text{ (hour/year)} / 2000 \text{ (lb/ton)}$$

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Methodology for Flare Calculations

Flare Calculations

VOC Flare Calculations - Uses the Ideal Gas Law for Mixtures

The mass flow rate of VOCs to the flare were modeled using Promax. The mass rate was then reduced by the destruction efficiency of the flare (98%).

NOx & CO Calculations - TCEQ Emission Factors Used

$$\text{NOx (lb/day)} = \text{Heating Value (BTU/ft}^3) * \text{EF (lb/MMBTU)} * \text{V (ft}^3/\text{Day)} / 10^6 \text{ (BTU/MMBTU)}$$

$$\text{CO (lb/day)} = \text{Heating Value (BTU/ft}^3) * \text{EF (lb/MMBTU)} * \text{V (ft}^3/\text{Day)} / 10^6 \text{ (BTU/MMBTU)}$$

COEF = 0.5496 or 0.2755, NOxEF = 0.138, EF = Emission Factor, V = Volume of Gas in a Day

SO₂ & H₂S Calculations - Mass Balance

$$\text{H}_2\text{S Mass Flow Rate (lb/hr)} = P * V / 10.73 / T * \text{MW}_{\text{GAS}} * \text{H}_2\text{S}_{\text{WEIGHT \%}} * (1 - \text{DRE})$$

P = Pressure (psia), V = Fuel Consumed in a hour (ft³/hr), 10.73 = Ideal Gas Constant, T = Temperature (°R)

$$\text{Uncontrolled H}_2\text{S Mass Flow Rate (lb/hr)} = P * V / 10.73 / T * \text{MW}_{\text{GAS}} * \text{H}_2\text{S}_{\text{WEIGHT \%}}$$

$$\text{SO}_2 \text{ Emission Rate (lb/hr)} = \text{Uncontrolled H}_2\text{S Mass Rate (lb/hr)} * \text{SO}_2 \text{ Conversion Efficiency} * (\text{MW of SO}_2 \text{ (lb/lb-mol)} / \text{MW of H}_2\text{S (lb/lb-mol)})$$

$$\text{Annual Emission Rate (TPY)} = \text{Emission Rate (lb/hr)} * 8760 \text{ (hour/year)} / 2000 \text{ (lb/ton)}$$

MW_{GAS} = Molecular Weight of the Gas, H₂S_{WEIGHT%} = Weight Percent of the H₂S in Gas Stream, DRE = Flare Destruction Efficiency of H₂S

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WILDCAT COMPRESSOR STATION
COMPRESSOR ENGINES

Uncontrolled Emissions Calculations

Source ID	Unit Description	Annual Hours	Rated HP	MMbtu/hp-hr ¹ (HHV)	Manufacturer's Data				AP-42 Factors			lb/hr ²						tpy ⁵							
					NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde
ENG1	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG2	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG3	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG4	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG5	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG6	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG7	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG8	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG9	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	0.30	3.05	1.27	0.15	0.01121	0.01006	0.00836	4.13	33.62	14.32	1.65	0.43	0.39	0.32	18.11	147.26	62.72	7.24	1.88	1.69	1.40
ENG11	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	0.50	2.93	1.56	0.40	0.01121	0.01006	0.00836	1.90	8.91	6.06	1.22	0.14	0.12	0.10	8.33	39.04	26.56	5.33	0.59	0.53	0.44
ENG12	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	0.50	2.93	1.56	0.40	0.01121	0.01006	0.00836	1.90	8.91	6.06	1.22	0.14	0.12	0.10	8.33	39.04	26.56	5.33	0.59	0.53	0.44

¹HHV is based on the Fuel Consumption Rate @ 75% Load from the Gas Engine Rating Pro Report

²The VOC emission factor (g/hp-hr) includes HCHO. Emission factors based on Gas Engine Rating Pro Report @ 100% Load.

³SO₂ Emissions were calculated using the emission factor from Table 3.2-2

⁴PM Emission Factor = 7.71E-05 lb/MMBTU + 7.71E-05 lb/MMBTU + 9.91E-03 lb/MMBTU = 0.01006 lb/MMBTU

⁵25% safety factor was added to NOx on all engines. 25% safety factor was added to VOC on 3516. VOC lb/hr rates include acetaldehyde emissions.

Total Emissions Per Pollutant (TPY)	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde
		179.60	1403.38	617.59	75.84	18.13	16.26

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
COMPRESSOR ENGINES

Controlled Emissions Calculations

Source ID	Unit Description	Annual Hours	Rated HP	MMbtu/hp-hr ¹ (HHV)	Control Efficiency (%)			Manufacturer's Data (w/ control) g/hp-hr ²				AP-42 Factors lb/MMBTu ³			lb/hr ⁴							tpy						
					CO	VOC	HCOH	NOx	CO	VOC ²	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde
					ENG1	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09
ENG2	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG3	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG4	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG5	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG6	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG7	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG8	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG9	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	85.0	73.0	73.0	0.30	0.46	0.34	0.04	0.0112	0.01006	0.00836	4.13	5.04	3.87	0.45	0.43	0.39	0.09	18.11	22.09	16.93	1.96	1.88	1.69	0.38
ENG11	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	85.0	73.0	73.0	0.50	0.44	0.42	0.11	0.0112	0.01006	0.00836	1.90	1.34	1.64	0.33	0.14	0.12	0.03	8.33	5.86	7.17	1.44	0.59	0.53	0.12
ENG12	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	85.0	73.0	73.0	0.50	0.44	0.42	0.11	0.0112	0.01006	0.00836	1.90	1.34	1.64	0.33	0.14	0.12	0.03	8.33	5.86	7.17	1.44	0.59	0.53	0.12

¹HHV is conservatively based on the Fuel Consumption Rate @ 75% Load from the Gas Engine Rating Pro Report

²The VOC emission factor (g/hp-hr) includes HCHO. Emission factors based on Gas Engine Rating Pro Report.

³SO₂ Emissions were calculated using the emission factor from Table 3.2-2

⁴PM Emission Factor = 7.71E-05 lb/MMBTU + 7.71E-05 lb/MMBTU + 9.91E-03 lb/MMBTU = 0.01006 lb/MMBTU

⁵25% safety factor was added to NOx on all engines. 25% safety factor was added to VOC on 3516. VOC lb/hr rates include acetaldehyde emissions.

Total Emissions Per Pollutant (TPY)	NOx	CO	VOC	HCHO	SO ₂	PM _{10 & 2.5}	Acetaldehyde
		179.60	210.51	166.75	20.48	18.13	16.26

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
COMPRESSOR ENGINES

Greenhouse Gas Emissions Calculations

Source ID	Unit Description	Annual Hours	Rated HP	MMbtu/hp-hr ¹ (HHV)	Engine Data		lb/hr					tpy						
					g/hp-hr	40 CFR 98 Factors ² lb/MMBtu	CO2	CH ₄	N ₂ O	CH ₄ as CO ₂ e	N ₂ O as CO ₂ e	CO2	CH ₄	N ₂ O	CH ₄ as CO ₂ e	N ₂ O as CO ₂ e	Total CO ₂ e	
					ENG1	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71
ENG2	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG3	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG4	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG5	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG6	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG7	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG8	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG9	Caterpillar G3616 Natural Gas Compressor Engine	8760	5000	0.007664	459	0.002205	0.000221	5059.52	0.0845	0.0084	2.11	2.52	22160.71	0.37	0.04	9.25	11.03	22181.00
ENG11	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	504	0.002205	0.000221	1533.33	0.0267	0.0027	0.67	0.79	6716.00	0.12	0.01	2.92	3.48	6722.40
ENG12	Caterpillar 3516J TA Natural Gas Compressor Engine	8760	1380	0.008762	504	0.002205	0.000221	1533.33	0.0267	0.0027	0.67	0.79	6716.00	0.12	0.01	2.92	3.48	6722.40

¹HHV is based on the Fuel Consumption Rate @ 75% Load from the Gas Engine Rating Pro Report
²Warming potential for CH₄ is 25, N₂O is 298.

Total Emissions (TPY)

Total CO₂e

213073.76

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
HEATERS - BURNER CALCULATIONS & EXHAUST STACK FLOW & FUEL CONSUMPTION RATES

CRITERIA & REGULATED POLLUTANTS EMISSIONS

Source ID	Promax Fuel Gas Stream	Fuel Gas HHV (BTU/SCF)	Operating Hours	Burner Rating (MMBTU/Hr)	AP-42 Factors ¹					lb/hr ²					tpy ²				
					lb/MMBtu														
					NOx	CO	VOC	SO ₂	PM _{10 & 2.5}	NOx	CO	VOC	SO ₂	PM _{10 & 2.5}	NOx	CO	VOC	SO ₂	PM _{10 & 2.5}
HTR1	3. Fuel Gas	1,274	8,760	0.75	0.10	0.08	0.01	0.01	0.01	0.11	0.10	0.01	0.01	0.01	0.50	0.42	0.03	0.04	0.04
RB1	3. Fuel Gas	1,274	8,760	2.00	0.10	0.08	0.01	0.01	0.01	0.31	0.26	0.02	0.03	0.02	1.34	1.13	0.07	0.12	0.10
RB2	3. Fuel Gas	1,274	8,760	2.00	0.10	0.08	0.01	0.01	0.01	0.31	0.26	0.02	0.03	0.02	1.34	1.13	0.07	0.12	0.10
RB3	3. Fuel Gas	1,274	8,760	2.00	0.10	0.08	0.01	0.01	0.01	0.31	0.26	0.02	0.03	0.02	1.34	1.13	0.07	0.12	0.10

¹Source: Emission factors from AP-42, Chapter 1, Tables 1.4-1, 1.4-2 and 1.4-3, converted from lb/MMscf to lb/MMBtu by dividing by 1,020 Btu/scf (per AP-42, Chapter 1 guidance).
SO₂ - 5 gr/100 scf

²Burners - 25% Safety Factor

Total (tpy)	NOx	CO	VOC	SO ₂	PM _{10 & 2.5}
	4.53	3.80	0.25	0.39	0.34

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
HEATERS - BURNER CALCULATIONS & EXHAUST STACK FLOW & FUEL CONSUMPTION RATES

HAZARDOUS AIR POLLUTANTS (HAP) EMISSIONS

Source ID	Promax Stream	Fuel Gas (BTU/SCF)	Operating Hours	Burner Rating (MMBTU/Hr)	AP-42 Factors ¹					lb/hr ²					tpy ²				
					lb/MMBtu					Benzene	Toluene	N-Hexane	HCHO	Dichloro benzene	Benzene	Toluene	N-Hexane	HCHO	Dichloro benzene
					Benzene	Toluene	N-Hexane	HCHO	Dichloro benzene										
HTR1	3. Fuel Gas	1,274	8760	0.75	2.1E-06	3.3E-06	1.8E-03	7.4E-05	1.2E-06	<0.001	<0.001	0.00	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	<0.001
RB1	3. Fuel Gas	1,274	8760	2.00	2.1E-06	3.3E-06	1.8E-03	7.4E-05	1.2E-06	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	0.02	0.00	<0.001
RB2	3. Fuel Gas	1,274	8760	2.00	2.1E-06	3.3E-06	1.8E-03	7.4E-05	1.2E-06	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	0.02	0.00	<0.001
RB3	3. Fuel Gas	1,274	8760	2.00	2.1E-06	3.3E-06	1.8E-03	7.4E-05	1.2E-06	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	0.02	0.00	<0.001

¹Source: Emission factors from AP-42, Chapter 1, Tables 1.4-1, 1.4-2 and 1.4-3, converted from lb/MMscf to lb/MMbtu by dividing by 1,020 Btu/scf (per AP-42, Chapter 1 guidance).
SO2 - 5 gr/100 scf

²Burners - 25% Safety Factor

Total Individual HAPS (tpy)	Benzene	Toluene	N-Hexane	HCHO	Dichloro benzene
		0.00	0.00	0.08	0.00

Total Combined HAPS (tpy)	0.09
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XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
HEATERS - BURNER CALCULATIONS & EXHAUST STACK FLOW & FUEL CONSUMPTION RATES

Exhaust Stack and Fuel Consumption Data

Source	HTR1	RB1	RB2	RB3		
Burner Rating (btu/hr)	750000	2000000	2000000	2000000		
Gross Heating Value (btu/scf)	1273.9	1273.9	1273.9	1273.9		
3" eclipse air mixer: (Air/Gas Ratio) ¹	5/1	5/1	5/1	5/1		
Stack Temperature (°F)	1000	1000	1000	1000		
Stack Diameter (ft)	1	1.5	1.5	1.5		
Stack Height (ft)	20	20	20	20		
Fuel Consumption (scf/hr)	589	1570	1570	1570		
Fuel Consumption (scf/day)	14130	37680	37680	37680		
Fuel Consumption (mmscf/year)	5	14	14	14		
Air Injection Rate (scf/hr)	5887	15700	15700	15700		
Total exhaust flow rate @ STP (scf/hr)	6476	17270	17270	17270		
Total exhaust flow rate @ STP (scf/sec)	2	5	5	5		
Total exhaust flow rate @ 1000 °F (acf/hr)	18183	48488	48488	48488		
Total exhaust flow rate @ 1000 °F (acf/sec)	5.05	13	13	13		
Exhaust Stack Exit Velocity @ STP (ft/sec)	2.29	3	3	3		
Exhaust Stack Exit Velocity @ 1000 °F (ft/sec)	6.43	8	8	8		
Total CH ₄ (ton/yr) ²	0.31	0.83	0.83	0.83		
Total N ₂ O (ton/yr) ²	0.001	0.002	0.002	0.002		
Total CO ₂ (ton/yr) ²	520	1386	1386	1386		
Total CO ₂ e (ton/yr) ²	527.90	1408	1408	1408		

Promax Stream Name	3. Fuel Gas
Component	Mass Frac
Triethylene Glycol	0.00
Carbon Dioxide	0.00
Nitrogen	0.02
Methane	0.57
Ethane	0.18
Propane	0.13
Isobutane	0.02
n-Butane	0.05
Isopentane	0.01
n-Pentane	0.01
n-Hexane	0.00
Cyclohexane	0.00
i-C ₆	0.00
i-C ₇	0.00
Methylcyclohexane	0.00
Octane	0.00
Nonane	0.00
Benzene	0.00
Toluene	0.00
Ethylbenzene	0.00
o-Xylene	0.00
Hydrogen Sulfide	0.00
Water	0.00
2,2,4-Trimethylpentane	0.00
Decanes Plus	0.00

¹ Air/Gas Ratio is based on the Manufacturer's Data of XTO's typical burner installations

² GHG emissions source is 40 CFR § 98.233 (n), 40 CFR § 98.233(v) for CH₄ and CO₂ mass emissions, 40 CFR § 98.233(z) for N₂O mass emissions,

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
STORAGE TANK EMISSIONS SUMMARY

VOC EMISSIONS SUMMARY

Unit Number	Source Description	Material Type (Oil/Produced Water)	Number of Tanks in Category	Controlled by Unit #	Control Efficiency (%)	Promax Stream Liquid Material	Material Throughput (bbls/day)	Uncontrolled Working & Breathing Losses				Uncontrolled Flash Losses				Uncontrolled Total Emissions		Controlled Total Emissions	
								Promax Stream (Hrly)	Promax Stream (Annual)	Lb/hr	TPY	Promax Stream (Hrly)	Promax Stream (Annual)	Lb/hr	TPY	Lb/hr	TPY	Lb/hr	TPY
SKT1	Skim Tank	Produced Water	2	FL1-FL3	98	14. Skim Tank Inlet	222.43	8. Skim Tank W&B	8. Skim Tank W&B	4.83	21.13	6. Skim Tank Flash Gas	6. Skim Tank Flash Gas	9.01	39.44	13.83	60.58	0.28	1.21
SKT2	Skim Tank (Backup)	Produced Water	2	FL1-FL3	98	14. Skim Tank Inlet	222.43	8. Skim Tank W&B	8. Skim Tank W&B	4.83	21.13	6. Skim Tank Flash Gas	6. Skim Tank Flash Gas	9.01	39.44	13.83	60.58	0.28	1.21
OT1	Condensate Tank	Condensate	4	FL1-FL3	98	11. Condensate Sales Liquid	164.10	10. Condensate Tank W&B	10. Condensate Tank W&B	3.53	15.48	22. Condensate Flash Losses Hrly	7. Condensate Tank Flash Gas	124.84	275.00	128.38	290.48	2.57	5.81
OT2	Condensate Tank	Condensate	4	FL1-FL3	98	11. Condensate Sales Liquid	164.10	10. Condensate Tank W&B	10. Condensate Tank W&B	3.53	15.48	22. Condensate Flash Losses Hrly	7. Condensate Tank Flash Gas	124.84	275.00	128.38	290.48	2.57	5.81
OT3	Condensate Tank	Condensate	4	FL1-FL3	98	11. Condensate Sales Liquid	164.10	10. Condensate Tank W&B	10. Condensate Tank W&B	3.53	15.48	22. Condensate Flash Losses Hrly	7. Condensate Tank Flash Gas	124.84	275.00	128.38	290.48	2.57	5.81
OT4	Condensate Tank	Condensate	4	FL1-FL3	98	11. Condensate Sales Liquid	164.10	10. Condensate Tank W&B	10. Condensate Tank W&B	3.53	15.48	22. Condensate Flash Losses Hrly	7. Condensate Tank Flash Gas	124.84	275.00	128.38	290.48	2.57	5.81
WT1	Produced Water Tank	Produced Water	2	FL1-FL3	98	12. Produced Water Liquid	214.94	9. Water Tank W&B	9. Water Tank W&B	0.50	2.20	5. Water Tank Flash Gas	5. Water Tank Flash Gas	0.00	0.00	0.50	2.20	0.01	0.04
WT2	Produced Water Tank	Produced Water	2	FL1-FL3	98	12. Produced Water Liquid	214.94	9. Water Tank W&B	9. Water Tank W&B	0.50	2.20	5. Water Tank Flash Gas	5. Water Tank Flash Gas	0.00	0.00	0.50	2.20	0.01	0.04
Storage Tank Emissions										24.79	108.58			517.39	1178.89	542.18	1287.46	10.84	25.75

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
OIL TRUCK LOADING LOSSES - UNCONTROLLED

Truck Loading Losses Calculations

Promax Stream Production	11. Condensate Sales Liquid	
Promax Stream Emissions	10. Condensate Tank W&B	
Controlled/Uncontrolled	UNCONTROLLED	
Operating Schedule^c	120	Day / Year
Condensate Production	656	bbls / Day

Promax Report Results

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

Saturation Factor (S) =	0.6
Average True Vapor Pressure of liquid loaded (P) ^a =	8.66
Max True Vapor Pressure of liquid loaded (P) ^a =	10.09
Average Temperature of bulk liquid loaded in Rankin (T) ^a =	526.16
Max Temperature of bulk liquid loaded in Rankin (T) ^a =	535.34
Molecular Weight (M) ^a =	54.60
Control Efficiency * Collection Efficiency (EFF)=	0
Hydrocarbon Content (%wt) ^a =	99.98
VOC Content (wt%) ^a =	92.47
HAP Content (wt%) ^a =	3.79
Average Uncontrolled LL (lb Total HC / bbl Throughput) ^b =	0.2822
Average Uncontrolled LL (lb VOC / bbl Throughput) ^b =	0.2610
Max Uncontrolled LL (lb Total HC / bbl Throughput) ^b =	0.3231
Max Uncontrolled LL (lb VOC / bbl Throughput) ^b =	0.2989
Estimated Throughput (bbls/Year) =	78766
Truck Loading Rate (bbls/hour) =	210
Estimated # of Loads (Approximately 1 hr/Load) =	375

Total Hydrocarbon Emissions	lb/hr	TPY
	67.86	11.11
Total VOC Emissions	lb/hr	TPY
	62.76	10.28
Total HAP Emissions	lb/hr	TPY
	2.57	0.42

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
OIL TRUCK LOADING LOSSES - UNCONTROLLED

Component	Total Speciated Vapors Emitted During Loading		
	Mass Fraction ^d	lb/hr ^d	ton / yr
Triethylene Glycol	0.00	0.00	0.00
Carbon Dioxide	0.02	0.01	0.00
Nitrogen	0.00	0.00	0.00
Methane	0.22	0.15	0.03
Ethane	7.29	4.95	0.93
Propane	24.91	16.90	3.17
Isobutane	8.33	5.66	1.06
n-Butane	26.27	17.83	3.34
Isopentane	8.70	5.90	1.11
n-Pentane	10.35	7.02	1.32
n-Hexane	2.97	2.02	0.38
Cyclohexane	0.27	0.18	0.03
i-C6	4.18	2.84	0.53
i-C7	4.58	3.11	0.58
Methylcyclohexane	0.14	0.10	0.02
Octane	0.85	0.57	0.11
Nonane	0.09	0.06	0.01
Benzene	0.32	0.21	0.04
Toluene	0.26	0.18	0.03
Ethylbenzene	0.01	0.01	0.00
o-Xylene	0.05	0.04	0.01
Hydrogen Sulfide	0.00	0.00	0.00
Water	0.00	0.00	0.00
2,2,4-Trimethylpentane	0.18	0.12	0.02
Decanes Plus	0.00	0.00	0.00
Total HC	99.98	67.84	12.72
Total VOC	92.47	62.75	11.77
Total HAP	3.79	2.57	0.48
Heating Value (Btu/scf)	3068.60	3068.60	3068.60
Molecular Weight (lb/lbmol)	54.60	54.60	54.60
SO2 Emissions (lb/hr)	N/A	N/A	N/A
Operating Hours (hr/yr)	N/A	N/A	2880
Mass Flow	N/A	67.86 lb/hr	11.11 ton/yr
Volumetric Flow (scf/hr)	N/A	471.63	77.24
Heat Release (MMBtu/hr)	N/A	1.45	0.24

Footnotes:

^a Values were obtained from Promax.

^b Loading emissions include total hydrocarbons as calculated using AP-42, Section 5.2.

^c Condensate tanks are only trucked out when transfer to pipeline is unavailable.

^d The component speciation was obtained from Promax Stream " " and multiplied by the total hydrocarbon emissions. (VOC = 0.12 lb/hr * 0.00 wt% VOC = 0.00 lb/hr)

^e Loading emissions are uncontrolled.

XTO ENERGY INC.
WILDCAT COMPRESSOR STATION
FLARE 1-3 EMISSION SUMMARY

Flare Emissions Summary Table

Stream Source	Stream Source	NOx		CO		Total VOC (Includes Total HAPs)		SO ₂		PM _{10 & 2.5}		Total HAPs		CO _{2e}	n-Hexane		Benzene	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY	lb/hr	TPY	lb/hr	TPY
FL1-FL3 Pilot	FL1 Pilot/Purge	0.22	0.98	0.45	1.95	0.33	1.43	0.00	0.01	0.01	0.04	0.00	0.01	1172.86	0.00	0.01	0.00	0.00
	FL2 Pilot / Purge	0.22	0.98	0.45	1.95	0.33	1.43	0.00	0.01	0.01	0.04	0.00	0.01	1172.86	0.00	0.01	0.00	0.00
	FL3 Pilot / Purge	0.22	0.98	0.45	1.95	0.33	1.43	0.00	0.01	0.01	0.04	0.00	0.01	1172.86	0.00	0.01	0.00	0.00
FL1-FL3 Norm	PW Tank Vapors	0.00	0.01	0.01	0.03	0.02	0.09	0.00	0.00	0.00	0.00	0.00	0.02	18.90	0.00	0.01	0.00	0.01
	Skim Tank Vapors	0.09	0.38	0.17	0.75	0.55	2.42	0.00	0.01	0.00	0.01	0.03	0.15	419.81	0.02	0.10	0.00	0.02
	Oil Tank Vapors	1.63	6.85	3.26	13.68	10.27	23.24	0.01	0.03	0.03	0.13	0.42	0.91	7378.46	0.33	0.65	0.04	0.11
	Low Pressure Separator Vapors Normal Operation	0.03	0.12	0.06	0.23	0.13	0.53	0.00	0.00	0.00	0.00	0.00	0.02	141.10	0.00	0.01	0.00	0.00
FL1-FL3 SSM	Low Pressure Separator Vapors VRU Downtime	1.46	0.64	2.92	1.28	6.73	2.95	0.02	0.01	0.04	0.02	0.19	0.08	783.87	0.14	0.06	0.02	0.01
	HP Flare Blowdowns	0.17	0.08	0.33	0.17	0.24	0.12	0.00	0.00	0.01	0.00	0.00	0.00	100.25	0.00	0.00	0.00	0.00
	Inlet Gas Flaring	386.06	4.25	770.72	8.48	720.02	7.92	3.16	0.03	15.83	0.17	16.76	0.18	5348.35	13.78	0.15	0.72	0.01
Total	Total Emissions	389.44	12.33	777.47	24.62	737.97	37.27	3.19	0.10	15.91	0.33	17.42	1.36	14190.74	14.28	0.98	0.79	0.15
FL1-FL3 Pilot	Total Flare Pilot/Purge Emissions	0.67	2.94	1.34	5.86	0.98	4.29	0.01	0.02	0.03	0.13	0.01	0.03	3518.58	0.01	0.03	0.00	0.00
FL1-FL3 Norm	Total Flare Normal Operations	1.75	7.36	3.50	14.69	10.98	26.28	0.01	0.05	0.03	0.14	0.46	1.09	7958.27	0.36	0.76	0.04	0.14
FL1-FL3 SSM	Total Flare SSM	387.69	4.97	773.97	9.92	727.00	10.99	3.18	0.05	15.88	0.19	16.96	0.27	6232.47	13.92	0.21	0.75	0.02
FL1-FL3 HP	High Pressure Gas Flaring (No Pilot)	386.23	4.33	771.05	8.64	720.27	8.04	3.16	0.04	15.84	0.18	16.76	0.19	5448.60	13.78	0.15	0.72	0.01
FL1-FL3 LP	Low Pressure Gas Flaring (No Pilot)	3.21	8.00	6.41	15.97	17.69	29.23	0.04	0.06	0.07	0.16	0.65	1.18	8742.14	0.49	0.82	0.06	0.15

**XTO ENERGY INC.
WILDCAT COMPRESSOR STATION
FLARE 1-3 HOURLY EMISSIONS WINTER SEASON - NORMAL OPERATIONS**

FLARE 1-3 HOURLY - NORMAL OPERATIONS

Stream	Uncaptured Maximum Hourly Emission Rates and Composition to Flare ^{a,b}												Total Vapors to Flare (uncontrolled)	Destruction Efficiency	Total Flare Exhaust (controlled)
	SSM			HP Flare Pilot/Purge ^c	LP Flare Pilot/Purge ^c	Oil Tank Vapors		Skim Tank Vapors		PW Tank Vapors		Low Pres Sep ^d Vapors (VRU On)			
	HP Flare Blowdowns ^f	Low Pres Sep ^d Flash (VRU Off)	Inlet Gas Flaring ^g			Flash	W&B	Flash	W&B	Flash	W&B				
Promax Stream Name	17. HPF Blowdowns	1. LP Separator Gas	19. Inlet Flaring	15. HPF Pilot/Purge Gas	16. LPF Pilot/Purge Gas	22. Condensate Flash Losses Hrly	10. Condensate Tank W&B	6 Skim Tank Flash Gas	8. Skim Tank W&B	5. Water Tank Flash Gas	9. Water Tank W&B	1. LP Separator Gas	(lb/hr)	(%)	(lb/hr)
Component	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)		
Triethylene Glycol	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	98%	0.01
Carbon Dioxide	0.13	0.63	275.69	0.34	0.18	0.11	0.00	0.04	0.02	0.00	0.01	0.01	275.15	0%	275.15
Nitrogen	0.86	0.65	1807.20	2.27	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1812.19	0%	1812.19
Methane	30.50	64.37	64416.37	80.12	42.06	1.18	0.03	0.57	0.03	0.00	1.29	64636.53	98%	1292.73	
Ethane	9.91	84.16	21892.38	26.04	13.67	39.39	1.11	0.96	0.16	0.00	0.02	1.68	22069.48	98%	441.39
Propane	7.09	133.01	17149.26	18.62	9.77	134.52	3.81	3.17	1.38	0.00	0.04	2.66	17463.33	98%	349.27
Isobutane	1.11	31.50	3077.67	2.92	1.53	45.01	1.27	1.39	0.96	0.00	0.02	0.63	3164.02	98%	63.28
n-Butane	2.57	85.51	7757.32	6.74	3.54	141.89	4.02	4.73	3.05	0.00	0.08	1.71	7991.16	98%	159.82
Isopentane	0.54	23.91	2115.00	1.42	0.74	46.96	1.33	1.96	1.08	0.00	0.05	0.48	2193.48	98%	43.87
n-Pentane	0.57	27.77	2469.96	1.49	0.78	55.90	1.58	2.50	1.32	0.00	0.06	0.56	2562.49	98%	51.25
n-Hexane	0.08	6.82	689.05	0.22	0.11	16.05	0.45	0.81	0.36	0.00	0.06	0.14	714.15	98%	14.28
Cyclohexane	0.01	0.78	68.34	0.02	0.01	1.46	0.04	0.09	0.04	0.00	0.01	0.02	70.81	98%	1.42
i-C6	0.14	10.13	961.60	0.37	0.20	22.59	0.64	1.12	0.53	0.00	0.06	0.20	997.59	98%	19.95
i-C7	0.10	11.28	1239.09	0.25	0.13	24.73	0.70	1.46	0.61	0.00	0.22	0.23	1278.80	98%	25.58
Methylcyclohexane	0.00	0.34	35.12	0.01	0.00	0.77	0.02	0.05	0.02	0.00	0.01	0.01	36.35	98%	0.73
Octane	0.01	2.28	280.66	0.02	0.01	4.57	0.13	0.34	0.13	0.00	0.19	0.05	288.37	98%	5.77
Nonane	0.00	0.28	29.01	0.00	0.00	0.51	0.01	0.05	0.02	0.00	0.02	0.01	29.91	98%	0.60
Benzene	0.00	1.20	36.21	0.01	0.01	1.71	0.05	0.13	0.06	0.00	0.08	0.02	39.49	98%	0.79
Toluene	0.00	0.94	46.50	0.01	0.00	1.41	0.04	0.12	0.05	0.00	0.07	0.02	49.18	98%	0.98
Ethylbenzene	0.00	0.03	2.10	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	2.18	98%	0.04
o-Xylene	0.00	0.22	15.16	0.00	0.00	0.28	0.01	0.03	0.01	0.00	0.02	0.00	15.74	98%	0.31
Hydrogen Sulfide	0.00	0.01	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.70	98%	0.03
Water	0.00	3.11	4.00	0.00	0.00	0.00	0.00	0.43	0.16	0.00	0.23	0.06	8.00	0%	8.00
2,2,4-Trimethylpentane	0.00	0.44	49.02	0.01	0.00	0.99	0.03	0.06	0.02	0.00	0.01	0.01	50.59	98%	1.01
Decanes Plus	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	98%	0.00
Total	53.62	489.37	124397.16	140.87	73.96	540.06	15.29	20.02	10.02	0.00	1.27	9.79	125751.41	--	4568.46
Total VOC	12.22	336.44	36001.12	32.11	16.86	499.38	14.14	18.01	9.65	0.00	1.00	6.73	36947.65	--	738.95
Total HAP	0.09	9.64	838.06	0.24	0.13	20.48	0.58	1.16	0.51	0.00	0.25	0.19	871.34	--	17.43
Heating Value (Btu/scf)	1,273.90	2,124.36	1,342.81	1273.90	1273.90	3068.60	3068.60	2908.87	3232.20	0.00	2160.54	2124.36	1347.90		
Molecular Weight (lb/lbmol)	21.38	37.23	22.66	21.38	21.38	54.60	54.60	53.09	58.94	0.00	48.87	37.23	--		
Operating Hours (hr/yr)	1,000	876	22	876	876	876	876	876	876	0.00	876	876	7884	--	--
Mass Flow (lb/hr)	53.62	489.37	124,397.16	140.87	73.96	540.06	15.29	20.02	10.02	0.00	1.27	9.79	125,751.41		
Volumetric Flow (scf/hr)	952	4,988	2,083,333	2,500	1,313	3,753	106.25	143.08	64.49	0.00	9.86	99.76	209,262.20		
Heat Release (MMBtu/hr)	1.21	10.60	2,797.33	3.18	1.67	11.52	0.33	0.42	0.21	0.00	0.02	0.21	2826.90		

Criteria Pollutant Emissions from Flare [*]			
Component	Emission Rate	Emission Factor	Emission Factor Units
	(lb/hr)		
NO _x	390.11	0.138	lb/MMBtu
CO	778.81	0.2755	lb/MMBtu
SO ₂	3.20	--	--
PM ₁₀	15.94	7.60	lb/MMscf
PM _{2.5}	15.94	7.60	lb/MMscf
N ₂ O	0.62	0.00022	lb/MMBtu
H ₂ S	0.03	--	--

LPS Vapor Controls / Flare DRE	
LPS VRU Collection Efficiency (Normal Operations)	98%
LPS VRU Downtime (MSS Operations)	10.00%
Flare Destruction Efficiency C4+	98%
Flare Destruction Efficiency C3	98%

(876 hrs)

H2S molecular weight	34.08
SO2 molecular weight	64.06
Molar Volume (scf/bmol)	379.484
Flare Operating Hours	8760

Footnotes:
^a Uncontrolled stream properties determined via ProMax.
^b Tank emissions determined in ProMax are calculated at the maximum daily liquid surface temperature.
^c Pilot fuel gas emissions are conservatively calculated based on observed flowrates
^d Controlled Emissions Were Calculated by the Following: Uncontrolled Emissions * (1 - VRU Efficiency) * (1 - Flare Destruction Efficiency)
^e Flare CO and NOx emission factors from TCEQ Air Permit Technical Guidance for Chemical Sources. PM and PM2.5 emission factors from AP-42, Table 1.4-1 and 1.4-2, July 1998. SO2 emissions assume 100% conversion of H2S to SO2.
^f Blowdowns are estimated to be @ 952 SCF per blowdown. XTO conservatively estimates 1000 blowdowns per year and 1 blowdown per hour
^g XTO conservatively estimates 46 MMscf of inlet gas flaring per year @ 2.08 MMscf/hr max rate
^h GHG emissions source is 40 CFR § 98.233 (n), 40 CFR § 98.233 (v) for CH4 and CO2 mass emissions, 40 CFR § 98.233 (z) for N2O mass emissions

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
HPF FLARE BLOWDOWN GAS ROUTED TO FLARE (EXAMPLE CALCULATION)

Greenhouse Gas Emissions Sample Calculation

1) $E_{s,CH_4} = V_a * X_{CH_4} * [(1-\eta) * Z_L + Z_U]$ = 10,823.63 SCF/Yr

V_a = 951,570.00
X_{CH₄} = 0.568724734
N = 0.98
Z_L = 1.00
Z_U = 0.00

Source	Annual Volume
17. HPF Blowdowns	951,570.00
Total	951,570.00

2) $E_{s,CO_2} (uncombusted) = V_a * X_{CO_2}$ = 2,263.40 SCF/Yr

V_a = 951,570.00
X_{CO₂} = 0.0024

3) $E_{s,CO_2} (combusted) = \Sigma (\eta * V_a * Y_j * R_j * Z_L)$

N = 0.98
V_a = 951,570.00
Y_j = Methane 0.5687
 Ethane 0.1848
 Propane 0.1321
 Butane 0.0686
 Pentane + 0.0272
Z_L = 1.00

R_j = 1
 2
 3
 4
 5

E_{a,CO₂} = 530,357.77
 344,742.93
 369,691.37
 255,859.14
 126,664.32
1,627,315.54 SCF/Yr

4) $Mass_{s,i} = E_{s,i} * \rho_i * 10^3$

E_{s,i} (CH₄) = 10,823.63
E_{s,i} (CO₂) = 1,629,578.94
ρ_i (CH₄) = 0.0192 kg/ft³ = 0.21 metric tons
ρ_i (CO₂) = 0.0526 kg/ft³ = 85.72 metric tons

5) $CO_2e = CO_2 + (CH_4 * GWP)$ short tons CO₂e

CO₂ = 85.72 = 94.49 94.49
CH₄ = 0.21 = 0.23 5.73
CH₄ GWP = 25 = 100.21

Footnotes:

* Source is 40 CFR § 98.233 (n), 40 CFR § 98.233(v) for CH₄ and CO₂ mass emissions, 40 CFR § 98.233(z) for N₂O mass emissions.

**XTO ENERGY INC.
WILDCAT COMPRESSOR STATION
DEHYDRATOR 1-3 VAPORS ROUTED TO GLYCOL REGENERATOR HEATER (PER DEHYDRATOR)**

VOC/HAP Emissions for Dehydration Units (DEHY1 - DEHY3) - Routed to RB1 - RB3

Uncontrolled Maximum Hourly Emission Rates and Composition to Combustion Device(s) ^a							
Stream Promax Stream Name	DEHY1-3 Still Column Emissions		Total Vapors to Combustion Device(s) (Uncontrolled)		Destruction Efficiency (%)	Total Combustion Device(s) Exhaust (controlled)	
	13. BTEX Cond Vapors to Combustion	13. BTEX Cond Vapors to Combustion	(lb/hr)	(ton/yr)		(lb/hr)	(ton/yr)
Triethylene Glycol	0.00	5.23E-08	0.00	0.00	98%	0.00	0.00
Carbon Dioxide	1.73	7.59	1.73	7.59	0%	1.73	7.59
Nitrogen	0.02	0.07	0.02	0.07	0%	0.02	0.07
Methane	7.30	31.99	7.30	31.99	98%	0.15	0.64
Ethane	17.44	76.38	17.44	76.38	98%	0.35	1.53
Propane	31.09	136.19	31.09	136.19	98%	0.62	2.72
Isobutane	5.17	22.65	5.17	22.65	98%	0.10	0.45
n-Butane	21.48	94.10	21.48	94.10	98%	0.43	1.88
Isopentane	7.27	31.85	7.27	31.85	98%	0.15	0.64
n-Pentane	9.88	43.29	9.88	43.29	98%	0.20	0.87
n-Hexane	1.93	8.47	1.93	8.47	98%	0.04	0.17
Cyclohexane	0.63	2.74	0.63	2.74	98%	0.01	0.05
i-C6	3.01	13.20	3.01	13.20	98%	0.06	0.26
i-C7	2.34	10.25	2.34	10.25	98%	0.05	0.20
Methylcyclohexane	0.15	0.66	0.15	0.66	98%	0.00	0.01
Octane	0.16	0.72	0.16	0.72	98%	0.00	0.01
Nonane	0.01	0.03	0.01	0.03	98%	0.00	0.00
Benzene	3.56	15.58	3.56	15.58	98%	0.07	0.31
Toluene	1.90	8.33	1.90	8.33	98%	0.04	0.17
Ethylbenzene	0.02	0.10	0.02	0.10	98%	0.00	0.00
o-Xylene	0.20	0.88	0.20	0.88	98%	0.00	0.02
Hydrogen Sulfide	0.11	0.47	0.11	0.47	98%	0.00	0.01
Water	0.98	4.28	0.98	4.28	0%	0.98	4.28
2,2,4-Trimethylpentane	0.08	0.35	0.08	0.35	98%	0.00	0.01
Decanes Plus	0.00	7.79E-06	0.00	0.00	98%	0.00	0.00
Total	116.47	510.16	116.47	510.16	--	5.00	21.91
Total VOC	88.90	389.37	88.90	389.37	--	1.78	7.79
Total HAP	7.80	34.17	7.80	34.17	--	0.16	0.68
Heating Value (Btu/scf)	2,390.72	2,390.72	2,390.72	2,390.72			
Molecular Weight (lb/lbmol)	43.23	43.23	--	--			
Operating Hours (hr/yr)	8,760	8,760	--	--			
Mass Flow	116.47 lb/hr	510.16 ton/yr	116.47 lb/hr	510.16 ton/yr			
Volumetric Flow	1,022 scf/hr	9 MMscf/yr	1,022 scf/hr	9 MMscf/yr			
Heat Release (MMBtu/hr)	2.44 MMBtu/hr	21,412.63 MMBtu/yr	2.44 MMBtu/hr	21,412.63 MMBtu/yr			

Criteria Pollutant Emissions Combustion Device(s) ^b			
Component	Emission Rate (lb/hr)	Emission Factor	Emission Factor Units
NO _x	0.34	0.138	lb/MMBtu
CO	0.67	0.2755	lb/MMBtu
SO ₂	0.20	--	--
PM ₁₀	0.01	7.60	lb/MMscf
PM _{2.5}	0.01	7.60	lb/MMscf
N ₂ O	0.00	0.00022	lb/MMBtu
H ₂ S	0.00	--	--

Combustion Device Destruction Efficiency C4+	98%
Combustion Device Efficiency C3	98%

H2S molecular weight	34.08
SO2 molecular weight	64.06
Molar Volume (scf/lbmol)	379.484
Combustor Operating Hours	8760

Combustion Emissions from Combustion Device(s)				
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Total NO _x	0.34	1.48	0.34	1.48
Total CO	0.67	2.95	0.67	2.95
Total SO ₂	0.20	0.88	0.20	0.88
Total PM ₁₀	0.008	0.03	0.01	0.03
Total PM _{2.5}	0.01	0.03	0.01	0.03
Total VOC (slip)	1.78	7.79	1.78	7.79
Total HAP (slip)	0.16	0.68	0.16	0.68
Total n-Hexane (slip)	0.04	0.17	0.13	0.00
Total Benzene (slip)	0.07	0.31	0.01	0.00
Total CH ₄	0.05	0.24	0.05	0.24
Total N ₂ O	0.001	0.01	0.00	0.01
Total CO ₂	398.63	1,746.02	398.63	1,746.02
Total CO _{2e}	400.35	1,753.51	400.35	1,753.51

Large Glycol Unit - MACT HH Check		
# of Units	3	Limit
Flow per Dehy	8,179	85,000 SCF/Day
Benzene Emissions	0.10	1 ton/yr

Footnotes:

^a Uncontrolled stream properties determined via ProMax.

^b Flare CO and NO_x emission factors from TCEQ Air Permit Technical Guidance for Chemical Sources. PM and PM_{2.5} emission factors from AP-42, Table 1.4-1 and 1.4-2, July 1998. SO₂ emissions assume 100% conversion of H₂S to SO₂.

Flash tank emissions are routed back to inlet slug catcher.

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
ROAD EMISSIONS

Total Suspended Particle Emissions	
$E = k(sL/2)^a(W/3)^b$	
a	0.7
b	0.45
k	4.9
Silt %	4.8
Vehicle Weight (tons)	28
E (lbs/VMT)	7.05
Rain Days	70
E-Annual (lbs/VMT)	5.70
Truckloads per year	210
Driving Distance Per Load (ft)	1000
Annual Distance (miles)	40
Control Efficiency - 15 MPH Limit	0.44
Emissions (lbs/hr)	0.60
Emissions (tpy)	0.06

PM₁₀ Emissions	
$E = k(sL/2)^a(W/3)^b$	
a	0.9
b	0.45
k	1.5
Silt %	4.8
Vehicle Weight (tons)	28
E (lbs/VMT)	1.80
Rain Days	70
E-Annual (lbs/VMT)	1.45
Truckloads per day	210
Driving Distance Per Load (ft)	1000
Annual Distance (miles)	40
Control Efficiency - 15 MPH Limit	0.44
Emissions (lbs/hr)	0.15
Emissions (tpy)	0.02

PM_{2.5} Emissions	
$E = k(sL/2)^a(W/3)^b$	
a	0.9
b	0.45
k	0.15
Silt %	4.8
Vehicle Weight (tons)	28
E (lbs/VMT)	0.18
Rain Days	70
E-Annual (lbs/VMT)	0.15
Truckloads per day	210
Driving Distance Per Load (ft)	1000
Annual Distance (miles)	40
Control Efficiency - 15 MPH Limit	0.44
Emissions (lbs/hr)	0.02
Emissions (tpy)	0.00

Emissions (lbs/hr) = Driving Distance (ft) / 5280 * E (lbs/VMT)
Emissions (tpy) = Annual Distance * E / 2000

References:

EPA. "Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources," Section 13.2.2 AP-42, Office of Air Quality Planning and Standards, Research Triangle Park, NC. 5th edition (11/2006).

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
FUGITIVE EMISSIONS - VOCs

Component Type	Service	Control (%) ^b	Estimated Components Count	Hours	Factors ^a (lb/hr/source)	Total VOC Weight % ^c	Emissions		
							lb/hour	lb/year	tons/year
Valves	Gas/Vapor		720	8760	0.00992080	29.75%	2.12	18614.13	9.31
	Light Oil		236	8760	0.00551156	97.81%	1.27	11145.24	5.57
	Heavy Oil			8760	0.00001852	97.81%	0.00	0.00	0.00
	Water/Light Oil		153	8760	0.00021605	97.81%	0.03	283.24	0.14
Pump Seals	Gas/Vapor			8760	0.00529109	29.75%	0.00	0.00	0.00
	Light Oil		15	8760	0.02866009	97.81%	0.42	3683.60	1.84
	Heavy Oil			8760	0.00113000	97.81%	0.00	0.00	0.00
	Water/Light Oil		10	8760	0.00005291	97.81%	0.00	4.53	0.00
Connectors	Gas/Vapor		1440	8760	0.00044092	29.75%	0.19	1654.59	0.83
	Light Oil		472	8760	0.00046297	97.81%	0.21	1872.40	0.94
	Heavy Oil			8760	0.00001653	97.81%	0.00	0.00	0.00
	Water/Light Oil		306	8760	0.00024251	97.81%	0.07	635.85	0.32
Flanges	Gas/Vapor		720	8760	0.00085980	29.75%	0.18	1613.22	0.81
	Light Oil		236	8760	0.00024251	97.81%	0.06	490.39	0.25
	Heavy Oil		0	8760	0.00000086	97.81%	0.00	0.00	0.00
	Water/Light Oil		153	8760	0.00000639	97.81%	0.00	8.38	0.00
Open-ended Lines	Gas/Vapor		72	8760	0.00440925	29.75%	0.09	827.29	0.41
	Light Oil			8760	0.00308647	97.81%	0.00	0.00	0.00
	Heavy Oil			8760	0.00030865	97.81%	0.00	0.00	0.00
	Water/Light Oil			8760	0.00055116	97.81%	0.00	0.00	0.00
Other:	Gas/Vapor		10	8760	0.01940068	29.75%	0.06	505.57	0.25
	Light Oil			8760	0.01653467	97.81%	0.00	0.00	0.00
	Heavy Oil			8760	0.00007055	97.81%	0.00	0.00	0.00
	Water/Light Oil		5	8760	0.03086472	97.81%	0.15	1322.32	0.66

Emission Component	lb/hr	lb/year	TPY
Total VOC	4.87	42660.75	21.33

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
FUGITIVE EMISSIONS - VOCs

Controlled VOC Emissions

Component Type	Service	Control (%) ^b	Estimated Components Count	Hours	Factors ^a (lb/hr/source)	Total VOC Weight % ^c	VOC Emissions		
							lb/hour	lb/year	tons/year
Valves	Gas/Vapor	67%	720	8760	0.009921	29.75%	0.70	6,143	3.07
	Light Oil	61%	236	8760	0.005512	97.81%	0.50	4,347	2.17
	Heavy Oil		0	8760	0.000019	97.81%	0.00	0	0.00
	Water/Light Oil		153	8760	0.000216	97.81%	0.03	283	0.14
Pump Seals	Gas/Vapor		0	8760	0.005291	29.75%	0.00	0	0.00
	Light Oil	45%	15	8760	0.028660	97.81%	0.23	2,026	1.01
	Heavy Oil		0	8760	0.001130	97.81%	0.00	0	0.00
	Water/Light Oil		10	8760	0.000053	97.81%	0.00	5	0.00
Connectors	Gas/Vapor		1440	8760	0.000441	29.75%	0.19	1,655	0.83
	Light Oil		472	8760	0.000463	97.81%	0.21	1,872	0.94
	Heavy Oil		0	8760	0.000017	97.81%	0.00	0	0.00
	Water/Light Oil		306	8760	0.000243	97.81%	0.07	636	0.32
Flanges	Gas/Vapor		720	8760	0.000860	29.75%	0.18	1,613	0.81
	Light Oil		236	8760	0.000243	97.81%	0.06	490	0.25
	Heavy Oil		0	8760	0.000001	97.81%	0.00	0	0.00
	Water/Light Oil		153	8760	0.000006	97.81%	0.00	8	0.00
Open-ended Lines	Gas/Vapor		72	8760	0.004409	29.75%	0.09	827	0.41
	Light Oil		0	8760	0.003086	97.81%	0.00	0	0.00
	Heavy Oil		0	8760	0.000309	97.81%	0.00	0	0.00
	Water/Light Oil		0	8760	0.000551	97.81%	0.00	0	0.00
Other:	Gas/Vapor		10	8760	0.019401	29.75%	0.06	506	0.25
	Light Oil		0	8760	0.016535	97.81%	0.00	0	0.00
	Heavy Oil		0	8760	0.000071	97.81%	0.00	0	0.00
	Water/Light Oil		5	8760	0.030865	97.81%	0.15	1,322	0.66

Emission Component	lb/hr	lb/year	TPY
Controlled VOC Emissions	2.48	21,733	10.87

Footnotes:

^a Factors are taken from EPA Document EPA-453/R-095-017, November 1995, Table 2-4

^b Control efficiencies are taken from EPA Document EPA-453/R-095-017, November 1995, Table 5-2

Valves w/ Gas Vapor	67%	Pump	45%
Light Liquid	61%	Flange/Connector	0%

^c Gas/Vapor analysis based on inlet gas. Liquid Analysis based on liquid from condensate from Low Pressure Separator

XTO ENERGY, INC.
WILDCAT COMPRESSOR STATION
FUGITIVE EMISSIONS - HAPs

Component Type	Service	Estimated Components Count	Hours	Factors	Total HAPs Weight % ^b	Emissions		
						lb/hour	lb/year	tons/year
Valves	Gas/Vapor	720	8760	0.00992080	0.84%	0.060	524.326	0.262
	Light Oil	236	8760	0.00551156	11.04%	0.144	1258.113	0.629
	Heavy Oil	0	8760	0.00001852	11.04%	0.000	0.000	0.000
	Water/Light Oil	153	8760	0.00021605	11.04%	0.004	31.973	0.016
Pump Seals	Gas/Vapor	0	8760	0.00529109	0.84%	0.000	0.000	0.000
	Light Oil	15	8760	0.02866009	11.04%	0.047	415.817	0.208
	Heavy Oil	0	8760	0.00113000	11.04%	0.000	0.000	0.000
	Water/Light Oil	10	8760	0.00005291	11.04%	0.000	0.512	0.000
Connectors	Gas/Vapor	1440	8760	0.00044092	0.84%	0.005	46.607	0.023
	Light Oil	472	8760	0.00046297	11.04%	0.024	211.363	0.106
	Heavy Oil	0	8760	0.00001653	11.04%	0.000	0.000	0.000
	Water/Light Oil	306	8760	0.00024251	11.04%	0.008	71.776	0.036
Flanges	Gas/Vapor	720	8760	0.00085980	0.84%	0.005	45.442	0.023
	Light Oil	236	8760	0.00024251	11.04%	0.006	55.357	0.028
	Heavy Oil	0	8760	0.00000086	11.04%	0.000	0.000	0.000
	Water/Light Oil	153	8760	0.00000639	11.04%	0.000	0.946	0.000
Open-ended Lines	Gas/Vapor	72	8760	0.00440925	0.84%	0.003	23.303	0.012
	Light Oil	0	8760	0.00308647	11.04%	0.000	0.000	0.000
	Heavy Oil	0	8760	0.00030865	11.04%	0.000	0.000	0.000
	Water/Light Oil	0	8760	0.00055116	11.04%	0.000	0.000	0.000
Other:	Gas/Vapor	10	8760	0.01940068	0.84%	0.002	14.241	0.007
	Light Oil	0	8760	0.01653467	11.04%	0.000	0.000	0.000
	Heavy Oil	0	8760	0.00007055	11.04%	0.000	0.000	0.000
	Water/Light Oil	5	8760	0.03086472	11.04%	0.017	149.268	0.075

Emission Component	lb/hr	lb/year	TPY
Gas/Vapor	0.07	653.92	0.33
Oil	0.25	2195.13	1.10
Total HAPs	0.33	2849.04	1.42
Benzene	0.01	129.08	0.06
n-Hexane	0.25	2195.82	1.10

Footnotes:

^a Factors are taken from EPA Document EPA-453/R-095-017, November 1995, Table 2-4

^b HAP WT% taken from samples for Inlet Separator Liquid and Inlet Separator Gas.

Tab 7
Section 7 - Information Used To Determine
Emissions

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
- If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
- If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
- If an older version of AP-42 is used, include a complete copy of the section.
- If an EPA document or other material is referenced, include a complete copy.
- Fuel specifications sheet.
- If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.

The Wildcat Compressor Station gas inlet composition was obtained from the simulated using oil and gas samples entering a tank battery that will flow into the station. The PLU Brush Draw 18 No. 104H hydrocarbon sample was used to estimate emissions and sales gas compositions for the Poker Lake Unit 18 Twin Wells Ranch Tank Battery (GCP-O&G-8579). The PLU 18 Brushy Draw No. 104H analysis is representative of the hydrocarbons from the surrounding wells and batteries. The sales gas composition from this battery was used as the inlet gas composition for the station.

All supporting documentation is provided in this section.

FESCO, Ltd.
1100 Fesco Ave. - Alice, Texas 78332

For: XTO Energy, Inc.
 22777 Springwoods Village Pkwy.
 Spring, Texas 77389

Sample: PLU 18 Brushy Draw Tank Battery No. 104H
 First Stage Separator
 Spot Gas Sample @ 130 psig & 109 °F

Date Sampled: 08/20/2019

Job Number: 192971.001

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	< 0.001	
Nitrogen	1.177	
Carbon Dioxide	0.114	
Methane	73.146	
Ethane	12.878	3.529
Propane	6.712	1.895
Isobutane	0.928	0.311
n-Butane	2.317	0.748
2-2 Dimethylpropane	0.013	0.005
Isopentane	0.541	0.203
n-Pentane	0.647	0.240
Hexanes	0.552	0.233
Heptanes Plus	<u>0.975</u>	<u>0.432</u>
Totals	100.000	7.596

Computed Real Characteristics Of Heptanes Plus:

Specific Gravity ----- 3.565 (Air=1)
 Molecular Weight ----- 102.78
 Gross Heating Value ----- 5475 BTU/CF

Computed Real Characteristics Of Total Sample:

Specific Gravity ----- 0.804 (Air=1)
 Compressibility (Z) ----- 0.9953
 Molecular Weight ----- 23.18
 Gross Heating Value
 Dry Basis ----- 1405 BTU/CF
 Saturated Basis ----- 1381 BTU/CF

*Hydrogen Sulfide tested on location by: Stain Tube Method (GPA 2377)
 Results: <0.013 Gr/100 CF, <0.2 PPMV or <0.001 Mol %

Base Conditions: 15.025 PSI & 60 Deg F

Sampled By: (14) R. Perez
 Analyst: NG
 Processor: RG
 Cylinder ID: T-1897

Certified: FESCO, Ltd. - Alice, Texas

David Dannhaus 361-661-7015

**CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286
TOTAL REPORT**

COMPONENT	MOL %	GPM	WT %
Hydrogen Sulfide*	< 0.001		< 0.001
Nitrogen	1.177		1.423
Carbon Dioxide	0.114		0.216
Methane	73.146		50.631
Ethane	12.878	3.529	16.708
Propane	6.712	1.895	12.770
Isobutane	0.928	0.311	2.327
n-Butane	2.317	0.748	5.811
2,2 Dimethylpropane	0.013	0.005	0.040
Isopentane	0.541	0.203	1.684
n-Pentane	0.647	0.240	2.014
2,2 Dimethylbutane	0.008	0.003	0.030
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.050	0.021	0.186
2 Methylpentane	0.167	0.071	0.621
3 Methylpentane	0.087	0.036	0.323
n-Hexane	0.240	0.101	0.892
Methylcyclopentane	0.095	0.034	0.345
Benzene	0.016	0.005	0.054
Cyclohexane	0.122	0.043	0.443
2-Methylhexane	0.034	0.016	0.147
3-Methylhexane	0.038	0.018	0.164
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C7's	0.093	0.041	0.398
n-Heptane	0.087	0.041	0.376
Methylcyclohexane	0.117	0.048	0.496
Toluene	0.026	0.009	0.103
Other C8's	0.116	0.055	0.552
n-Octane	0.045	0.024	0.222
Ethylbenzene	0.004	0.002	0.018
M & P Xylenes	0.021	0.008	0.096
O-Xylene	0.006	0.002	0.027
Other C9's	0.080	0.042	0.436
n-Nonane	0.023	0.013	0.127
Other C10's	0.037	0.022	0.226
n-Decane	0.007	0.004	0.043
Undecanes (11)	<u>0.008</u>	<u>0.005</u>	<u>0.051</u>
Totals	100.000	7.596	100.000

Computed Real Characteristics of Total Sample

Specific Gravity -----	0.804	(Air=1)
Compressibility (Z) -----	0.9953	
Molecular Weight -----	23.18	

Gross Heating Value

Dry Basis -----	1405	BTU/CF
Saturated Basis -----	1381	BTU/CF

FESCO, Ltd.
1100 Fesco Ave. - Alice, Texas 78332

Sample: PLU 18 Brushy Draw Tank Battery No. 104H
 First Stage Separator
 Spot Gas Sample @ 130 psig & 109 °F

Date Sampled: 08/20/2019

Job Number: 192971.001

GLYCALC FORMAT

COMPONENT	MOL%	GPM	Wt %
Carbon Dioxide	0.114		0.216
Hydrogen Sulfide	< 0.001		< 0.001
Nitrogen	1.177		1.423
Methane	73.146		50.631
Ethane	12.878	3.529	16.708
Propane	6.712	1.895	12.770
Isobutane	0.928	0.311	2.327
n-Butane	2.330	0.753	5.851
Isopentane	0.541	0.203	1.684
n-Pentane	0.647	0.240	2.014
Cyclopentane	0.000	0.000	0.000
n-Hexane	0.240	0.101	0.892
Cyclohexane	0.122	0.043	0.443
Other C6's	0.312	0.132	1.160
Heptanes	0.347	0.150	1.430
Methylcyclohexane	0.117	0.048	0.496
2,2,4 Trimethylpentane	0.000	0.000	0.000
Benzene	0.016	0.005	0.054
Toluene	0.026	0.009	0.103
Ethylbenzene	0.004	0.002	0.018
Xylenes	0.027	0.011	0.123
Octanes Plus	<u>0.316</u>	<u>0.165</u>	<u>1.657</u>
Totals	100.000	7.596	100.000

Real Characteristics Of Octanes Plus:

Specific Gravity ----- 4.212 (Air=1)
 Molecular Weight ----- 121.44
 Gross Heating Value ----- 6478 BTU/CF

Real Characteristics Of Total Sample:

Specific Gravity ----- 0.804 (Air=1)
 Compressibility (Z) ----- 0.9953
 Molecular Weight ----- 23.18
 Gross Heating Value
 Dry Basis ----- 1405 BTU/CF
 Saturated Basis ----- 1381 BTU/CF

September 20, 2019

FESCO, Ltd.
1100 FESCO Avenue - Alice, Texas 78332

For: XTO Energy, Inc.
22777 Springwoods Village Pkwy.
Spring, Texas 77389

Sample: PLU 18 Brushy Draw Tank Battery No. 104H
First Stage Separator Hydrocarbon Liquid
Sampled @ 130 psig & 109 °F

Date Sampled: 08/21/19

Job Number: 192971.002

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2186-M

COMPONENT	MOL %	LIQ VOL %	WT %
Nitrogen	0.038	0.007	0.007
Carbon Dioxide	0.011	0.003	0.003
Methane	2.990	0.839	0.323
Ethane	2.773	1.228	0.562
Propane	4.351	1.985	1.293
Isobutane	1.270	0.688	0.497
n-Butane	4.521	2.360	1.771
2,2 Dimethylpropane	0.060	0.038	0.029
Isopentane	2.401	1.454	1.168
n-Pentane	3.658	2.196	1.779
2,2 Dimethylbutane	0.043	0.030	0.025
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.322	0.219	0.187
2 Methylpentane	1.363	0.937	0.792
3 Methylpentane	0.817	0.552	0.475
n-Hexane	2.668	1.817	1.550
Heptanes Plus	<u>72.715</u>	<u>85.647</u>	<u>89.539</u>
Totals:	100.000	100.000	100.000

Characteristics of Heptanes Plus:

Specific Gravity ----- 0.8139 (Water=1)
°API Gravity ----- 42.35 @ 60°F
Molecular Weight ----- 182.7
Vapor Volume ----- 13.79 CF/Gal
Weight ----- 6.78 Lbs/Gal

Characteristics of Total Sample:

Specific Gravity ----- 0.7786 (Water=1)
°API Gravity ----- 50.25 @ 60°F
Molecular Weight ----- 148.4
Vapor Volume ----- 16.24 CF/Gal
Weight ----- 6.49 Lbs/Gal

Base Conditions: 15.025 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Sampled By: (14) Perez
Analyst: ANB
Processor: ANBdjv
Cylinder ID: W-0360

David Dannhaus 361-661-7015

TANKS DATA INPUT REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Carbon Dioxide	0.011	0.003	0.003
Nitrogen	0.038	0.007	0.007
Methane	2.990	0.839	0.323
Ethane	2.773	1.228	0.562
Propane	4.351	1.985	1.293
Isobutane	1.270	0.688	0.497
n-Butane	4.580	2.398	1.800
Isopentane	2.401	1.454	1.168
n-Pentane	3.658	2.196	1.779
Other C-6's	2.545	1.737	1.478
Heptanes	9.560	6.545	6.040
Octanes	12.413	9.427	8.953
Nonanes	6.689	5.986	5.716
Decanes Plus	40.652	61.509	66.494
Benzene	0.199	0.092	0.105
Toluene	0.947	0.525	0.588
E-Benzene	0.143	0.091	0.102
Xylenes	1.561	0.998	1.117
n-Hexane	2.668	1.817	1.550
2,2,4 Trimethylpentane	<u>0.551</u>	<u>0.474</u>	<u>0.424</u>
Totals:	100.000	100.000	100.000

Characteristics of Total Sample:

Specific Gravity -----	0.7786 (Water=1)
°API Gravity -----	50.25 @ 60°F
Molecular Weight-----	148.4
Vapor Volume -----	16.24 CF/Gal
Weight -----	6.49 Lbs/Gal

Characteristics of Decanes (C10) Plus:

Specific Gravity -----	0.8417 (Water=1)
Molecular Weight-----	242.7

Characteristics of Atmospheric Sample:

°API Gravity -----	47.21 @ 60°F
Reid Vapor Pressure Equivalent (D-6377)-----	8.87 psi

QUALITY CONTROL CHECK			
	Sampling Conditions	Test Samples	
Cylinder Number	-----	W-0360*	-----
Pressure, PSIG	130	129	-----
Temperature, °F	109	109	-----

* Sample used for analysis

TOTAL EXTENDED REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Nitrogen	0.038	0.007	0.007
Carbon Dioxide	0.011	0.003	0.003
Methane	2.990	0.839	0.323
Ethane	2.773	1.228	0.562
Propane	4.351	1.985	1.293
Isobutane	1.270	0.688	0.497
n-Butane	4.521	2.360	1.771
2,2 Dimethylpropane	0.060	0.038	0.029
Isopentane	2.401	1.454	1.168
n-Pentane	3.658	2.196	1.779
2,2 Dimethylbutane	0.043	0.030	0.025
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.322	0.219	0.187
2 Methylpentane	1.363	0.937	0.792
3 Methylpentane	0.817	0.552	0.475
n-Hexane	2.668	1.817	1.550
Methylcyclopentane	1.487	0.872	0.844
Benzene	0.199	0.092	0.105
Cyclohexane	2.289	1.290	1.298
2-Methylhexane	0.973	0.749	0.657
3-Methylhexane	0.915	0.696	0.618
2,2,4 Trimethylpentane	0.551	0.474	0.424
Other C-7's	1.228	0.900	0.821
n-Heptane	2.668	2.039	1.802
Methylcyclohexane	4.080	2.716	2.700
Toluene	0.947	0.525	0.588
Other C-8's	6.033	4.759	4.482
n-Octane	2.301	1.952	1.771
E-Benzene	0.143	0.091	0.102
M & P Xylenes	1.196	0.768	0.856
O-Xylene	0.365	0.230	0.261
Other C-9's	4.872	4.293	4.146
n-Nonane	1.817	1.693	1.570
Other C-10's	4.786	4.634	4.557
n-decane	1.297	1.319	1.244
Undecanes(11)	4.689	4.658	4.646
Dodecanes(12)	3.489	3.745	3.787
Tridecanes(13)	3.466	3.988	4.088
Tetradecanes(14)	2.807	3.459	3.594
Pentadecanes(15)	2.412	3.184	3.348
Hexadecanes(16)	1.869	2.638	2.797
Heptadecanes(17)	1.594	2.378	2.546
Octadecanes(18)	1.461	2.296	2.472
Nonadecanes(19)	1.275	2.086	2.260
Eicosanes(20)	1.015	1.727	1.882
Heneicosanes(21)	0.866	1.549	1.698
Docosanes(22)	0.743	1.385	1.527
Tricosanes(23)	0.635	1.228	1.362
Tetracosanes(24)	0.560	1.123	1.250
Pentacosanes(25)	0.500	1.039	1.162
Hexacosanes(26)	0.453	0.975	1.096
Heptacosanes(27)	0.419	0.935	1.055
Octacosanes(28)	0.340	0.785	0.889
Nonacosanes(29)	0.307	0.732	0.832
Triacotanes(30)	0.281	0.692	0.789
Hentriacotanes Plus(31+)	<u>5.388</u>	<u>14.955</u>	<u>17.614</u>
Total	100.000	100.000	100.000

FESCO, Ltd.
1100 Fesco Avenue - Alice, Texas 78332

For: XTO Energy, Inc.
 22777 Springwoods Village Pkwy.
 Spring, Texas 77389

Date Sampled: 08/21/19

Date Analyzed: 09/09/19

Sample: PLU 18 Brushy Draw Tank Battery No. 104H

Job Number: J192971

FLASH LIBERATION OF HYDROCARBON LIQUID		
	Separator HC Liquid	Stock Tank
Pressure, psig	130	0
Temperature, °F	109	70
Density of Separator HC Liquid (g/cc)	0.7597	-----
Gas Oil Ratio (1)	-----	66.1
Gas Specific Gravity (2)	-----	1.269

STOCK TANK FLUID PROPERTIES	
Shrinkage Recovery Factor (3)	0.9411
Density of Stock Tank HC Liquid (g/cc @ 60 °F)	0.7910
Oil API Gravity at 60 °F	47.21

Quality Control Check			
	Sampling Conditions	Test Samples	
Cylinder No.	-----	W-0360*	-----
Pressure, psig	130	129	-----
Temperature, °F	109	109	-----

(1) - Scf of flashed vapor per barrel of stock tank oil

(2) - Air = 1.000

(3) - Fraction of first stage separator liquid

Analyst: _____ R.E. _____

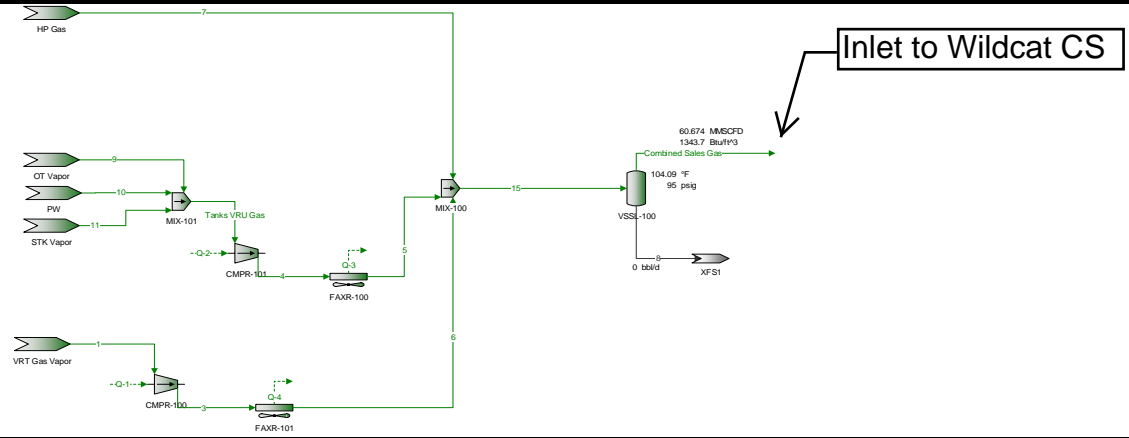
Base Conditions: 15.025 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

 David Dannhaus 361-661-7015

Sales Plant Schematic

Client Name:	XTO ENERGY INC	Job: DELAWARE DEVELOPMENT
Location:	PLU 18 Twin Wells Ranch TB	
Flowsheet:	Sales	



* User Specified Values
? Extrapolated or Approximate Values

	Process Streams Report All Streams Tabulated by Total Phase	
--	---	--

Client Name:	XTO ENERGY INC	Job: DELAWARE DEVELOPMENT
Location:	PLU 18 Twin Wells Ranch TB	
Flowsheet:	Sales	

Connections					
-------------	--	--	--	--	--

	Combined Sales Gas				
From Block	VSSL-100				
To Block	--				

Stream Composition					
--------------------	--	--	--	--	--

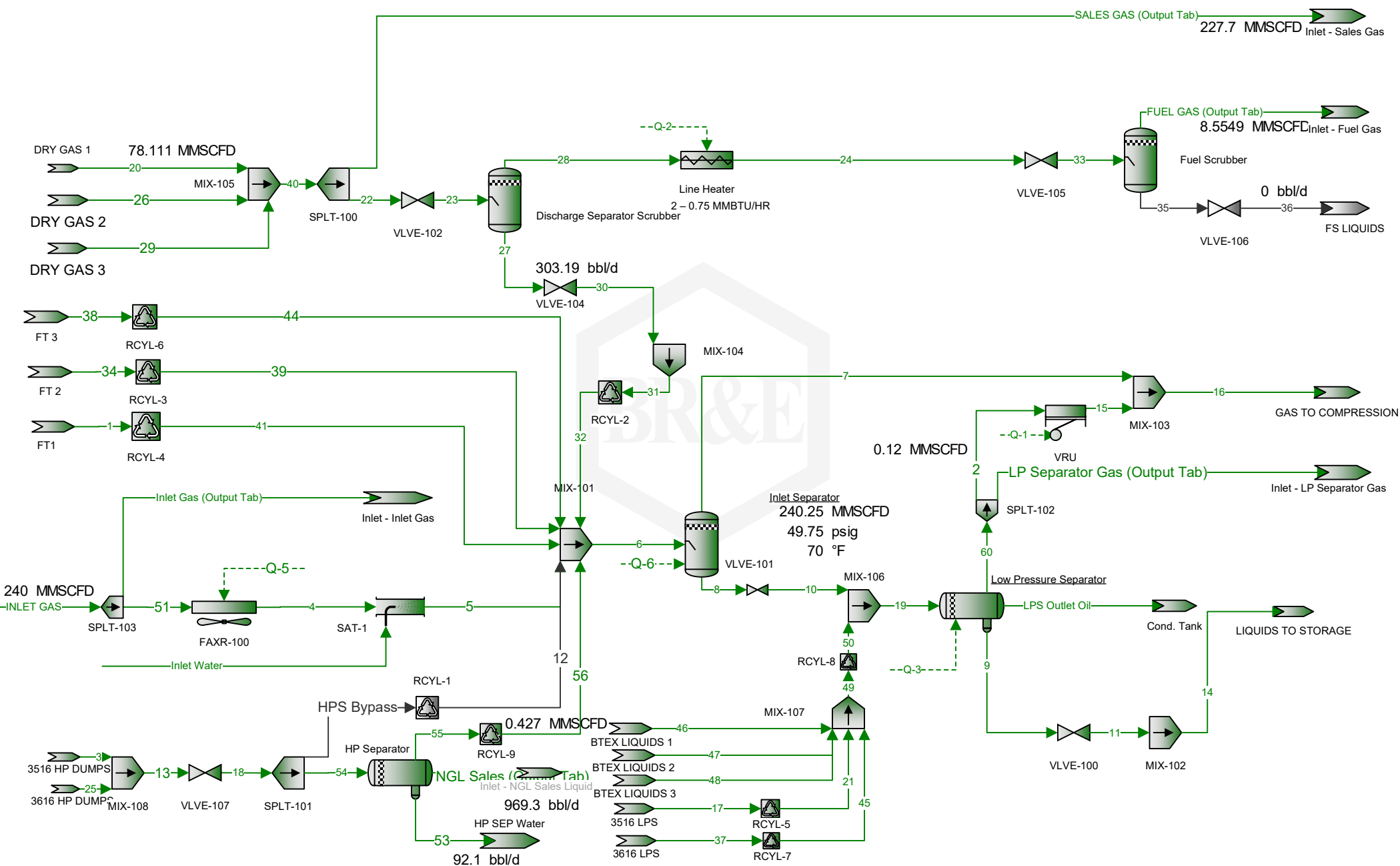
	Combined Sales Gas %				
Mole Fraction					
Carbon Dioxide	0.111969				
Nitrogen	1.15886				
Methane	72.1455				
Ethane	13.1133				
Propane	7.0447				
Isobutane	0.967756				
n-Butane	2.45017				
Isopentane	0.552886				
n-Pentane	0.653966				
n-Hexane	0.169468				
Cyclohexane	0.0179833				
i-C6	0.227721				
i-C7	0.293879				
Methylcyclohexane	0.00943582				
Octane	0.0925583				
Nonane	0.0182404				
Benzene	0.0112688				
Toluene	0.0161728				
Ethylbenzene	0.000923916				
o-Xylene	0.00788571				
H2S	0.000901876				
Water	0.923509				
2,2,4-Trimethylpentane	0.0108863				
Decanes Plus	3.78831E-05				

	Combined Sales Gas %				
Mass Fraction					
Carbon Dioxide	0.215587				
Nitrogen	1.42028				
Methane	50.6359				
Ethane	17.2509				
Propane	13.5905				
Isobutane	2.46086				
n-Butane	6.2304				
Isopentane	1.74519				
n-Pentane	2.06425				
n-Hexane	0.638923				
Cyclohexane	0.0662143				
i-C6	0.858549				
i-C7	1.28832				
Methylcyclohexane	0.0405329				
Octane	0.46256				
Nonane	0.10235				
Benzene	0.0385099				
Toluene	0.0651935				
Ethylbenzene	0.00429134				
o-Xylene	0.0366269				
H2S	0.00134473				
Water	0.727882				
2,2,4-Trimethylpentane	0.0544044				
Decanes Plus	0.000402248				

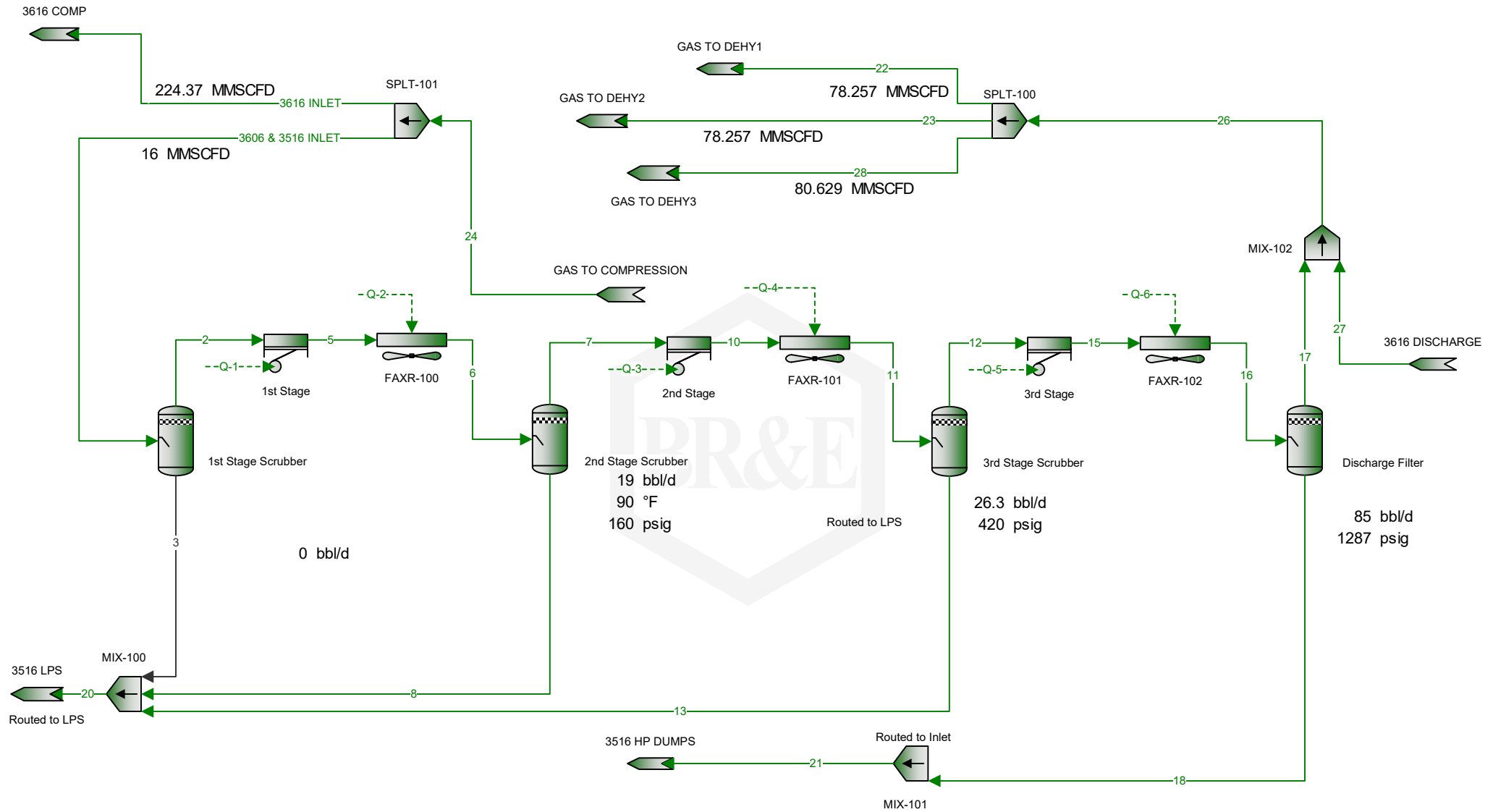
* User Specified Values
 ? Extrapolated or Approximate Values

		Process Streams Report All Streams Tabulated by Total Phase				
Client Name:	XTO ENERGY INC				Job:	DELAWARE DEVELOPMENT
Location:	PLU 18 Twin Wells Ranch TB					
Flowsheet:	Sales					
		Combined Sales Gas lb/h				
Mass Flow						
Carbon Dioxide		328.277				
Nitrogen		2162.68				
Methane		77103.8				
Ethane		26268.1				
Propane		20694.4				
Isobutane		3747.17				
n-Butane		9487.09				
Isopentane		2657.42				
n-Pentane		3143.26				
n-Hexane		972.895				
Cyclohexane		100.825				
i-C6		1307.32				
i-C7		1961.74				
Methylcyclohexane		61.7199				
Octane		704.345				
Nonane		155.849				
Benzene		58.6393				
Toluene		99.2708				
Ethylbenzene		6.53446				
o-Xylene		55.7722				
H2S		2.04764				
Water		1108.35				
2,2,4-Trimethylpentane		82.8421				
Decanes Plus		0.612507				
Stream Properties						
Property	Units	Combined Sales Gas				
Temperature	°F	104.086				
Pressure	psig	95				
Molecular Weight	lb/lbmol	22.8571				
Mass Flow	lb/h	152271				
Std Liquid Volumetric Flow	sgpm	831.818				
Std Vapor Volumetric Flow	MMSCFD	60.6737				
Gross Ideal Gas Heating Value	Btu/ft ³	1343.73				
Remarks						

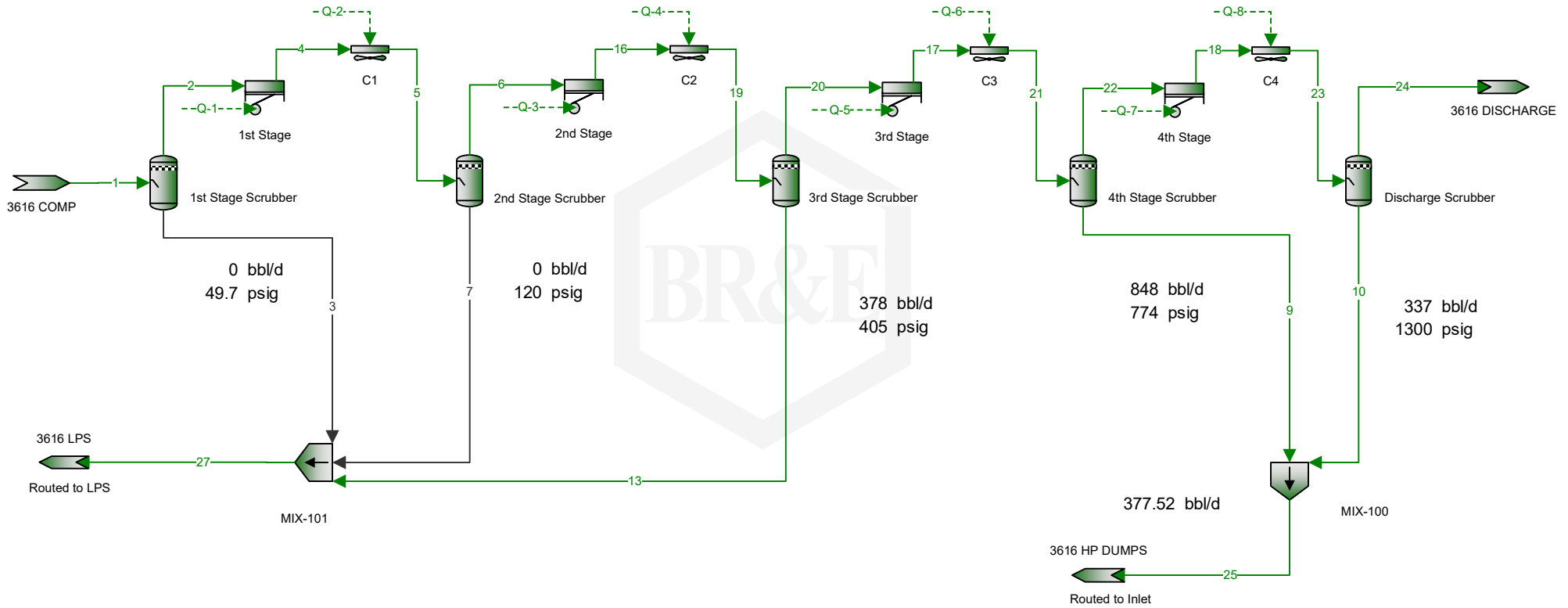
WILDCAT COMPRESSOR STATION



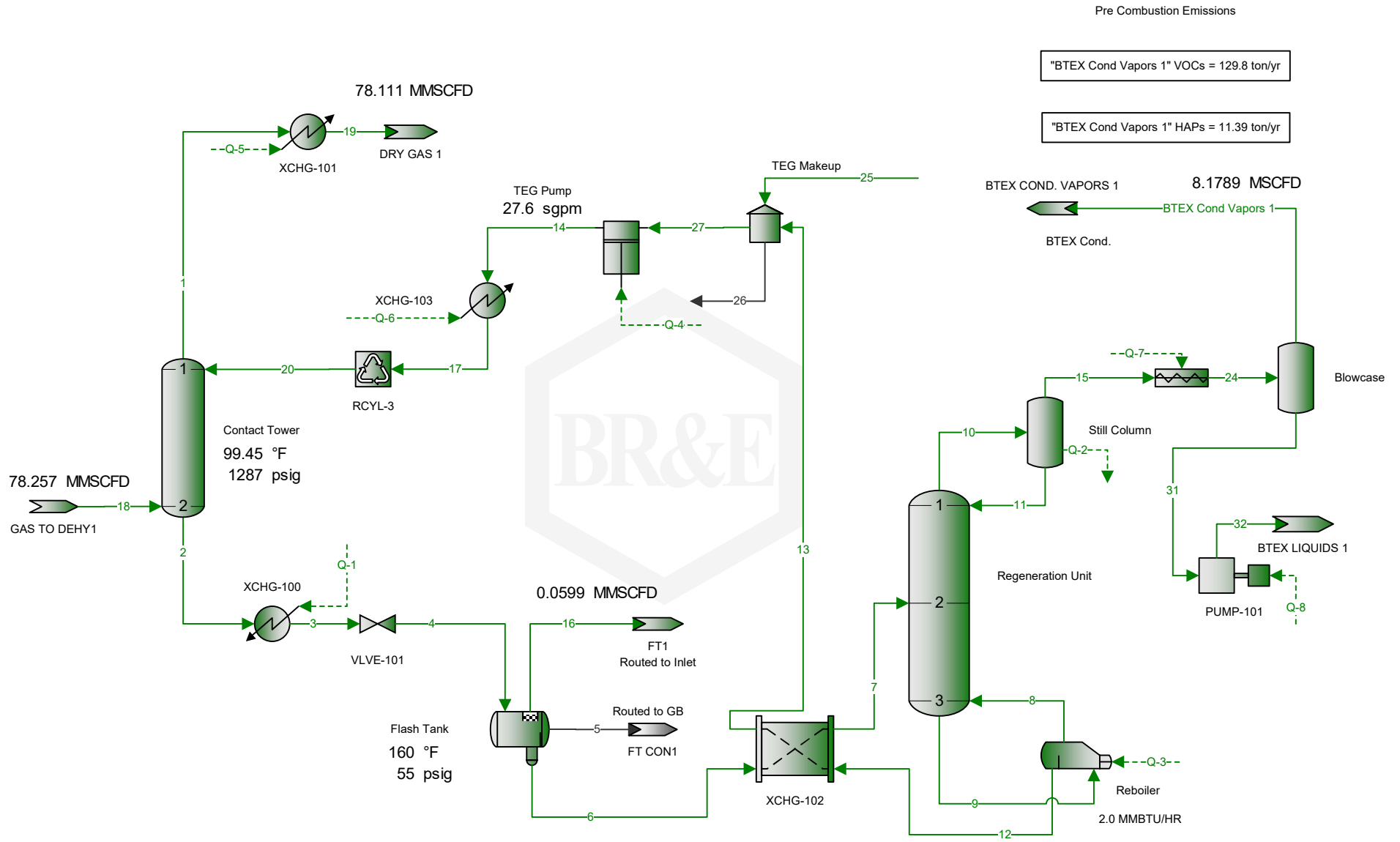
WILDCAT COMPRESSOR STATION



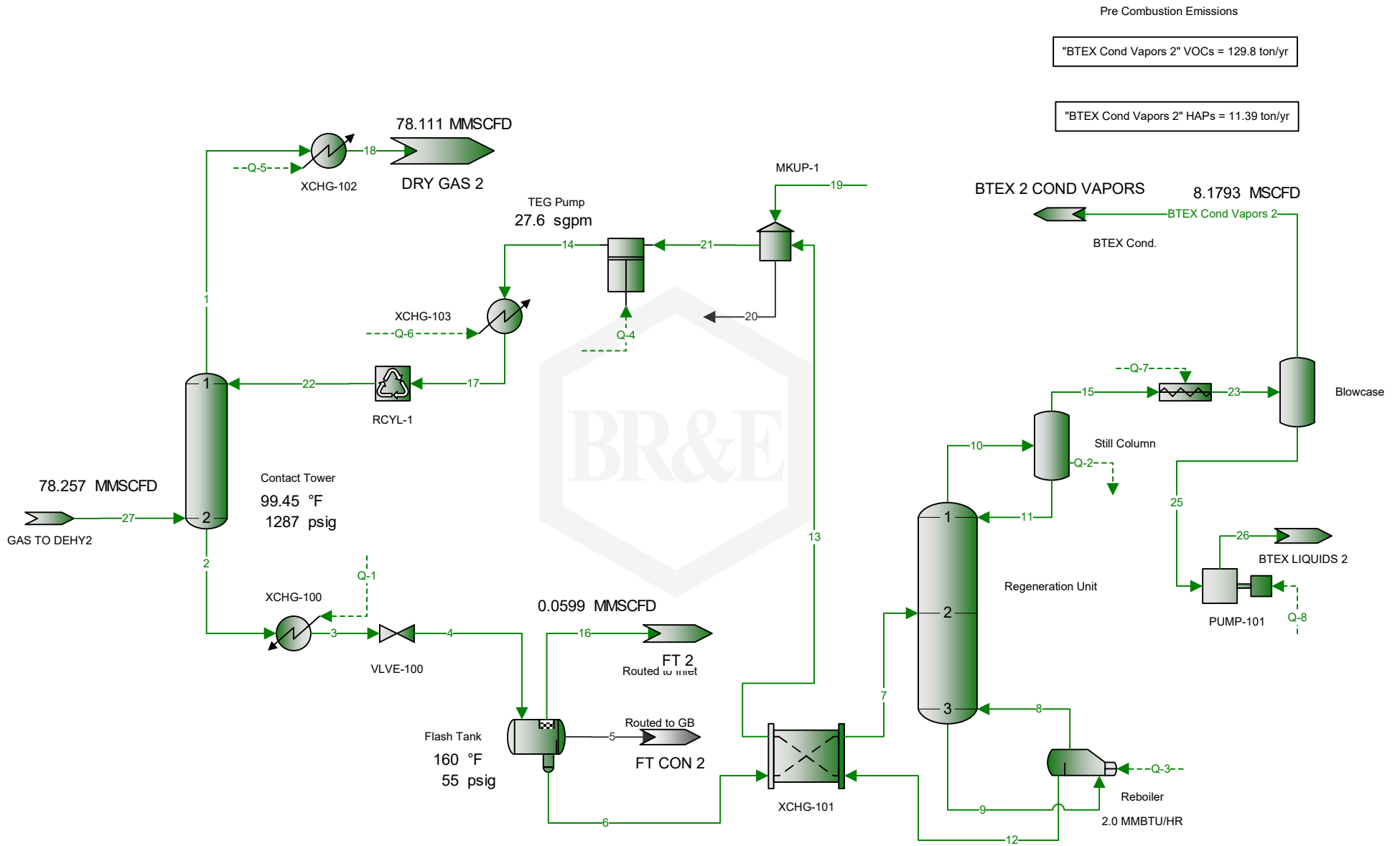
WILDCAT COMPRESSOR STATION



WILDCAT COMPRESSOR STATION



WILDCAT COMPRESSOR STATION

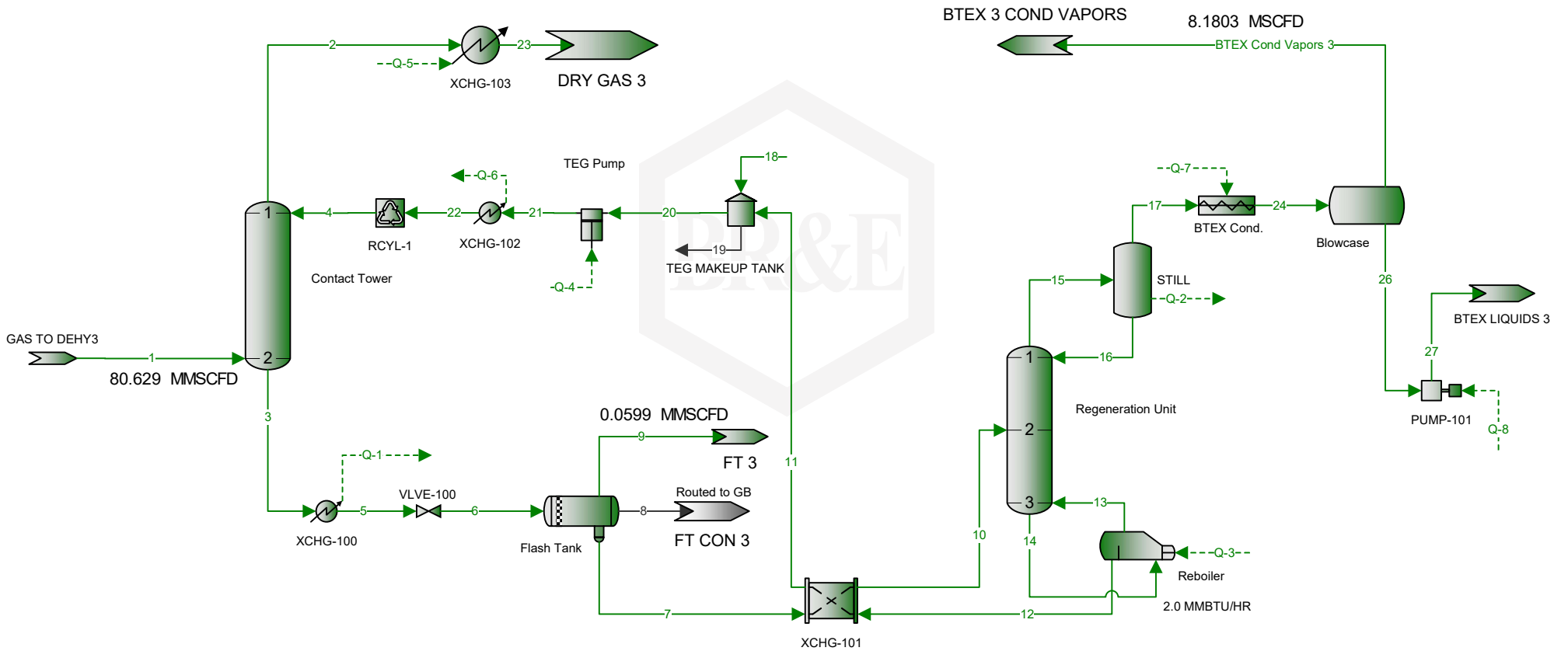


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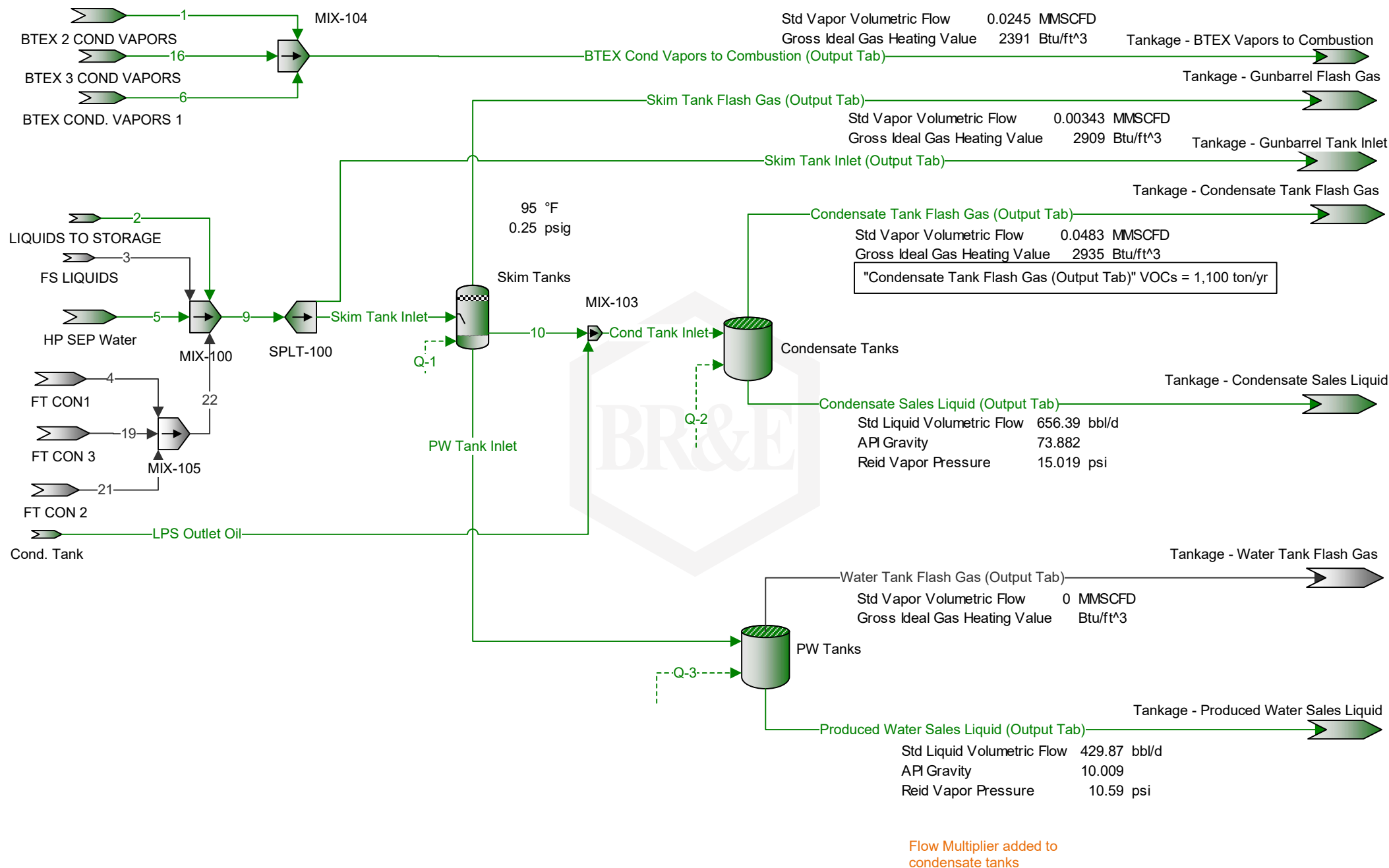
Pre Combustion Emissions

"BTEX Cond Vapors 3" VOCs = 129.8 ton/yr

"BTEX Cond Vapors 3" HAPs = 11.39 ton/yr

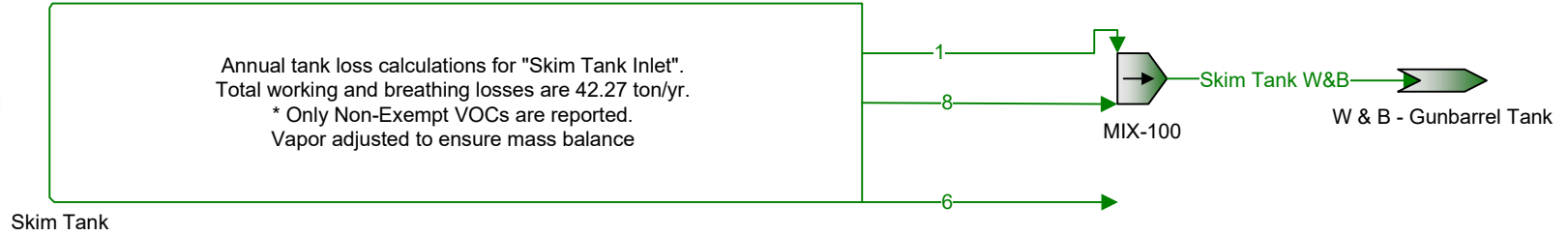


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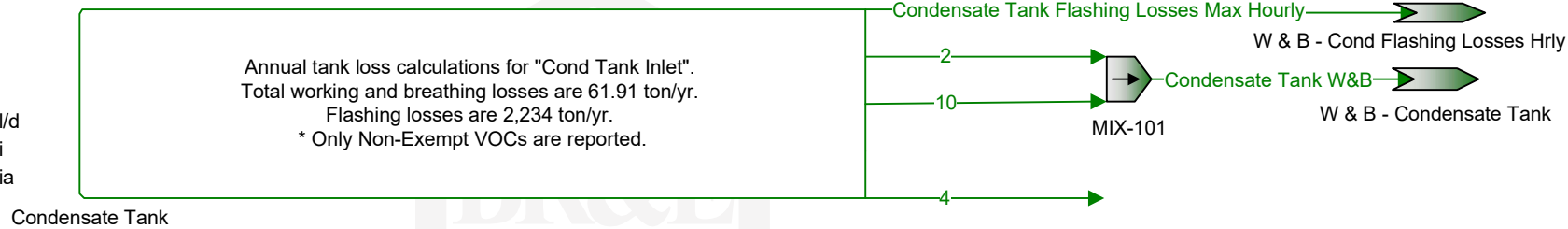


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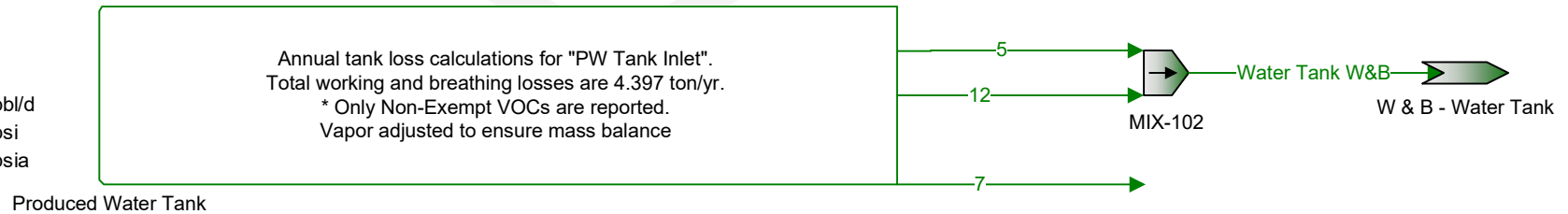
Std Liquid Volumetric Flow 441.94 bbl/d
 Reid Vapor Pressure 6.3534 psi
 True Vapor Pressure 7.3644 psia



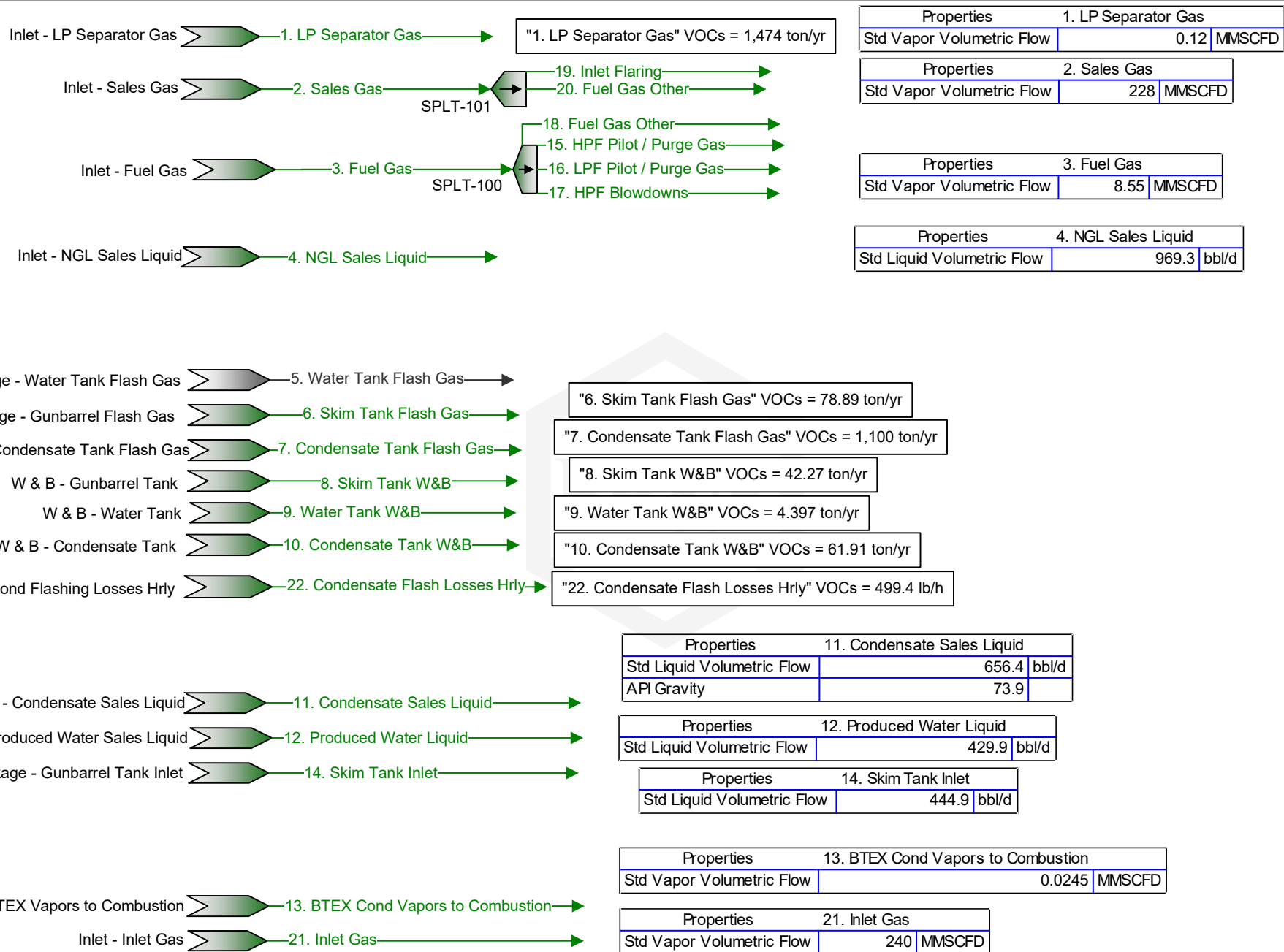
Std Liquid Volumetric Flow 624.29 bbl/d
 Reid Vapor Pressure 11.881 psi
 True Vapor Pressure 13.694 psia



Std Liquid Volumetric Flow 429.75 bbl/d
 Reid Vapor Pressure 6.011 psi
 True Vapor Pressure 7.4176 psia



WILDCAT COMPRESSOR STATION



Process Streams Report
All Streams
Tabulated by Total Phase

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Connections

	1. LP Separator Gas	2. Sales Gas	3. Fuel Gas	4. NGL Sales Liquid	5. Water Tank Flash Gas
From Block	Inlet - LP Separator Gas	Inlet - Sales Gas	Inlet - Fuel Gas	Inlet - NGL Sales Liquid	Tankage - Water Tank Flash Gas
To Block	--	SPLT-101	SPLT-100	--	--

Stream Composition

Mass Fraction	1. LP Separator Gas %	2. Sales Gas %	3. Fuel Gas %	4. NGL Sales Liquid %	5. Water Tank Flash Gas %
Triethylene Glycol	1.49937E-09	0.000577059	2.50479E-05	1.4835E-15	
Carbon Dioxide	0.128465	0.220014	0.237859	0.030462	
Nitrogen	0.133554	1.45276	1.61036	0.0141495	
Methane	13.154	51.7828	56.8725	2.46124	
Ethane	17.1985	17.5988	18.4841	5.57047	
Propane	27.1804	13.7859	13.2145	11.9902	
Isobutane	6.43707	2.47407	2.07482	4.0639	
n-Butane	17.4738	6.21986	4.78439	13.467	
Isopentane	4.88667	1.7002	1.00621	6.45743	
n-Pentane	5.67425	1.98555	1.0596	9.08517	
n-Hexane	1.39319	0.553915	0.152889	5.89567	
Cyclohexane	0.158407	0.0549354	0.0137626	0.693663	
i-C6	2.07018	0.773009	0.264882	6.56134	
i-C7	2.30479	0.996078	0.179257	17.0167	
Methylcyclohexane	0.0700094	0.0282317	0.00389946	0.648652	
Octane	0.465398	0.225614	0.0146104	10.2544	
Nonane	0.0572251	0.0233224	0.000538551	2.56757	
Benzene	0.245463	0.0291061	0.00898304	0.35046	
Toluene	0.19267	0.0373838	0.00526183	1.05975	
Ethylbenzene	0.0055545	0.0016919	0.000107779	0.0967535	
o-Xylene	0.0440768	0.0121902	0.000649821	0.870511	
Hydrogen Sulfide	0.0025171	0.00134946	0.00140693	0.000525606	
Water	0.634565	0.00321692	0.0034911	0.0208257	
2,2,4-Trimethylpentane	0.0891646	0.0394093	0.00589431	0.81902	
Decanes Plus	4.24095E-05	9.77871E-06	6.7711E-08	0.00404189	

Mole Fraction	1. LP Separator Gas %	2. Sales Gas %	3. Fuel Gas %	4. NGL Sales Liquid %	5. Water Tank Flash Gas %
Triethylene Glycol	3.71735E-10	8.7071E-05	3.56664E-06	6.16905E-16	
Carbon Dioxide	0.108681	0.113279	0.115572	0.043225	
Nitrogen	0.177504	1.1751	1.22924	0.0315427	
Methane	30.5285	73.1408	75.8072	9.58089	
Ethane	21.2955	13.262	13.1449	11.569	
Propane	22.9497	7.0841	6.40819	16.9807	
Isobutane	4.12348	0.964529	0.763339	4.3664	
n-Butane	11.1934	2.42484	1.76021	14.4694	
Isopentane	2.52175	0.53397	0.298221	5.58924	
n-Pentane	2.92818	0.623586	0.314047	7.86369	
n-Hexane	0.601927	0.145648	0.0379378	4.27241	
Cyclohexane	0.070079	0.0147909	0.00349685	0.514716	
i-C6	0.894424	0.203257	0.0657278	4.7548	
i-C7	0.856391	0.225249	0.0382542	10.6053	
Methylcyclohexane	0.0265475	0.00651528	0.000849247	0.412557	
Octane	0.151694	0.0447546	0.00273506	5.60608	
Nonane	0.0166123	0.00412043	8.97907E-05	1.25017	
Benzene	0.117	0.00844329	0.00245915	0.280184	
Toluene	0.0778559	0.00919366	0.00122117	0.718264	
Ethylbenzene	0.00194797	0.000361109	2.17086E-05	0.0569125	
o-Xylene	0.0154577	0.0026018	0.000130886	0.512053	

* User Specified Values
? Extrapolated or Approximate Values

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Process Streams Report
All Streams
Tabulated by Total Phase

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

	1. LP Separator Gas %	2. Sales Gas %	3. Fuel Gas %	4. NGL Sales Liquid %	5. Water Tank Flash Gas %
Mole Fraction					
Hydrogen Sulfide	0.00274983	0.000897208	0.000882758	0.000963101	
Water	1.31145	0.00404617	0.00414382	0.0721906	
2,2,4-Trimethylpentane	0.0290627	0.00781752	0.00110341	0.447757	
Decanes Plus	1.02933E-05	1.44445E-06	9.43872E-09	0.00164544	

	1. LP Separator Gas lb/h	2. Sales Gas lb/h	3. Fuel Gas lb/h	4. NGL Sales Liquid lb/h	5. Water Tank Flash Gas lb/h
Mass Flow					
Triethylene Glycol	7.33751E-09	3.26908	0.0050311	1.2341E-13	
Carbon Dioxide	0.628672	1246.4	47.7762	2.53408	
Nitrogen	0.653577	8230.02	323.455	1.17707	
Methane	64.3723	293354	11423.3	204.747	
Ethane	84.1648	99698.4	3712.7	463.398	
Propane	133.013	78098.1	2654.25	997.448	
Isobutane	31.5013	14015.8	416.746	338.069	
n-Butane	85.5122	35235.9	960.987	1120.29	
Isopentane	23.914	9631.77	202.106	537.182	
n-Pentane	27.7683	11248.3	212.831	755.78	
n-Hexane	6.81788	3137.97	30.7091	490.451	
Cyclohexane	0.7752	311.213	2.76434	57.7046	
i-C6	10.1309	4379.15	53.2039	545.827	
i-C7	11.279	5642.86	36.0054	1415.59	
Methylcyclohexane	0.342607	159.935	0.783241	53.9602	
Octane	2.27753	1278.12	2.93463	853.048	
Nonane	0.280044	132.123	0.108173	213.592	
Benzene	1.20123	164.888	1.80432	29.1541	
Toluene	0.942877	211.782	1.05688	88.1586	
Ethylbenzene	0.0271822	9.58472	0.0216483	8.04875	
o-Xylene	0.2157	69.0584	0.130522	72.4163	
Hydrogen Sulfide	0.012318	7.64477	0.282595	0.0437243	
Water	3.10539	18.2241	0.701219	1.73245	
2,2,4-Trimethylpentane	0.436348	223.256	1.18392	68.1328	
Decanes Plus	0.000207541	0.0553971	1.36003E-05	0.336238	

Stream Properties

Property	Units	1. LP Separator Gas	2. Sales Gas	3. Fuel Gas	4. NGL Sales Liquid	5. Water Tank Flash Gas
Temperature	°F	70	93.262	76.247	95.6601	
Pressure	psig	15	1272	120	400	0.25
Molecular Weight	lb/lbmol	37.2321	22.6592	21.3835	62.4485	
Mass Flow	lb/h	489.373	566507	20085.9	8318.83	0
Std Liquid Volumetric Flow	sgpm	2.10511	3129.35	114.846	28.2713	0
Std Vapor Volumetric Flow	MMSCFD	0.119709	227.701	8.55492	1.21323	0
Gross Ideal Gas Heating Value	Btu/ft ³	2124.36	1342.81	1273.9	3471.21	

Remarks

Process Streams Report
All Streams
Tabulated by Total Phase

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Connections

	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
From Block	Tankage - Gunbarrel Flash Gas	Tankage - Condensate Tank Flash Gas	W & B - Gunbarrel Tank	W & B - Water Tank	W & B - Condensate Tank
To Block	--	--	--	--	--

Stream Composition

	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
Mass Fraction	%	%	%	%	%
Triethylene Glycol	1.31371E-08	2.81993E-09	3.23825E-09	6.95864E-08	1.81679E-12
Carbon Dioxide	0.213369	0.0317358	0.207499	0.742571	0.0196511
Nitrogen	0.0220164	0.00346877	0.000804474	0.00204849	0.000129488
Methane	2.86434	1.21476	0.266323	0.54656	0.218436
Ethane	4.78644	7.90902	1.56742	1.28189	7.29306
Propane	15.8342	26.5032	13.8011	3.33052	24.908
Isobutane	6.93129	8.56002	9.56053	1.28564	8.33381
n-Butane	23.6206	25.3088	30.4462	6.41461	26.2733
Isopentane	9.80086	7.99565	10.823	3.56208	8.69585
n-Pentane	12.4907	9.51155	13.161	4.80499	10.3499
n-Hexane	4.05657	2.49711	3.63405	4.69159	2.97119
Cyclohexane	0.46334	0.283416	0.413235	0.905412	0.270021
i-C6	5.5966	3.6492	5.27757	4.81868	4.18332
i-C7	7.28632	4.19069	6.14025	17.1514	4.57869
Methylcyclohexane	0.229513	0.128212	0.187921	0.812115	0.143244
Octane	1.69289	0.866198	1.25635	14.5797	0.846333
Nonane	0.232799	0.109463	0.157815	1.93128	0.0935544
Benzene	0.66459	0.433403	0.610465	6.3949	0.316731
Toluene	0.617068	0.350752	0.507093	5.87941	0.261977
Ethylbenzene	0.0197943	0.0103003	0.0148597	0.178023	0.00764576
o-Xylene	0.159164	0.0819955	0.118198	1.43986	0.0517031
Hydrogen Sulfide	0.00425728	0.00142588	0.00616394	0.045084	0.000868944
Water	2.12471	0.19693	1.60322	18.2867	6.40215E-05
2,2,4-Trimethylpentane	0.288308	0.162674	0.238768	0.913389	0.182472
Decanes Plus	0.000188213	8.17191E-05	0.000115006	0.00148858	6.17235E-05

	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
Mole Fraction	%	%	%	%	%
Triethylene Glycol	4.6439E-09	9.80629E-10	1.27085E-09	2.26456E-08	6.60559E-13
Carbon Dioxide	0.257371	0.0376583	0.277871	0.824601	0.0243803
Nitrogen	0.041721	0.00646646	0.00169247	0.00357372	0.000252384
Methane	9.47824	3.95436	0.978391	1.66502	0.743448
Ethane	8.45021	13.736	3.07213	2.08346	13.2431
Propane	19.0623	31.3878	18.4456	3.69122	30.8419
Isobutane	6.33062	7.69114	9.69425	1.08101	7.82887
n-Butane	21.5736	22.7398	30.8721	5.39362	24.6814
Isopentane	7.21123	5.78738	8.84086	2.41283	6.58083
n-Pentane	9.19038	6.88462	10.7506	3.25474	7.83261
n-Hexane	2.49891	1.51326	2.48532	2.66066	1.88255
Cyclohexane	0.292261	0.175865	0.28938	0.52577	0.175183
i-C6	3.44759	2.21142	3.60932	2.73273	2.65055
i-C7	3.86017	2.18407	3.61147	8.3652	2.49495
Methylcyclohexane	0.124089	0.0681924	0.112797	0.404222	0.0796572
Octane	0.786733	0.396005	0.648201	6.23772	0.404543
Nonane	0.0963565	0.0445707	0.0725184	0.735906	0.0398279

* User Specified Values

? Extrapolated or Approximate Values

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Process Streams Report					
All Streams					
Tabulated by Total Phase					

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
Mole Fraction	%	%	%	%	%
Benzene	0.451659	0.289756	0.460594	4.001	0.221397
Toluene	0.355522	0.198801	0.324355	3.1185	0.155246
Ethylbenzene	0.00989767	0.0050667	0.00824904	0.0819497	0.00393222
o-Xylene	0.0795861	0.0403336	0.0656149	0.662812	0.0265909
Hydrogen Sulfide	0.00663126	0.00218489	0.0106591	0.0646493	0.00139213
Water	6.26084	0.570859	5.24478	49.6076	0.000194036
2,2,4-Trimethylpentane	0.133985	0.0743707	0.12319	0.390781	0.0872207
Decanes Plus	6.51325E-05	2.78199E-05	4.41846E-05	0.00047424	2.19696E-05

	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
Mass Flow	lb/h	lb/h	lb/h	lb/h	lb/h
Triethylene Glycol	2.62944E-09	7.81313E-09	3.24336E-10	8.83193E-10	2.77731E-13
Carbon Dioxide	0.0427066	0.0879296	0.0207827	0.00942474	0.00300405
Nitrogen	0.00440666	0.00961083	8.05745E-05	2.59995E-05	1.97947E-05
Methane	0.573307	3.3657	0.0266744	0.00693696	0.033392
Ethane	0.958023	21.9134	0.156989	0.0162698	1.11488
Propane	3.16928	73.4318	1.38229	0.0422712	3.80765
Isobutane	1.38732	23.7171	0.957563	0.0163175	1.27398
n-Butane	4.72774	70.1224	3.04943	0.0814145	4.01637
Isopentane	1.96168	22.1534	1.08401	0.04521	1.32932
n-Pentane	2.50007	26.3534	1.31817	0.0609852	1.58218
n-Hexane	0.811938	6.9187	0.363979	0.0595459	0.454203
Cyclohexane	0.0927392	0.785254	0.0413888	0.0114915	0.0412778
i-C6	1.12018	10.1107	0.528591	0.0611588	0.639499
i-C7	1.45838	11.611	0.614995	0.217686	0.699938
Methylcyclohexane	0.0459378	0.355234	0.0188218	0.0103074	0.0218976
Octane	0.338837	2.39995	0.125833	0.185046	0.129378
Nonane	0.0465956	0.303286	0.0158064	0.0245118	0.0143016
Benzene	0.13302	1.20082	0.0611429	0.0811643	0.0484183
Toluene	0.123508	0.971822	0.0507894	0.0746217	0.0400482
Ethylbenzene	0.0039619	0.0285388	0.00148832	0.00225948	0.0011688
o-Xylene	0.0318572	0.227183	0.0118385	0.0182747	0.00790379
Hydrogen Sulfide	0.000852111	0.00395065	0.000617368	0.000572208	0.000132834
Water	0.425268	0.545629	0.160576	0.232096	9.78688E-06
2,2,4-Trimethylpentane	0.057706	0.450718	0.0239145	0.0115928	0.0278943
Decanes Plus	3.76715E-05	0.000226417	1.15188E-05	1.88931E-05	9.43559E-06

Stream Properties					
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Property	Units	6. Skim Tank Flash Gas	7. Condensate Tank Flash Gas	8. Skim Tank W&B	9. Water Tank W&B	10. Condensate Tank W&B
Temperature	°F	95	75.67	81.8849	94.2043	75.6718
Pressure	psig	0.25	0.25	-3.09538	-11.1246	-0.62369
Molecular Weight	lb/lbmol	53.0853	52.2225	58.9351	48.8711	54.6007
Mass Flow	lb/h	20.0154	277.068	10.0158	1.2692	15.2869
Std Liquid Volumetric Flow	sgpm	0.0703477	1.01761	0.0337696	0.00355076	0.0552557
Std Vapor Volumetric Flow	MMSCFD	0.00343395	0.0483207	0.0015478	0.000236529	0.00254992
Gross Ideal Gas Heating Value	Btu/ft^3	2908.87	2934.58	3232.2	2160.54	3068.6

Remarks

* User Specified Values
 ? Extrapolated or Approximate Values

Process Streams Report	
All Streams	
Tabulated by Total Phase	

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Connections					
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	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
From Block	Tankage - Condensate Sales Liquid	Tankage - Produced Water Sales Liquid	Tankage - BTEX Vapors to Combustion	Tankage - Gunbarrel Tank Inlet	SPLT-100
To Block	--	--	--	--	--

Stream Composition					
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	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
Mass Fraction	%	%	%	%	%
Triethylene Glycol	6.00616E-07	0.0169937	1.02602E-08	0.0166051	2.50479E-05
Carbon Dioxide	0.000230545	0.0002222	1.48784	0.000908929	0.237859
Nitrogen	2.42576E-06	6.1297E-07	0.0146045	6.95542E-05	1.61036
Methane	0.00311937	0.000163547	6.27127	0.00922533	56.8725
Ethane	0.129875	0.000383582	14.9711	0.0165949	18.4841
Propane	1.55008	0.000996594	26.6951	0.0645571	13.2145
Isobutane	1.25422	0.000384704	4.44054	0.0368004	2.07482
n-Butane	5.5013	0.00191945	18.4457	0.148602	4.78439
Isopentane	4.36488	0.00106588	6.24253	0.104264	1.00621
n-Pentane	6.90558	0.0014378	8.48606	0.161224	1.0596
n-Hexane	6.56877	0.00140387	1.66001	0.145986	0.152889
Cyclohexane	0.930456	0.000270927	0.536803	0.0206468	0.0137626
i-C6	6.60355	0.00144189	2.58681	0.148094	0.264882
i-C7	23.4931	0.00513223	2.0085	0.516595	0.179257
Methylcyclohexane	1.04541	0.000243009	0.128461	0.0229268	0.00389946
Octane	23.2745	0.00514843	0.141649	0.50785	0.0146104
Nonane	9.67662	0.00215086	0.00562091	0.210839	0.000538551
Benzene	1.13089	0.00405095	3.05387	0.0280128	0.00898304
Toluene	3.17732	0.00337474	1.63274	0.0713339	0.00526183
Ethylbenzene	0.287163	0.000135014	0.0191214	0.00631059	0.000107779
o-Xylene	2.80862	0.00148729	0.172272	0.0617857	0.000649821
Hydrogen Sulfide	3.0261E-05	1.34905E-05	0.092223	2.79327E-05	0.00140693
Water	0.0018354	99.9513	0.838573	97.6724	0.0034911
2,2,4-Trimethylpentane	1.24855	0.000273314	0.0685916	0.0273828	0.00589431
Decanes Plus	0.0438344	9.79309E-06	1.52624E-06	0.000954583	6.7711E-08

	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
Mole Fraction	%	%	%	%	%
Triethylene Glycol	3.67003E-07	0.00203944	2.95358E-09	0.00202947	3.56664E-06
Carbon Dioxide	0.0004807	9.09936E-05	1.4615	0.000379066	0.115572
Nitrogen	7.94598E-06	3.94355E-07	0.0225376	4.55711E-05	1.22924
Methane	0.0178427	0.000183733	16.8994	0.0105546	75.8072
Ethane	0.396342	0.000229907	21.5239	0.0101295	13.1449
Propane	3.22568	0.000407321	26.1712	0.0268708	6.40819
Isobutane	1.98014	0.000119288	3.30278	0.011621	0.763339
n-Butane	8.68536	0.000595179	13.7195	0.0469261	1.76021
Isopentane	5.55147	0.000266252	3.7404	0.0265239	0.298221
n-Pentane	8.78286	0.000359156	5.08468	0.0410141	0.314047
n-Hexane	6.99464	0.0002936	0.832747	0.0310928	0.0379378
Cyclohexane	1.01451	5.8018E-05	0.275739	0.00450279	0.00349685
i-C6	7.03168	0.000301553	1.29768	0.0315417	0.0657278
i-C7	21.5144	0.000923089	0.866527	0.0946248	0.0382542

* User Specified Values
 ? Extrapolated or Approximate Values

Process Streams Report					
All Streams					
Tabulated by Total Phase					

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
Mole Fraction	%	%	%	%	%
Methylcyclohexane	0.977015	4.46054E-05	0.0565599	0.00428573	0.000849247
Octane	18.697	0.000812296	0.0536076	0.0816005	0.00273506
Nonane	6.92331	0.00030224	0.00189461	0.0301723	8.97907E-05
Benzene	1.32852	0.000934659	1.69013	0.00658219	0.00245915
Toluene	3.16435	0.000660106	0.766061	0.0142098	0.00122117
Ethylbenzene	0.248206	2.29197E-05	0.00778618	0.00109099	2.17086E-05
o-Xylene	2.42759	0.000252481	0.0701487	0.0106816	0.000130886
Hydrogen Sulfide	8.14775E-05	7.13396E-06	0.116981	1.5043E-05	0.000882758
Water	0.00934877	99.9911	2.01227	99.509	0.00414382
2,2,4-Trimethylpentane	1.00299	4.31222E-05	0.0259587	0.00439982	0.00110341
Decanes Plus	0.0262213	1.15056E-06	4.30115E-07	0.000114214	9.43872E-09

	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
Mass Flow	lb/h	lb/h	lb/h	lb/h	lb/h
Triethylene Glycol	3.92692E-05	1.0657	1.19504E-08	1.0657	3.52856E-05
Carbon Dioxide	0.0150734	0.0139344	1.73295	0.0583342	0.335078
Nitrogen	0.0001586	3.84402E-05	0.0170105	0.00446393	2.26855
Methane	0.203949	0.0102563	7.30441	0.592073	80.1176
Ethane	8.49143	0.0240549	17.4375	1.06505	26.039
Propane	101.346	0.0624978	31.093	4.14322	18.6156
Isobutane	82.0029	0.0241253	5.17208	2.36182	2.92285
n-Butane	359.684	0.120371	21.4844	9.53715	6.73989
Isopentane	285.383	0.0668429	7.27094	6.69158	1.41747
n-Pentane	451.498	0.0901664	9.88408	10.3472	1.49269
n-Hexane	429.477	0.0880384	1.93348	9.36925	0.215378
Cyclohexane	60.8348	0.0169902	0.625238	1.32509	0.0193877
i-C6	431.751	0.0904231	3.01296	9.50453	0.373146
i-C7	1536.02	0.321849	2.33938	33.1546	0.252524
Methylcyclohexane	68.3506	0.0152394	0.149624	1.47142	0.00549326
Octane	1521.73	0.322865	0.164985	32.5934	0.020582
Nonane	632.673	0.134884	0.00654691	13.5315	0.000758669
Benzene	73.9395	0.25404	3.55697	1.79783	0.0126546
Toluene	207.739	0.211635	1.90172	4.57815	0.00741246
Ethylbenzene	18.7752	0.00846688	0.0222715	0.405008	0.000151831
o-Xylene	183.632	0.0932702	0.200652	3.96535	0.000915419
Hydrogen Sulfide	0.00197852	0.000846007	0.107416	0.0017927	0.00198198
Water	0.120002	6268.08	0.976722	6268.53	0.004918
2,2,4-Trimethylpentane	81.6322	0.0171399	0.0798915	1.75741	0.00830345
Decanes Plus	2.86596	0.000614138	1.77768E-06	0.0612643	9.53861E-08

Stream Properties						
Property	Units	11. Condensate Sales Liquid	12. Produced Water Liquid	13. BTEX Cond Vapors to Combustion	14. Skim Tank Inlet	15. HPF Pilot / Purge Gas
Temperature	°F	75.67	95.1103	60	75.3749	76.247
Pressure	psig	0.25	0.25	0	0.25	120
Molecular Weight	lb/lbmol	91.7623	18.0224	43.2301	18.354	21.3835
Mass Flow	lb/h	6538.16	6271.13	116.474	6417.91	140.872
Std Liquid Volumetric Flow	sgpm	19.1446	12.5379	0.459479	12.9753	0.805474
Std Vapor Volumetric Flow	MMSCFD	0.648927	3.16911	0.0245385	3.18469	0.06 *
Gross Ideal Gas Heating Value	Btu/ft ³	4993.68	50.6912	2390.72	73.2699	1273.9

Remarks

* User Specified Values
 ? Extrapolated or Approximate Values

		Process Streams Report All Streams Tabulated by Total Phase		
Client Name:	DELAWARE DIVISION	Job:		
Location:	Wildcat Compressor Station			
Flowsheet:	Output			

Process Streams Report	
All Streams	
Tabulated by Total Phase	

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Connections					
	16. LPF Pilot / Purge Gas	17. HPF Blowdowns	18. Fuel Gas Other	19. Inlet Flaring	20. Fuel Gas Other
From Block	SPLT-100	SPLT-100	SPLT-100	SPLT-101	SPLT-101
To Block	--	--	--	--	--

Stream Composition					
	16. LPF Pilot / Purge Gas %	17. HPF Blowdowns %	18. Fuel Gas Other %	19. Inlet Flaring %	20. Fuel Gas Other %
Triethylene Glycol	2.50479E-05	2.50479E-05	2.50479E-05	0.000577059	0.000577059
Carbon Dioxide	0.237859	0.237859	0.237859	0.220014	0.220014
Nitrogen	1.61036	1.61036	1.61036	1.45276	1.45276
Methane	56.8725	56.8725	56.8725	51.7828	51.7828
Ethane	18.4841	18.4841	18.4841	17.5988	17.5988
Propane	13.2145	13.2145	13.2145	13.7859	13.7859
Isobutane	2.07482	2.07482	2.07482	2.47407	2.47407
n-Butane	4.78439	4.78439	4.78439	6.21986	6.21986
Isopentane	1.00621	1.00621	1.00621	1.7002	1.7002
n-Pentane	1.0596	1.0596	1.0596	1.98555	1.98555
n-Hexane	0.152889	0.152889	0.152889	0.553915	0.553915
Cyclohexane	0.0137626	0.0137626	0.0137626	0.0549354	0.0549354
i-C6	0.264882	0.264882	0.264882	0.773009	0.773009
i-C7	0.179257	0.179257	0.179257	0.996078	0.996078
Methylcyclohexane	0.00389946	0.00389946	0.00389946	0.0282317	0.0282317
Octane	0.0146104	0.0146104	0.0146104	0.225614	0.225614
Nonane	0.000538551	0.000538551	0.000538551	0.0233224	0.0233224
Benzene	0.00898304	0.00898304	0.00898304	0.0291061	0.0291061
Toluene	0.00526183	0.00526183	0.00526183	0.0373838	0.0373838
Ethylbenzene	0.000107779	0.000107779	0.000107779	0.0016919	0.0016919
o-Xylene	0.000649821	0.000649821	0.000649821	0.0121902	0.0121902
Hydrogen Sulfide	0.00140693	0.00140693	0.00140693	0.00134946	0.00134946
Water	0.0034911	0.0034911	0.0034911	0.00321692	0.00321692
2,2,4-Trimethylpentane	0.00589431	0.00589431	0.00589431	0.0394093	0.0394093
Decanes Plus	6.7711E-08	6.7711E-08	6.7711E-08	9.77871E-06	9.77871E-06

	16. LPF Pilot / Purge Gas %	17. HPF Blowdowns %	18. Fuel Gas Other %	19. Inlet Flaring %	20. Fuel Gas Other %
Triethylene Glycol	3.56664E-06	3.56664E-06	3.56664E-06	8.7071E-05	8.7071E-05
Carbon Dioxide	0.115572	0.115572	0.115572	0.113279	0.113279
Nitrogen	1.22924	1.22924	1.22924	1.1751	1.1751
Methane	75.8072	75.8072	75.8072	73.1408	73.1408
Ethane	13.1449	13.1449	13.1449	13.262	13.262
Propane	6.40819	6.40819	6.40819	7.0841	7.0841
Isobutane	0.763339	0.763339	0.763339	0.964529	0.964529
n-Butane	1.76021	1.76021	1.76021	2.42484	2.42484
Isopentane	0.298221	0.298221	0.298221	0.53397	0.53397
n-Pentane	0.314047	0.314047	0.314047	0.623586	0.623586
n-Hexane	0.0379378	0.0379378	0.0379378	0.145648	0.145648
Cyclohexane	0.00349685	0.00349685	0.00349685	0.0147909	0.0147909
i-C6	0.0657278	0.0657278	0.0657278	0.203257	0.203257
i-C7	0.0382542	0.0382542	0.0382542	0.225249	0.225249
Methylcyclohexane	0.000849247	0.000849247	0.000849247	0.00651528	0.00651528
Octane	0.00273506	0.00273506	0.00273506	0.0447546	0.0447546
Nonane	8.97907E-05	8.97907E-05	8.97907E-05	0.00412043	0.00412043
Benzene	0.00245915	0.00245915	0.00245915	0.00844329	0.00844329
Toluene	0.00122117	0.00122117	0.00122117	0.00919366	0.00919366
Ethylbenzene	2.17086E-05	2.17086E-05	2.17086E-05	0.000361109	0.000361109
o-Xylene	0.000130886	0.000130886	0.000130886	0.0026018	0.0026018
Hydrogen Sulfide	0.000882758	0.000882758	0.000882758	0.000897208	0.000897208
Water	0.00414382	0.00414382	0.00414382	0.00404617	0.00404617

* User Specified Values
 ? Extrapolated or Approximate Values

Process Streams Report					
All Streams					
Tabulated by Total Phase					

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Mole Fraction	16. LPF Pilot / Purge Gas %	17. HPF Blowdowns %	18. Fuel Gas Other %	19. Inlet Flaring %	20. Fuel Gas Other %
2,2,4-Trimethylpentane	0.00110341	0.00110341	0.00110341	0.00781752	0.00781752
Decanes Plus	9.43872E-09	9.43872E-09	9.43872E-09	1.44445E-06	1.44445E-06

Mass Flow	16. LPF Pilot / Purge Gas lb/h	17. HPF Blowdowns lb/h	18. Fuel Gas Other lb/h	19. Inlet Flaring lb/h	20. Fuel Gas Other lb/h
Triethylene Glycol	1.8525E-05	1.34307E-05	0.00496386	0.717845	2.55124
Carbon Dioxide	0.175916	0.12754	47.1376	273.691	972.704
Nitrogen	1.19099	0.863474	319.132	1807.2	6422.82
Methane	42.0617	30.495	11270.7	64416.4	228937
Ethane	13.6705	9.91118	3663.08	21892.4	77806
Propane	9.77319	7.08562	2618.78	17149.3	60948.8
Isobutane	1.53449	1.11252	411.176	3077.67	10938.1
n-Butane	3.53844	2.56539	948.143	7737.32	27498.6
Isopentane	0.744171	0.539528	199.404	2115	7516.77
n-Pentane	0.783662	0.56816	209.986	2469.96	8778.31
n-Hexane	0.113074	0.081979	30.2987	689.055	2448.91
Cyclohexane	0.0101785	0.0073795	2.72739	68.3381	242.875
i-C6	0.195902	0.14203	52.4929	961.601	3417.55
i-C7	0.132575	0.0961176	35.5242	1239.09	4403.76
Methylcyclohexane	0.00288396	0.00209089	0.772773	35.1195	124.815
Octane	0.0108056	0.00783409	2.8954	280.658	997.464
Nonane	0.000398301	0.000288771	0.106727	29.0124	103.111
Benzene	0.00664367	0.0048167	1.78021	36.2071	128.681
Toluene	0.00389154	0.00282139	1.04276	46.5044	165.278
Ethylbenzene	7.9711E-05	5.7791E-05	0.021359	2.10467	7.48005
o-Xylene	0.000480595	0.000348434	0.128778	15.1643	53.8941
Hydrogen Sulfide	0.00104054	0.000754397	0.278818	1.67868	5.96608
Water	0.00258195	0.00187193	0.691847	4.00176	14.2223
2,2,4-Trimethylpentane	0.00435931	0.00316053	1.1681	49.024	174.232
Decanes Plus	5.00777E-08	3.63066E-08	1.34186E-05	0.0121644	0.0432327

Stream Properties						
Property	Units	16. LPF Pilot / Purge Gas	17. HPF Blowdowns	18. Fuel Gas Other	19. Inlet Flaring	20. Fuel Gas Other
Temperature	°F	76.247	76.247	76.247	93.262	93.262
Pressure	psig	120	120	120	1272	1272
Molecular Weight	lb/lbmol	21.3835	21.3835	21.3835	22.6592	22.6592
Mass Flow	lb/h	73.958	53.62	19817.4	124397	442110
Std Liquid Volumetric Flow	sgpm	0.422874	0.306586	113.311	687.162	2442.19
Std Vapor Volumetric Flow	MMSCFD	0.0315 *	0.0228377 *	8.44059	50 *	177.701
Gross Ideal Gas Heating Value	Btu/ft^3	1273.9	1273.9	1273.9	1342.81	1342.81

Remarks

* User Specified Values
 ? Extrapolated or Approximate Values

Process Streams Report
All Streams
Tabulated by Total Phase

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

Connections

	21. Inlet Gas	22. Condensate Flash Losses Hrly			
From Block	Inlet - Inlet Gas	W & B - Cond Flashing Losses Hrly			
To Block	--	--			

Stream Composition

	21. Inlet Gas	22. Condensate Flash Losses Hrly			
Mass Fraction	%	%			
Triethylene Glycol	0	1.81679E-12			
Carbon Dioxide	0.215589	0.0196511			
Nitrogen	1.42028	0.000129488			
Methane	50.6359	0.218436			
Ethane	17.2509	7.29306			
Propane	13.5905	24.908			
Isobutane	2.46087	8.33381			
n-Butane	6.23041	26.2733			
Isopentane	1.7452	8.69585			
n-Pentane	2.06427	10.3499			
n-Hexane	0.638932	2.97119			
Cyclohexane	0.066202	0.270021			
i-C6	0.858545	4.18332			
i-C7	1.28832	4.57869			
Methylcyclohexane	0.0405509	0.143244			
Octane	0.462569	0.846333			
Nonane	0.102348	0.0935544			
Benzene	0.0385141	0.316731			
Toluene	0.0651823	0.261977			
Ethylbenzene	0.00427315	0.00764576			
o-Xylene	0.0366469	0.0517031			
Hydrogen Sulfide	0.00134194	0.000868944			
Water	0.727883	6.40215E-05			
2,2,4-Trimethylpentane	0.0544228	0.182472			
Decanes Plus	0.00026845	6.17235E-05			

	21. Inlet Gas	22. Condensate Flash Losses Hrly			
Mole Fraction	%	%			
Triethylene Glycol	0	6.60559E-13			
Carbon Dioxide	0.11197	0.0243803			
Nitrogen	1.15886	0.000252384			
Methane	72.1455	0.743448			
Ethane	13.1133	13.2431			
Propane	7.0447	30.8419			
Isobutane	0.96776	7.82887			
n-Butane	2.45017	24.6814			
Isopentane	0.55289	6.58083			
n-Pentane	0.65397	7.83261			
n-Hexane	0.16947	1.88255			
Cyclohexane	0.01798	0.175183			
i-C6	0.22772	2.65055			
i-C7	0.29388	2.49495			
Methylcyclohexane	0.00944	0.0796572			

* User Specified Values

? Extrapolated or Approximate Values

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Process Streams Report
All Streams
 Tabulated by Total Phase

Client Name:	DELAWARE DIVISION	Job:
Location:	Wildcat Compressor Station	
Flowsheet:	Output	

	21. Inlet Gas	22. Condensate Flash Losses Hrly			
Mole Fraction	%	%			
Octane	0.09256	0.404543			
Nonane	0.01824	0.0398279			
Benzene	0.01127	0.221397			
Toluene	0.01617	0.155246			
Ethylbenzene	0.00092	0.00393222			
o-Xylene	0.00789	0.0265909			
Hydrogen Sulfide	0.0009	0.00139213			
Water	0.92351	0.000194036			
2,2,4-Trimethylpentane	0.01089	0.0872207			
Decanes Plus	4E-05	2.19696E-05			

	21. Inlet Gas	22. Condensate Flash Losses Hrly			
Mass Flow	lb/h	lb/h			
Triethylene Glycol	0	9.8117E-12			
Carbon Dioxide	1298.54	0.106127			
Nitrogen	8554.67	0.000699308			
Methane	304991	1.17967			
Ethane	103906	39.3866			
Propane	81858.6	134.517			
Isobutane	14822.3	45.0072			
n-Butane	37527.1	141.89			
Isopentane	10511.7	46.9624			
n-Pentane	12433.5	55.8954			
n-Hexane	3848.42	16.0461			
Cyclohexane	398.749	1.45826			
i-C6	5171.19	22.5923			
i-C7	7759.84	24.7275			
Methylcyclohexane	244.246	0.773599			
Octane	2786.15	4.57067			
Nonane	616.461	0.505246			
Benzene	231.978	1.71052			
Toluene	392.606	1.41482			
Ethylbenzene	25.738	0.0412914			
o-Xylene	220.732	0.279225			
Hydrogen Sulfide	8.08276	0.00469278			
Water	4384.19	0.000345751			
2,2,4-Trimethylpentane	327.8	0.98545			
Decanes Plus	1.61693	0.000333341			

Stream Properties

Property	Units	21. Inlet Gas	22. Condensate Flash Losses Hrly			
Temperature	°F	104.086	92.65			
Pressure	psig	95	5.7192			
Molecular Weight	lb/lbmol	22.8571	54.6007			
Mass Flow	lb/h	602321	540.056			
Std Liquid Volumetric Flow	sgpm	3290.33	1.95207			
Std Vapor Volumetric Flow	MMSCFD	240	0.0900835			
Gross Ideal Gas Heating Value	Btu/ft ³	1343.73	3068.6			

Remarks

* User Specified Values
 ? Extrapolated or Approximate Values

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		Process Streams Report All Streams Tabulated by Total Phase					
		Client Name:	DELAWARE DIVISION			Job:	
		Location:	Wildcat Compressor Station				
		Flowsheet:	Output				

Tab 8
Section 8 - Map(s)

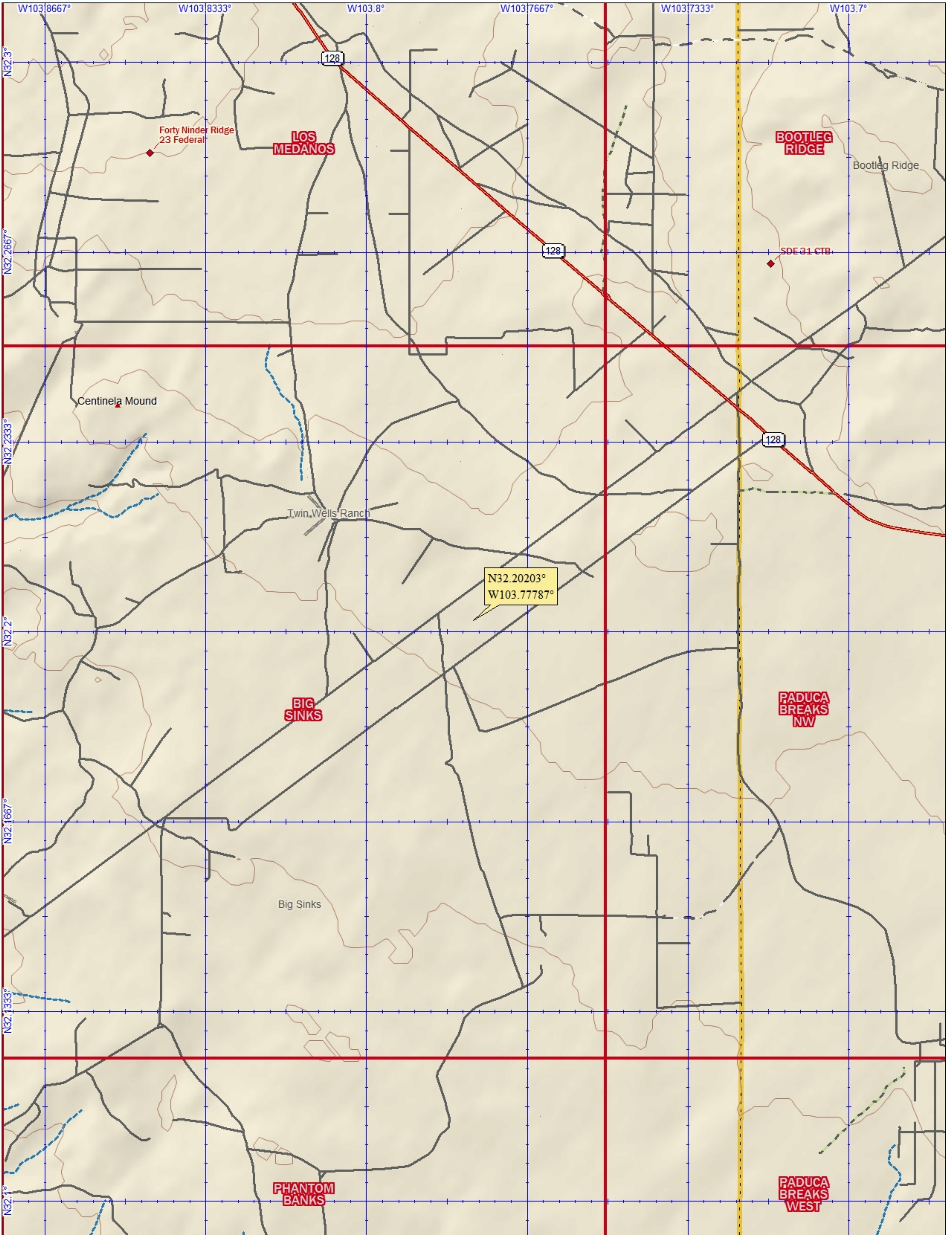
Section 8

Map(s)

A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

The UTM or Longitudinal coordinate system on both axes	An indicator showing which direction is north
A minimum radius around the plant of 0.8km (0.5 miles)	Access and haul roads
Topographic features of the area	Facility property boundaries
The name of the map	The area which will be restricted to public access
A graphical scale	

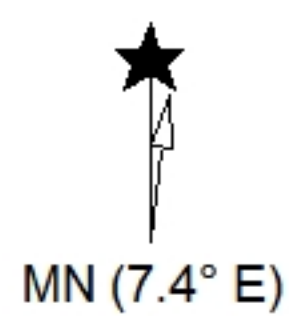
A site location map and aerial image illustrating the property boundary and surrounding access roads is provided.



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Data Zoom 11-0

Tab 9
Section 9 - Proof of Public Notice

Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)

(This proof is required by: 20.2.72.203.A.14 NMAC “Documentary Proof of applicant’s public notice”)

I have read the AQB “Guidelines for Public Notification for Air Quality Permit Applications”

This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant’s Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

New Permit and **Significant Permit Revision** public notices must include all items in this list.

Technical Revision public notices require only items 1, 5, 9, and 10.

Per the Guidelines for Public Notification document mentioned above, include:

1. A copy of the certified letter receipts with post marks (20.2.72.203.B NMAC)
2. A list of the places where the public notice has been posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance. (e.g: post office, library, grocery, etc.)
3. A copy of the property tax record (20.2.72.203.B NMAC).
4. A sample of the letters sent to the owners of record.
5. A sample of the letters sent to counties, municipalities, and Indian tribes.
6. A sample of the public notice posted and a verification of the local postings.
7. A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
8. A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
9. A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
10. A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
11. A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.

The public notice documents are included. For #11 above, XTO chose to include all landowners within 1 mile of the facility.

Certified Mail Receipts with Postmarks

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

SANTA FE, NM 87501
OFFICIAL USE

Certified Mail Fee \$3.55

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$4.10



Sent To **State of NM - Commission**
310 Old Santa Fe Trail
Santa Fe, NM 87501

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

SANTA FE, NM 87501
OFFICIAL USE

Certified Mail Fee \$3.55

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

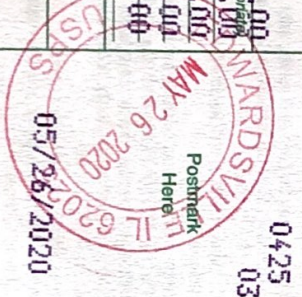
Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$4.10



Sent To **BLM - Carlsbad - David Evans**
620 E. Greene
Carlsbad, NM 88220 - 6292

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

LOVINGTON, NM 88260
OFFICIAL USE

Certified Mail Fee \$3.55

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

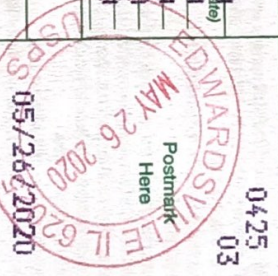
Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$4.10



Sent To **Lea County Manager**
100 N. Main
Lovington, NM 88260

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

LOVINGTON, NM 88260
OFFICIAL USE

Certified Mail Fee \$3.55

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$0.00

Return Receipt (electronic) \$0.00

Certified Mail Restricted Delivery \$0.00

Adult Signature Required \$0.00

Adult Signature Restricted Delivery \$0.00

Postage \$0.55

Total Postage and Fees \$4.10



Sent To **Eddy County Manager**
101 W. Greene, Suite 1100
Carlsbad, NM 88220

City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 3040 0000 9587 9756

7017 3040 0000 9587 9787

7017 3040 0000 9587 9770

7017 3040 0000 9587 9763

List of Places Posted

Site Location

Taco Bell

Verizon Store

Carlsbad Post Office

Property Tax Records



OBJECTID_12_13_14: 20553
UPC: 4-183-142-263-264
UPC_join: 4183142263264
ACCOUNTNUMBER: R091899
LEGALSUMMARY: Quarter: NE S: 21 T: 24S
R: 31E Quarter: NW S: 21 T: 24S R: 31E
Quarter: SW S: 21 T: 24S R: 31E Quarter: SE S:
21 T: 24S R: 31E ALL MAP# 370-21 EXEMPT
OWNERNAME: BUREAU OF LAND
MANAGEMENT
LANDACTUAL: 2880
OBJECTID_1: 60939
TAXYEAR_1: 2019
ACCOUNTNUMBER_1: R091899
SEQUENCE_R: 0
OWNER_OCCURENCE: 0
INTERNALID: C20160020093.1451631600000
DOCUMENTTYPE: Owner
ACTIVE_1: A
CONFIDENTIAL: 0
OWNERID_1: C20160020093
OBJECTID_12: 50131
TAXYEAR_12: 2019
ACCOUNTNUMBER_12: R091899
SEQUENCE_R_1: 0
INTERNALID_1:
R091899.LAND2768223.1511265489645
MODEL_TYPE: Land
ACCOUNTNUMBER_12_13: R091899
ACTUALAREA: 640
LANDCODE: 141_4_5
TAXAREA: CO_NR
VERSIONEND_1: 9223372036854775807
VERSIONSTART_1: 1511265489645

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Property Record Card

Eddy Assessor

**BUREAU OF LAND
MANAGEMENT**

Account: R091899

Parcel: 4-183-142-263-264

Tax Area: CO_NR - CARLSBAD-
OUT (Nonresidential)

Situs Address:

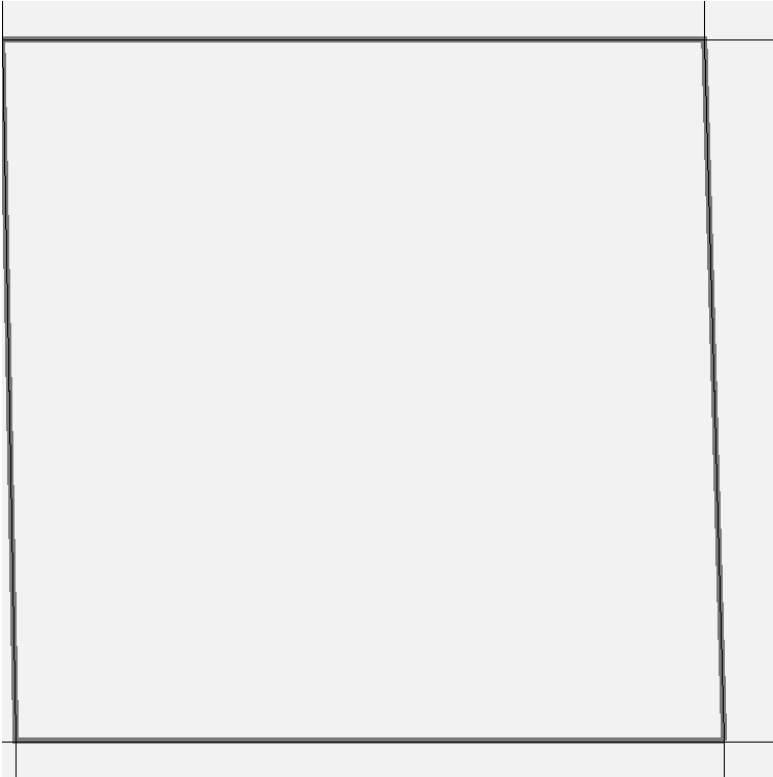
Acres: 0.000

Value Summary

Value By:	Market	Override
Land (1)	\$2,880	N/A
Total	\$2,880	\$2,880

Legal Description

Quarter: NE S: 21 T: 24S R: 31E Quarter: NW S: 21 T: 24S R: 31E
 Quarter: SW S: 21 T: 24S R: 31E Quarter: SE S: 21 T: 24S R: 31E ALL
 MAP# 370-21 EXEMPT



Land Occurrence 1

Property Code	9200 - EXEMPT NON-RESIDENTIAL LAND	Land Code	141_4_5 - Grazing E Federal - 4.5
---------------	---------------------------------------	-----------	-----------------------------------

Abstract Summary

Code	Classification	Actual Value	Value	Taxable Value	Actual Value Override	Taxable Override
9200	EXEMPT NON-RESIDENTIAL LAND		\$2,880	\$960	NA	NA
Total			\$2,880	\$960	NA	NA



OBJECTID_12_13_14: 20579
UPC: 4-184-143-264-264
UPC_join: 4184143264264
ACCOUNTNUMBER: R091905
LEGALSUMMARY: Quarter: NE S: 27 T: 24S
R: 31E Quarter: NW S: 27 T: 24S R: 31E
Quarter: SW S: 27 T: 24S R: 31E Quarter: SE S:
27 T: 24S R: 31E ALL MAP# 370-27 EXEMPT
OWNERNAME: BUREAU OF LAND
MANAGEMENT
LANDACTUAL: 2880
OBJECTID_1: 60945
TAXYEAR_1: 2019
ACCOUNTNUMBER_1: R091905
SEQUENCE_R: 0
OWNER_OCCURENCE: 0
INTERNALID: C20160020093.1451631600000
DOCUMENTTYPE: Owner
ACTIVE_1: A
CONFIDENTIAL: 0
OWNERID_1: C20160020093
OBJECTID_12: 50137
TAXYEAR_12: 2019
ACCOUNTNUMBER_12: R091905
SEQUENCE_R_1: 0
INTERNALID_1:
R091905.LAND2768229.1511265492835
MODEL_TYPE: Land
ACCOUNTNUMBER_12_13: R091905
ACTUALAREA: 640
LANDCODE: 141_4_5
TAXAREA: CO_NR
VERSIONEND_1: 9223372036854775807
VERSIONSTART_1: 1511265492835

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Property Record Card

Eddy Assessor

**BUREAU OF LAND
MANAGEMENT**

Account: R091905

Parcel: 4-184-143-264-264

Tax Area: CO_NR - CARLSBAD-
OUT (Nonresidential)

Situs Address:

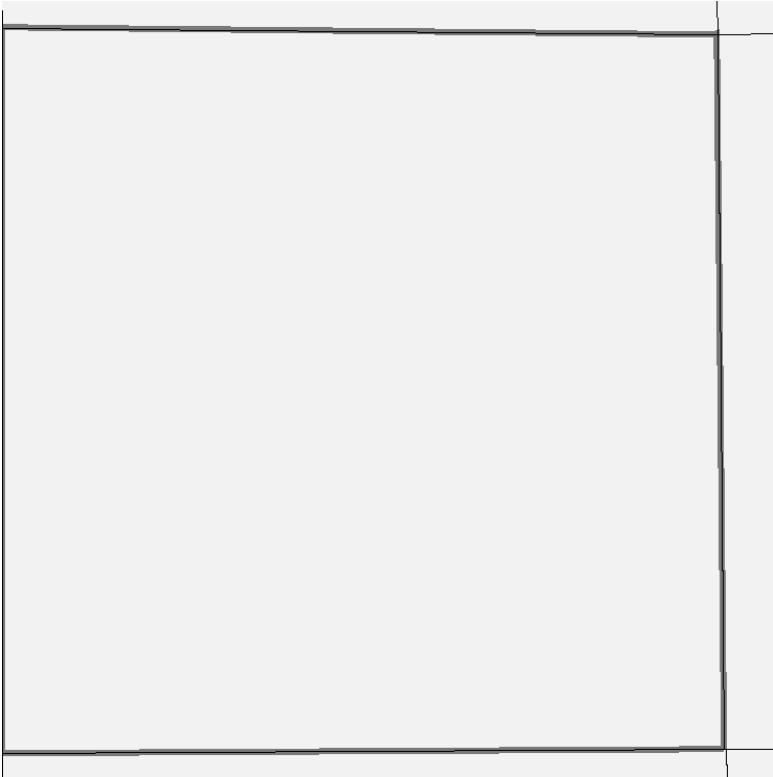
Acres: 0.000

Value Summary

Value By:	Market	Override
Land (1)	\$2,880	N/A
Total	\$2,880	\$2,880

Legal Description

Quarter: NE S: 27 T: 24S R: 31E Quarter: NW S: 27 T: 24S R: 31E
 Quarter: SW S: 27 T: 24S R: 31E Quarter: SE S: 27 T: 24S R: 31E ALL
 MAP# 370-27 EXEMPT

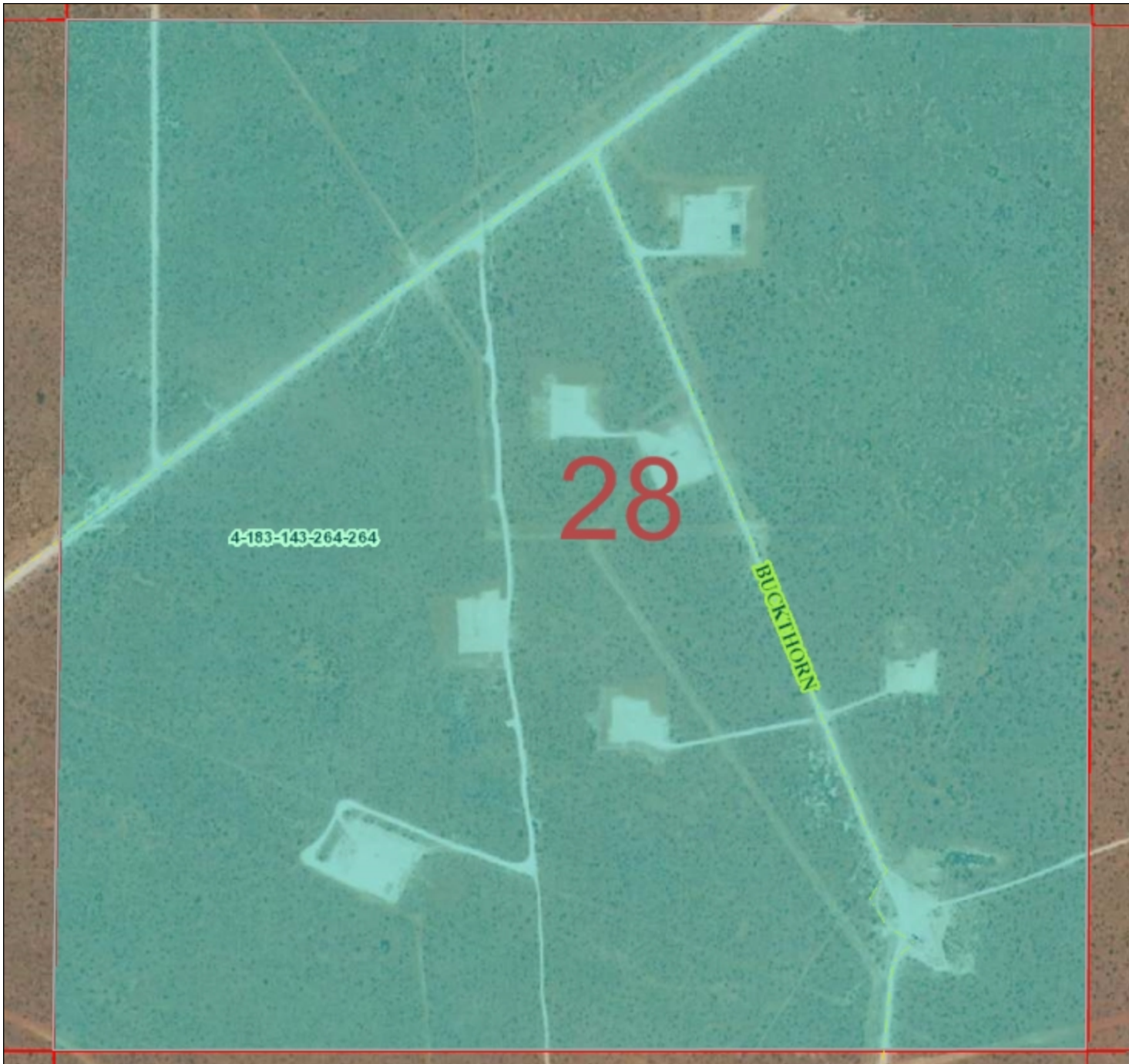


Land Occurrence 1

Property Code	9200 - EXEMPT NON-RESIDENTIAL LAND	Land Code	141_4_5 - Grazing E Federal - 4.5
---------------	---------------------------------------	-----------	-----------------------------------

Abstract Summary

Code	Classification	Actual Value	Value	Taxable Value	Actual Value Override	Taxable Override
9200	EXEMPT NON-RESIDENTIAL LAND		\$2,880	\$960	NA	NA
Total			\$2,880	\$960	NA	NA



OBJECTID_12_13_14: 20554
UPC: 4-183-143-264-264
UPC_join: 4183143264264
ACCOUNTNUMBER: R091906
LEGALSUMMARY: Quarter: NE S: 28 T: 24S
R: 31E Quarter: NW S: 28 T: 24S R: 31E
Quarter: SW S: 28 T: 24S R: 31E Quarter: SE S:
28 T: 24S R: 31E ALL MAP# 370-28 EXEMPT
OWNERNAME: BUREAU OF LAND
MANAGEMENT
LANDACTUAL: 2880
OBJECTID_1: 60946
TAXYEAR_1: 2019
ACCOUNTNUMBER_1: R091906
SEQUENCE_R: 0
OWNER_OCCURENCE: 0
INTERNALID: C20160020093.1451631600000
DOCUMENTTYPE: Owner
ACTIVE_1: A
CONFIDENTIAL: 0
OWNERID_1: C20160020093
OBJECTID_12: 50138
TAXYEAR_12: 2019
ACCOUNTNUMBER_12: R091906
SEQUENCE_R_1: 0
INTERNALID_1:
R091906.LAND2768230.1511265493304
MODEL_TYPE: Land
ACCOUNTNUMBER_12_13: R091906
ACTUALAREA: 640
LANDCODE: 141_4_5
TAXAREA: CO_NR
VERSIONEND_1: 9223372036854775807
VERSIONSTART_1: 1511265493304

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Property Record Card

Eddy Assessor

**BUREAU OF LAND
MANAGEMENT**

Account: R091906

Parcel: 4-183-143-264-264

Tax Area: CO_NR - CARLSBAD-
OUT (Nonresidential)

Situs Address:

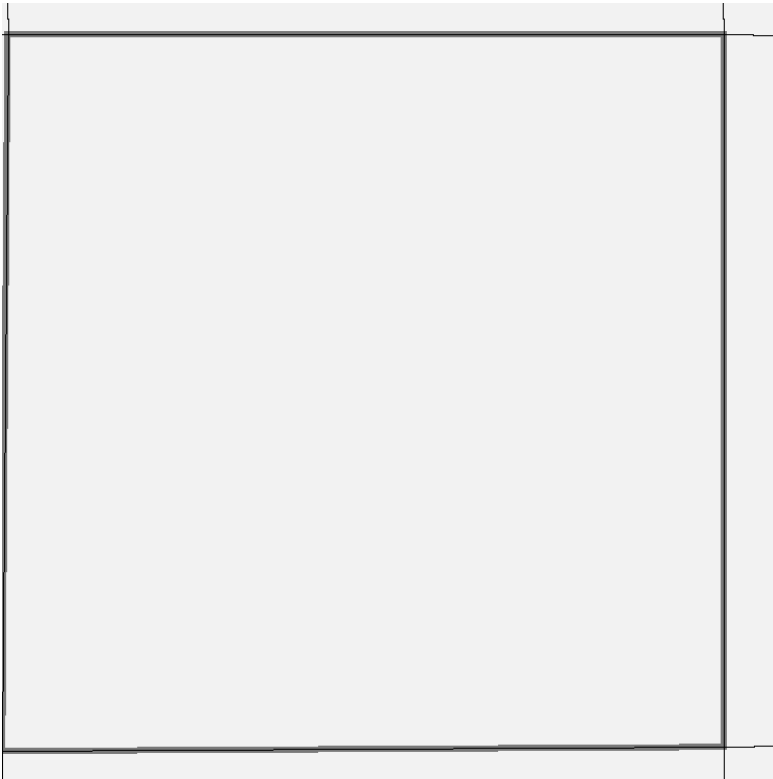
Acres: 0.000

Value Summary

Value By:	Market	Override
Land (1)	\$2,880	N/A
Total	\$2,880	\$2,880

Legal Description

Quarter: NE S: 28 T: 24S R: 31E Quarter: NW S: 28 T: 24S R: 31E
 Quarter: SW S: 28 T: 24S R: 31E Quarter: SE S: 28 T: 24S R: 31E ALL
 MAP# 370-28 EXEMPT



Land Occurrence 1

Property Code	9200 - EXEMPT NON-RESIDENTIAL LAND	Land Code	141_4_5 - Grazing E Federal - 4.5
---------------	---------------------------------------	-----------	-----------------------------------

Abstract Summary

Code	Classification	Actual Value	Value	Taxable Value	Actual Value Override	Taxable Override
9200	EXEMPT NON-RESIDENTIAL LAND		\$2,880	\$960	NA	NA
Total			\$2,880	\$960	NA	NA



OBJECTID_12_13_14: 39304
UPC: 4-184-142-264-264
UPC_join: 4184142264264
ACCOUNTNUMBER: R091900
LEGALSUMMARY: Quarter: NE S: 22 T: 24S
R: 31E Quarter: NW S: 22 T: 24S R: 31E
Quarter: SW S: 22 T: 24S R: 31E Quarter: SE S:
22 T: 24S R: 31E ALL MAP# 370-22 EXEMPT
OWNERNAME: BUREAU OF LAND
MANAGEMENT
LANDACTUAL: 2880
OBJECTID_1: 60940
TAXYEAR_1: 2019
ACCOUNTNUMBER_1: R091900
SEQUENCE_R: 0
OWNER_OCCURENCE: 0
INTERNALID: C20160020093.1451631600000
DOCUMENTTYPE: Owner
ACTIVE_1: A
CONFIDENTIAL: 0
OWNERID_1: C20160020093
OBJECTID_12: 50132
TAXYEAR_12: 2019
ACCOUNTNUMBER_12: R091900
SEQUENCE_R_1: 0
INTERNALID_1:
R091900.LAND2768224.1511265490114
MODEL_TYPE: Land
ACCOUNTNUMBER_12_13: R091900
ACTUALAREA: 640
LANDCODE: 141_4_5
TAXAREA: CO_NR
VERSIONEND_1: 9223372036854775807
VERSIONSTART_1: 1511265490114

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Property Record Card

Eddy Assessor

**BUREAU OF LAND
MANAGEMENT**

Account: R091900

Parcel: 4-184-142-264-264

Tax Area: CO_NR - CARLSBAD-
OUT (Nonresidential)

Situs Address:

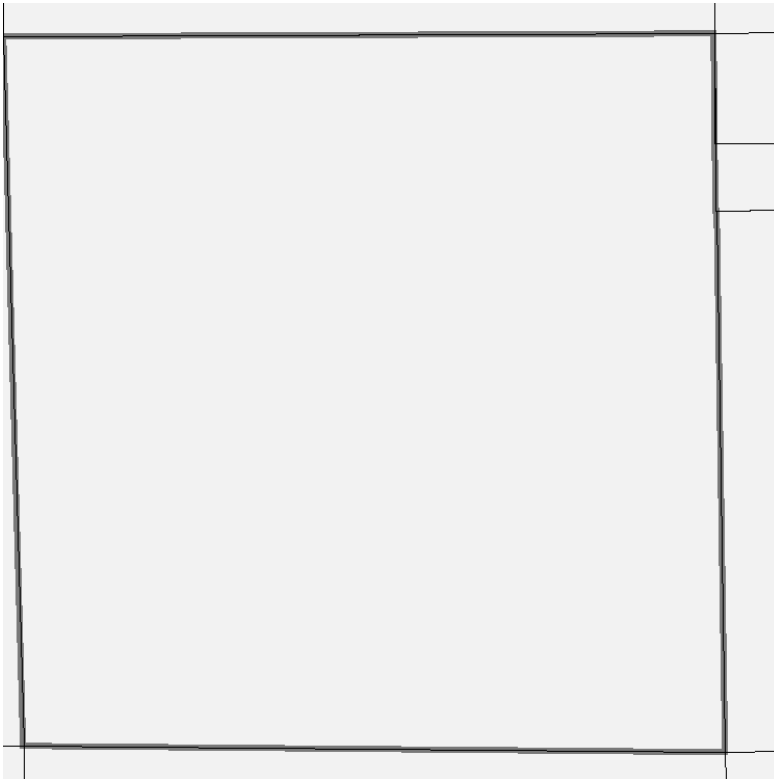
Acres: 0.000

Value Summary

Value By:	Market	Override
Land (1)	\$2,880	N/A
Total	\$2,880	\$2,880

Legal Description

Quarter: NE S: 22 T: 24S R: 31E Quarter: NW S: 22 T: 24S R: 31E
 Quarter: SW S: 22 T: 24S R: 31E Quarter: SE S: 22 T: 24S R: 31E ALL
 MAP# 370-22 EXEMPT



Land Occurrence 1

Property Code	9200 - EXEMPT NON-RESIDENTIAL LAND	Land Code	141_4_5 - Grazing E Federal - 4.5
---------------	---------------------------------------	-----------	-----------------------------------

Abstract Summary

Code	Classification	Actual Value	Value	Taxable Value	Actual Value Override	Taxable Override
9200	EXEMPT NON-RESIDENTIAL LAND		\$2,880	\$960	NA	NA
Total			\$2,880	\$960	NA	NA



OBJECTID_12_13_14: 20552
UPC: 4-183-141-264-264
UPC_join: 4183141264264
ACCOUNTNUMBER: R091874
LEGALSUMMARY: Quarter: NE S: 16 T: 24S
R: 31E Quarter: NW S: 16 T: 24S R: 31E
Quarter: SW S: 16 T: 24S R: 31E Quarter: SE S:
16 T: 24S R: 31E ALL MAP# 370-16 EXEMPT
OWNERNAME: STATE OF NEW MEXICO
LANDACTUAL: 2880
OBJECTID_1: 60916
TAXYEAR_1: 2019
ACCOUNTNUMBER_1: R091874
SEQUENCE_R: 0
OWNER_OCCURENCE: 0
INTERNALID: C20160020105.1451631600000
DOCUMENT_TTYPE: Owner
ACTIVE_1: A
CONFIDENTIAL: 0
OWNERADDRESS_ADDRESS1: 310 OLD
SANTA FE TRAIL
OWNERADDRESS_CITY: SANTA FE
OWNERADDRESS_STATE: NM
OWNERADDRESS_ZIP: 87504
OWNERID_1: C20160020105
OBJECTID_12: 50108
TAXYEAR_12: 2019
ACCOUNTNUMBER_12: R091874
SEQUENCE_R_1: 0
INTERNALID_1:
R091874.LAND2769123.1511265476303
MODEL_TYPE: Land
ACCOUNTNUMBER_12_13: R091874
ACTUALAREA: 640
LANDCODE: 153_4_5
TAXAREA: CO NR
VERSIONEND_1: 9223372036854775807
VERSIONSTART_1: 1511265476303

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

Property Record Card

Eddy Assessor

STATE OF NEW MEXICO

310 OLD SANTA FE TRAIL
SANTA FE, NM 87504

Account: R091874

Tax Area: CO_NR - CARLSBAD-
OUT (Nonresidential)

Acres: 0.000

Parcel: 4-183-141-264-264

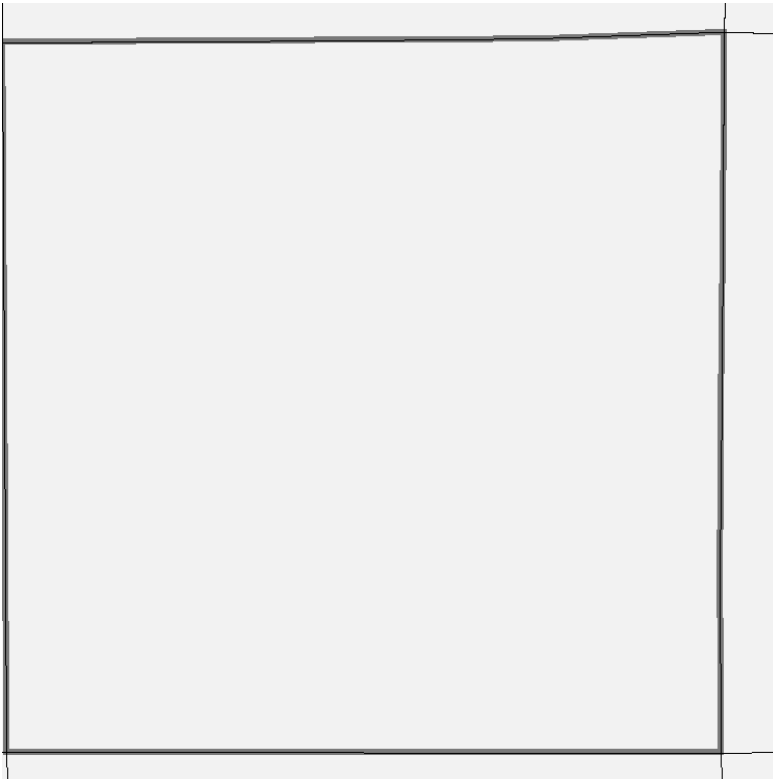
Situs Address:

Value Summary

Value By:	Market	Override
Land (1)	\$2,880	N/A
Total	\$2,880	\$2,880

Legal Description

Quarter: NE S: 16 T: 24S R: 31E Quarter: NW S: 16 T: 24S R: 31E
Quarter: SW S: 16 T: 24S R: 31E Quarter: SE S: 16 T: 24S R: 31E ALL
MAP# 370-16 EXEMPT



Land Occurrence 1

Property Code	9200 - EXEMPT NON-RESIDENTIAL LAND	Land Code	153_4_5 - Grazing E NM - 4.5
---------------	---------------------------------------	-----------	------------------------------

Abstract Summary

Code	Classification	Actual Value	Value	Taxable Value	Actual Value Override	Taxable Override
9200	EXEMPT NON-RESIDENTIAL LAND		\$2,880	\$960	NA	NA
Total			\$2,880	\$960	NA	NA

**Letters to Owners of Record and Applicable
Counties, Municipalities, and Tribes**



May 26, 2020

Certified Mail 7017 3040 0000 9587 9756

Bureau of Land Management
620 E. Greene St.
Carlsbad, New Mexico, 88220-6292

RE: NSR Permit Application
Wildcat Compressor Station
XTO Energy Inc.

Dear Federal Official,

In accordance with the application requirements of 20.2.72 NMAC, XTO Energy Inc. is providing notification of the planned modification of the Wildcat Compressor Station on your property in Eddy County, NM. A public notice will be published in the Carlsbad Current-Argus newspaper, at the proposed site location, and three other locations in Carlsbad, NM. A copy of the notice is attached. Please contact me at (832) 624-2768 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ben Schneider".

Ben Schneider
Environmental Engineer

Attachment: Public Notice



May 26, 2020

Certified Mail 7017 3040 0000 9587 9770

Eddy County
101 W. Greene St.
Suite 110
Carlsbad, New Mexico, 88220

RE: NSR Permit Application
Wildcat Compressor Station
XTO Energy Inc.

Dear County Manager,

In accordance with the application requirements of 20.2.72 NMAC, XTO Energy Inc. is providing notification of the planned modification of the Wildcat Compressor Station in Eddy County, NM. A public notice will be published in the Carlsbad Current-Argus newspaper, at the proposed site location, and three other locations in Carlsbad, NM. A copy of the notice is attached. Please contact me at (832) 624-2768 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Ben Schneider'.

Ben Schneider
Environmental Engineer

Attachment: Public Notice



May 26, 2020

Certified Mail 7017 3040 0000 9587 9763

Lea County Manager
100 N. Main Avenue
Suite 4
Lovington, New Mexico, 88260

RE: NSR Permit Application
Wildcat Compressor Station
XTO Energy Inc.

Dear County Manager,

In accordance with the application requirements of 20.2.72 NMAC, XTO Energy Inc. is providing notification of the planned modification of the Wildcat Compressor Station Eddy County, NM. The proposed site is within 10 miles of Lea County. A public notice will be published in the Carlsbad Current-Argus newspaper, at the proposed site location, and three other locations in Carlsbad, NM. A copy of the notice is attached. Please contact me at (832) 624-2768 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ben Schneider".

Ben Schneider
Environmental Engineer

Attachment: Public Notice



May 26, 2020

Certified Mail 7017 3040 0000 9587 9787

State of New Mexico Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico, 87501

RE: NSR Permit Application
Wildcat Compressor Station
XTO Energy Inc.

Dear Commissioner,

In accordance with the application requirements of 20.2.72 NMAC, XTO Energy Inc. is providing notification of the planned modification of the Wildcat Compressor Station near your property in Eddy County, NM. A public notice will be published in the Carlsbad Current-Argus newspaper, at the proposed site location, and three other locations in Carlsbad, NM. A copy of the notice is attached. Please contact me at (832) 624-2768 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ben Schneider".

Ben Schneider
Environmental Engineer

Attachment: Public Notice

**Sample of Notice posted and
Verification of Postings**

NOTICE

XTO Energy, Inc. announces its application to the New Mexico Environment Department for an air quality permit for the modification of the Wildcat Compressor Station. The expected date of application submittal to the Air Quality Bureau is May 21, 2020. XTO Energy is planning to remove engines, updating engine emission rates, removing heaters, and update oil/water production rate.

The exact location for the proposed facility known as the Wildcat Compressor Station will be latitude 32 deg, 12 min, 7 sec and longitude -103 deg, 46 min, 40 sec. The approximate location of this facility is 4 miles southwest of intersection of NM 128 and Buck Jackson Rd. in Eddy County.

The estimated maximum quantities of any regulated air contaminants will be as follows in pound per hour (pph) and tons per year (tpy). These reported emissions could change slightly during the course of the Department's review:

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	22	19
PM ₁₀	22	19
PM _{2.5}	9	22
Sulfur Dioxide (SO ₂)	470	222
Nitrogen Oxides (NO _x)	900	249
Carbon Monoxide (CO)	920	249
Volatile Organic Compounds (VOC)	28	30
Total sum of all Hazardous Air Pollutants (HAPs)	n/a	n/a
Toxic Air Pollutant (TAP)	n/a	240000
Green House Gas Emissions as Total CO _{2e}	22	19

The standard and maximum operating schedule of the facility will be 24 hours per day, 7 days a week and a maximum of 52 weeks per year. The owner and/or operator of the Facility is: XTO Energy, Inc.; 22777 Springwoods Village Pkwy; Spring, Texas 77389.

If you have any comments about the construction or operation of this facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to this address: Permit Programs Manager; New Mexico Environment Department; Air Quality Bureau; 525 Camino de los Marquez, Suite 1; Santa Fe, New Mexico; 87505-1816; (505) 476-4300; 1 800 224-7009; https://www.env.nm.gov/aqb/permit/aqb_draft_permits.html. Other comments and questions may be submitted verbally.

With your comments, please refer to the company name and facility name, or send a copy of this notice along with your comments. This information is necessary since the Department may have not yet received the permit application. Please include a legible return mailing address. Once the Department has completed its preliminary review of the application and its air quality impacts, the Department's notice will be published in the legal section of a newspaper circulated near the facility location

Atención

Este es un aviso de la oficina de Calidad del Aire del Departamento del Medio Ambiente de Nuevo México, acerca de las emisiones producidas por un establecimiento en esta área. Si usted desea información en español, por favor comuníquese con esa oficina al teléfono 505-476-5557.

Notice of Non-Discrimination

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED's non-discrimination programs, policies or procedures, or if you believe that you have been discriminated against with respect to a NMED program or activity, you may contact: Kristine Yurdin, Non-Discrimination Coordinator, NMED, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. You may also visit our website at <https://www.env.nm.gov/non-employee-discrimination-complaint-page/> to learn how and where to file a complaint of discrimination.

General Posting of Notices – Certification

Wildcat Compressor Station

I, Brayden Hammon, the undersigned, certify that on 05/22/2020, a true and correct copy of the attached Public Notice was posted in the following publicly accessible and conspicuous places in Carlsbad, Eddy County, State of New Mexico on the following dates:

1. Facility entrance -
2. Post-office
3. Verizon
4. Taco bell

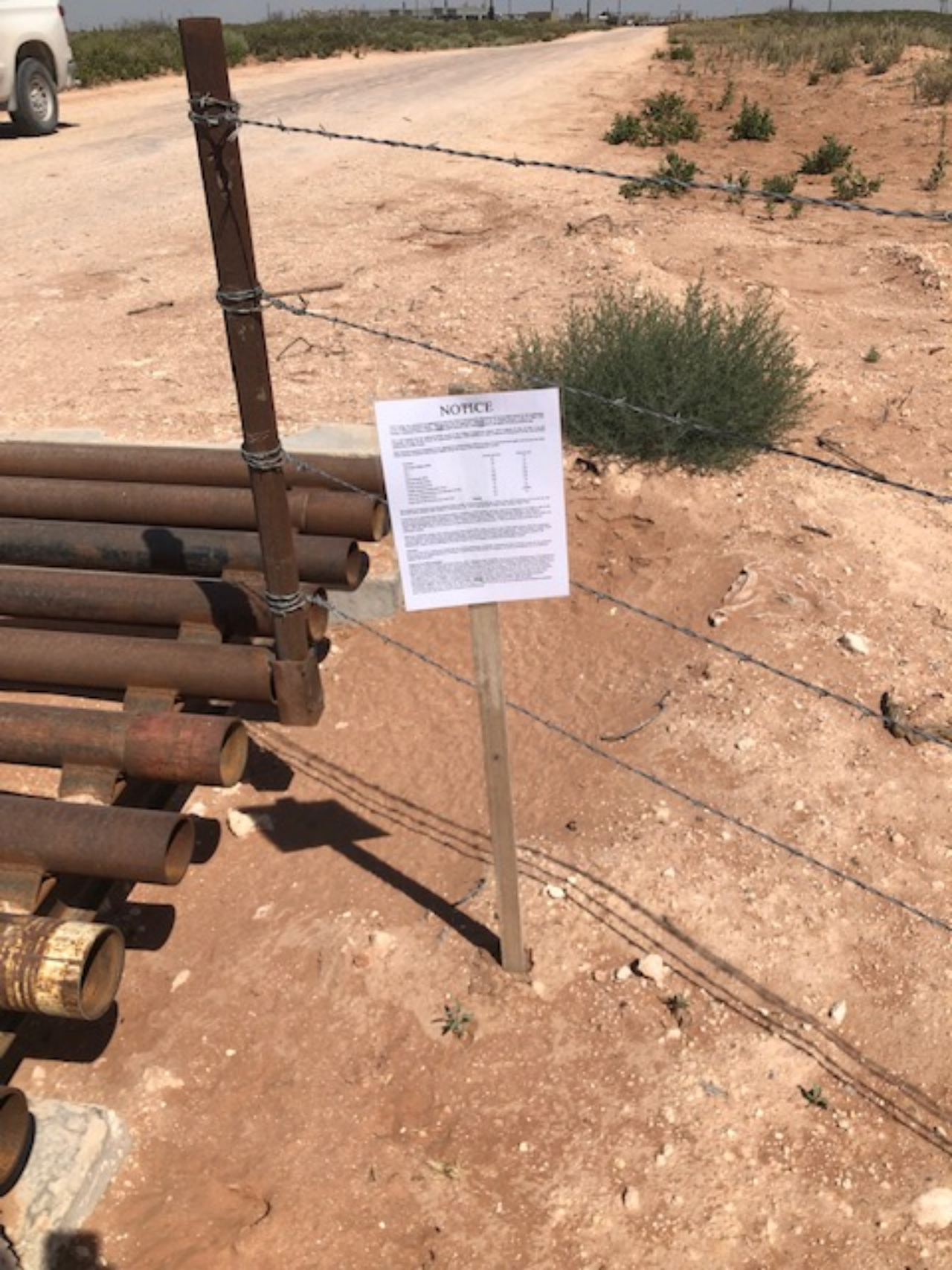
Signed this 22 day of May, 2020.

Brayden Hammon
Signature

05/22/2020
Date

Brayden Hammon
Printed Name

EHS
Title {APPLICANT OR RELATIONSHIP TO APPLICANT}



NOTICE

NOTICE TO THE PUBLIC
REGARDING THE PROPOSED
CONSTRUCTION OF A
NEW WATER TREATMENT PLANT
AND THE INSTALLATION OF
NEW WATER MAINS
ALONG THE
DIRT ROAD
LOCATED AT THE
CORNER OF
DIRT ROAD AND
DIRT ROAD
IN THE
CITY OF
MOUNTAIN VIEW,
NEW MEXICO.

DATE	DESCRIPTION	AMOUNT
1/1/2018
2/1/2018
3/1/2018
4/1/2018
5/1/2018
6/1/2018
7/1/2018
8/1/2018
9/1/2018
10/1/2018
11/1/2018
12/1/2018

...

Noticed Citizens, Counties, Municipalities, and Tribes Eddy County:

Eddy County Manager

Lea County: Lea County Manager

Bureau Of Land Management: Carlsbad Field Office (David Evans)

State of NM: Commissioner

Public Service Announcement Documentation

May 25, 2020

KATK 92.1 FM
(575) 887-7000

Re: Public Service Announcement

As part of the air quality permitting process in New Mexico, applicants for certain air permits must attempt to provide notice to the public of the proposed permit action via public service announcement (PSA). The announcement is attached. Will you air the PSA? Thank you.

Evan Tullos
PEI
(865) 850-2007

NOTICE OF AIR QUALITY PERMIT APPLICATION

XTO Energy, Inc. announces its application to the New Mexico Environment Department for an air quality permit for the modification of the Wildcat Compressor Station. The expected date of application submittal to the Air Quality Bureau is May 28, 2020. XTO Energy is planning to remove engines, updating engine emission rates, removing heaters, and update oil/water production rate.

The exact location for the proposed facility known as the Wildcat Compressor Station will be latitude 32 deg, 12 min, 7 sec and longitude -103 deg, 46 min, 40 sec. The approximate location of this facility is 4 miles southwest of intersection of NM 128 and Buck Jackson Rd. in Eddy County.

The notice was posted at the facility and three other public locations in Carlsbad such as the library, post office, and grocery store. If you have any comments about the construction or operation of the above facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to the address below:

Permit Programs Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico 87505-1816
(505) 476-4300

Transmission Status

Your transmission has completed.

DOC Identifier : 49254074
Fax Number : 5758877000
Recipient : KATK FM
Status Classification : "Success"
Status Outcome : "Success"
Last Attempt Date : 05/25/2020
Last Attempt Time : 15:23:27
Pages Scheduled : 3
Pages Sent : 3
Baud Rate : 14400
Duration (in seconds) : 42
Number of Retries : 1
Remote CSID : "NEXTIVA55"



[Cover page](#)



[Public Service Announcement_Wildcat.pdf](#)

Legal Ad

Display Ad

GUEST COLUMNIST

Correcting Holtec record

Jack Volpato
Treasurer, Eddy Lea Energy Alliance

What is “fear?” Is it, an unpleasant feeling triggered by the perception of danger, real or imagined? Or is “F.E.A.R.,” an acronym for “False Evidence Appearing Real,” which is often the case to anything we don’t understand such as science. Naturally we create a fear and justify that anxiety by creating evidence to support an unpleasant emotional feeling.

Fear and emotion are always brought into a debate against science, as proven facts are often tossed aside in discussions involving public or private enterprise. Whether the concerns are building roads, oil exploration or constructing and operating a storage facility for spent nuclear fuel in southeast New Mexico.

In the Draft Environmental Impact Statement (DEIS), the Nuclear Regulatory Commission’s (NRC) staff recommended that Holtec International receive a license to store spent nuclear fuel. However, after the Albuquerque Journal editorial “NRC is right to put science before politics,” the spreading of “false evidence appearing real” started in earnest.

Here are some emotional examples of “false evidence appearing real.”

1. The proposed project will harm the state’s important industries, including oil and gas production, ranching and agriculture.

The truth is no, the spent fuel storage facility will co-exist with all the industries in southeast New Mexico.

2. The rail lines can’t handle the weight of transporting the spent fuel, again a false statement.

A railcar with 12 axles loaded with a transport cask weighs 337 tons, the weight dispersion is 28 tons per axle. The current E80 rail rating is 40 tons per axle, the loaded railcars are clearly below the rating limit.

3. Transporting the canisters will release radiation along the train route, this is another casualty of the truth.

Each Holtec canister has to pass a rigorous safety test that includes four successive accident conditions, free drop, puncture, fire and submersion in

water, the canister passed each condition.

In addition, the USNRC regulatory limit for dose rates around the canister is 10 mrem/hr. at 2 meters from the vehicle. As a comparison, the dose from a single dental x-ray is about 4 mrem. That means that a person standing 2 meters away from a transport cask, for 24 minutes (0.4 hours), would receive just about the same dose as from a single dental x-ray. However, that is not a realistic condition to consider for any member of the public. As a person at a railroad crossing would be further away from a transport cask and typically for a shorter period of time, hence the dose would be much lower.

These are just some of the “false evidence appearing real” that the project opponents create to put fear in your mind. There are so many other false statements to refute, but I’m only allowed 650 words to make my point.

The truth is we have to stop this cultural fear that has affected U.S. energy policy for the last 70 years, it is really simple, nuclear energy is not about weapons. It is a clean source of energy that will save the world and our climate. You can’t have an intelligent reasonable discussion about saving the climate without including nuclear energy. Nuclear is our largest source of clean energy, providing more than 55% of emissions-free electricity. If you are truly an advocate for the environment, then you should support nuclear, case closed.

As Neil deGrasse Tyson said, “the great thing about science, is it’s true, whether or not you believe it.” You can’t pick and choose what science you want to believe, which is what the groups against the proposed storage facility constantly do. They are upset that the scientists and experts who wrote the DEIS did not use their fake science.

I encourage you to read the DEIS on Holtec International’s License Application for a Consolidated Interim Storage Facility, you can access the report at www.nrc.gov/docs/ML2006/ML2006-9G420.pdf.

Afterward please email your supporting comments to Holtec-CISFEIS@nrc.gov, the deadline is July 22.

NM forecasters warn of heat, fire weather

ASSOCIATED PRESS

ALBUQUERQUE – Weather forecasters are warning of record heat that is setting the stage for critical fire weather this week.

The National Weather Service in Albuquerque said chances for dry thunderstorms will increase for portions of central New Mexico on Tuesday as the forecast calls for low humidity and gusty winds Tuesday and Wednesday.

State and federal land managers already are imposing fire restrictions for

many parts of the state. That includes prohibiting campfires on three of northern New Mexico’s national forests starting Wednesday. Restrictions already are in place for the Lincoln National Forest in southern New Mexico and on all non-federal, non-tribal and non-municipal lands statewide.

Aside from the critical weather, land managers are hoping by putting in place restrictions early they can avoid human-caused fires and the need to mobilize firefighting crews during the coronavirus pandemic.

NOTICE OF AIR QUALITY PERMIT APPLICATION

XTO Energy, Inc. announces its application to the New Mexico Environment Department for an air quality permit for the modification of the Wildcat Compressor Station. The expected date of application submittal to the Air Quality Bureau is May 21, 2020. XTO Energy is planning to remove engines, updating engine emission rates, removing heaters, and updating oil/water production rate.

The exact location for the proposed facility known as the Wildcat Compressor Station will be latitude 32 deg. 12 min, 7 sec and longitude -103 deg, 46 min, 40 sec. The approximate location of this facility is 4 miles southwest of intersection of NM 128 and Buck Jackson Rd. in Eddy County.

The estimated maximum quantities of any regulated air contaminant will be as follows in pound per hour (pph) and tons per year (tpy) and could change slightly during the course of the Department’s review:

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	n/a	n/a
PM 10	22	19
PM 2.5	22	19
Sulfur Dioxide (SO ₂)	9	22
Nitrogen Oxides (NO _x)	470	222
Carbon Monoxide (CO)	900	249
Volatile Organic Compounds (VOC)	920	249
Total sum of all Hazardous Air Pollutants (HAPs)	28	30
Toxic Air Pollutant (TAP)	n/a	n/a
Green House Gas Emissions as Total CO _{2e}	n/a	240000

The standard and maximum operating schedules of the facility will be 24 hours per day, 7 days a week and a maximum of 52 weeks per year. The owner and/or operator of the Facility is: The owner and/or operator of the Facility is: XTO Energy, Inc.; 22777 Springwoods Village Pkwy-W4.6B.355; Spring, Texas 77389.

If you have any comments about the construction or operation of this facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to this address: Permit Programs Manager; New Mexico Environment Department; Air Quality Bureau; 525 Camino de los Marquez, Suite 1; Santa Fe, New Mexico; 87505-1816; (505) 476-4300; 1 800 224-7009; https://www.env.nm.gov/aqb/permit/aqb_draft_permits.html. Other comments and questions may be submitted verbally.

With your comments, please refer to the company name and facility name, or send a copy of this notice along with your comments. This information is necessary since the Department may have not yet received the permit application. Please include a legible return mailing address. Once the Department has completed its preliminary review of the application and its air quality impacts, the Department’s notice will be published in the legal section of a newspaper circulated near the facility location.

Atención

Este es un aviso de la oficina de Calidad del Aire del Departamento del Medio Ambiente de Nuevo México, acerca de las emisiones producidas por un establecimiento en esta área. Si usted desea información en español, por favor comuníquese con esa oficina al teléfono 505-476-5557.

Notice of Non-Discrimination

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED’s non-discrimination programs, policies or procedures, or if you believe that you have been discriminated against with respect to a NMED program or activity, you may contact: Kristine Yurdin, Non-Discrimination Coordinator, NMED, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. You may also visit our website at <https://www.env.nm.gov/non-employee-discrimination-complaint-page/> to learn how and where to file a complaint of discrimination.

TX-GC0420775-01

NM SOLAR GROUP

SOLAR POWER!

\$1000
Cash Back
for those that
go solar!

Call for details!
Offer Expires 5/31/20.

With over 300 days of sunshine each year, solar makes dollars and sense for New Mexicans. Let’s let the sun get to work for you! Purchasing a solar system allows home and business owners to control their energy costs and protect themselves from future rate increases from utility companies. Gain energy independence today!



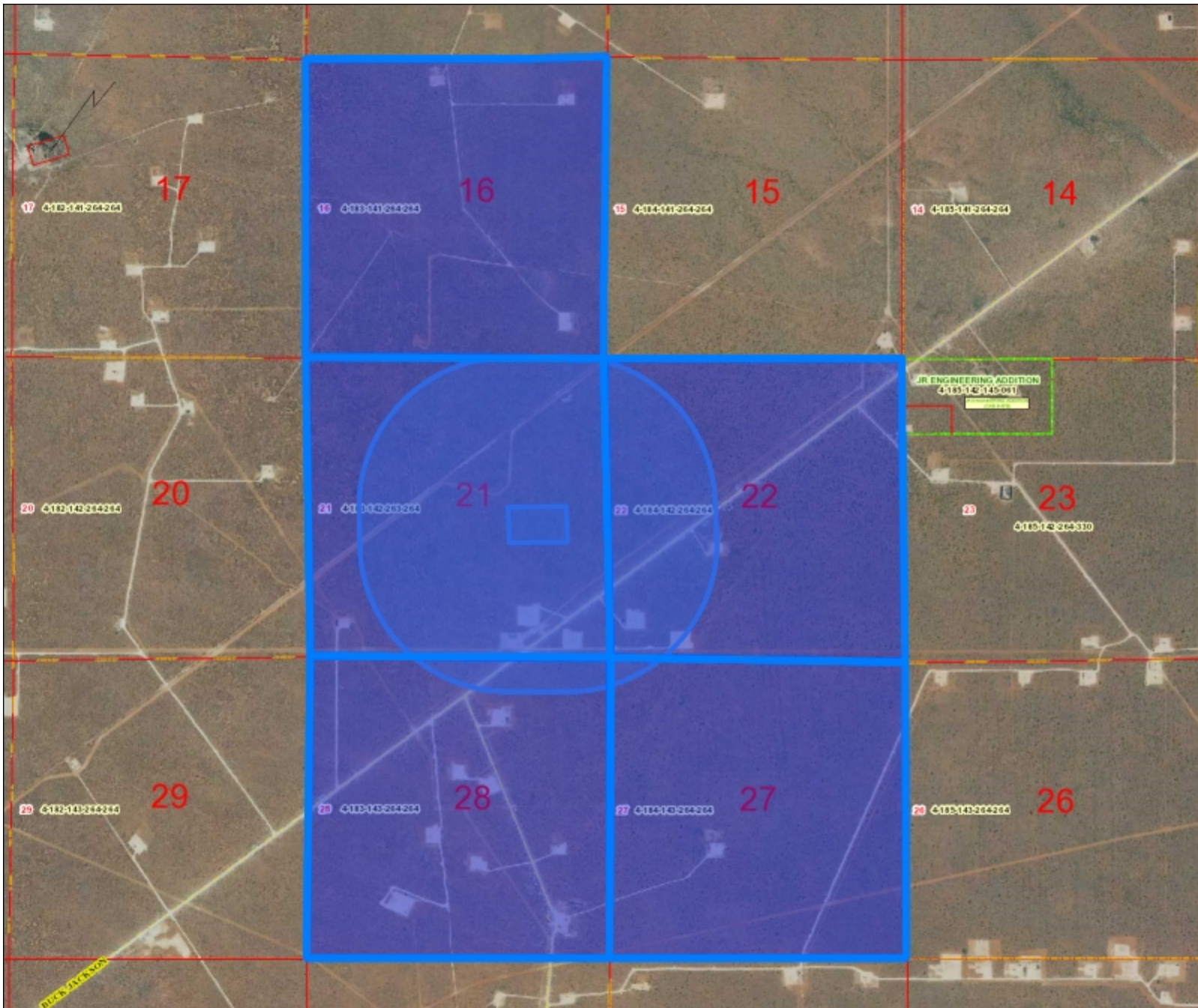
NM SOLAR GROUP CARES ABOUT YOUR SAFETY.
WE ARE OFFERING VIRTUAL
CONSULTATIONS!

CALL TODAY TALK TO OUR TEAM OF EXPERTS!

575-689-1118

TX-GC0413101-04

Eddy County Property Tax Map



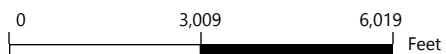
Legend

Cartography

- <all other values>
- Govt Lot Lines
- Dimension Tic
- Leader Lines
- Misc Carto
- Owner Hooks
- Sub Corners
- Roads
- Railroads
- Water
- Geographic
- Section
- Subdivision
- Parcel

Wildcat CS Surrounding Properties

Web Print: 05/25/2020



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.



Tab 10

**Section 10 - Written Description of the Routine
Operations of the Facility**

Section 10

Written Description of the Routine Operations of the Facility

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

Field gas flows into two inlet slug catchers. The site uses natural gas engines to compress the gas for sales, including nine (9) Caterpillar 3616TA engines (ENG1-ENG9) and two (2) Caterpillar 3516J engines (ENG11-ENG12). The Caterpillar engines are equipped with oxidation catalysts to reduce CO, VOC, and formaldehyde emissions.

Gas is dehydrated using triethylene glycol dehydration units (DEHY1-DEHY3, each handling up to 80 MMscfd each. The systems are equipped with flash tanks and condensers. Flash tank vapors are recycled in the dehydration system. The glycol still vent vapors are routed to condensers. Uncondensed vapors are controlled by the flare system (FL1/FL2/FL3). Dehydrated gas is then transferred to a sales pipeline.

Liquids generated anywhere in the system are dumped to an ultra-low pressure separator (LPS). Vapors from the LPS are routed to the flare system (FL1/FL2/FL3). From the LPS, oil at approximately 2 psig is dumped to four (4) oil storage tanks (OT1-OT4), which are controlled by the flare system (FL1/FL2/FL3). Water from the LPS flows to redundant skim tanks (SKT1/SKT2). The skim tanks are arranged as a redundant system in which one unit can be used if another is down for unforeseen circumstances. Water is then dumped to two (2) water tanks (WT1-WT2). Any residual oil flows from the skim tanks into the oil storage tanks. Vapors from the water storage tanks and skim tanks are also controlled by the flare system (FL1/FL2/FL3). Oil and water are trucked offsite.

The flare system (FL1/FL2/FL3) is also used to flare gas in compressor station in the event of an emergency.

Tab 11
Section 11 -Source Determination

Section 11

Source Determination

Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe):

See Table 2A

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

Yes No

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

Yes No

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

Yes No

C. Make a determination:

The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "YES" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "NO" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Tab 12
Section 12 - PSD Applicability Determination for
All Sources

Section 12

Section 12.A

PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

A PSD applicability determination for all sources. For sources applying for a significant permit revision, apply the applicable requirements of 20.2.74.AG and 20.2.74.200 NMAC and to determine whether this facility is a major or minor PSD source, and whether this modification is a major or a minor PSD modification. It may be helpful to refer to the procedures for Determining the Net Emissions Change at a Source as specified by Table A-5 (Page A.45) of the EPA New Source Review Workshop Manual to determine if the revision is subject to PSD review.

A. This facility is:

- a minor PSD source before and after this modification (if so, delete C and D below).
- a major PSD source before this modification. This modification will make this a PSD minor source.
- an existing PSD Major Source that has never had a major modification requiring a BACT analysis.
- an existing PSD Major Source that has had a major modification requiring a BACT analysis
- a new PSD Major Source after this modification.

Tab 13

**Section 13 - Determination of State & Federal Air
Quality Regulations**

Section 13

Determination of State & Federal Air Quality Regulations

This section lists each state and federal air quality regulation that may apply to your facility and/or equipment that are stationary sources of regulated air pollutants.

Not all state and federal air quality regulations are included in this list. Go to the Code of Federal Regulations (CFR) or to the Air Quality Bureau's regulation page to see the full set of air quality regulations.

Required Information for Specific Equipment:

For regulations that apply to specific source types, in the 'Justification' column **provide any information needed to determine if the regulation does or does not apply. For example**, to determine if emissions standards at 40 CFR 60, Subpart IIII apply to your three identical stationary engines, we need to know the construction date as defined in that regulation; the manufacturer date; the date of reconstruction or modification, if any; if they are or are not fire pump engines; if they are or are not emergency engines as defined in that regulation; their site ratings; and the cylinder displacement.

Required Information for Regulations that Apply to the Entire Facility:

See instructions in the 'Justification' column for the information that is needed to determine if an 'Entire Facility' type of regulation applies (e.g. 20.2.70 or 20.2.73 NMAC).

Regulatory Citations for Regulations That Do Not, but Could Apply:

If there is a state or federal air quality regulation that does not apply, but you have a piece of equipment in a source category for which a regulation has been promulgated, you must **provide the low level regulatory citation showing why your piece of equipment is not subject to or exempt from the regulation. For example** if you have a stationary internal combustion engine that is not subject to 40 CFR 63, Subpart ZZZZ because it is an existing 2 stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, your citation would be 40 CFR 63.6590(b)(3)(i). **We don't want a discussion of every non-applicable regulation, but if it is possible a regulation could apply, explain why it does not. For example**, if your facility is a power plant, you do not need to include a citation to show that 40 CFR 60, Subpart OOO does not apply to your non-existent rock crusher.

Regulatory Citations for Emission Standards:

For each unit that is subject to an emission standard in a source specific regulation, such as 40 CFR 60, Subpart OOO or 40 CFR 63, Subpart HH, include the low level regulatory citation of that emission standard. Emission standards can be numerical emission limits, work practice standards, or other requirements such as maintenance. **Here are examples:** a glycol dehydrator is subject to the general standards at 63.764C(1)(i) through (iii); an engine is subject to 63.6601, Tables 2a and 2b; a crusher is subject to 60.672(b), Table 3 and all transfer points are subject to 60.672(e)(1)

Federally Enforceable Conditions:

All federal regulations are federally enforceable. All Air Quality Bureau State regulations are federally enforceable except for the following: affirmative defense portions at 20.2.7.6.B, 20.2.7.110(B)(15), 20.2.7.11 through 20.2.7.113, 20.2.7.115, and 20.2.7.116; 20.2.37; 20.2.42; 20.2.43; 20.2.62; 20.2.63; 20.2.86; 20.2.89; and 20.2.90 NMAC. Federally enforceable means that EPA can enforce the regulation as well as the Air Quality Bureau and federally enforceable regulations can count toward determining a facility's potential to emit (PTE) for the Title V, PSD, and nonattainment permit regulations.

INCLUDE ANY OTHER INFORMATION NEEDED TO COMPLETE AN APPLICABILITY DETERMINATION OR THAT IS RELEVANT TO YOUR FACILITY'S NOTICE OF INTENT OR PERMIT.

EPA Applicability Determination Index for 40 CFR 60, 61, 63, etc: <http://cfpub.epa.gov/adi/>

<u>STATE REGU- LATIONS CITATION</u>	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.1 NMAC	General Provisions	Yes	Facility	General Provisions apply to Notice of Intent, Construction, and Title V permit applications.
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	Yes	Facility	If subject, this would normally apply to the entire facility. 20.2.3 NMAC is a State Implementation Plan (SIP) approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. Title V applications, see exemption at 20.2.3.9 NMAC
20.2.7 NMAC	Excess Emissions	Yes	Facility	If subject, this would normally apply to the entire facility. If your entire facility or individual pieces of equipment are subject to emissions limits in a permit or numerical emissions standards in a federal or state regulation, this applies. This would not apply to Notices of Intent since these are not permits.
20.2.33 NMAC	Gas Burning Equipment - Nitrogen Dioxide	No	N/A	None of the equipment has a rating greater than 1 MMBtu/hr.
20.2.34 NMAC	Oil Burning Equipment: NO ₂	No	N/A	This facility has no oil burning equipment.
20.2.35 NMAC	Natural Gas Processing Plant – Sulfur	No	N/A	The facility is not a gas processing plant.
20.2.38 NMAC	Hydrocarbon Storage Facility	Yes	OT1- OT4	The site uses a flare to comply with 20.2.38 NMAC.
20.2.39 NMAC	Sulfur Recovery Plant - Sulfur	No	N/A	The facility does not operate a sulfur recovery plant.
20.2.61.109 NMAC	Smoke & Visible Emissions	Yes	FL1-3, RB1-3, ENG1- 9, ENG11 -12, HTR1	This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC).
20.2.70 NMAC	Operating Permits	Yes	Facility	The facility is a major source and will apply for a Title V Operating Permit.
20.2.71 NMAC	Operating Permit Fees	Yes	Facility	The facility is a major source and will apply for a Title V Operating Permit.
20.2.72 NMAC	Construction Permits	Yes	Facility	This application requests a NSR in accordance with 20.2.72.
20.2.73 NMAC	NOI & Emissions Inventory Requirements	No	N/A	The site is subject to 20.2.72 NMAC.
20.2.74 NMAC	Permits – Prevention of Significant Deterioration (PSD)	No	N/A	The facility is not a major PSD site.
20.2.75 NMAC	Construction Permit Fees	Yes	Facility	A permit fee is included with this application.

<u>STATE REGU- LATIONS CITATION</u>	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.77 NMAC	New Source Performance	Yes	Facility	See regulatory discussion in Federal Regulations Citation section.
20.2.78 NMAC	Emission Standards for HAPS	No	N/A	The facility does not fit into any of the source categories.
20.2.79 NMAC	Permits – Nonattainment Areas	No	N/A	The facility is not located in a nonattainment area.
20.2.80 NMAC	Stack Heights	No	N/A	There are no stacks to which this regulation would apply.
20.2.82 NMAC	MACT Standards for source categories of HAPS	Yes	DEHY1- 3, ENG1-9, ENG11- 12	See regulatory discussion in Federal Regulations Citation section.
20.2.1 NMAC	General Provisions	Yes	Facility	General Provisions apply to Notice of Intent, Construction, and Title V permit applications.
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	Yes	Facility	If subject, this would normally apply to the entire facility. 20.2.3 NMAC is a State Implementation Plan (SIP) approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. Title V applications, see exemption at 20.2.3.9 NMAC

<u>FEDERAL REGU- LATIONS CITATION</u>	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 50	NAAQS	Yes	Facility	Compliance with the requirements of the GCP indicates compliance with NAAQS.
NSPS 40 CFR 60, Subpart A	General Provisions	Yes	Facility	See regulatory discussion below.
NSPS 40 CFR60.40a, Subpart Da	Subpart Da, Performance Standards for Electric Utility Steam Generating Units	No	N/A	The facility does not operate any electric utility steam generating units.
NSPS 40 CFR60.40b Subpart Db	Electric Utility Steam Generating Units	No	N/A	The facility does not operate any electric utility steam generating units.

FEDERAL REGU- LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR 60, Subpart Ka	Storage Vessels for Petroleum Liquids Commenced After May 18, 1978, and Prior to July 23, 1984	No	N/A	The hydrocarbons are stored prior to custody transfer.
NSPS 40 CFR 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Commenced After July 23, 1984	No	N/A	The hydrocarbons are stored prior to custody transfer.
NSPS 40 CFR 60.330 Subpart GG	Stationary Gas Turbines	No	N/A	There are no turbines.
NSPS 40 CFR 60, Subpart KKK	Leaks of VOC from Onshore Gas Plants	No	N/A	This is not a gas plant.
NSPS 40 CFR Part 60 Subpart LLL	Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions	No	N/A	The facility does not operate a sweetening unit.
NSPS 40 CFR Part 60 Subpart OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution after August 23, 2011 and before September 18, 2015	No	N/A	The site will be constructed after 9/18/15. See NSPS OOOOa discussion below.
NSPS 40 CFR Part 60 Subpart OOOOa	Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	Yes	FUG	The storage tanks were constructed after the applicability date of the rule; however, XTO is requesting emissions be limited by permit to less than 6 tpy. The regulation is applicable to the storage tanks but the tanks are not affected sources. The site uses low-bleed pneumatic controllers. The site is subject to leak monitoring from fugitive components.
NSPS 40 CFR 60 Subpart IIII	Standards of performance for Stationary Compression Ignition Internal Combustion Engines	No	N/A	The facility does not operate any affected sources.
NSPS 40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	TBD	ENG1-9, ENG11- 12	ENG1-ENG3 are subject to the engines are subject to the limitations in Table 1 per 40 CFR 60.4233(e). A determination of applicability will be made for each engine to be used at the site.

FEDERAL REGU- LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR 60 Subpart TTTT	Greenhouse Gas Emissions for Electric Generating Units	No	N/A	The facility does not operate any affected sources.
NSPS 40 CFR 60 Subpart UUUU	Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units	No	N/A	The facility does not operate any affected sources.
NSPS 40 CFR 60, Subparts WWW, XXX, Cc, and Cf	Standards of performance for Municipal Solid Waste (MSW) Landfills	No	N/A	The facility does not operate any affected sources.
NESHAP 40 CFR 61 Subpart A	General Provisions	See Below	See Below	See regulatory discussion below.
NESHAP 40 CFR 61 Subpart E	National Emission Standards for Mercury	No	N/A	The facility does not operate any affected sources.
NESHAP 40 CFR 61 Subpart V	National Emission Standards for Equipment Leaks (Fugitive Emission Sources)	No	N/A	The facility does not operate any affected sources.
MACT 40 CFR 63, Subpart A	General Provisions	No	N/A	See regulatory discussion below.
MACT 40 CFR 63.760 Subpart HH	Oil and Natural Gas Production Facilities	Yes	DEHY1- 3	As a major source of HAP, sources subject to HH include storage vessels with flash emissions, fugitive components, and compressors in VHAP service ((see §63.760(b)(1)(ii), (iii), and (iv)). Fugitives and compressors are exempt per §63.769(b) since they are subject to NSPS OOOO. Storage vessels use a closed vent system connected to a combustor to comply with §63.766(b). The dehydrators process more than 3 mmscfd; however, since benzene emissions are less than 1 tpy, there are no applicable requirements. (See §63.764(E)(1))
MACT 40 CFR 63 Subpart HHH	Natural Gas Transmission and Storage Facilities	No	N/A	This regulation does not apply as the plant is not a natural gas transmission and storage facility as defined by the subpart (§63.1270(a)).
MACT 40 CFR 63 Subpart DDDDD	Major Industrial, Commercial, and Institutional Boilers & Process Heaters	Yes	HTR1, RB1-3	Per §63.7500(e), boilers and heaters designed to burn gas 1 fuels must comply with work practice standards in Table 3 and does not have emission or operating limits.
MACT 40 CFR 63 Subpart JJJJJ	Boilers and Process Heaters	No	N/A	The units are exempt per §63.1195(e) since they burn natural gas.
MACT 40 CFR 63 Subpart UUUUU	NESHAP Coal & Oil Fire Electric Utility Steam Generating Unit	No	N/A	The facility does not operate any affected sources.
MACT 40 CFR 63 Subpart ZZZZ	RICE MACT	TBD	ENG1-9, ENG11- 12	ENG1-ENG3 comply with NSPS JJJJ to comply with NESHAP ZZZZ per 60.6590(c)(1). A determination of applicability will be made for each engine to be used at the site.

FEDERAL REGU- LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 64	Compliance Assurance Monitoring	No	N/A	The facility is not subject to CAM.
40 CFR 68	Chemical Accident Prevention	No	N/A	The facility does not store any chemicals above threshold quantities.
Acid Rain 40 CFR 72	Acid Rain	No	N/A	The facility does not have any units subject to the Acid Rain regulations.
Title IV – Acid Rain 40 CFR 73	Sulfur Dioxide Allowance Emissions	No	N/A	The facility does not have any units subject to the Acid Rain regulations.
Title IV-Acid Rain 40 CFR 75	Continuous Emissions Monitoring	No	N/A	The facility does not have any units subject to the Acid Rain regulations.
Title IV – Acid Rain 40 CFR 76	Acid Rain Nitrogen Oxides Emission Reduction Program	No	N/A	The facility does not have any units subject to the Acid Rain regulations.
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	No	N/A	The facility does not service, maintain, or repair equipment containing refrigerants.

Tab 14
Section 14 - Operational Plan to Mitigate Emissions

Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

- Title V Sources** (20.2.70 NMAC): By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.
- NSR** (20.2.72 NMAC), **PSD** (20.2.74 NMAC) & **Nonattainment** (20.2.79 NMAC) **Sources**: By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.
- Title V** (20.2.70 NMAC), **NSR** (20.2.72 NMAC), **PSD** (20.2.74 NMAC) & **Nonattainment** (20.2.79 NMAC) **Sources**: By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.
-

Emissions during startups, shutdowns, maintenance and emergencies (ESDs) will be minimized through the application of industry standards and /or manufacturer recommended operating practices as described below. Trained technicians are responsible for the timely and effective implementation of these actions.

Startup procedures for the engines are normally completed in less than 15 minutes and shutdown procedures are normally completed in less than 5 minutes. During a cold startup, the units may emit at a higher rate than normal as the units warm to operating temperature; however, if the unit has been shut down for long enough that a warm up is required, the small excess emissions occurring during warmup will be more than offset by the lack of emissions during the shutdown period. Similarly, if the unit is restarted while warm, there should be no excess emissions as the unit is already at operating temperature.

Tab 15
Section 15 - Alternative Operating Scenarios

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

Construction Scenarios: When a permit is modified authorizing new construction to an existing facility, NMED includes a condition to clearly address which permit condition(s) (from the previous permit and the new permit) govern during the interval between the date of issuance of the modification permit and the completion of construction of the modification(s). There are many possible variables that need to be addressed such as: Is simultaneous operation of the old and new units permitted and, if so for example, for how long and under what restraints? In general, these types of requirements will be addressed in Section A100 of the permit, but additional requirements may be added elsewhere. Look in A100 of our NSR and/or TV permit template for sample language dealing with these requirements. Find these permit templates at: https://www.env.nm.gov/aqb/permit/aqb_pol.html. Compliance with standards must be maintained during construction, which should not usually be a problem unless simultaneous operation of old and new equipment is requested.

In this section, under the bolded title “Construction Scenarios”, specify any information necessary to write these conditions, such as: conservative-realistic estimated time for completion of construction of the various units, whether simultaneous operation of old and new units is being requested (and, if so, modeled), whether the old units will be removed or decommissioned, any PSD ramifications, any temporary limits requested during phased construction, whether any increase in emissions is being requested as SSM emissions or will instead be handled as a separate Construction Scenario (with corresponding emission limits and conditions, etc).

XTO is not proposing any alternative operating scenarios.

Tab 16
Section 16 - Air Dispersion Modeling

Section 16

Air Dispersion Modeling

- 1) Minor Source Construction (20.2.72 NMAC) and Prevention of Significant Deterioration (PSD) (20.2.74 NMAC) ambient impact analysis (modeling): Provide an ambient impact analysis as required at 20.2.72.203.A(4) and/or 20.2.74.303 NMAC and as outlined in the Air Quality Bureau’s Dispersion Modeling Guidelines found on the Planning Section’s modeling website. If air dispersion modeling has been waived for one or more pollutants, attach the AQB Modeling Section modeling waiver approval documentation.
- 2) SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions during routine or predictable startup, shutdown, or maintenance (SSM) using realistic worst case scenarios following guidance from the Air Quality Bureau’s dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.
- 3) Title V (20.2.70 NMAC) ambient impact analysis: Title V applications must specify the construction permit and/or Title V Permit number(s) for which air quality dispersion modeling was last approved. Facilities that have only a Title V permit, such as landfills and air curtain incinerators, are subject to the same modeling required for preconstruction permits required by 20.2.72 and 20.2.74 NMAC.

What is the purpose of this application?	Enter an X for each purpose that applies
New PSD major source or PSD major modification (20.2.74 NMAC). See #1 above.	
New Minor Source or significant permit revision under 20.2.72 NMAC (20.2.72.219.D NMAC). See #1 above. Note: Neither modeling nor a modeling waiver is required for VOC emissions.	X
Reporting existing pollutants that were not previously reported.	
Reporting existing pollutants where the ambient impact is being addressed for the first time.	
Title V application (new, renewal, significant, or minor modification. 20.2.70 NMAC). See #3 above.	
Relocation (20.2.72.202.B.4 or 72.202.D.3.c NMAC)	
Minor Source Technical Permit Revision 20.2.72.219.B.1.d.vi NMAC for like-kind unit replacements.	
Other: i.e. SSM modeling. See #2 above.	
This application does not require modeling since this is a No Permit Required (NPR) application.	
This application does not require modeling since this is a Notice of Intent (NOI) application (20.2.73 NMAC).	
This application does not require modeling according to 20.2.70.7.E(11), 20.2.72.203.A(4), 20.2.74.303, 20.2.79.109.D NMAC and in accordance with the Air Quality Bureau’s Modeling Guidelines.	

Check each box that applies:

- See attached, approved modeling **waiver for all** pollutants from the facility.
- See attached, approved modeling **waiver for some** pollutants from the facility.
- Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.
- Attached in UA4 is a **modeling report for some** pollutants from the facility.
- No modeling is required.

Tab 17
Section 17 - Compliance Test History

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

To show compliance with existing NSR permits conditions, you must submit a compliance test history. The table below provides an example.

Initial compliance tests were performed on ENG1, ENG2, ENG3, ENG11, and ENG12 between March 24 and March 26, 2020. Testing demonstrated compliance with emission limitations.

Tab 18
Section 18 - Addendum for Streamline Applications
(Not Applicable)

Section 18

Addendum for Streamline Applications

Do not print this section unless this is a streamline application.

Streamline Applications do not require a complete application. Submit Sections 1-A, 1-B, 1-D, 1-F, 1-G, 2-A, 2-C thru L, Sections 3 thru 8, Section 13, Section 18, Section 22, and Section 23 (Certification). Other sections may be required at the discretion of the Department. 20.2.72.202 NMAC Exemptions do not apply to Streamline sources. 20.2.72.219 NMAC revisions and modifications do not apply to Streamline sources, thus 20.2.72.219 type actions require a complete new application submittal. Please do not print sections of a streamline application that are not required.

This section is not applicable since this is not a Streamline Permit Application.

Tab 19
Section 19 - Requirements for Title V Program

Section 19

Requirements for Title V Program

Do not print this section unless this is a Title V application.

Who Must Use this Attachment:

- * Any major source as defined in 20.2.70 NMAC.
 - * Any source, including an area source, subject to a standard or other requirement promulgated under Section 111 - Standards of Performance for New Stationary Sources, or Section 112 Hazardous Air Pollutants, of the 1990 federal Clean Air Act ("federal Act"). Non-major sources subject to Sections 111 or 112 of the federal Act are exempt from the obligation to obtain an 20.2.70 NMAC operating permit until such time that the EPA Administrator completes rulemakings that require such sources to obtain operating permits. In addition, sources that would be required to obtain an operating permit solely because they are subject to regulations or requirements under Section 112(r) of the federal Act are exempt from the requirement to obtain an Operating Permit.
 - * Any Acid Rain source as defined under title IV of the federal Act. The Acid Rain program has additional forms. See <http://www.env.nm.gov/aqb/index.html>. Sources that are subject to both the Title V and Acid Rain regulations are encouraged to submit both applications simultaneously.
 - * Any source in a source category designated by the EPA Administrator ("Administrator"), in whole or in part, by regulation, after notice and comment.
-

This is not a Title V application.

Tab 20
Section 20 - Other Relevant Information

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

No other relevant information is provided.

Tab 21

**Section 21 - Addendum for Landfill Applications
(Not Applicable)**

Section 21

Addendum for Landfill Applications

Do not print this section unless this is a landfill application.

Landfill Applications are not required to complete Sections 1-C Input Capacity and Production Rate, 1-E Operating Schedule, 17 Compliance Test History, and 18 Streamline Applications. Section 12 – PSD Applicability is required only for Landfills with Gas Collection and Control Systems and/or landfills with other non-fugitive stationary sources of air emissions such as engines, turbines, boilers, heaters. All other Sections of the Universal Application Form are required.

EPA Background Information for MSW Landfill Air Quality Regulations:

<https://www3.epa.gov/airtoxics/landfill/landflpg.html>

NM Solid Waste Bureau Website: <https://www.env.nm.gov/swb/>

This is not a landfill.

Tab 22
Section 22 - Certification

Section 22: Certification

Company Name: PEI on behalf XTO Energy Inc.

I, Evan Tullos, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 2 day of June, ~~May~~, 2020, upon my oath or affirmation, before a notary of the State of Illinois.

Evan Tullos
*Signature

6/2/20
Date

Evan Tullos
Printed Name

Vice President
Title

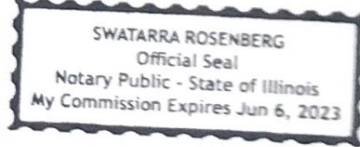
Scribed and sworn before me on this 2 day of June, ~~May~~, 2020.

My authorization as a notary of the State of Illinois expires on the 6 day of June, 2023

Swatarra Rosenberg
Notary's Signature

6.2.2020
Date

Swatarra Rosenberg
Notary's Printed Name



*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC.

Tab 23
Section 23 - UA4

Universal Application 4

Air Dispersion Modeling Report

Refer to and complete Section 16 of the Universal Application form (UA3) to assist your determination as to whether modeling is required. If, after filling out Section 16, you are still unsure if modeling is required, e-mail the completed Section 16 to the AQB Modeling Manager for assistance in making this determination. If modeling is required, a modeling protocol would be submitted and approved prior to an application submittal. The protocol should be emailed to the modeling manager. A protocol is recommended but optional for minor sources and is required for new PSD sources or PSD major modifications. Fill out and submit this portion of the Universal Application form (UA4), the “Air Dispersion Modeling Report”, only if air dispersion modeling is required for this application submittal. This serves as your modeling report submittal and should contain all the information needed to describe the modeling. No other modeling report or modeling protocol should be submitted with this permit application.

16-A: Identification		
1	Name of facility:	Wildcat Compressor Station
2	Name of company:	XTO Energy Inc.
3	Current Permit number:	7474M1
4	Name of applicant’s modeler:	Bruce Ferguson
5	Phone number of modeler:	(601) 824-4860
6	E-mail of modeler:	bferguson@fce-engineering.com

16-B: Brief		
1	Was a modeling protocol submitted and approved?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2	Why is the modeling being done? Modifying Equipment	Other (describe below)
3	Describe the permit changes relevant to the modeling. See Section 3 of the application.	
4	What geodetic datum was used in the modeling?	NAD83
5	How long will the facility be at this location?	indefinite
6	Is the facility a major source with respect to Prevention of Significant Deterioration (PSD)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7	Identify the Air Quality Control Region (AQCR) in which the facility is located	155

16-B: Brief			
8	List the PSD baseline dates for this region (minor or major, as appropriate).		
	NO2	3/16/1988	
	SO2	7/28/1978	
	PM10	2/20/1979	
	PM2.5	11/13/2013	
9	Provide the name and distance to Class I areas within 50 km of the facility (300 km for PSD permits).		
	None		
10	Is the facility located in a non-attainment area? If so describe below	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
11	Describe any special modeling requirements, such as streamline permit requirements.		
	None		

16-C: Modeling History of Facility				
1	Describe the modeling history of the facility, including the air permit numbers, the pollutants modeled, the National Ambient Air Quality Standards (NAAQS), New Mexico AAQS (NMAAQs), and PSD increments modeled. (Do not include modeling waivers).			
	Pollutant	Latest permit and modification number that modeled the pollutant facility-wide.	Date of Permit	Comments
	CO	7474M1	2/6/2019	
	NO ₂	7474M1	2/6/2019	
	SO ₂	7474M1	2/6/2019	
	H ₂ S			
	PM2.5	7474M1	2/6/2019	
	PM10	7474M1	2/6/2019	
	TSP			
	Lead			
	Ozone (PSD only)			
	NM Toxic Air Pollutants (20.2.72.402 NMAC)			

16-D: Modeling performed for this application

1	For each pollutant, indicate the modeling performed and submitted with this application. Choose the most complicated modeling applicable for that pollutant, i.e., culpability analysis assumes ROI and cumulative analysis were also performed.					
	Pollutant	ROI	Cumulative analysis	Culpability analysis	Waiver approved	Pollutant not emitted or not changed.
	CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	NO ₂	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SO ₂	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	H ₂ S	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	PM _{2.5}	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PM ₁₀	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	TSP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Ozone*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State air toxic(s) (20.2.72.402 NMAC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

16-E: New Mexico toxic air pollutants modeling

1	List any New Mexico toxic air pollutants (NMTAPs) from Tables A and B in 20.2.72.502 NMAC that are modeled for this application. None					
2	List any NMTAPs that are emitted but not modeled because stack height correction factor. Add additional rows to the table below, if required.					
	Pollutant	Emission Rate (pounds/hour)	Emission Rate Screening Level (pounds/hour)	Stack Height (meters)	Correction Factor	Emission Rate/ Correction Factor

16-F: Modeling options

1	Was the latest version of AERMOD used with regulatory default options? If not explain below.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

16-G: Surrounding source modeling

1	Date of surrounding source retrieval	MergeMaster March 11, 2020
2	If the surrounding source inventory provided by the Air Quality Bureau was believed to be inaccurate, describe how the sources modeled differ from the inventory provided. If changes to the surrounding source inventory were made, use the table below to describe them. Add rows as needed.	
	AQB Source ID	Description of Corrections

	38927R2	PM2.5 emissions were listed as 26.4 lb/hr for abrasive blasting. The application on the NMED website for this facility lists PM 26.4 lb/hr, PM10 3.77 lb/hr and PM2.5 0.377 lb/hr. The PM10 and PM2.5 fractions were adjusted to correspond to the application.
	38927R3	This source appears to be duplicative of 38927R2 and was removed.
	35169E1	This source is listed as a 0.5 MMBtu/hr heater treater with 5.5 lb/hr PM/PM10/PM2.5. This facility is not listed in APMAP, so the permit application was not reviewed. The heater treater emissions are two orders of magnitude greater than any other heater treater provided in the surrounding source inventory. The emissions were changed to 0.04 lb/hr which is the largest emissions of other heater treaters in the surrounding source inventory.
	38323R3	PM2.5 emissions were listed as 26.4 lb/hr for abrasive blasting. The application on the NMED website for this facility lists PM 26.4 lb/hr, PM10 3.77 lb/hr and PM2.5 0.377 lb/hr. The PM10 and PM2.5 fractions were adjusted to correspond to the application.
	38928R3	PM2.5 emissions were listed as 26.4 lb/hr for abrasive blasting. The application on the NMED website for this facility lists PM 26.4 lb/hr, PM10 3.77 lb/hr and PM2.5 0.377 lb/hr. The PM10 and PM2.5 fractions were adjusted to correspond to the application.

16-H: Building and structure downwash

1	How many buildings are present at the facility?	None	
2	How many above ground storage tanks are present at the facility?	8	
3	Was building downwash modeled for all buildings and tanks? If not explain why below.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
4	Building comments		

16-I: Receptors and modeled property boundary

1	<p>“Restricted Area” is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area. A Restricted Area is required in order to exclude receptors from the facility property. If the facility does not have a Restricted Area, then receptors shall be placed within the property boundaries of the facility.</p> <p>Describe the fence or other physical barrier at the facility that defines the restricted area.</p> <p>Fencing encompasses the station</p>		
2	Receptors must be placed along publicly accessible roads in the restricted area. Are there public roads passing through the restricted area?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
3	Are restricted area boundary coordinates included in the modeling files?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Describe the receptor grids and their spacing. The table below may be used, adding rows as needed.		

	Grid Type	Shape	Spacing	Start distance from restricted area or center of facility	End distance from restricted area or center of facility	Comments
4	Cartesian	Circular	50 m	0	1 km	
	Cartesian	Circular	100 m	1 km	3 km	
	Cartesian	Circular	250 m	3 km	6 km	
	Cartesian	Circular	500 m	6 km	10 km	
	Cartesian	Circular	1 km	10 km	50 km	
	5	Describe receptor spacing along the fence line. 50 m				
6	Describe the PSD Class I area receptors.					
	Not applicable					

16-J: Sensitive areas

1	Are there schools or hospitals or other sensitive areas near the facility? If so describe below. This information is optional (and purposely undefined) but may help determine issues related to public notice.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
3	The modeling review process may need to be accelerated if there is a public hearing. Are there likely to be public comments opposing the permit application?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

16-K: Modeling Scenarios

1	Identify, define, and describe all modeling scenarios. Examples of modeling scenarios include using different production rates, times of day, times of year, simultaneous or alternate operation of old and new equipment during transition periods, etc. Alternative operating scenarios should correspond to all parts of the Universal Application and should be fully described in Section 15 of the Universal Application (UA3).		
	Scenario 2E has the emissions as presented on Tab 2E of form UA2. Scenario B splits the flared emissions evenly across all three flares.		
2	Which scenario produces the highest concentrations? Why?		
	Scenario B produces the highest concentrations because the flares are in close proximity and splitting the emissions evenly produces the highest emissions at the lowest effective diameter, reducing the plume rise. While the maximum impacts from flaring are higher in this scenario, the cumulative maximum impacts for the facility differ by less than 1 ug/m ³ between the scenarios indicating the flares are not the controlling source for the maximum impacts. For PM10/PM2.5 short term impacts, scenario 2E produced the highest impacts considering the whole facility and scenario 2E was used in the cumulative analysis.		
3	Were emission factor sets used to limit emission rates or hours of operation? (This question pertains to the "SEASON", "MONTH", "HROFDY" and related factor sets, not to the factors used for calculating the maximum emission rate.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
4	If so, describe factors for each group of sources. List the sources in each group before the factor table for that group. (Modify or duplicate table as necessary. It's ok to put the table below section 16-K if it makes formatting easier.)		

Sources:												
5	Hour of Day	Factor	Hour of Day	Factor								
	1		13									
	2		14									
	3		15									
	4		16									
	5		17									
	6		18									
	7		19									
	8		20									
	9		21									
	10		22									
	11		23									
	12		24									
If hourly, variable emission rates were used that were not described above, describe them below.												
6	Were different emission rates used for short-term and annual modeling? If so describe below.										Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

16-L: NO₂ Modeling												
1	Which types of NO ₂ modeling were used? Check all that apply.											
	<input type="checkbox"/>	ARM2										
	<input checked="" type="checkbox"/>	100% NO _x to NO ₂ conversion										
	<input type="checkbox"/>	PVMRM										
	<input type="checkbox"/>	OLM										
<input type="checkbox"/>	Other:											
2	Describe the NO ₂ modeling.											
	Allowable emissions of NO _x for facility was modeled. Monitored impacts from the NMED modeling guideline were used to account for off-site sources. The high-eighth-high of the year was used to determine compliance which is more conservative than the eighth highest daily maximum 1-hr concentration.											
3	Were default NO ₂ /NO _x ratios (0.5 minimum, 0.9 maximum or equilibrium) used? If not describe and justify the ratios used below.										Yes <input type="checkbox"/>	No <input type="checkbox"/>
	Not applicable											
4	Describe the design value used for each averaging period modeled.											
	1-hour: High eighth high Annual: One Year Annual Average											

16-M: Particulate Matter Modeling

1	Select the pollutants for which plume depletion modeling was used.						
	<input type="checkbox"/>	PM2.5					
	<input type="checkbox"/>	PM10					
	<input checked="" type="checkbox"/>	None					
2	Describe the particle size distributions used. Include the source of information.						
3	Does the facility emit at least 40 tons per year of NO _x or at least 40 tons per year of SO ₂ ? Sources that emit at least 40 tons per year of NO _x or at least 40 tons per year of SO ₂ are considered to emit significant amounts of precursors and must account for secondary formation of PM2.5.		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
4	Was secondary PM modeled for PM2.5?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
5	If MERPs were used to account for secondary PM2.5 fill out the information below. If another method was used describe below.						
	NO _x (ton/yr)	SO ₂ (ton/yr)	[PM2.5] _{annual}				
	200.87	19.52	0.004				
	[PM2.5] _{24-hour}						
	0.075						
The worst-case MERP was selected from the Southwest Climate zone as presented at the EPA website https://www.epa.gov/scram/merps-view-qlik .							
	State	County	Metric	Precursor	Emissions	Stack	MERP
	Colorado	Weld Co	Daily PM2.5	SO2	1000	10	814
	Colorado	Weld Co	Daily PM2.5	NOx	1000	10	5215
	Colorado	Weld Co	Annual PM2.5	NOx	1000	10	10530
	Colorado	Weld Co	Annual PM2.5	SO2	1000	10	7359
[PM2.5] _{24-hour} = 1.2 ug/m ³ (200.87 tons /5215 tons + 19.52 tons/814 tons) = 0.074 ug/m ³							
[PM2.5] _{annual} = 0.2 ug/m ³ (200.87 tons / 10530 tons + 19.52 tons / 7359 tons) = 0.004 ug/m ³							

16-N: Setback Distances

1	Portable sources or sources that need flexibility in their site configuration requires that setback distances be determined between the emission sources and the restricted area boundary (e.g. fence line) for both the initial location and future locations. Describe the setback distances for the initial location.		
	Not applicable		
2	Describe the requested, modeled, setback distances for future locations, if this permit is for a portable stationary source. Include a haul road in the relocation modeling.		
	Not applicable		

16-O: PSD Increment and Source IDs

1	The unit numbers in the Tables 2-A, 2-B, 2-C, 2-E, 2-F, and 2-I should match the ones in the modeling files. Do these match? If not, provide a cross-reference table between unit numbers if they do not match below.			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	Unit Number in UA-2		Unit Number in Modeling Files		
	Road		SLINE		
	FL1, FL2 & FL2 for scenario B		FL1B, FL2B, FLB		
	Remaining unit numbers are as presented in UA2				
2	The emission rates in the Tables 2-E and 2-F should match the ones in the modeling files. Do these match? If not, explain why below.			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	For Scenario 2-E the pilot emissions for all three flares are listed on one row. In Scenario 2E, FL1 is pilot only, FL2 is normal operation as presented in Table 2-E plus pilot emissions and FL3 is SSM as presented in Table 2-E plus pilot emissions.				
	For scenario B the emissions were split evenly across the three flares.				
3	Have the minor NSR exempt sources or Title V Insignificant Activities" (Table 2-B) sources been modeled?			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
4	Which units consume increment for which pollutants?				
	Unit ID	NO ₂	SO ₂	PM10	PM2.5
	ENG1	x	x	x	x
	ENG2	x	x	x	x
	ENG3	x	x	x	x
	ENG4	x	x	x	x
	ENG5	x	x	x	x
	ENG6	x	x	x	x
	ENG7	x	x	x	x
	ENG8	x	x	x	x
	ENG9	x	x	x	x
	ENG11	x	x	x	x
	ENG12	x	x	x	x
	FL1	x	x	x	x
	FL2	x	x	x	x
	FL3	x	x	x	x
	RB1/DEHY1	x	x	x	x
	RB2/DEHY2	x	x	x	x
	RB3/DEHY3	x	x	x	x
	HTR1	x	x	x	x
Road			x	x	
5	PSD increment description for sources. (for unusual cases, i.e., baseline unit expanded emissions after baseline date).		Facility construction is after the minor source baseline date.		
6	Are all the actual installation dates included in Table 2A of the application form, as required? This is necessary to verify the accuracy of PSD increment modeling. If not please explain how increment consumption status is determined for the missing installation dates below.			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

16-P: Flare Modeling

1	For each flare or flaring scenario, complete the following			
	Flare ID (and scenario)	Average Molecular Weight	Gross Heat Release (cal/s)	Effective Flare Diameter (m)
	Scenario 2E			
	FL1 Pilot	21.38	339,972	0.514
	FL2 Normal Operation	32.03	720,664	0.724
	FL3 SSM	24.90	3,046,491	1.522
	Scenario B			
	FL1B	26.59	1,142,394	0.927
	FL2B	26.59	1,142,394	0.927
	FL3B	26.59	1,142,394	0.927

16-Q: Volume and Related Sources

1	Were the dimensions of volume sources different from standard dimensions in the Air Quality Bureau (AQB) Modeling Guidelines? If not please explain how increment consumption status is determined for the missing installation dates below.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2	Describe the determination of sigma-Y and sigma-Z for fugitive sources. Sigma values for the road were determined using a vehicle height of 4 m, road width of 6 m and volume height of 1.7 times the vehicle height resulting in sigma-Y of 5.58 and initial sigma-Z of 3.16.		
3	Describe how the volume sources are related to unit numbers. Or say they are the same. ROAD source is represented by volume sources L0000001 through L0000038		
4	Describe any open pits. None		
5	Describe emission units included in each open pit. Not Applicable		

16-R: Background Concentrations

1	Were NMED provided background concentrations used? Identify the background station used below. If non-NMED provided background concentrations were used describe the data that was used.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	CO: Del Norte High School (350010023)		
	NO ₂ : Outside Carlsbad (350151005)		
	PM2.5: Hobbs-Jefferson (350450019)		
	PM10: Hobbs-Jefferson (350250008)		
	SO ₂ : Amarillo (483751025)		
	Other:		
	Comments:		
2	Were background concentrations refined to monthly or hourly values? If so describe below.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

16-S: Meteorological Data

1	Was NMED provided meteorological data used? If so select the station used.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	Artesia		
2	If NMED provided meteorological data was not used describe the data set(s) used below. Discuss how missing data were handled, how stability class was determined, and how the data were processed.		

16-T: Terrain

1	Was complex terrain used in the modeling? If not, describe why below.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2	What was the source of the terrain data?		
	NED data through http://www.webgis.com/ , downloaded through the Lakes Environmental GUI		

16-U: Modeling Files

1	Describe the modeling files: Files are named by pollutant. Source groups in ROI analysis include 2E with flare emissions as listed on 2E and B with flare emissions split evenly across all three flares. Input files - *.ADI (AERMOD), *.bpi (BPIP) Output files - *.ADO (AERMOD), *.pro (BPIP) Summary files - *.SUM (AERMOD) Wildcat Observation Path 1-7-20.*, georeferenced facility layout figure
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Plot file format [xx][xx][xxxx].plt [avg period][rank][G001 for scenario 2E and G002 for scenario B]		
File name (or folder and file name)	Pollutant(s)	Purpose (ROI/SIA, cumulative, culpability analysis, other)
Surrounding Sources\MergeMaster.zip	Surrounding source files produced by MergeMaster and EOG application showing PM/PM10/PM2.5 emissions for their general permits to support change to MergeMaster files	
Flares.zip		Comparison of flare NOx Impacts between two scenarios
SIA\ CO.zip	CO	ROI
NOx.zip	NO2	ROI, cumulative
PM10.zip	PM10	ROI
PM25.zip	PM25	ROI
SO2.zip	SO2	ROI, cumulative
CIA\ PM10.zip	PM10	cumulative
PM25.zip	PM25	cumulative

16-V: PSD New or Major Modification Applications (Not Applicable)			
1	A new PSD major source or a major modification to an existing PSD major source requires additional analysis. Was preconstruction monitoring done (see 20.2.74.306 NMAC and PSD Preapplication Guidance on the AQB website)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2	If not, did AQB approve an exemption from preconstruction monitoring?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3	Describe how preconstruction monitoring has been addressed or attach the approved preconstruction monitoring or monitoring exemption.		
4	Describe the additional impacts analysis required at 20.2.74.304 NMAC.		
5	If required, have ozone and secondary PM2.5 ambient impacts analyses been completed? If so describe below.	Yes <input type="checkbox"/>	No <input type="checkbox"/>

16-W: Modeling Results										
1	If ambient standards are exceeded because of surrounding sources, a culpability analysis is required for the source to show that the contribution from this source is less than the significance levels for the specific pollutant. Was culpability analysis performed? If so describe below.							Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
2	Identify the maximum concentrations from the modeling analysis. Rows may be modified, added and removed from the table below as necessary.									
Pollutant, Time Period and Standard	Modeled Facility Concentration (µg/m3)	Modeled Concentration with	Secondary PM (µg/m3)	Background Concentration (µg/m3)	Cumulative Concentration (µg/m3)	Value of Standard (µg/m3)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
NO2 1-hr NAAQS	119.20422	N/A	N/A	38.7	157.9042	188.03	83.98%	615350	3563450	1072.87
NO2 Annual NMAAQs	11.49307	N/A	N/A	5	16.49307	94.02	17.54%	615005.37	3563623.75	1073.59
NO2 Annual PSD	11.49307	N/A	N/A	5	16.49307	25	65.97%	615005.37	3563623.75	1073.59
CO 1-hr SIL	213.14779	N/A	N/A	N/A	213.1478	2,000	10.66%	615350	3563400	1072.42
CO 8-hr SIL	102.69421	N/A	N/A	N/A	102.6942	500	20.54%	615400	3563450	1073.26
SO2 1-hr NAAQS	19.05846	N/A	N/A	47	66.05846	196.4	33.63%	614957.84	3563479.11	1070.31
SO2 3-hr SIL	12.23191	N/A	N/A	N/A	12.23191	25	48.93%	615053.02	3563623.8	1073.49
SO2 24-hr PSD	5.68915	N/A	N/A	68.3	73.98915	91	81.31%	615005.37	3563623.75	1073.59
SO2 Annual PSD	1.57081	N/A	N/A	0.67	2.24081	20	11.20%	615005.37	3563623.75	1073.59
PM10 24-hr NAAQS	5.92821*	9.33837	N/A	37.3	46.63837	150	31.09%	615291.22	3563320.77	1071.44
PM10 24-hr PSD	5.92821*	8.60355	N/A	N/A	8.60355	30	28.68%	615291.22	3563320.77	1071.44
PM10 Annual PSD	1.53322	2.84505	N/A	N/A	2.84505	17	16.74%	614957.8	3563527.31	1071
PM2.5 24-hr NAAQS	1.15888*	3.74022	0.075	13.4	17.21522	35	49.19%	615900	3563900	1074.1
PM2.5 24-hr PSD	1.15888*	5.58607	0.075	N/A	5.66107	9	62.90%	615900	3563900	1074.1
PM2.5 Annual NAAQS	0.87961	2.01168	0.004	5.9	7.91568	12	65.96%	615005.37	3563623.75	1073.59
PM2.5 Annual PSD	0.87961	1.97171	0.004	N/A	1.97571	4	49.39%	615005.37	3563623.75	1073.59

*Maximum impact from significance analysis at the location, however, does not occur during the design event.

16-X: Summary/conclusions

1	<p>A statement that modeling requirements have been satisfied and that the permit can be issued.</p> <p>The radius of impact analysis was conducted with all facility sources. Two source groups were used to evaluate the flare emissions. Source group “2E” with flare emissions as presented on Tab 2E of form UA2, and source group “B” to evaluate the flare emissions with the maximum emissions corresponding to the minimum effective diameter, i.e., split evenly across the flares.</p> <p>CO impacts were found to be below the modeling significance level and no further evaluation was conducted. The remaining pollutants were above the modeling significance level. Cumulative impacts for NOx and SO2 were determined by adding monitored background values from the NMED Guideline, revised June 2, 2019, to account for surrounding sources. For the SO2 24-hr increment, the maximum 1-hour monitored impact was added to account for the surrounding source inventory as a conservative estimate.</p> <p>Surrounding PM10 and PM2.5 sources within 25 km were retrieved from MergeMaster to conduct cumulative PM10 and PM2.5 analyses. Sources between 10 and 25 km were removed from the surrounding source inventory if the model ID was less than 10,000, indicating that the source does not consume increment. Receptors included in the cumulative analysis consisted of receptors with significant impacts identified in the ROI analysis. For PM2.5, the secondary formation estimates were added to the ROI impacts to determine whether the receptor had significant impacts.</p> <p>All pollutants were found to be compliant with the ambient air quality standards or in the case of CO, impacts were insignificant. The source will not cause or contribute to a violation of the ambient air quality standard and the permit can be issued.</p>
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