



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
FEDERAL MINOR NEW SOURCE REVIEW PROGRAM IN INDIAN
COUNTRY**

**Administrative Permit Amendment Request
(Form AMEND)**

Please check box to show how you are using this form

- Correction to a Typographical Error**
- Incorporation of More Frequent Monitoring or Reporting Increase in Allowable Emissions (SEE INSTRUCTIONS!)**
- Other**

Use of this information request form is voluntary and not yet approved by the Office of Management and Budget. The following is a check list of the type of information that Region 6 will use to process information on your proposed project. While submittal of this form is not required, it does offer details on the information we will use to complete your requested approval and providing the information requested may help expedite the process. Use of application forms for this program is currently under Office of Management and Budget review and these information request forms will be replaced/updated after that review is completed.

Please submit information to following two entities:

Federal Indian Title V Permit Coordinator
U.S. EPA, Region 6
1445 Ross Ave., suite 1200
6MM-AP
Dallas, TX 75202

The Tribal Environmental Contact for the specific reservation:

Tribal Environmental Contact – Jicarilla Apache
Attn: Ms. Bonnie Braganza P.E.
U.S. EPA, Region 6
1445 Ross Ave., Suite 1200
Dallas, TX 75202

A. COMPANY INFORMATION

Company Name (Who owns this facility?) Enterprise Products Company	
Company Contact (Who is the <u>primary</u> contact at the company that owns this facility?) Robert Havalda	Title Sr. Environmental Engineer
Mailing Address P.O. Box 4324, Houston TX 77210-4324	
Email Address rmhavalda@eprod.com	
Telephone Number 713-381-6698	Facsimile Number 281-887-8086

B. FACILITY INFORMATION

Facility Name on the Permit to Be Amended Lindrith Compressor Station
Minor Source Permit To Construct Number: Not Applicable
Date of Most Recent Permit Action (this should be the same permit to which you are requesting the amendment) March 7, 2018 (Permit Number R6NSR-NM-005) to be incorporated into Permit Number R6NM-03-R1 (November 4, 2015)

C. DESCRIPTION OF THE PROPOSED AMENDMENT

Provide a narrative description of the requested amendment to the permit and the following:

1. Why the proposed change can be made through this form. (See instructions).

Enterprise Field Services, LLC (Enterprise) is requesting EPA to revise Title V Permit Number R6NM-03-R1 to incorporate the permit changes authorized by Permit Number R6NSR-NM-005.

The approved change does not involve the installation of additional equipment or a change in the method of operations.

2. Information presented in enough detail to document how the facility is currently operating and how it is proposed to operate. A narrative description of all of the facility processes along with a process flow diagram to enable EPA to understand the effect the proposed change has on emission unit or (pollutant generating activity).

The Lindrith Compressor Station is a natural gas compression and transmission facility that receives natural gas from a gathering system and compresses that gas for transmission via pipeline. The emissions units at the facility consists of three reciprocating internal combustion engines (RICE) that drive the compression units (Unit IDs: A-01, A-02, and A-03), the emergency RICE generator (Unit ID: EMERGEN), emissions from engine starts, compressor blowdowns, vessel and piping blowdowns and pipeline pigging activities, including the pipeline pigging location (Unit ID: MSS), fugitive emissions from valves, flanges, compressors, pumps, etc. (Unit ID: FUGVOC), eight 454-bbl fixed roof condensate storage tanks (Unit ID TBATTERY), and condensate truck loading (Unit ID TLOAD). There are no physical changes to the emission units in this permitting action. A process flow diagram is included in the attachments to this application which is the same as submitted with the application for Permit Number R6NSR-NM-005.

3. Emissions calculations and all supporting data necessary to establish the proposed post-change allowable emission limits. The requested information must be provided for each emissions unit (or pollutant-generating activity).

Emissions calculations tables and supporting documentation for each change requested are included in the attachments to this application. These changes are the same as those submitted with the application for Permit Number R6NSR-NM-005.

4. The proposed changes to be made to specific terms and conditions of the permit. A redline/strike out version of the permit may be used for this purpose.

Enterprise is proposing the following changes (already approved in Permit Number R6NSR-NM-005) to the specific terms and conditions of the Title V permit:

	<u>Page</u>	<u>Current Limit</u>	<u>Proposed Limit</u>
TBATTERY	3	37.39 tons/year	102.63 tons/year
TLOADING	3	2.23 tons/year	4.98 tons/year
MSS	3	25.00 tons/year	30.00 tons/year
Condensate Throughput	7	20,000 barrels/year	60,000 barrels/year

5. The following table with Facility-wide Emission Estimates:

Pollutant	Pre-Change Allowable Emissions (tpy)	Post Change Allowable Emissions (tpy)	
PM	2.91	2.91	PM - Particulate Matter PM ₁₀ - Particulate Matter less than 10 microns in size PM _{2.5} - Particulate Matter less than 2.5 microns in size SO ₂ - Sulfur Oxides NO _x - Nitrogen Oxides CO - Carbon Monoxide VOC - Volatile Organic Compound Pb - Lead and lead compounds Fluorides - Gaseous and particulates H ₂ SO ₄ - Sulfuric Acid Mist H ₂ S - Hydrogen Sulfide TRS - Total Reduced Sulfur RSC - Reduced Sulfur Compounds
PM₁₀	2.91	2.91	
PM_{2.5}	2.91	2.91	
SO₂	4.26	4.26	
NO_x	66.29	66.29	
CO	102.57	102.57	
VOC	138.36	211.34	
Pb	0	0	
Fluorides	N/A	N/A	
H₂SO₄	N/A	N/A	
H₂S	N/A	N/A	
TRS	N/A	N/A	
RSC	N/A	N/A	

Instructions

What administrative permit amendments require the use of a different form?

1. A change in the name, address, or phone number of any person identified in the permit, or a similar minor administrative change at the source should be made through **Form LOC** or **Form INFO**.
2. A change in ownership or operational control of a source where the reviewing authority determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the reviewing authority should be made through **Form OWN**.

What administrative permit amendments require the use of this form?

1. Correction to typographical errors;
2. Incorporation of more frequent monitoring or reporting;
3. Establishment of an increase in an emissions unit's annual allowable emissions limit for a regulated NSR pollutant, when the action that necessitates such increase is not otherwise subject to review under major NSR or under this program.

Proposed new construction or modifications should first be evaluated to determine if the change is major under the major NSR program using the procedures at 40 CFR 52.21 (i.e., baseline actual to projected actual applicability test). If the proposed construction does not qualify as a major under that test, then it may be subject to the requirements of the minor NSR rule at 40 CFR 49.151.

Helpful Definitions from the Federal Minor NSR Rule (40 CFR 49) – This is not a comprehensive list.

- *40 CFR 49.152(d) - Modification* means any physical or operational change at a source that would cause an increase in the allowable emissions of the affected emissions units for any regulated NSR pollutant or that would cause the emission of any regulated NSR pollutant not previously emitted.

The following exemptions apply:

- (1) A physical or operational change does not include routine maintenance, repair, or replacement.
 - (2) An increase in the hours of operation or in the production rate is not considered an operational change unless such increase is prohibited under any federally-enforceable permit condition or other permit condition that is enforceable as a practical matter.
 - (3) A change in ownership at a source is not considered a modification.
- *40 CFR 49.152(d) - Allowable emissions* means “allowable emissions” as defined in §52.21(b)(16), except that the allowable emissions for any emissions unit are calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

- *52.21(b)(16) - Allowable emissions* means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
 - (i) The applicable standards as set forth in 40 CFR parts 60 and 61;
 - (ii) The applicable State Implementation Plan emissions limitation, including those with a future compliance date; or
 - (iii) The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.

Calculating Emissions

“Allowed” means the source is restricted by permit conditions that limit its emissions and are enforceable as a practical matter (i.e., allowable emissions). The allowable emissions for any emissions unit are calculated considering any emissions limitations that are enforceable as a practical matter on the unit’s PTE.

Pre-Change Allowable Emissions: Current permitted annual emissions for a pollutant expressed in tpy.

The current allowable emissions are the allowable rate of emissions for the preceding calendar year and must be calculated using the permitted operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year.

The total pre-change allowable emissions for the facility would be the sum of following:

1. Each emissions unit with an allowable emissions limitation. Calculated using the allowable operating hours, production rates, in-place control equipment, and/or types of materials processed, stored, or combusted.

PLUS

2. Each emissions unit without any emissions limitations. Calculated using the maximum possible operating hours, production rates, and/or dirtiest types of materials processed, stored, or combusted.

Post-Change Allowable Emissions: The proposed allowable emissions for a pollutant expressed in tpy. Unless the source is restricted by permit conditions or other requirements that are enforceable as a practical matter, the post-change allowable emissions would be equivalent to post-change uncontrolled emissions.

The total proposed increase in allowable emissions resulting from your proposed change would be the sum of following:

1. Each emission unit with a proposed emission limitation. Calculated using the proposed allowable operating hours, production rates, in-place control equipment, and/or types of materials processed,

stored, or combusted.

PLUS

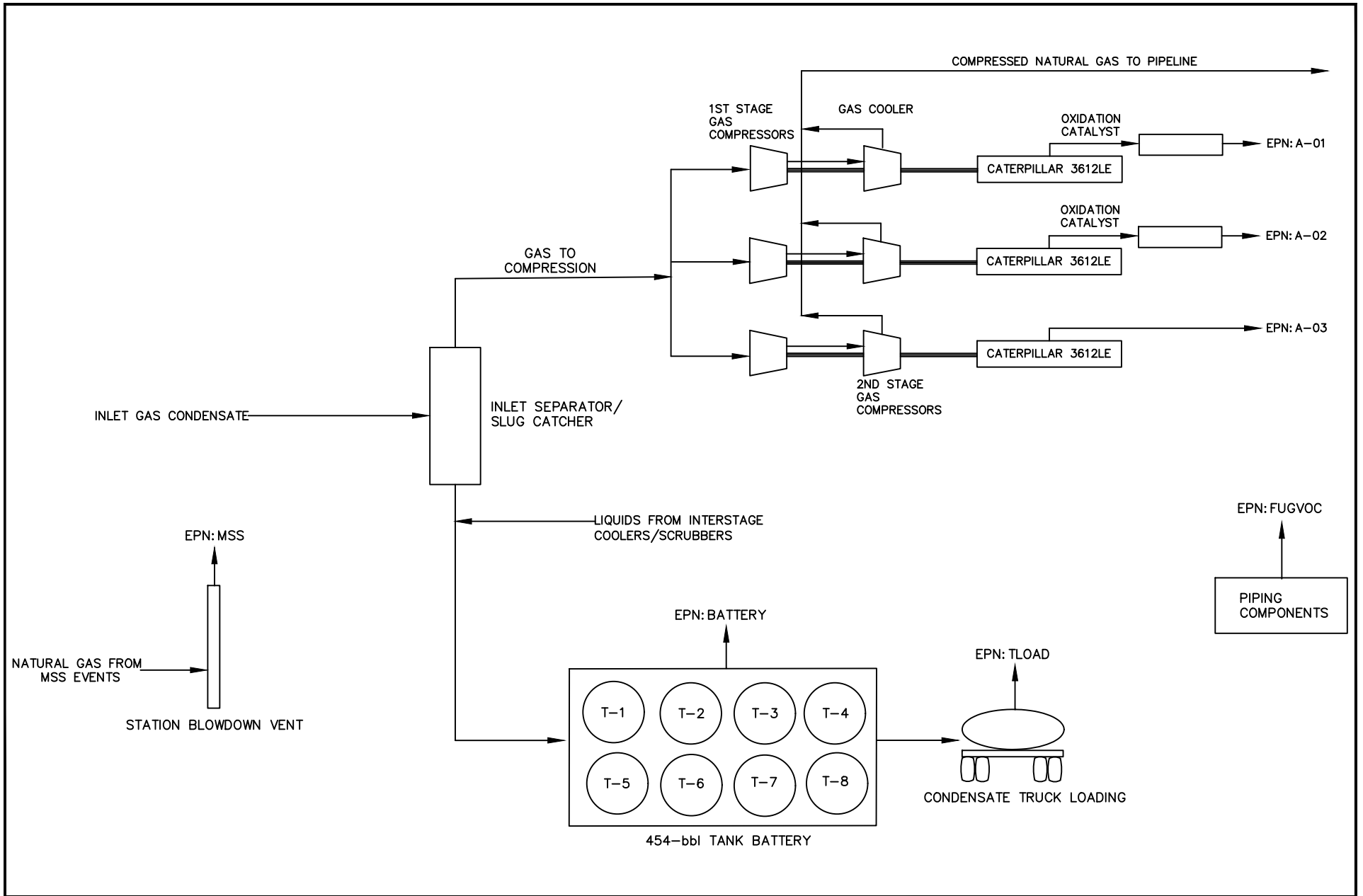
2. Each emissions unit without a proposed emission limitation. Calculated using the maximum possible operating hours, production rates, and/or dirtiest types of materials processed, stored, or combusted.

Emissions Estimates

Any emission estimates submitted to the Regional Administrator should be verifiable using currently accepted engineering criteria. The following procedures are generally acceptable for estimating emissions from air pollution sources:

- (i) Source-specific emission tests;
- (ii) Mass balance calculations;
- (iii) Published, verifiable emission factors that are applicable to the source. (i.e., manufacturer specifications)
- (iv) Other engineering calculations; or
- (v) Other procedures to estimate emissions specifically approved by the Regional Administrator.

Guidance for estimating emissions can be found at <http://www.epa.gov/ttn/chief/efpac/index.html>



PROCESS FLOW DIAGRAM
 LINDRITH COMPRESSOR STATION
 ENTERPRISE FIELD SERVICES, LLC
 36.31170, -107.08664
 LINDRITH, NEW MEXICO

Designed By	WY	Date	6/09/16
Drawn By	WY		6/09/16
Checked By	LDC		6/10/16
Approved By	LDC		6/10/16

PROJECT NO.	FLOWDIAGRAM.DWG
Figure No.	1
Sheet	1 of 1

**Table B-1
 Project Emissions Summary (Criteria Pollutants) from Increased Condensate Throughput
 Lindrith Compressor Station
 Enterprise Field Services LLC**

ID	Emissions Source	Description	VOC	HAPs	Condensate Throughput
			tpy	tpy	Bbl/yr
Limits in Current Permit Number R6NM-03-R1					
TBATTERY	Tanks	Condensate Storage	37.39	1.07	20,000
TLOAD	Truck Loading	Truck Loading	2.23	0.07	20,000
MSS	MSS	Maintenance, Startup, Shutdown	25.00	0.64	n/a
Total			64.62	1.78	

Proposed Permit Limits					
TBATTERY	Tanks	Condensate Storage	102.63	1.32	60,000
TLOAD	Truck Loading	Truck Loading	4.98	0.14	60,000
MSS	MSS	Maintenance, Startup, Shutdown	14.68	0.59	n/a
Total			122.29	2.05	

**Table B-2
 Tank Emissions from Increased Condensate Throughput
 Lindrith Compressor Station
 Enterprise Field Services LLC**

ID	Material Stored	Tank Capacity (Gallons)	No. of Turnovers per year	VOC Annual Emissions Rates			
				TANKS 4.0 Total VOC (lbs/yr)	TANKS 4.0 Total VOC (tpy)	Flash Emissions (tpy)	Overall (tpy)
T1	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T2	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T3	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T4	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T5	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T6	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T7	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
T8	Condensate	18,900	16.67	4,210.56	2.11	10.72	12.83
	Total	151,200		33,684.48	16.84	85.79	102.63

- (1) See TANKS 4.0 Report Results
- (2) Gasoline RVP 7 properties are used to estimate condensate emissions.
- (3) See HYSIS Flash Analysis. Flash emissions = Condensate Throughput x (VOC Mass Flow, lb/hr x 24 hr / Std. Ideal Liq. Vol. Flow, bbl/day)
- (4) Speciation method below is the same as used for the renewal application for current Permit Number R6NM-03-R1
- (5) Refer to "Lindrith Compressor Station_Winter Case 3.hsc" analysis dated 7/28/2016

Speciated Emissions Based on Aspen Analysis of vapor phase (normalized by deleting all non-voc compounds)

Compound	Weight %	tons/year
Non HAPs	98.7180	101.31
n-Hexane	1.2720	1.31
Benzene	0.0050	0.01
Toluene	0.0030	0.00
Ethylbenzene	0.0010	0.00
Xylenes	0.0010	0.00
HAPs Total:	1.28%	1.32

Table B-3
Truck Loading Emissions from Increased Condensate Throughput
Lindrith Compressor Station
Enterprise Field Services LLC

Basis

Emissions calculated based on loading loss factors from EPA's AP-42, Table 5.2-1, Section 5.2, June, 2008.
 VP based on maximum expected liquid temperature for the short-term and annual average liquid temperature for the annual basis.

Product	Loading Type	MW	Short-Term Max VP	Annual Average VP	Saturation Factor, S	Short-Term Loading Loss Factor		Annual Loading Loss Factor		Throughput		lb/hr	tpy
						lb/1000 gal	lb/1000 gal	lb/1000 gal	lb/1000 gal	(gal/hr)	(gal/yr)		
Condensate	Submerged	68.00	5.24	4.04	0.6	4.8398	lb/1000 gal	3.9496	lb/1000 gal	18,000	2,520,000	87.12	4.98
Totals:										2,520,000	87.12	4.98	

Notes:

Emissions are based on the loading losses equation from EPA's AP-42, Section 2, 5th Edition, June, 2008, Equation 1: $L = 12.46 \times S \times P \times M / T$
 L = Loading Losses, lb/1000 gallons
 S = Saturation Factor, see Table 5.2-1 in AP-42, Section 5.2.
 P = True vapor pressure, psia
 M = Molecular weight of vapors, lb/lb-mol
 T = Temperature of bulk liquid loaded, R (F + 460)

Speciated Emissions Based on Aspen Analysis of vapor phase (normalized by deleting all non-voc compounds)

Compound	Weight %	lb/hr	tons/year
Non HAPs	97.1343	84.62	4.83
n-Hexane	2.2491	1.96	0.11
Benzene	0.3333	0.29	0.02
Toluene	0.2833	0.25	0.01
Ethylbenzene	0.0000	0.00	0.00
Xylenes	0.0000	0.00	0.00
Total:	100.00		
VOC Total:	100.00	87.12	4.98
HAPs Total:	2.87	2.50	0.14

- 1) Speciation method is the same as used for the renewal application for current Permit Number R6NM-03-R1
- 2) All non-HAPs assumed VOC.
- 3) Used Gasoline RVP 7 properties for condensate loading emissions.
- 4) See attached TANKS 4.0.9d monthly runs for short term max vapor pressure values, and annual runs for average vapor pressure.

**Table B-4
Maintenance, Startup & Shutdown (MSS) Emissions, ID MSS
Emissions from Scheduled/Routine & Predictable Events
Lindrith Compressor Station
Enterprise Field Services LLC**

Event Description	Volume Per Event (MCF)	Events per hour	Events per year	Hourly Volume (MCF)	Annual Volume (MMCF)	Material Vented	Standard scf/lbmol	Total lbmol/hr	Total lbmol/yr
Blowdowns	9.88	1	300	9.88	2.96	Nat. Gas	379.482	26.04	7,810.65
Planned maintenance and emergency shutdown	13.75	1	15	13.75	0.21	Nat. Gas	379.482	36.23	543.50
Compressor Engine Startup	1.61	1	513	1.61	0.82	Nat. Gas	379.482	4.23	2,171.06
				Total	3.99				

Compound	Dry Basis Mole %	MW	lb/lb-mol	lb/hr	tons/yr
CO ₂	0.4520	44.01	0.20	13.23	1.05
N ₂	1.6971	28.01	0.48	31.62	2.50
Methane	75.2957	16.04	12.08	803.31	63.57
Ethane	11.6789	30.07	3.51	233.54	18.48
Propane	6.5968	44.10		0.00	0.00
i-butane	0.8947	58.12	0.52	34.58	2.74
n-butane	1.8481	58.12	1.07	71.43	5.65
i-pentane	0.4973	72.15	0.36	23.86	1.89
n-pentane	0.4323	72.15	0.31	20.74	1.64
n-Hexane	0.1013	86.18	0.09	5.81	0.46
Benzene	0.0133	78.11	0.01	0.69	0.05
Toluene	0.0108	92.14	0.01	0.66	0.05
Ethylbenzene	0.0006	106.17	0.00	0.04	0.00
Xylenes	0.0035	106.17	0.00	0.25	0.02
C6 ⁺	0.4801	86.117	0.41	27.49	2.18
Total:	100.00	Avg. MW =	19.06		
				VOC Total:	185.56
				HAP Total:	7.45
					14.68
					0.59

1) See attached extended natural gas analysis dated March 9, 2016.