6320 Rothway, Suite 100, Houston, Texas 77040 Telephone: (713) 734-3090 Fax: (713) 734-3391

www.CRAworld.com

June 26, 2015 Reference No. 082715

Mr. Jay Fedczak
Assistant Director for Permitting
Division of Air Quality
WV Department of Environmental Protection
601 57th Street, SE
Charleston, West Virginia 25304

Dear Mr. Jay Fedczak:

Re: General Permit Application G70-A

Stanley Well Pad

Antero Resources Corporation

Conestoga-Rovers & Associates (CRA) would like to submit this General Permit application that we prepared on behalf of Antero Resources Corporation for an oil and gas facility identified as Stanley Well Pad.

Enclosed are the following documents:

- Original copy of the G70-A General Permit Application
- Two CD copies of the G70-A General Permit Application
- The application fee with check no. 407684 in the amount of \$1,500.00.

Please let us know if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Manuel Bautista

Encl.

cc: Barry Schatz, Antero Resources Corporation

Equal Employment Opportunity Employer



www.CRAworld.com







8 h "8 '8

Stanley Well Pad

Prepared for: Antero Resources Corporation

Conestoga-Rovers & Associates

6320 Rothway, Suite 100 Houston, Texas 77040



Table of Contents

G70-A General Permit Registration Form

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Attachment P Other Supporting Documentation Not Described Above





WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF AIR QUALITY 601 57th Street, SE

601 57th Street, SE Charleston, WV 25304

Phone: (304) 926-0475 * www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION

CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE A STATIONARY SOURCE OF AIR POLLUTANTS

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:					
□ G10-D - Coal Preparation and Handling □ G20-B - Hot Mix Asphalt □ G30-D - Natural Gas Compressor Stations □ G33-A - Spark Ignition Internal Combustion Engines □ G35-A - Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) □ G40-C - Nonmetallic Minerals Processing □ G50-B - Concrete Batch □ G60-C - Class II Emergency Generator □ G65-C - Class I Emergency Generator □ G70-A - Class II Oil and Natural Gas Production Facility					
SECTION I. GE	ENERAL INFO	DRMATION			
Name of applicant (as registered with the WV Secretary of State's Antero Resources Corporation	Office):	2. Federal Employer ID No. (FEIN): 80-0162034			
3. Applicant's mailing address:	4. Applio	cant's physical address:			
1615 Wynkoop St. Denver, CO, 80202 0.20 mile south from the intersection of Taylor Drain Rte. 19 and Cal Run Rte. 21/1.					
5. If applicant is a subsidiary corporation, please provide the name of	parent corpora	tion:			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the	e State of West	Virginia? YES NO			
 IF YES, provide a copy of the Certificate of Incorporation change amendments or other Business Registra 		nization / Limited Partnership (one page) including any name as Attachment A.			
 IF NO, provide a copy of the Certificate of Authoral amendments or other Business Certificate as A 	ority / Authority ttachment A.	of LLC / Registration (one page) including any name change			
SECTION II. FA	ACILITY INFO	DRMATION			
7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.):	8a. Standard Classification	Industrial AND 8b. North American Industry			
Natural Gas and Oil Production facility	Classification	(SIC) code: 1311 System (NAICS) code: 211111			
9. DAQ Plant ID No. (for existing facilities only): 10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only):					
N/A N/A					

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site:	12A. Address of primary operating site:	
Stanley Well Pad	Mailing: N/A	Physical: 0.20 mile south from the intersection of Taylor Drain Rte. 19 and Cabin Run Rte. 21/1.
13A. Does the applicant own, lease, have an optic — IF YES, please explain: — Antero is le — IF NO, YOU ARE NOT ELIGIBLE FOR A PE	easing the mineral rights for this site	posed site?
		directions to the present location of the facility from the
MAP as Attachment F.	de Rd. Follow for 1.9 miles and turn left onto	o site location from the nearest state road. Include a Oxford Rd. After 2.0 miles, turn right onto Cabin Run.
15A. Nearest city or town:	16A. County:	17A. UTM Coordinates:
West Union	Doddridge	Northing (KM): 4343.0694 Easting (KM): 510.4028 Zone: 17 N
18A. Briefly describe the proposed new operation	or change (s) to the facility:	19A. Latitude & Longitude Coordinates (NAD83,
Construction of a new natural gas and oil production	on facility.	Decimal Degrees to 5 digits): Latitude: 39.236867 Longitude: -80.879461
B: 1 ST ALTERNATE OPERATIN	NG SITE INFORMATION (only available for	G20, G40, & G50 General Permits)
11B. Name of 1 st alternate operating site:	12B. Address of 1 st alternate operating site:	
	Mailing:	Physical:
13B. Does the applicant own, lease, have an optic — IF YES, please explain:	on to buy, or otherwise have control of the pro	posed site?
- IF NO , YOU ARE NOT ELIGIBLE FOR A PE	RMIT FOR THIS SOURCE.	
14B. — For Modifications or Administrative U nearest state road;	pdates at an existing facility, please provide of	directions to the present location of the facility from the
,	please provide directions to the proposed nev	v site location from the nearest state road. Include a

15B. Nearest city or town:	16B. County:		17B. UTM Coordinates:
			Northing (KM):
			Easting (KM):
			Zone:
18B. Briefly describe the proposed new operati	on or change (s) to the	e facility:	19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):
			Latitude:
			Longitude:
C: 2 ND ALTERNATE OPERA	TING SITE INFORMA	TION (only available for G	20, G40, & G50 General Permits):
11C. Name of 2 nd alternate operating site:	12C. Address of	2 nd alternate operating site:	
	Mailing:		Physical:
	ivialing		Friysical
13C. Does the applicant own, lease, have an o — IF YES, please explain:	· ·		
			·····
 IF NO, YOU ARE NOT ELIGIBLE FOR A 	PERMIT FOR THIS S	OURCE.	
	Updates at an existing	ng facility, please provide di	rections to the present location of the facility from the
nearest state road;			
	ts, please provide dire	ctions to the proposed new	site location from the nearest state road. Include a
MAP as Attachment F.			
	 	 	
450 No see to the see towns	1400 0		470 HTM 0
15C. Nearest city or town:	16C. County:		17C. UTM Coordinates:
			Northing (KM):
			Easting (KM):
			Zone:
18C. Briefly describe the proposed new operati	on or change (s) to the	e facility:	19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits):
			(NAD63, Decimal Degrees to 5 digits).
			Latitude:
			Longitude:
20. Provide the date of anticipated installation o	r change:	21 Date of anticipated St	artuin if registration is granted:
25. Fromde the date of antioipated installation of	r ondrige.	21. Date of anticipated Start-up if registration is granted:	
<u>04/01/2016</u>		<u>05/01/2016</u>	
☐ If this is an After-The-Fact permit application upon which the proposed change did happen:			
/			
22 Provide maximum projected Operating Sci	hedule of activity/activ	rities outlined in this applicat	tion if other than 8760 hours/year. (Note: anything
other than 24/7/52 may result in a restriction to			aon a outer than or ou nouts/year. (Note. anything
	the facility's operation).	
Hours per day Days per week _	, ,		ge of operation

23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).
24. Include a Table of Contents as the first page of your application package.
All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.
25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.
 □ ATTACHMENT A: CURRENT BUSINESS CERTIFICATE □ ATTACHMENT B: PROCESS DESCRIPTION □ ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS □ ATTACHMENT D: PROCESS FLOW DIAGRAM □ ATTACHMENT E: PLOT PLAN □ ATTACHMENT F: AREA MAP □ ATTACHMENT C: FOLLIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM
 ☑ ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM ☑ ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS ☑ ATTACHMENT I: EMISSIONS CALCULATIONS ☑ ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT ☐ ATTACHMENT K: ELECTRONIC SUBMITTAL ☑ ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE ☐ ATTACHMENT M: SITING CRITERIA WAIVER ☑ ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) ☑ ATTACHMENT O: EMISSIONS SUMMARY SHEETS
☐ OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.)

Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

<u> </u>	FOR A CORPORATION (domestic or foreign) I certify that I am a President, Vice President, Secre business function of the corporation	etary, Treasurer or in charge of a principal
<u> </u>	FOR A PARTNERSHIP I certify that I am a General Partner	ę
E	FOR A LIMITED LIABILITY COMPANY I certify that I am a General Partner or General Manager	
<u>E</u>	FOR AN ASSOCIATION ☐ I certify that I am the President or a member of the Board of Directors	
Ē	FOR A JOINT VENTURE I certify that I am the President, General Partner or General Manager	
100	FOR <u>A SOLE PROPRIETORSHIP</u> ☐ I certify that I am the Owner and Proprietor	
is an Auth Liability C changes i I hereby c hereto is,	rtify that (please print or type) Thorized Representative and in that capacity shall represent the interest of the bus Company, Association Joint Venture or Sole Proprietorship) and may obligate and its Authorized Representative, a Responsible Official shall notify the Director of the certify that all information contained in this General Permit Registration Application, to the best of my knowledge, true, accurate and complete, and that all reasonable ensive information possible	legally bind the business. If the business ne Office of Air Quality immediately, and/or, nand any supporting documents appended
Signature		
(please use blue ink)	Responsible Official	Date
Name & Title Ba (please print or type) Signature	Barry Schatz, Senior Environmental & Regulatory Manager	6-26-2015
(please use blue ink)	Authorized Representative (if applicable)	Date
Applicant's Name	e Antero Resources Corporation	
Phone & Fax	303-357-7276	303-357-7315
Email <u>bschatz@</u>	Phone <u>Danteroresources.com</u>	Fax

Attachment R AUTHORITY OF CORPORATION OR OTHER BUSINESS ENTITY (DOMESTIC OR FOREIGN)

	TO:	The West Virginia Department of Environmental Protection, Division of Air Quality
	DATE:	JANUARY 23, 2015
	ATTN.:	Director
	Corporation'	s / other business entity's Federal Employer I.D. Number80-0162034
	Protection, I	indersigned hereby files with the West Virginia Department of Environmental Division of Air Quality, a permit application and hereby certifies that the said ade name which is used in the conduct of an incorporated business or other tity.
	Furth	er, the corporation or the business entity certifies as follows:
	(1) representativ business en	Barry Schatz (is/are) the authorized ve(s) and in that capacity may represent the interest of the corporation or the tity and may obligate and legally bind the corporation or the business entity.
	(2) State of Wes	The corporation or the business entity is authorized to do business in the st Virginia.
		If the corporation or the business entity changes its authorized ve(s), the corporation or the business entity shall notify the Director of the West artment of Environmental Protection, Division of Air Quality, immediately upon
~		
	(Vice President official in character)	Other Authorized Officer lent, Secretary, Treasurer or other arge of a principal business function of on or the business entity)
		resident, then the corporation or the business entity must submit certified ylaws stating legal authority of other authorized officer to bind the corporation ess entity).
	Secretary	

Name of Corporation or business entity

Attachment A

Current Business Certificate





I, Natalie E. Tennant, Secretary of State of the State of West Virginia, hereby certify that

ANTERO RESOURCES CORPORATION

a corporation formed under the laws of Delaware, which is authorized to transact business in West Virginia by a Certificate of Authority has filed in my office as required by the provisions of the West Virginia Code, a copy of an amendment to its Articles of Incorporation authenticated by the proper office of the state or country of its incorporation and was found to conform to law.

Therefore, I issue this

CERTIFICATE OF AMENDMENT TO CERTIFICATE OF AUTHORITY



Given under my hand and the Great Seal of the State of West Virginia on this day of June 10, 2013

Secretary of State



JUN 1 0 2013

Natalie E. Tennant Secretary of State 1900 Kanawha Blvd E Bldg 1, Suite 157-K Charleston, WV 25305

FILE ONE ORIGINAL (Two if you want a filed stamped copy returned to you) FEE: \$25.00



Penney Barker, Manager IN THE OFFICE OF Corporations Division ECRETARY OF STATE Park: (304)558-8000 Website: www.wvsos.com

E-mail: business@wvsos.com

APPLICATION FOR AMENDED CERTIFICATE OF AUTHORITY

**** In accordance with the provisions of the West Virginia Code, the undersigned corporation hereby ****

Office Hours: Monday - Friday 8:30 a.m. - 5:00 p.m. ET

	applies for all America Certificate of Aut	norny and submits the lonowing statement:
1.	Name under which the corporation was authorized to transact business in WV:	Antero Resources Appalachian Corporation
2.	Date Certificate of Authority was issued in West Virginia:	6/25/2008
3.	Corporate name has been changed to:	Antero Resources Corporation
	(Attach one <u>Certified Copy of Name Change</u> as filed in home State of incorporation.)	
4.	Name the corporation elects to use in WV:	Antero Resources Corporation
	(due to home state name not being available)	
5,	Other amendments:	
	(attach additional pages if necessary)	
6.	Name and phone number of contact person. (the filing, listing a contact person and phone number document.)	This is optional, however, if there is a problem with nber may avoid having to return or reject the
	Alvyn A. Schopp	(303) 357-7310
	Contact Name	Phone Number
7.	Signature information (See below *Important)	Legal Notice Regarding Signature):
	Print Name of Signer: Allyn A. Schopp	Title/Capacity: Authorized Person
	Signature: Az HERBE	Date: June 10, 2013
Any to th	portant Legal Notice Regariting Signature: Per West Virgi person who signs a document he or she knows is false in an a secretary of state for filing is guilty of a misdemeanor and, sand dollars or confined in the county or regional jail not me	nia Code §311)-1-122. Penalty for signing false document. y material respect and knows that the document is to be delivere, upon conviction thereof, shall be fined not more than one are than one year, or both.

Issued by the Office of the Secretary of State

Form CF-4



DAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF

DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT

COPY OF THE CERTIFICATE OF AMENDMENT OF "ANTERO RESOURCES

APPALACHIAN CORPORATION", CHANGING ITS NAME FROM "ANTERO

RESOURCES APPALACHIAN CORPORATION" TO "ANTERO RESOURCES

CORPORATION", FILED IN THIS OFFICE ON THE TENTH DAY OF JUNE,

A.D. 2013, AT 9:37 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

4520810 8100

130754186

Jeffrey W. Bullock, Secretary of Stat AUTHENTYCATION: 0496546

DATE: 06-10-13

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware Secretary of State Division of Corporations Delivered 09:37 AM 06/10/2013 FILED 09:37 AM 06/10/2013 SRV 130754186 - 4520810 FILE

AMENDMENT TO THE AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF ANTERO RESOURCES APPALACHIAN CORPORATION

Antero Resources Appalachian Corporation (the "Corporation"), a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

- 1. The original Certificate of Incorporation of the Corporation was filed under the name Antero Resources Barnett Corporation with the filing of the original Certificate of Incorporation of the Corporation with the Secretary of State of the State of Delaware on March 18, 2008.
- 2. This Amendment to the Amended and Restated Certificate of Incorporation has been duly adopted and approved in accordance with Sections 242 of the General Corporation Law of the State of Delaware.
- 3. Article FIRST of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

FIRST. The name of the Corporation is Antero Resources Corporation.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be executed by its duly authorized officer on the 10th day of _____, 2013.

ANTERO RESOURCES APPALACHIAN CORPORATION

Name: Alvyn A. Schopp

Title: Vice President of Accounting

&

Administration / Treasurer

Attachment B

Process Description



Attachment B

Process Description Stanley Well Pad Antero Resources Corporation Doddridge County, West Virginia

A mixture of condensate and entrained gas from the wells enters the facility through a number of three phase low pressure separators where the gas phase is separated from the condensate and produced water. Gas Processing Units (GPU) heaters (H001-H008) are used in conjunction with the separators to help separate the gas from the liquid phases. These heaters are fueled by a slip stream of the separated gas. The separated gas from the three phase low pressure separators is sent to a compressor (ENG001). The compressed gas is then metered and sent to the sales gas pipeline. The separated water flow to the produced water storage tanks (TANKPW001-002). The separated condensate is then sent to two phase low pressure separators where gas is further separated from the condensate. The separated gas is routed to the compressor (ENG001), compressed, sent to the sales gas line. The condensate from the two phase separators flow to the condensate storage tanks (TANKCOND001-010).

The facility has ten (10) tanks (TANKCOND001-010) on site to store condensate and two (2) tanks (TANKPW001-002) to store produced water prior to removal from the site. Flashing, working, and breathing losses from the tanks are routed to the enclosed combustor (EC001) to control the emissions. The enclosed combustors (EC001-EC002) that will be used to control emissions are designed to achieve a VOC destruction efficiency of 98 percent. EC002 only operates as a backup enclosed combustor

Condensate and produced water are transported off site on an as needed basis via tanker truck. Truck loading connections are in place to pump condensate (L001) and produced water (L002) from the storage tanks into tanker trucks. Emissions from the loading operations are vented to the atmosphere.

Emissions from the facility's emission sources were calculated using the extended analysis of the condensate and gas from Prunty No. 1H, one of the wells in the Lockhart Heirs Pad. The extended analyses are considered representative of the materials from Stanley well pad, being in the same Marcellus rock formation. The flashing, working and breathing losses from the tanks are sent to the enclosed combustor. The enclosed combustor that will be used to control emissions is designed to achieve a VOC destruction efficiency of 98 percent.

Stanley Well pad calculation of potential to emit included all of the emission sources that belong to the same industrial grouping, are located on contiguous or adjacent properties, and are under the control of the same person. The nearest emission source that belongs to the same industrial grouping and under the control of the same person but not located on contiguous or adjacent property is the James Webb Well Pad. This operates independently and is approximately 0.35 miles northeast of the facility.



Attachment C

Description of Fugitive Emissions



Attachment C

Description of Fugitive Emissions
Stanley Well Pad
Antero Resources Corporation
Doddridge County, West Virginia

Sources of fugitive emissions include loading operations, haul road emissions, equipment leaks, and pneumatic control valves. Fugitive emissions were calculated using AP-42 factors. Routine equipment leaks are assumed to be occurring continuously throughout the year. Loading operations and haul road emissions only occur when tanker trucks are onsite. The fugitive emissions summary is also located in Attachment O.

Equipment Leaks

Equipment includes valves, flanges, and connectors installed in various process equipments such as heater treaters, pipelines, compressors, and separators. Emissions are assumed to be occurring throughout the year. Detailed calculations are shown on Table 4.

Pneumatic Control Valves

Pneumatic control valves are part of the heater treaters. These are intermittent low bleed valves and their emissions are assumed to be occurring throughout the year. Detailed calculations are shown on Table 5.

Loading Operations

Loading emissions occur when condensate and produced water are transferred out of the well site via tanker trucks. Fugitive emissions were estimated using AP-42 loading loss formula, L= 12.46*SPM/T, and Bryan & Engineering (BR&E) software known as Promax. Detailed calculations are shown in Table 8.

Haul Road Emissions

Haul road emissions are emitted when tanker trucks or service vehicles enter the facility. The facility is flat and unpaved. Detailed calculations are shown on Table 12.

Attachment C/O: G70-A Emissions Summary Sheet Fugitive Emissions Data Summary Sheet

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants	-	Maximum Potential Uncontrolled Emissions 2		Maximum Potential Controlled Emissions 3	
	Chemical Name/CAS 1	lb/hr	ton/yr	lb/hr	ton/yr	Used 4
Haul Road/Road Dust Emissions	n/a					
Paved Haul Roads						
Unpaved Haul Roads	aved Haul Roads PM, PM10, PM2.5		11.7405	2.3397	5.8702	MB
Loading/Unloading Operations	VOCs	8.6819	5.2868	8.6819	5.2868	MB
	toluene (108883)	1.28E-03	7.83E-04	1.28E-03	7.83E-04	
	ethyl benzene (100414)	6.34E-04	3.86E-04	6.34E-04	3.86E-04	
	hexane (110543)	0.0203	0.0123	0.0203	0.0123	
	o,m,p-xylenes (95476,108383,106423)	1.87E-03	1.14E-03	1.87E-03	1.14E-03	
	CO2 Equivalent CO2 (124389), CH4	3.0944	4.7720	3.0944	4.7720	
	benzene (71432)	6.84E-04	4.25E-04	6.84E-04	4.25E-04	
	TAPs (benzene)	6.84E-04	4.25E-04	6.84E-04	4.25E-04	
Equipment Leaks (Components)	Benzene (71432)	Benzene (71432) Toluene (108883)			0.0229	MB
	Toluene (108883)				0.0709	
	Ethyl benzene (100414)		0.0560	Does not apply	0.0560	
	Hexane (110543)		0.9596		0.9596	
	o,m,p-xylenes (95476,108383,106423)	Does not apply	0.1723		0.1723]
	CO2 Equivalent CO2 (124389)), CH4		282.8590		282.8590	
	VOCs	VOCs			13.3250	
	TAPs (benzene)		0.0229		0.0229	
Equipment Leaks (PCVs)	hexane (110543)	0.0109	0.0477	0.0109	0.0477	MB
	CO2 Equivalent CO2 (124389)), CH4	7.2262	31.6506	7.2262	31.6506	
	VOCs	0.0916	0.4012	0.0916	0.4012	

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS2, VOCs, H2S, Inorganics, Lead, Organics, O3, NO, NO2, SO2, SO3, all applicable Greenhouse Gases (including CO2 and methane), etc. DO NOT LIST H2, H2O, N2, O2, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

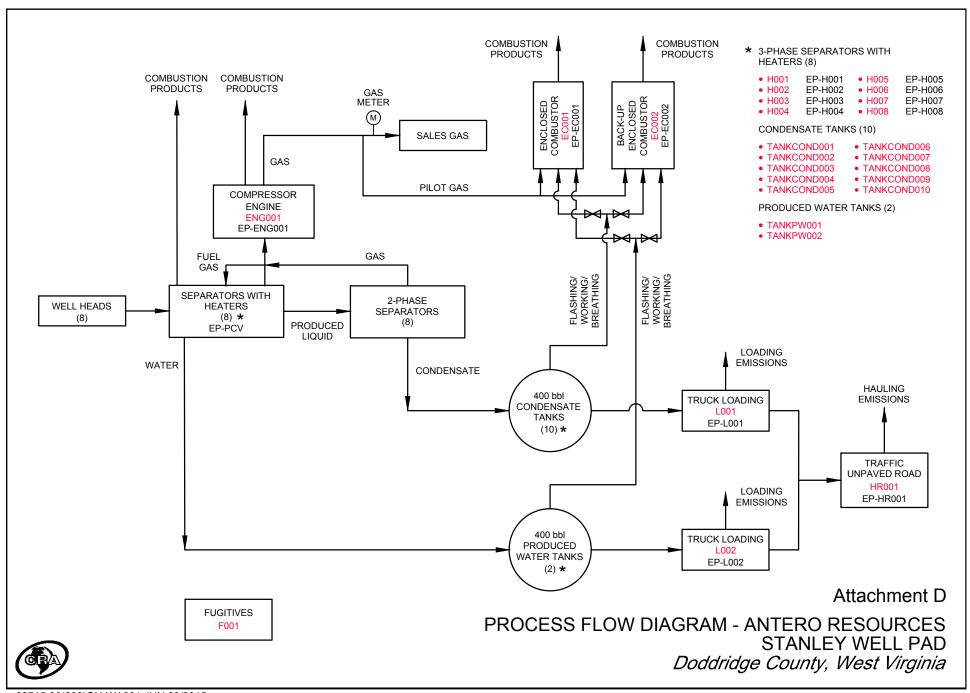
Attachment C: Leak Source Data Sheet

Source Category	Pollutant	Number of Source Components (1)	Number of Components Monitored by Frequency (2)	Average Time to Repair (days) (3)	Estimated Annual Emission Rate (lb/yr) (4)
	light liquid VOC (6,7)				
Pumps (5)	heavy liquid VOC ⁸				
	Non-VOC ⁹				
	Gas VOC	400		First attempt within 5 days of detection and final repair within 15 days	6,624.61
Valves (10)	Light Liquid VOC	416		First attempt within 5 days of detection and final repair within 15 days	19,528.73
	Heavy Liquid VOC				
	Non-VOC				
Safety Relief	Gas VOC	See Valves		First attempt within 5 days of detection and final repair within 15 days	see Valves
Valves (11)	Non VOC	See Valves		First attempt within 5 days of detection and final repair within 15 days	see Valves
Open-ended Lines	VOC				
(12)	Non-VOC				
Compaling	VOC				
Sampling Connections (13)	Non-VOC				
Compressors	VOC				
Compressors	Non-VOC				
Elangos	voc	104		First attempt within 5 days of detection and final repair within 15 days	149.27
Flanges	Non-VOC			First attempt within 5 days of detection and final repair within 15 days	632.40
Other	voc	472		First attempt within 5 days of detection and final repair within 15 days	347.42
	Non-VOC				1,471.85

Attachment D

Process Flow Diagram

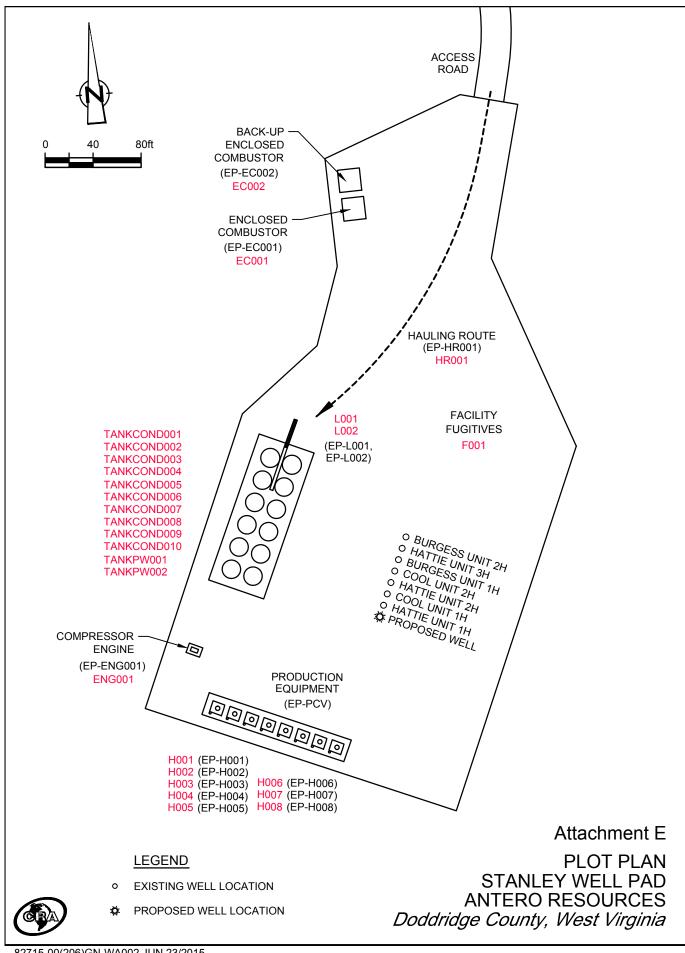




Attachment E

Plot Plan

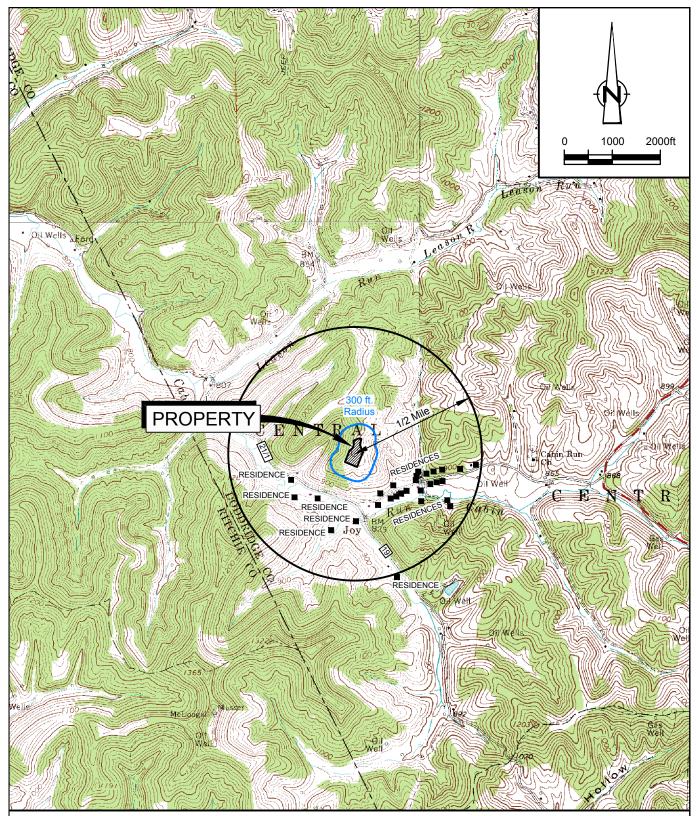




Attachment F

Area Map





SOURCE: USGS QUADRANGLE MAP; OXFORD, PENNSBORO, PULLMAN, AND WEST UNION, WEST VIRGINIA

SITE COORDINATES: LAT. 39.236867, LONG. -80.879461 SITE ELEVATION: 1095 ft AMSL

(RA)

Attachment F

AREA MAP STANLEY WELL PAD ANTERO RESOURCES Doddridge County, West Virginia

Attachment G

Emission Unit Data Sheets/G70-A Section Applicability Form



General Permit G70-A Registration Section Applicability Form

General Permit G70-A was developed to allow qualified applicants to seek registration for a variety of sources. These sources include natural gas well affected facilities, storage tanks, natural gas-fired compressor engines (RICE), natural gas producing units, natural gas-fired inline heaters, pneumatic controllers, heater treaters, tank truck loading, glycol dehydration units, completion combustion devices, flares, enclosed combustion devices, and vapor recovery systems. All registered facilities will be subject to Sections 1.0, 2.0, 3.0, and 4.0.

General Permit G70-A allows the registrant to choose which sections of the permit they are seeking registration under. Therefore, please mark which additional sections that you are applying for registration under. If the applicant is seeking registration under multiple sections, please select all that apply. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

Section 5 Section 6	Natural Gas Well Affected Facility Storage Vessels*	v V
Section 7	Gas Producing Units, In-Line Heaters, Heater Treaters, and Glycol Dehydration Reboilers	V
Section 8	Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)	
Section 9	Reserved	Ш
Section 10	Natural gas-fired Compressor Engine(s) (RICE) **	V
Section 11	Tank Truck Loading Facility ***	V
Section 12	Standards of Performance for Storage Vessel Affected Facilities	
	(NSPS, Subpart OOOO)	
Section 13	Standards of Performance for Stationary Spark Ignition Internal	
	Combustion Engines (NSPS, Subpart JJJJ)	V
Section 14	Control Devices not subject to NSPS, Subpart OOOO	V
Section 15	National Emissions Standards for Hazardous Air Pollutants for Stationary	
	Reciprocating Internal Combustion Engines (40CFR63, Subpart ZZZZ)	V
Section 16	Glycol Dehydration Units	
Section 17	Dehydration Units With Exemption from NESHAP Standard,	
	Subpart HH § 63.764(d) (40CFR63, Subpart HH)	
Section 18	Dehydration Units Subject to NESHAP Standard, Subpart HH	
	and Not Located Within an UA/UC (40CFR63, Subpart HH)	
Section 19	Dehydration Units Subject to NESHAP Standard, Subpart HH	
	and Located Within an UA/UC (40CFR63, Subpart HH)	

^{*} Applicants that are subject to Section 6 may also be subject to Section 12 if the applicant is subject to the NSPS, Subpart OOOO control requirements or the applicable control device requirements of Section 14.

^{**} Applicants that are subject to Section 10 may also be subject to the applicable RICE requirements of Section 13 and/or Section 15.

^{***} Applicants that are subject to Section 11 may also be subject to control device requirements of Section 14.

NATURAL GAS WELL AFFECTED FACILITY DATA SHEET

Complete this data sheet if you are the owner or operator of a gas well affected facility for which construction, modification, or reconstruction commenced after August 23, 2011. This form must be completed for natural gas well affected facilities regardless of when flowback operations occur (or have occurred).

Please provide the API number((s) for each NG well at this facility:
47-017-06731-00	1 well not permitted
47-017-06732-00	·
47-017-06737-00	
47-017-06736-00	
47-017-06735-00	
47-017-06733-00	
47-017-06734-00	

Note: This is the same API well number(s) provided in the well completion notification and as provided to the WVDEP, Office of Oil and Gas for the well permit. The API number may be provided on the application without the state code (047).

Every oil and gas well permitted in West Virginia since 1929 has been issued an API (American Petroleum Institute) number. This API is used by agencies to identify and track oil and gas wells.

The API number has the following format: 047-001-00001

Where,

 $047 = State\ code$. The state code for WV is 047.

001 = County Code. County codes are odd numbers, beginning with 001 (Barbour) and continuing to 109 (Wyoming). 00001= Well number. Each well will have a unique well number.

Attachment G: Emission Units Data Sheet

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
H001, H002, H003, H004, H005, H006, H007, H008	EP-H001, EP-H002, EP-H003, EP-H004, EP-H005, EP-H006, EP-H007, EP-H008	Gas Production Unit Heaters	2016	1.5 MMBtu/hr (each)	New	N/A
F001	F001	Fugitives	2016	N/A	New	N/A
TANKCOND001- 010	EP-EC001	Condensate Tank F/W/B	2016	400 bbl each	New	EC001, EC002
TANKPW001-002	EP-EC001	PW Tank F/W/B	2016	400 bbl each	New	EC001, EC002
L001	EP-L001	Loading (Condensate)	2016	200BBL capacity (each)	New	N/A
L002	EP-L002	Loading (Water)	2016	200BBL capacity (each)	New	N/A
HR001	EP-HR001	Haul Truck	2016	40 ton capacity	New	N/A
EC001, EC002	EP-EC001, EP-EC002	Enclosed Combustor	2016	90scf/min	New	EC001, EC002
PCV	EP-PCV	Pneumatic CV	2016	6.6 scf/day/PCV	New	N/A
ENG001	EP-ENG001	Compressor Engine	2016	24HP	New	N/A

¹ For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal.

⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment G: Storage Vessel Emission Unit Data Sheet (Condensate)

Provide the following information for each new or modified bulk liquid storage tank.

I. GENERAL INFORMATION (regu

Bulk Storage Area Name	CONDTANK	2. Tank Name	TANKCOND001-010					
3. Emission Unit ID number	TANKCOND001-010	LO 4. Emission Point ID number EP-EC001, EP-						
5. Date Installed or Modified (for existing tanks)	2016	6. Type of change: New						
7A. Description of Tank Modification (<i>if applicable</i>) <i>NA</i> 7B. Will more than one material be stored in this tank? <i>If so, a separate form must be completed for each material.</i>								
No								
7C. Provide any limitations on source operation affecting emissions. (production variation, etc.)								

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-section	onal area multiplied by internal height.
400bbls	
9A. Tank Internal Diameter (ft.) 12	9B. Tank Internal Height (ft.) 20
10A. Maximum Liquid Height (ft.) 18	10B. Average Liquid Height (ft.) 10
11A. Maximum Vapor Space Height (ft.) 18	11B. Average Vapor Space Height (ft.) 10
12. Nominal Capacity (specify barrels or gallons). This is also known as "w	orking volume." 400bbls
13A. Maximum annual throughput (gal/yr) 12,264,000	13B. Maximum daily throughput (gal/day) 33,600
14. Number of tank turnovers per year 73	15. Maximum tank fill rate (gal/min) 168
16. Tank fill method: Splash Fill	
17. Is the tank system a variable vapor space system? No	
If yes, (A) What is the volume expansion capacity of the system (gal)?	
(B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply):	
External Floating Roof pontoon roof double deck roof Dor	e roof dome roof other (describe) ned External (or Covered) Floating Roof ting Variable Vapor Space lifter roof
Pressurized spherical cylindrical Underground Other (describe)	

III. TANK CONSTRUCTION AND OPERATION INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

 \underline{X} Refer to the responses to items 19 – 26 in section VII

IV. SITE INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

 \underline{X} Refer to the responses to items 27 – 33 in section VII

V. LIQUID INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

 \underline{X} Refer to the responses to items 34 – 39 in section VII

Attachment G: Storage Vessel Emission Unit Data Sheet (Condensate)

Provide the following information for each new or modified bulk liquid storage tank.

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

40. Emission Control Devi	ces (chec	k as many as app	ly):						
Does Not Apply		I	Rupture D	isc (psig)					
Carbon Adsorption ¹		Inert Gas Blanket of							
X Vent to Vapor Combusti	on Devic	e ¹ (vapor combus	tors, flare	es, thermal c	oxidizers) Co	ndenser ¹			
Conservation Vent (psig									
Other ¹ (describe)		Vacuum Setting Pressure Setting Emergency Relief Valve (psig)						ve (psig)	
¹ Complete appropriate Ai	ir Pollutio	on Control Device	Sheet						
	. , .						\		
41. Expected Emission Ra									
Material Name and	Fla	ashing Loss	Brea	thing Loss	Workir	ig Loss	Total Em		
CAS No.					Loss				
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	
		ı	Please se	e Tables 6 a	nd 7				
1 EPA = EPA Emission Factor	. MB = Ma	terial Balance. SS =	Similar Sc	ource. ST = Sir	milar Source T	est. Throu	ighput Data	a. O = Ot	her (specify)

SECTION VII (required if did not provide TANKS Summary Sheets)

Section vii (required ii did not provide raivis Summary Sheets)								
TANK CONSTRUCTION AND OPERATION INFORMATION								
20B. Roof Color: Green		20C. Year Last Painted: 2016						
21. Shell Condition (if metal and unlined): No Rust								
22B. If yes, operating temp	perature:	22C. If ye tank?	s, how is heat provided to					
24A. If yes, for dome roof	provide radius (ft):	24B. If ye (ft/ft):	s, for cone roof, provide slop					
Does not apply								
c (mechanical) shoe seal	Liquid mounted	resilient se	eal					
dary seal? Yes No)							
(check one) Shoe	Rim Other	(describe):					
er shield? Yes	No							
Floating Roof Tanks	Does not apply							
	26B. For bolted dec	ks, provid	e deck construction:					
:								
(ft2):	26F. For column sup	pported	26G. For column supported					
	20B. Roof Color: Green ast 22B. If yes, operating temperature and provided the color and pr	MATION 20B. Roof Color: Green 1st 22B. If yes, operating temperature: 24A. If yes, for dome roof provide radius (ft): Does not apply c (mechanical) shoe seal Liquid mounted dary seal? Yes No c (check one) Shoe Rim Other er shield? Yes No Floating Roof Tanks Does not apply 26B. For bolted decided.	MATION 20B. Roof Color: Green 20C. Year 1st 22B. If yes, operating temperature: 22C. If ye tank? 24A. If yes, for dome roof provide radius (ft): 24B. If ye (ft/ft): Does not apply c (mechanical) shoe seal Liquid mounted resilient seal ary seal? Yes No c (check one) Shoe Rim Other (describe er shield? Yes No Floating Roof Tanks Does not apply 26B. For bolted decks, provide:					

¹ EPA = EPA Emission Factor, MB = Material Balance, SS = Similar Source, ST = Similar Source Test, Throughput Data, O = Other (specify) Remember to attach emissions calculations, including TANKS Summary Sheets and other modeling summary sheets if applicable.

Attachment G: Storage Vessel Emission Unit Data Sheet (Condensate)

Provide the following information for each new or modified bulk liquid storage tank.

SITE INFORMATION:							
27. Provide the city and state on which the data	in this section are based:	West Ur	ion, WV				
28. Daily Avg. Ambient Temperature (°F): 51.7			29. Annual Avg. Maximum Temperature (°F): 63.8				
30. Annual Avg. Minimum Temperature (°F): 39.5			g. Wind Spee	ed (mph): 4.8			
32. Annual Avg. Solar Insulation Factor (BTU/ft2	-day):	33. Atn	nospheric Pr	essure (psia):	14.8		
1030.235999							
LIQUID INFORMATION:							
34. Avg. daily temperature range of bulk liquid 34A. Minimum (°F): (°F):				34B. Maximu	um (°F):		
51.7	39.5			103			
35. Avg. operating pressure range of tank (psig): 0	35A. Minimum (psig): 0			35B. Maximum (psig): 0			
36A. Minimum liquid surface temperature (°F): 39.5			36B. Corresponding vapor pressure (psia):				
37A. Avg. liquid surface temperature (°F): 51.7			37B. Corresponding vapor pressure (psia): 1.4176				
38A. Maximum liquid surface temperature (°F):	103	38B. Corresponding vapor pressure (psia): 3.9666					
39. Provide the following for each liquid or gas t	o be stored in the tank. A	dd additi	onal pages i	if necessary.			
39A. Material name and composition:	Condensate						
39B. CAS number:	mix of HC						
39C. Liquid density (lb/gal):	5.93						
39D. Liquid molecular weight (lb/lb-mole):	108.7						
39E. Vapor molecular weight (lb/lb-mole):	44.20						
39F. Maximum true vapor pressure (psia):	1.8401						
39G. Max Reid vapor pressure (psi):	3.41000						
39H. Months Storage per year. From:	year round						
То:							

Attachment G: Storage Vessel Emission Unit Data Sheet (Produced Water)

Provide the following information for each new or modified bulk liquid storage tank.

I. GENERAL INFORMATION (required)

1. Bulk Storage Area Name	PWTANK	2. Tank Name	TANKPW001-002
3. Emission Unit ID number	TANKPW001-002	4. Emission Point ID number	EP-EC001, EP-EC002
5. Date Installed or Modified (for existing tanks)	2016	6. Type of change: New	
7A. Description of Tank Modification (if applicabl	le)		
7B. Will more than one material be stored in this	tank? If so, a separate	form must be completed for each i	naterial.
No			
7C. Provide any limitations on source operation a	affecting emissions. (p	roduction variation, etc.)	

II. TANK INFORMATION (required)

8. Design Capacity (specify barrels or gallons). Use the internal cross-	sectional area multiplied by internal height.
400bbls	
9A. Tank Internal Diameter (ft.) 12	9B. Tank Internal Height (ft.) 20
10A. Maximum Liquid Height (ft.) 18	10B. Average Liquid Height (ft.) 10
11A. Maximum Vapor Space Height (ft.) 18	11B. Average Vapor Space Height (ft.) 10
12. Nominal Capacity (specify barrels or gallons). This is also known a	s "working volume." 400bbls
13A. Maximum annual throughput (gal/yr) 73,584,0	13B. Maximum daily throughput (gal/day) 201,600
14. Number of tank turnovers per year 2190	15. Maximum tank fill rate (gal/min) 168
16. Tank fill method Splash Fill	
17. Is the tank system a variable vapor space system? No	
f yes, (A) What is the volume expansion capacity of the system (gal)?	
(B) What are the number of transfers into the system per year?	
18. Type of tank (check all that apply):	
\underline{X} Fixed Roof \underline{X} vertical horizontal \underline{X} flat roof	cone roof dome roof other (describe)
External Floating Roof pontoon roof double deck room	Domed External (or Covered) Floating Roof
nternal Floating Roof vertical column support self-su	pporting Variable Vapor Space lifter roof
diaphragm	
Pressurized spherical cylindrical Undergrou	nd
Other (describe)	

III. TANK CONSTRUCTION AND OPERATION INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

 \underline{X} Refer to the responses to items 19 – 26 in section VII

IV. SITE INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

 \underline{X} Refer to the responses to items 27 – 33 in section VII

V. LIQUID INFORMATION (check which one applies)

Refer to enclosed TANKS Summary Sheets

X Refer to the responses to items 34 – 39 in section VII

Attachment G: Storage Vessel Emission Unit Data Sheet (Produced Water)

 ${\it Provide the following information for each new or modified bulk liquid storage tank.}$

VI. EMISSIONS AND CONTROL DEVICE DATA (required)

		- (- 1	/						
40. Emission Control Devi	ces (chec	k as many as app	ly):						
Does Not Apply		1	Rupture I	Disc (psig)					
Carbon Adsorption ¹				Inert (Gas Blanke	t of		_	
X Vent to Vapor Combust	ion Devic	e1 (vapor combu	stors, flai	res, thermal o	xidizers) C	ondense	r^1		
Conservation Vent (psig									
Other ¹ (describe)		V	/acuum S	etting F	ressure S	etting Em	nergency F	Relief Va	lve (psig)
¹ Complete appropriate A	ir Pollutic	on Control Device	Sheet						
41. Expected Emission Ra			1		T	- ' '	1		Γ
Material Name and	Fla	shing Loss	Brea	thing Loss	Workir	ng Loss	Total En		
CAS No.							Lo	SS	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	
		F	lease se	e Tables 6 and	17				
							<u> </u>		
1 EPA = EPA Emission Factor									

SECTION VII (required if did not provide TANKS Summary Sheets)

TANK CONSTRUCTION AND OPERATION INFOR	MATION					
19. Tank Shell Construction: Steel						
20A. Shell Color: Green	20B. Roof Color: Green		20C. Year Last Painted: 2016			
21. Shell Condition (if metal and unlined): No Ru	ist					
22A. Is the tank heated? No	22B. If yes, operating ter	nperature:	22C. If yes, how is heat provided to			
			tank?			
23. Operating Pressure Range (psig): 0	•					
24. Is the tank a Vertical Fixed Roof Tank? Yes	24A. If yes, for dome roo	of provide radius	24B. If yes	s, for cone roof, provide slop		
	(ft):		(ft/ft):			
25. Complete item 25 for Floating Roof Tanks	Does not apply		•			
25A. Year Internal Floaters Installed:						
25B. Primary Seal Type (check one): Metalli	c (mechanical) shoe seal	Liquid mounte	d resilient s	seal		
25C. Is the Floating Roof equipped with a second	dary seal? Yes I	No				
25D. If yes, how is the secondary seal mounted?	(check one) Shoe	Rim Oth	er (describe	e):		
25E. Is the floating roof equipped with a weather	er shield? Yes	No				
25F. Describe deck fittings:						
26. Complete the following section for Internal Floating Roof Tanks Does not apply						
26A. Deck Type: Bolted Welded		26B. For bolted de	cks, provide	e deck construction:		
26C. Deck seam. Continuous sheet construction	:	•				
26D. Deck seam length (ft.): 26E. Area of deck	(ft2):	26F. For column su	pported	26G. For column supported		

Remember to attach emissions calculations, including TANKS Summary Sheets and other modeling summary sheets if applicable.

Attachment G: Storage Vessel Emission Unit Data Sheet (Produced Water)

Provide the following information for each new or modified bulk liquid storage tank.

SITE INFORMATION:							
27. Provide the city and state on which the data	in this section are based	West L	Jnion, WV				
28. Daily Avg. Ambient Temperature (°F): 51.7			29. Annual Avg. Maximum Temperature (°F): 63.8				
30. Annual Avg. Minimum Temperature (°F): 39.	.5	31. Av	g. Wind Spee	d (mph): 4.8			
32. Annual Avg. Solar Insulation Factor (BTU/ft2	-day):	33. Atr	nospheric Pr	essure (psia):	14.8		
1030.235999							
LIQUID INFORMATION:							
34. Avg. daily temperature range of bulk liquid	34A. Minimum (°F):			34B. Maximu	ım (°F):		
(°F):							
51.7	39.5			103			
35. Avg. operating pressure range of tank	35A. Minimum (psig): 0			35B. Maximu	ım (psig): 0		
(psig): 0							
36A. Minimum liquid surface temperature (°F): 39.5		36B. Corresponding vapor pressure			ire		
		(psia):			0.1839		
37A. Avg. liquid surface temperature (°F): 51.7		37B. Corresponding vapor pressure					
		(psia): 0.2599					
38A. Maximum liquid surface temperature (°F):	103	38B. Corresponding vapor pressure					
		(psia):			0.9440		
39. Provide the following for each liquid or gas t	o be stored in the tank. A	dd addi	tional pages	if necessary.			
39A. Material name and composition:	Produced Water						
39B. CAS number:	mix of HC and wat	er					
39C. Liquid density (lb/gal):	8.33						
39D. Liquid molecular weight (lb/lb-mole):	18.0157						
39E. Vapor molecular weight (lb/lb-mole):	18.4251						
39F. Maximum true vapor pressure (psia):	0.4472						
39G. Max Reid vapor pressure (psi):	1.02416						
39H. Months Storage per year. From:	year round						
То:							

Attachment G: Natural Gas Fired Fuel Burning Units Emission Data Sheet

Complete the information on this data for each Gas Producing Unit(s), Heater Treater(s), and in-line heater(s) at the production pad. Reboiler information should be entered on the Glycol Dehydration Emission Unit Data Sheet.

Emission Unit ID #1	Emission Point ID# ²	Emission Unit Description (Manufacturer / Model #)	Year Installed/ Modified	Type ³ and Date of Change	Control Device ⁴	Design Heat Input (mmBtu/hr) ⁵	Fuel Heating Value (Btu/scf) ⁶
H001	EP-H001	Gas Production Heaters	2016	New		1.50	1,247.06
H002	EP-H002	Gas Production Heaters	2016	New		1.50	1,247.06
H003	EP-H003	Gas Production Heaters	2016	New		1.50	1,247.06
H004	EP-H004	Gas Production Heaters	2016	New		1.50	1,247.06
H005	EP-H005	Gas Production Heaters	2016	New		1.50	1,247.06
H006	EP-H006	Gas Production Heaters	2016	New		1.50	1,247.06
H007	EP-H007	Gas Production Heaters	2016	New		1.50	1,247.06
H008	EP-H008	Gas Production Heaters	2016	New		1.50	1,247.06
ENG001	EP-ENG001	Engine (Kubota DG972-E2)	2016	New	1	1	1,247.06
EC001, EC002	EP-EC001, EP- EC002	Enclosed Combustor (Cimmaron 48", Model No. 700-TI-603-D-31C)	2016	New	EC001, EC002	6.6	1,247.06

¹ Enter the appropriate Emission Unit (or <u>So</u>urces) identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For sources, use 1S, 2S, 3S...or other appropriate designation. Enter glycol dehydration unit Reboiler Vent data on the Glycol Dehydration Unit Data Sheet.

- New, modification, removal.
- 4 Complete appropriate air pollution control device sheet for any control device.
- 5 Enter design heat input capacity in mmBtu/hr.
- 6 Enter the fuel heating value in Btu/standard cubic foot.

² Enter the appropriate Emission Point identification numbers for each fuel burning unit located at the production pad. Gas Producing Unit Burners should be designated GPU-1, GPU-2, etc. Heater Treaters should be designated HT-1, HT-2, etc. Heaters or Line Heaters should be designated LH-1, LH-2, etc. For emission points, use 1E, 2E, 3E...or other appropriate designation.

Attachment G: Natural Gas-Fired Compressor Engine (RICE) Emission Unit Data Sheet

Complete this section for any natural gas-fired reciprocating internal combustion engine.

Francisco Hait /Carre	and ID Ma		FNC004			
Emission Unit (Sour			ENG001			
Emission Point ID N	0.	E	P-ENG001			
Engine Manufacture	er and Model	Engine (K	(ubota DG972-E2)			
Manufacturer's Rat	ed bhp/rpm	24 HP @ 3600 rpm				
Source Status			NS			
Date Installed/Mod	ified/Removed		2016			
Engine Manufacture	ed/Reconstruction Date		2013			
Is this engine subj	ect to 40CFR60, Subpart JJJJ?		Yes			
Is this a Certified to 40CFR60, Subpar	Stationary Spark Ignition Engine according t JJJJ? (Yes or No)		Yes			
Is this engine subj	ect to 40CFR63, Subpart ZZZZ? (yes or no)		No			
	Engine Type		RB4S			
	APCD Type		-			
	Fuel Type		RG			
	H2S (gr/100 scf)		0			
Foreign Foreigned	Operating bhp/rpm	16.5 H	P @ 2400 rpm			
Engine, Fuel and	BSFC (Btu/bhp-hr)	9773				
Combustion Data	Fuel throughput (ft³/hr)		193			
	Fuel throughput (MMft ³ /yr)	1.6907				
	Operation (hrs/yr)	8760				
Reference	Potential Emissions	lbs/hr	tons/yr			
MD	NO _X	0.3158	1.3831			
MD	СО	5.6445	24.7228			
AP	VOC	0.0071	0.0311			
AP	SO ₂	0.0001	0.0006			
AP	PM ₁₀	0.0024	0.0104			
AP	Formaldehyde	0.0049	0.0215			
	Proposed Monitoring:	Monitor engine setting adjustments to ensure these are consistent with manufacturer's instructions.				
MRR	Proposed Recordkeeping:	1) Maintain records of maintenance performed on engines. 2) Documentation from manufacturer that engine is certified to meet emission standards				
	Proposed Reporting:		N/A			
	<u> </u>	1				

Attachment G: Tank Truck Loading **Emissions Unit Data Sheet**

Furnish the following information for each new or modified bulk liquid transfer area or loading rack at the natural gas production pad.

This form is to be used for b	ulk liquid transfer ope	erations to tank truc	ks.	. ,			
1. Emission Unit ID:	L001, L002		t EP-L001, EP-L0	02 3. Year Installed/ Modified:	2016		
4. Emission Unit Descr	iption: CONDENS	ATE AND PRODU	JCED WATER				
5. Loading Area Data	.pt.o co.ts.		.025				
5A. Number of pumps	: 2	5B. Number of li	quids loaded: 2	5C. Maximum n	umber of		
				tank trucks loadi	ng at one time: 2		
Describe cleaning lo	cation, compoun	ds and procedur	e for tank trucks:	For hire tank trucks a	are used and are cleaned		
					or to repair or leak tests. I held pressurized spray		
7. Are tank trucks pres X Yes No If YES, describe: Tank trusing EPA Method 27-i	rucks are pressur	e tested for leaks	s at the location o	_	npany. Trucks are tested are met.		
8. Projected Maximum	Onerating Scher	lule (for rack or t	transfer noint as a	whole).			
Maximum	Jan Ma	-	Apr June	July - Sept.	Oct Dec.		
hours/day	12	'' '	12	12	12		
days/week	7		7	7	7		
9. Bulk Liquid Data (add		ary)	,	,	, ,		
Liquid Name	a pages as necess		ondensate	Produced Water			
Max. daily throughput	(1000 gal/day)		33.6	201.6			
Max. annual throughpu			12,264.00	73,584.00			
Loading Method 1	at (2000 Bul) 1.1		BF	BF			
Max. Fill Rate (gal/min)			168 50	168 50	+		
Average Fill Time (min/			-				
Max. Bulk Liquid Temp	erature (°F)		72.1	72.1			
True Vapor Pressure ²			1.84	0.45			
Cargo Vessel Condition	3		U	U			
Control Equipment or I	Method ⁴		None	None			
Minimum collection ef	ficiency (%)		0	0			
Minimum control effici			0	0			
	, , ,	•	•				
Maximum Load	ling (lb/hr)		11.71	1.17			
Emission Rate Anni	ual (ton/yr)		7.12	4.26			
Estimation Method 5			Promax	Promax			
Notes:		I	ı		1		
1 BF = Bottom Fill SP =	Splash Fill SUB	= Submerged Fi	I				
2 At maximum bulk liqu		Judine Bear					
3 B = Ballasted Vessel,		Jncleaned (dedi	cated service). O =	other (describe)			
4 List as many as apply					s Attachment "H"):		
CA = Carbon Adsorptio					,		
VB = Dedicated Vapor I		stem) ECD = End	closed Combustio	n Device			
F = Flare	•	•					
TO = Thermal Oxidation	n or Incineration						
5 EPA = EPA Emission F	actor as stated ir	AP-42					
10. Proposed Monitor	ing, Recordkeep	ing, Reporting, a	nd Testing				
MONITORING			RECORDKEEPIN	G			
1) Visual inspection to		-	1) Maintain reco	ords of condensate tr	ransferred from storage		
from storage tanks to t	rucks are leak-fre	e.	tanks.				
				ords of produced wat	er transferred from		
			storage tanks.				
REPORTING			TESTING				
N/A			N/A				
• •			,,				
11 Describe all operati	ng ranges and m	aintenance proce	edures required by	v Manufacturer to m	aintain warranty: N/A		

Attachment H

Air Pollution Control Device Data Sheet



Attachment H: Air Pollution Control Device Vapor Combustion Control Device Sheet

Complete this vapor combustion control device sheet for each enclosed combustion device, flare, thermal oxidizer, or completion combustion device that is located at the natural gas production pad for the purpose of thermally destructing waste gas to control emissions of regulated pollutants to the atmosphere.

INADODTANT DEAD TO	IE INCEDIUS	TIONS ASSOC	45 4 4 11/	INIC TILIC E	0014 05500		NETING					
IMPORTANT: READ TH	HE INSTRUC	TIONS ACCOR	/IPANY		orivi Befori	COIVII	PLETING.					
1. Control Device ID#:		EC00	1, EC00		2. Installation	n Date:	New					
3. Maximum Rated To	tal Flow Ca _l	pacity: scfh	4. Max	imum Des	ign Heat Inpu	t:	5. Design H	eat Cont	ent: 2300BTU/scf			
131,000 scfd			6.6 M	IMBtu/hr								
			Co	ntrol Devi	e Informatio	n	· L					
6. Select the type of va	apor combu	stion control	device l	being used	l: Enclosed Co	ombust	or					
7. Manufacturer: Mod	el No. Cimr	naron, Model	No. 48'	' HV ECD	8. Hours of	operat	ion per year:		8760			
9. List the emission un	its whose e	emissions are o	ontroll	ed by this	vapor combu	stion co	ontrol device:	(Emissic	on Point ID#:)			
10. Emission Unit ID#		Emission Sou	rce Des	cription:	Emission Ur	nit ID#		Emissio	n Source Description:			
TANKCOND001-010		Condensate T							·			
TANKPW001-002		PW Tanks										
If this vapor combusto	r controls e	missions from	more t	han six em	ission units, p	lease d	nttach additio	nal page	S.			
11. Assist Type					12. Flare Hei	ght	13. Tip Diamo	eter (ft)	14. Was the design per			
					(ft)				§60.18?			
Steam - Air -	Pressure -	- <u>X</u> Non -			25ft		3.33		Yes			
			V	Vaste Gas	Information							
15. Maximum waste g	gas flow	16. Heat valu		ste gas	17. Temperature of the				Velocity of the			
rate (scfm):		stream (BTU/	ft3)		emissions s	emissions stream (°F)			emissions stream (ft/s)			
55.18		2,	106.02	.02 900					1.06E-01			
19. Provide an attachr	nent with th	he characteris	tics of t			be bur	ned.					
					ormation			1				
20. Type/Grade of	21. Numbe	er of pilot light					eat input per l		. Will automatic re-			
pilot fuel:			1.	: flame per	pilot	(BTU/	hr):	ignition be used?				
			(scf/	hr):								
Natural Gas		1		12.	.6		12800		Yes			
25. If automatic re-ign	ition will be	e used, describ	e the n	nethod: Ba	ased on a mo	nitorin	g system	-				
26. Describe the meth	od of contr					uple ed	quivalent					
27. Is pilot flame equip	oped with a	monitor	28. I	f yes, wha	t type? Th	ermoc	ouple					
to detect the presence	e of the flan	ne?										
Yes												
				_								
29. Pollutant(s) Contro	olled			30. % Cap	ture Efficienc	У			er's Guaranteed Control			
							Efficiend	cy (%)				
F/W/B Emissions from	TANKCONI	D		98			98					
F/W/B Emissions from	TANKPW			98			98					

Attachment H: Air Pollution Control Device Vapor Combustion Control Device Sheet

Complete this vapor combustion control device sheet for each enclosed combustion device, flare, thermal oxidizer, or completion combustion device that is located at the natural gas production pad for the purpose of thermally destructing waste gas to control emissions of regulated pollutants to the atmosphere.

32. Has the control device been tested by the manufacturer and certified? Yes, see spec sheet.

33. Describe all operating ranges and maintenance procedures required by the manufacturer to maintain warranty: See spec sheet for operating ranges.

MONITORING

- 1) Report any period when visible emissions exceeded 5 minutes during any two-hour period.
- 2) Monitor the presence of pilot flame at all times with the Flame rectification system, a thermocouple equivalent.
- 3) Monitor visible emissions from the vapor combustor.
- 4) Monitor throughput to the vapor combustor.

RECORDKEEPING

- 1) Record the times and duration of periods when the pilot flame was not present.
- 2) Records of throughput to the vapor combustor.
- 3) Records of vapor combustor malfunction or shutdown which resulted in excess emissions.
- 4) Records of vapor combustor inspection and maintenance activities conducted.

REPORTING

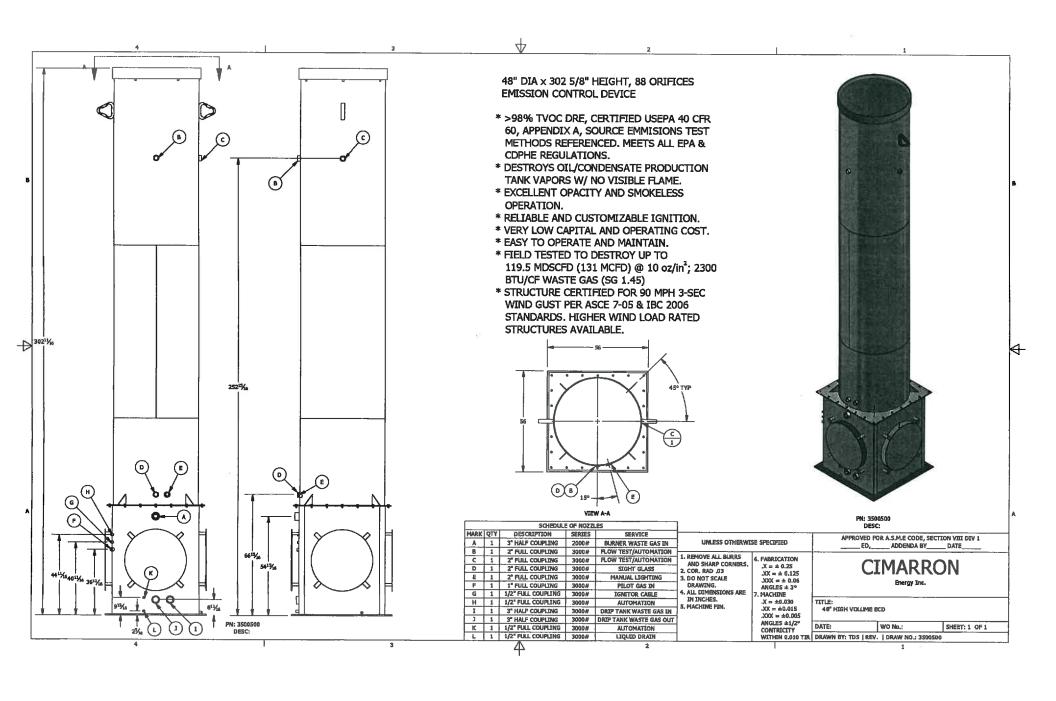
1) Report any period when visible emissions exceeded 5 minutes during any two-hour period.

34. Additional Information Attached?

YES

Please attach a copy of manufacturer's data sheet. Please attach a copy of manufacturer's drawing. Please attach a copy of the manufacturer's performance testing.

If any of the requested information is not available, please contact the manufacturer.



Attachment I

Emission Calculations



Facility Information Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Oil and Gas Site General Information

Administrative Information								
Company Namo	Antero Resources							
Company Name	Corporation							
Facility/Well Name	Stanley Well Pad							
Nearest City/Town	West Union							
API Number/SIC Code	1311							
Latitude/Longitude	39.236867, -80.879461							
County	Doddridge							

Technical Information	
Max Condensate Site Throughput (bbl/day):	800
Max Produced Water Site Throughput (bbl/day):	4,800
Are there any sour gas streams at this site?	No
Is this site currently operational/producing?	No

Equipment/Processes at Site										
Equipment/Process Types How many for this site										
Fugitives	8									
IC Engines	1									
Turbines	0									
Diesel Engines	0									
Gas Production Unit Heaters	8									
Condensate Tanks	10									
Produced Water Tanks	2									
Miscellaneous Tanks	0									
Loading Jobs	2									
Glycol Units	0									
Amine Units	0									
Enclosed Combustors	2									

Uncontrolled/Controlled Emissions Summary Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

	VC	OC .	N	O _X	C	O _{2e}	C	:0	S	02	PN	Λ _{2.5}	PI	M ₁₀	Le	ad	Tota	l HAPs	Ben	zene	Xyle	enes	Formal	dehyde
Emission Source	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)
UNCONTROLLED (Fugitives, Storage Tanks, Heater Treaters)																								
Fugitive Emissions (Component Count, PCV and Hauling) ¹	3.1338	13.7262			71.806	314.51							2.1058	5.2832			0.3035	1.3293	0.0052	0.0229	3.93E-02	1.72E-01		
Flashing, Working and Breathing (F/W/B) Losses ²	253.04	1,108.3															9.555	41.850	0.3933	1.7225	0.2237	0.9797		
Engine Emissions ³	0.0071	0.0311	0.3158	1.3831	27.78	121.66	5.6445	24.7228	0.0001	0.0006	0.0024	0.0104	0.0023	0.0100			0.0055	0.0241	0.0004	0.0017	0.0000	0.0002	0.0049	0.0215
Gas Production Unit Heater Emissions ⁴	0.0529	0.2318	0.9623	4.2147	1,161.58	5,087.71	0.8083	3.5404	0.0058	0.0253	0.0731	0.3203	0.0731	0.3203	4.81E-06	2.11E-05	1.81E-02	7.93E-02	2.02E-05	8.85E-05			0.0007	0.0032
TOTALS:	256.2370	1122.3179	1.2780	5.5978	1261.1602	5523.8815	6.4528	28.2632	0.0059	0.0259	0.0755	0.3307	2.1812	5.6135	4.81E-06	2.11E-05	9.8820	43.2833	0.3989	1.7471	0.2631	1.1523	0.0056	0.0247
UNCONTROLLED (Truck Loading Emissions)	0.502	5 207			2.004	4.772	1			ı				1			0.0240	0.0454	504504	1 255 04	0.0040	0.0044		
Truck Loading Emissions ⁵	8.682	5.287			3.094	4.772											0.0248	0.0151	6.84E-04	4.25E-04	0.0019	0.0011		
CONTROLLED EMISSIONS	T	T	ı		•						ı	ı	,					1	T			T		1
Enclosed Combustor Emissions (from F/W/B losses) ^b	5.0610	22.1672	0.3336	1.4611	1359.8315	5956.0619	0.2802	1.2273	1.51E-05	6.62E-05	0.0190	0.0833	0.0254		1.67E-06	7.31E-06	0.1911	0.8372	7.87E-03	3.44E-02	0.0045	0.0196	1.89E-06	8.28E-06
Controlled Fugitive Emissions from Hauling													1.0529	2.6416										
TOTALS:	5.0610	22.1672	0.3336	1.4611	1359.8315	5956.0619	0.2802	1.2273	1.51E-05	6.62E-05	0.0190	0.0833	1.0782	2.6416	1.67E-06	7.31E-06	0.1911	0.8372	0.0079	0.0344	0.0045	0.0196	1.89E-06	8.28E-06
_	1	1		1		1	1		1	1				1	1		1	1	1					
POTENTIAL TO EMIT ⁷	8.2549	41.4431	1.6116	7.0589	2620.9916	11484.7154	6.7330	29.4905	0.0059	0.0260	0.0945	0.4140	1.1536	2.9719	6.48E-06	2.84E-05	0.5183	2.2851	0.0135	0.0595	0.0439	0.1933	0.0056	0.0247
		es 4 and 5 for				ble 12 for PM	emissions	from hauli	ng.															
		es 6 and 7 ror			liations																			
					emission calc	ulations																		
Enter any notes here:	4 - See Table 9 for gas production unit heater emission calculations 5 - The maximum emission was calculated based on tank truck capacity of 200 barrels and actual fill rate of 50 minutes per tank truck. At a production rate of 800 barrels per day, VOC emissions would be 8.6819 pounds per hour when there are loading activities.																							
Enter any notes here.						pound per ho		c.s and act	aa. IIII Idle	5. 50 mmu	ces per tan	a uck. A	a produc	aon rate o	. 550 builes	, per day, ve	2 C111133101	.s would be	5.5615 pot	per 110	a. wiicii tii	c. c ui c ioat	6 accivitie	
		•			ion emission																			
						m gas product	tion unit he	eaters, eng	ine, storage	e tanks, fug	itives and	enclosed c	ombustor.	Does not i	nclude emis	sions from I	loading (see	e footnote 5). The tota	I TPY PTE is	the sum of	all emissio	ins.	
						r PM10 source			-, -,										,					

Permits Summary Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

		Emissio	ons		Threshold E	xceeded?
Pollutan	t	Uncontrolled	Controlled	Threshold	Uncontrolled	Controlled
VOC	lbs/hr	256.2370	8.2549	6	Yes	Yes
VOC	tons/yr	1127.6047	41.4431	10	Yes	Yes
NO _x	lbs/hr	1.2780	1.6116	6		
ΝΟχ	tons/yr	5.5978	7.0589	10		
СО	lbs/hr	6.4528	6.7330	6	Yes	Yes
CO	tons/yr	28.2632	29.4905	10	Yes	Yes
SO ₂	lbs/hr	0.0059	0.0059	6		
302	tons/yr	0.0259	0.0260	10		
PM _{2.5}	lbs/hr	7.55E-02	9.45E-02	6		
1 1412.5	tons/yr	3.31E-01	4.14E-01	10		
PM ₁₀	lbs/hr	2.1812	1.1536	6		
1 14110	tons/yr	5.6135	2.9719	10		
Lead	lbs/hr	4.81E-06	6.48E-06	6		
Leau	tons/yr	2.11E-05	2.84E-05	10		
Total HAPs	lbs/hr	9.8820	0.5183	2	Yes	
Total fixe 3	tons/yr	43.2983	2.2851	5	Yes	
Total TAPs	lbs/hr	0.4045	0.0191	1.14		
n-Hexane	lbs/hr	8.7519	0.4174			
II Hexane	tons/yr	38.3456	1.8407			
Toluene	lbs/hr	0.3585	0.0232			
Toluelle	tons/yr	1.5711	0.1024			
Ethylhonzono	lbs/hr	0.1040	0.0146			
Ethylbenzene	tons/yr	0.4558	0.0644			
Xylenes	lbs/hr	0.2631	0.0439			
Aylelles	tons/yr	1.1534	0.1933			
Benzene	lbs/hr	0.3989	0.0135			
Denzene	tons/yr	1.7475	0.0595			

Enter any notes	1. Emissions are based on 98% Flare DRE operating 100% of the time.
here:	

Fugitive Emissions Stanley Well Pad Doddridge, West Virginia **Antero Resources Corporation**

VOC Type:	Condensate VOC
Emission Type:	Steady State (continuous)

	VOC frac	0.191
	Benzene frac	0.000
	Toluene	0.000
Gas Weight Fraction From Analysis:	Ethylbenzene	0.000
	Xylenes	0.000
	n-Hexane	0.023
	Methane	0.603

		Gas			
Number	Component	Pollutant	Emission Factor (kg/hr of THC per component)	kg/hr	lb/yr
400	Valves	Gas VOC	0.004500	0.34	6,624.61
		Non VOC	0.004500	1.46	28,064.99
472	Connectors	VOC	0.000200	0.02	347.42
		Non-VOC	0.000200	0.08	1,471.85
104	Flanges	VOC	0.000390	0.01	149.27
		Non-VOC	0.000390	0.03	632.40
	·	0.37	7,121.30		
			Total THC:	1.93	37,290.55

	VOC frac	0.974
	Benzene frac	0.002
	Toluene	0.007
Light Liquid Weight Fraction From Analysis:	Ethylbenzene	0.006
	Xylenes	0.017
	n-hexane	0.053
	Methane	0.008

Light Liquid							
Number	Component	Pollutant	Emission Factor (kg/hr of THC per component)	kg/hr	lb/yr		
416	Valves	Light Liquid VOC	0.002500	1.01	19,528.73		
		Light Liquid Non-VOC		0.03	514.15		
		Total VOC:	1.01	19,528.73			
	•	•	Total THC:	1.04	20,042.88		

Fugitive Total Emissions					
	Annual Emissions (lb/yr)	Annual Emissions (lb/hr)	Annual Emissions (tpy)		
VOC	26,650.04	3.04	13.33		
Ethylbenzene		0.01	0.06		
Toluene		0.02	0.07		
Xylenes		0.04	0.17		
n-Hexane		0.22	0.96		
TAPs (Benzene)		0.01	0.02		
HAPs		0.29	1.28		
CO _{2e}	565,717.91	64.58	282.86		

Fugitive emissions based on an estimated component count Global Warming Potentials from EPA site

Reference to Emission factors used:

- Enter Notes Here: 1. Emission factors are for oil and gas production facilities (not refineries) come from the EPA's "Protocol for Equipment Leak Emission Estimates" November 1995, EPA 4531, R-95-017, Table 2-4.
 - 2. Percent of speciated VOCs used in fugitive calculations are based on the total hydrocarbons, not of the total sample.

Pneumatic Control Valve Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Number of PCVs	32
Bleed Rate (scf/day/PCV)	6.6
Total Bleed Rate (scf/day)	211.2

Component	Mol%	Molecular Weight	Component Flow	Component Moles	Compo	nent Emiss	ions
		(lb/lb-mole)	(scf/day)	(lb-moles)	(lbs/day)	(lbs/hr)	(tons/year)
H2S	0	34.08	0	0.00	0.00	0.00	0.00
Nitrogen	0.4946	14.01	1.0445952	0.00	0.04	0.00	0.01
Carbon Dioxide	0.1467	44.01	0.3098304	0.00	0.04	0.00	0.01
Methane	77.6927	16.04	164.0869824	0.43	6.94	0.29	1.27
Ethane	14.1987	30.07	29.9876544	0.08	2.38	0.10	0.43
Propane	4.4938	44.1	9.4909056	0.03	1.10	0.05	0.20
Isobutane	0.5666	58.12	1.1966592	0.00	0.18	0.01	0.03
n-Butane	1.1838	58.12	2.5001856	0.01	0.38	0.02	0.07
Isopentane	0.3749	72.15	0.7917888	0.00	0.15	0.01	0.03
n-Pentane	0.2914	72.15	0.6154368	0.00	0.12	0.00	0.02
2-Methylpentane	0	86.18	0	0.00	0.00	0.00	0.00
3-Methylpentane	0	86.18	0	0.00	0.00	0.00	0.00
n-Hexane	0.5451	86.18	1.1512512	0.00	0.26	0.01	0.05
Methylcyclopentane	0	84.16	0	0.00	0.00	0.00	0.00
Benzene	0	78.11	0	0.00	0.00	0.00	0.00
2-Methylhexane	0	100.2	0	0.00	0.00	0.00	0.00
3-Methylhexane	0	100.2	0	0.00	0.00	0.00	0.00
Heptane	0	100.21	0	0.00	0.00	0.00	0.00
Methylcyclohexane	0	98.186	0	0.00	0.00	0.00	0.00
Toluene	0	92.14	0	0.00	0.00	0.00	0.00
Octane	0	114.23	0	0.00	0.00	0.00	0.00
Ethylbenzene	0	106.17	0	0.00	0.00	0.00	0.00
m & p-Xylene	0	106.16	0	0.00	0.00	0.00	0.00
o-Xylene	0	106.16	0	0.00	0.00	0.00	0.00
Nonane	0	128.2	0	0.00	0.00	0.00	0.00
C10+	0	174.28	0	0.00	0.00	0.00	0.00

	lb/hr	tpy
VOC Emissions	0.0916	0.4012
Benzene Emissions	0.0000	0.0000
Toluene Emissions	0.0000	0.0000
Ethylbenzene Emissions	0.0000	0.0000
Xylene Emissions	0.0000	0.0000
n-Hexane Emissions	0.0109	0.0477
HAPs Emissions	0.0109	0.0477
TAPs Emissions	0.0000	0.0000
CO _{2e} emissions	7.2262	31.6506

	1. PCV bleed rate obtained from the user manual for PCV
Enter any notes here:	http://issuu.com/rmcprocesscontrols/docs/mizer-pilot-operationpartsinstallation-manual
	2. Emissions per hour= Mol % x no. of PCV x bleed rate x MW / 379.48 / 24

Uncontrolled Flashing Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

# Hours Operational	8760
---------------------	------

	Condensate Tank Flashing Losses			Produc	ced Water Tank Flashing L	d Water Tank Flashing Losses		
	Vapor Mass Fraction Flashing Losses		Vapor Mass Fraction	Flashin	g Losses			
	wt%	lbs/hr	tpy	wt%	lbs/hr	tpy		
Water	0.0950	0.2897	1.2689	2.5940	0.0000	0.0000		
H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Nitrogen	0.0074	0.0224	0.0982	0.5024	0.1295	0.5674		
Carbon Dioxide	0.1540	0.4694	2.0558	2.5439	0.6559	2.8727		
Methane	3.3030	10.0699	44.1060	55.3792	14.2776	62.5357		
Ethane	19.7050	60.0750	263.1287	22.3462	5.7612	25.2340		
Propane	30.4702	92.8948	406.8791	11.1972	2.8868	12.6442		
Isobutane	7.7155	23.5223	103.0278	0.6359	0.1639	0.7181		
n-Butane	17.0657	52.0286	227.8851	2.6435	0.6815	2.9851		
Isopentane	6.0892	18.5643	81.3117	0.5638	0.1454	0.6367		
n-Pentane	6.2707	19.1175	83.7347	0.5503	0.1419	0.6214		
2-Methylpentane	1.5994	4.8762	21.3578	0.0634	0.0163	0.0715		
3-Methylpentane	0.9392	2.8633	12.5410	0.0983	0.0253	0.1110		
n-Hexane	2.7709	8.4476	37.0006	0.0867	0.0223	0.0979		
Methylcyclopentane	0.4057	1.2368	5.4170	0.1205	0.0311	0.1361		
Benzene	0.1130	0.3444	1.5083	0.1851	0.0477	0.2091		
2-Methylhexane	0.5442	1.6591	7.2669	0.0189	0.0049	0.0214		
3-Methylhexane	0.4093	1.2478	5.4655	0.0148	0.0038	0.0167		
Heptane	0.8284	2.5255	11.0617	0.0315	0.0081	0.0355		
Methylcyclohexane	0.5919	1.8045	7.9035	0.1163	0.0300	0.1313		
Toluene	0.0987	0.3008	1.3174	0.1521	0.0392	0.1718		
Octane	0.6016	1.8342	8.0336	0.0135	0.0035	0.0153		
Ethylbenzene	0.0262	0.0798	0.3496	0.0399	0.0103	0.0451		
m & p-Xylene	0.0334	0.1019	0.4465	0.0505	0.0130	0.0570		
o-Xylene	0.0306	0.0933	0.4087	0.0475	0.0122	0.0536		
Nonane	0.1299	0.3959	1.7340	0.0045	0.0012	0.0051		
C10+	0.0021	0.0064	0.0280	0.0000	0.0000	0.0000		
Total VOCs	76.736	233.94	1,024.7	16.634	4.2886	18.7839		
Total CO _{2e}		252.22	1,104.7		357.59	1,566.3		
Total TAPs (Benzene)		0.3444	1.5083		0.0477	0.2091		
Toluene		0.3008	1.3174		0.0392	0.1718		
Ethylbenzene		0.0798	0.3496		0.0103	0.0451		
Xylenes		0.1952	0.8552		0.0253	0.1106		
n-Hexane		8.448	37.001		0.0223	0.0979		
Total HAPs		9.368	41.031		0.1449	0.6345		
Total	100.00	304.87	1,335.3	100.00	25.113	109.99		

Enter any notes here: Vapor mass fractions and Flashing losses from Promax output

Table 7

Uncontrolled Working and Breathing Losses Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Condensate Tank Information	
Number of Tanks	10
Maximum Working Losses (lbs/hr)	9.4873
Maximum Breathing Losses (lbs/hr)	10.4902

		Condensate Tank W/B Losses							
	Vapor Mass Fraction	Worki	ing Losses	Breathi	ng Losses	Max W/	B Losses		
	wt%	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy		
H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Nitrogen	0.0003	0.0000	0.0001	0.0000	0.0001	0.0001	0.0003		
Carbon Dioxide	0.1818	0.0172	0.0755	0.0191	0.0835	0.0363	0.1590		
Methane	0.7253	0.0688	0.3014	0.0761	0.3332	0.1449	0.6346		
Ethane	24.9627	2.3683	10.3730	2.6186	11.4697	4.9869	21.8427		
Propane	32.6152	3.0943	13.5530	3.4214	14.9858	6.5157	28.5388		
Isobutane	7.8278	0.7426	3.2528	0.8212	3.5967	1.5638	6.8494		
n-Butane	17.0065	1.6134	7.0669	1.7840	7.8140	3.3975	14.8809		
Isopentane	5.7989	0.5502	2.4097	0.6083	2.6644	1.1585	5.0741		
n-Pentane	5.8731	0.5572	2.4405	0.6161	2.6985	1.1733	5.1391		
2-Methylpentane	1.4784	0.1403	0.6144	0.1551	0.6793	0.2954	1.2937		
3-Methylpentane	0.8636	0.0819	0.3589	0.0906	0.3968	0.1725	0.7557		
n-Hexane	0.1733	0.0164	0.0720	0.0182	0.0796	0.0346	0.1516		
Methylcyclopentane	0.3415	0.0324	0.1419	0.0358	0.1569	0.0682	0.2988		
Benzene	0.0058	0.0006	0.0024	0.0006	0.0027	0.0012	0.0051		
2-Methylhexane	0.0322	0.0031	0.0134	0.0034	0.0148	0.0064	0.0282		
3-Methylhexane	0.3641	0.0345	0.1513	0.0382	0.1673	0.0727	0.3186		
Heptane	0.6794	0.0645	0.2823	0.0713	0.3122	0.1357	0.5945		
Methylcyclohexane	0.4814	0.0457	0.2001	0.0505	0.2212	0.0962	0.4213		
Toluene	0.0109	0.0010	0.0045	0.0011	0.0050	0.0022	0.0096		
Octane	0.4650	0.0441	0.1932	0.0488	0.2136	0.0929	0.4068		
Ethylbenzene	0.0054	0.0005	0.0023	0.0006	0.0025	0.0011	0.0047		
m & p-Xylene	0.0089	0.0008	0.0037	0.0009	0.0041	0.0018	0.0078		
o-Xylene	0.0070	0.0007	0.0029	0.0007	0.0032	0.0014	0.0061		
Nonane	0.0904	0.0086	0.0376	0.0095	0.0415	0.0181	0.0791		
C10+	0.0010	0.0001	0.0004	0.0001	0.0005	0.0002	0.0009		
Total VOCs	74.130	7.0329	30.804	7.7764	34.0607	14.8093	64.865		
Total CO _{2e}		1.7375	7.6101	1.9212	8.4146	3.6586	16.025		
Total TAPs (Benzene)		0.0006	0.0024	0.0006	0.0027	0.0012	0.0051		
Toluene		0.0010	0.0045	0.0011	0.0050	0.0022	0.0096		
Ethylbenzene		0.0005	0.0023	0.0006	0.0025	0.0011	0.0047		
Xylenes		0.0015	0.0066	0.0017	0.0073	0.0032	0.0139		
n-Hexane		0.0164	0.0720	0.0182	0.0796	0.0346	0.1516		
Total HAPs		0.0201	0.0878	0.0222	0.0971	0.0422	0.1849		
Total	100.00	9.4873	41.5542	10.4902	45.9473	19.9775	87.501		

Uncontrolled Working and Breathing Losses Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Produced Water Tank Information	
Number of Tanks	2
Maximum Working Losses (lbs/hr)	0.2149
Maximum Breathing Losses (lbs/hr)	0.0083

		Produced Water Tank W/B Losses					
	Vapor Mass Fraction	Working Losses		Breathing Losses		Max W/B Losses	
	wt%	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
H2S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nitrogen	0.0102	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001
Carbon Dioxide	3.4697	0.0075	0.0327	0.0003	0.0013	0.0077	0.0339
Methane	3.1154	0.0067	0.0293	0.0003	0.0011	0.0070	0.0305
Ethane	1.1599	0.0025	0.0109	0.0001	0.0004	0.0026	0.0113
Propane	0.1416	0.0003	0.0013	0.0000	0.0001	0.0003	0.0014
Isobutane	0.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Butane	0.0063	0.0000	0.0001	0.0000	0.0000	0.0000	0.0001
Isopentane	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Pentane	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-Methylpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Methylpentane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Hexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Methylcyclopentane	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Benzene	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-Methylhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3-Methylhexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Heptane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Methylcyclohexane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Octane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ethylbenzene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
m & p-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
o-Xylene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nonane	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
C10+	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total VOCs	0.1500	0.0003	0.0014	0.0000	0.0001	0.0003	0.0015
Total CO _{2e}		0.1749	0.7659	0.0067	0.0295	0.1816	0.7954
Total TAPs (Benzene)		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Toluene		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ethylbenzene		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Xylenes		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
n-Hexane		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total HAPs		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	100.00	0.2149	0.9414	0.0083	0.0362	0.2232	0.9777

Enter any notes here:	Vapor mass fractions, working losses and breathing losses from Promax output
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Loading Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Annual Loading	Oil Truck Loading	Water Truck Loading
RVP	3.41	1.0242
Annual Average Temp (F)	63.8	72.1
S (saturation factor)	0.6	0.6
P (true vapor pressure)	1.84	0.45
M (MW of vapor)	44.20	18.43
Collection Efficiency (%)	0	0
Loading Loss (lb/10^3 gal)*	1.16	0.12
Maximum Throughput (gallons/hr)	10,080	10,080
Average Throughput (gallons/yr)	12,264,000	73,584,000
Loading Emissions (lbs/hr)	11.71	1.17
Loading Emissions (tpy)	7.12	4.26

	Condensate Tank Loading Losses		Produced Water Tank Loading Losses			
	Vapor Mass Fraction	Loading Losses		Vapor Mass Fraction	Loading Losses	
	wt%	lbs/hr	tpy	wt%	lbs/hr	tpy
H2S	0.0000	0.00	0.00	0.0000	0.00E+00	0.00E+00
Nitrogen	0.0003	0.00	0.00	0.0102	1.19E-04	4.34E-04
Carbon Dioxide	0.1818	0.02	0.01	3.4697	4.05E-02	1.48E-01
Methane	0.7253	0.08	0.05	3.1154	3.64E-02	1.33E-01
Ethane	24.9627	2.92	1.78	1.1599	1.35E-02	4.94E-02
Propane	32.6152	3.82	2.32	0.1416	1.65E-03	6.04E-03
Isobutane	7.8278	0.92	0.56	0.0010	1.18E-05	4.29E-05
n-Butane	17.0065	1.99	1.21	0.0063	7.36E-05	2.69E-04
Isopentane	5.7989	0.68	0.41	0.0003	3.93E-06	1.44E-05
n-Pentane	5.8731	0.69	0.42	0.0002	2.80E-06	1.02E-05
2-Methylpentane	1.4784	0.17	0.11	0.0000	6.15E-08	2.25E-07
3-Methylpentane	0.8636	0.10	0.06	0.0000	2.31E-07	8.44E-07
n-Hexane	0.1733	0.02	0.01	0.0000	3.26E-09	1.19E-08
Methylcyclopentane	0.3415	0.04	0.02	0.0001	6.10E-07	2.23E-06
Benzene	0.0058	0.00	0.00	0.0002	2.88E-06	1.05E-05
2-Methylhexane	0.0322	0.00	0.00	0.0000	3.01E-10	1.10E-09
3-Methylhexane	0.3641	0.04	0.03	0.0000	3.53E-09	1.29E-08
Heptane	0.6794	0.08	0.05	0.0000	5.51E-09	2.01E-08
Methylcyclohexane	0.4814	0.06	0.03	0.0000	1.26E-07	4.59E-07
Toluene	0.0109	0.00	0.00	0.0001	1.14E-06	4.16E-06
Octane	0.4650	0.05	0.03	0.0000	4.62E-10	1.69E-09
Ethylbenzene	0.0054	0.00	0.00	0.0000	1.68E-07	6.14E-07
m & p-Xylene	0.0089	0.00	0.00	0.0000	2.37E-07	8.66E-07
o-Xylene	0.0070	0.00	0.00	0.0000	2.33E-07	8.52E-07
Nonane	0.0904	0.01	0.01	0.0000	7.23E-11	2.64E-10
C10+	0.0010	0.00	0.00	0.0000	3.56E-17	1.30E-16
Total VOCs	74.1300	8.680	5.280	0.1500	1.75E-03	6.39E-03
Total CO _{2e}		2.144	1.3045		0.9500	3.4674
Total TAPs (Benzene)		0.0007	0.0004		0.0000	0.0000
Toluene		0.0013	0.0008		0.0000	0.0000
Ethylbenzene		0.0006	0.0004		0.0000	0.0000
Xylenes		0.0019	0.0011		0.0000	0.0000
n-Hexane		0.0203	0.0123		0.0000	0.0000
Total HAPs		0.0247	0.0151		0.0000	0.0000
Total	100.0000	11.7094	7.1232	100.0000	1.1677	4.2622

Enter any notes here

Vapor mass fractions and loading losses from Promax output *Using equation L_L = 12.46* SPM/T from AP-42, Chapter 5, Section 5.2-4

MW was obtained by Promax; RVP was taken from laboratory reports

Annual Average Temp (F) obtained from Charleston, WV (preset in Promax)

S (saturation factor) is based on submerged loading, dedicated service as it was most representative True vapor pressure (TVP) equation from AP-42, Chapter 7, Figure 7.1-13b Loading emissions are vented to the atmosphere.

Table 9

Gas Production Unit Heater Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Number of Units	8
Heater Rating (MMBtu/hr)	1.50
Operating hours/year	8760
Fuel Heat Value (Btu/scf)	1,247

Pollutant	Emission Factors (lb/MMscf)	lb/hr	tpy
NOx	100	0.962	4.215
СО	84	0.808	3.540
CO ₂	120,000	1154.716	5057.656
Lead	0.0005	4.81E-06	2.11E-05
N ₂ O	2.2	0.021	0.093
PM (Total)	7.6	0.073	0.320
SO ₂	0.6	0.006	0.025
тос	11	0.106	0.464
Methane	2.3	0.022	0.097
VOC	5.5	0.053	0.232
HAPS			
2-Methylnaphthalene	2.40E-05	2.31E-07	1.01E-06
Benzene	2.10E-03	2.02E-05	8.85E-05
Dichlorobenzene	1.20E-03	1.15E-05	5.06E-05
Fluoranthene	3.00E-06	2.89E-08	1.26E-07
Fluorene	2.80E-06	2.69E-08	1.18E-07
Formaldehyde	7.50E-02	7.22E-04	3.16E-03
Hexane	1.80E+00	1.73E-02	7.59E-02
Naphthalene	6.10E-04	5.87E-06	2.57E-05
Phenanathrene	1.70E-05	1.64E-07	7.17E-07
Toluene	3.40E-03	3.27E-05	1.43E-04

	lb/hr	tpy
TOTAL Uncontrolled VOC	0.053	0.232
TOTAL Uncontrolled HAPs	0.018	0.079
TOTAL Uncontrolled TAPs (Benzene)	0.000	0.000
TOTAL Uncontrolled TAPs (Formaldehyde)	0.001	0.003
TOTAL CO _{2e} Emissions	1,161.58	5,087.71

Enter any notes here:
All Emission Factors based off AP-42 Sec 1.4 Natural Gas Combustion

Enclosed Combustor Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

General Information
Unit Name: EC001, EC002

Pollutant	Emission Factor (lb/MMscf)
NOx	100
со	84
PM10	7.6
PM2.5	5.7
SO ₂	0.6
CO ₂	120,000
VOC	5.5
benzene	2.10E-03
Hexane	1.80E+00
Toluene	3.40E-03
Formaldehyde	7.50E-02
N ₂ O	2.20
Lead	5.00E-04

Constants	
Btu/MMBtu	1,000,000
scf/MMscf	1,000,000
lb/ton	2,000
H ₂ S molecular weight	34.08
SO ₂ molecular weight	64.06
seconds/hour	3,600
inches/ft	12

Destruction Efficiency		
VOC percent destruction efficiency (%)	98	
H ₂ S percent destruction efficiency (%)	98	
No. of Enclosed Combustors	2	

Enclosed Combustor	8760
operating hours	

Stream Information												
	1	2	3	4	5	6	Total					
Stream Sent to Enclosed Combustor (Enter Name of Each Stream Here)	pilot(s)	added fuel stream(s)	Oil Tank Flash Emissions	Water Tank Flash Emissions	Oil Tank W/B Emissions	Water Tank W/B Emissions	-					
Maximum Expected Hourly Volumetric Flow Rate of Stream (scf/hr)	25.2		2,617.32	517.22	171.51	4.60	3,335.84					
Maximum Expected Annual Volumetric Flow Rate of Stream (scf/yr)	110,376.00		22,927,705.99	4,530,828.05	1,502,399.63	40,272.26	29,111,581.93					
Heating Content (Btu/ft3)	1,247		2,314.06	1,095.87	2,314.06	1,095.87	2,106.02					

	Mass Flow Rates of the Vapors Sent to this Control Device, Hourly Basis (lb/hr)												
	1 2 3 4 5												
Stream Sent to Enclosed Combustor/Vapor Combustor	pilot(s)	added fuel stream(s)	Oil Tank Flash Emissions	Water Tank Flash Emissions	Oil Tank W/B Emissions	Water Tank W/B Emissions	-						
H2S	-	-	0.000	0.000	0.000	0.000	0.000						
Total VOC	-	-	233.945	4.289	14.809	0.000	253.04						
Benzene	-	-	0.344	0.048	0.001	0.000	0.393						
Toluene	-	-	0.301	0.039	0.002	0.000	0.342						
Ethylbenzene	-	-	0.080	0.010	0.001	0.000	0.091						
Xylenes	-	-	0.195	0.025	0.003	0.000	0.224						
n-Hexane	-	-	8.448	0.022	0.035	0.000	8.505						
HAPs	-	-	9.368	0.145	0.042	0.000	9.555						
Total Mass Flow	-	-	304.871	25.113	19.978	0.223	350.185						
	Mass Flov	w Rates of the	Vapors Sent to this Con	trol Device, Annual	Basis (tpy)								
H2S	-	-	0.000	0.000	0.000	0.000	0.000						
Total VOC	-	-	1024.679	18.784	64.865	0.001	1108.329						
Benzene		-	1.508	0.209	0.005	0.000	1.722						
Toluene		-	1.317	0.172	0.010	0.000	1.499						
Ethylbenzene	-	-	0.350	0.045	0.005	0.000	0.399						
Xylenes		-	0.855	0.111	0.014	0.000	0.980						
n-Hexane	-	-	37.001	0.098	0.152	0.000	37.250						
HAP	-	-	41.031	0.634	0.185	0.000	41.850						
Total Mass Flow	-	-	1335.336	109.994	87.501	0.978	1533.809						

Enclosed Combustor Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Controlled Emissions											
			Hourly (lb/hr)								
	1	2	3	4	5	6	Total				
Stream Sent to Enclosed Combustor/Vapor Combustor	pilot(s)	added fuel stream(s)	Oil Tank Flash Emissions	Water Tank Flash Emissions	Oil Tank W/B Emissions	Water Tank W/B Emissions	-				
NOx	0.003	-	0.262	0.052	0.017	0.000	0.33				
СО	0.002	-	0.220	0.043	0.014	0.000	0.28				
PM2.5	0.000	-	0.015	0.003	0.001	0.000	0.02				
PM10	0.000	-	0.020	0.004	0.001	0.000	0.03				
H2S	0.000	-	0.000	0.000	0.000	0.000	0.00				
SO ₂	0.000	-	0.000	0.000	0.000	0.000	0.00				
CO ₂	3.024	-	-	-	-	-	3.02				
Total VOC	0.000	-	4.679	0.086	0.296	0.000	5.06				
Benzene	0.000	-	0.007	0.001	0.000	0.000	0.01				
Toluene	0.000	-	0.006	0.001	0.000	0.000	0.01				
Ethylbenzene	0.000	-	0.002	0.000	0.000	0.000	0.00				
Xylenes	0.000	-	0.004	0.001	0.000	0.000	0.00				
n-Hexane	0.000	-	0.169	0.000	0.001	0.000	0.17				
HAP	0.000	-	0.187	0.003	0.001	0.000	0.19				
N ₂ O	0.000	-	0.006	0.001	0.000	0.000	0.01				
Lead	0.000	-	0.000	0.000	0.000	0.000	0.00				
Formaldehyde	0.000	-	-	-	-	-	0.00				
			Annual (tpy)								
	1	2	3	4	5	6	Total				
Stream Sent to Enclosed Combustor/Vapor Combustor	pilot(s)	added fuel stream(s)	Oil Tank Flash Emissions	Water Tank Flash Emissions	Oil Tank W/B Emissions	Water Tank W/B Emissions	•				
NOx	0.011	-	1.146	0.227	0.075	0.002	1.46				
CO	0.009	-	0.963	0.190	0.063	0.002	1.23				
PM2.5	0.001	-	0.065	0.013	0.004	0.000	0.08				
PM10	0.001	-	0.087	0.017	0.006	0.000	0.11				
H ₂ S	0.000	-	0.000	0.000	0.000	0.000	0.00				
SO ₂	0.000	-	0.000	0.000	0.000	0.000	0.00				
CO ₂	13.245	-	-	-	1	-	13.25				
Total VOC	0.001	-	20.494	0.376	1.297	0.000	22.17				
Benzene	0.000	-	0.030	0.004	0.000	0.000	0.03				
Toluene	0.000	-	0.026	0.003	0.000	0.000	0.03				
Ethylbenzene	0.000	-	0.007	0.001	0.000	0.000	0.01				
Xylenes	0.000	-	0.017	0.002	0.000	0.000	0.02				
n-Hexane	0.000	-	0.740	0.002	0.003	0.000	0.75				
HAP	0.000	-	0.821	0.013	0.004	0.000	0.84				
N ₂ O	0.000	-	0.025	0.005	0.002	0.000	0.03				
Lead	0.000	-	0.000	0.000	0.000	0.000	0.00				
Formaldehyde	0.000		_	-		-	0.00				

Enclosed Combustor/Vapor	r Combustor Total	l Emissions
	Hourly	Annual
	Emissions	Emissions
	(lb/hr)	(tpy)
Total VOC	5.06	22.17
NOx	3.34E-01	1.46E+00
CO	2.80E-01	1.23E+00
PM2.5	1.90E-02	8.33E-02
PM10	2.54E-02	1.11E-01
H₂S	8.04E-06	3.52E-05
SO ₂	1.51E-05	6.62E-05
Benzene (TAPs)	7.87E-03	3.44E-02
Formaldehyde (TAPs)	1.89E-06	8.28E-06
HAPs	0.19	0.84
CO₂e	1359.83	5956.06
N ₂ O	7.34E-03	3.21E-02
Lead	1.67E-06	7.31E-06

Enter any notes here as needed
1 Emission Factors from AP-42 Tables 1 4-1 1 4-2 and 1 4 3

Enclosed Combustor GHG Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Enclosed Combustor CO₂ and CH₄ Emissions

				Volume of		Volume of oil		Volume of	Component					
		Volume of oil	Mole fraction	water flash	Mole fraction	tank vapor	Mole fraction		volume of gas					l
	Mole fraction of	flash gas sent	of water flash	gas sent to	of oil tank	sent to	of water tank	vapors sent to	sent to	Number of		Combusted		
	oil flash gas	to Enclosed	gas	Enclosed	vapors	Enclosed	vapors	Enclosed	Enclosed	carbon	Combustion	CO ₂	CO ₂ and CH ₄	Volume GHGs
	constituents ^a	Combustor	constituents ^a	Combustor	constituents ^a	Combustor	constituents ^a	Combustor	Combustor	atoms	Efficiency	Volume ^b	Volume ^b	Emitted
Components		scf/year		scf/year		scf/year		scf/year	scf/year			scf/year	scf/year	scf/year
CO ₂	0.002	22,927,706	0.0506	4,530,828	0.0018	1,502,400	0.015	40,272	267,995	1	0		267,995	95,981,436
Methane	0.091	22,927,706	3.0210	4,530,828	0.0200	1,502,400	0.036	40,272	15,809,277	1	0.98	15,493,092	316,186	316,186
Ethane	0.290	22,927,706	0.6503	4,530,828	0.3670	1,502,400	0.007	40,272	10,148,694	2	0.98	19,891,441		
Propane	0.306	22,927,706	0.2222	4,530,828	0.3269	1,502,400	0.001	40,272	8,510,326	3	0.98	25,020,360		1
i-Butane	0.059	22,927,706	0.0096	4,530,828	0.0595	1,502,400	0.000	40,272	1,480,148	4	0.98	5,802,181		
n-Butane	0.130	22,927,706	0.0398	4,530,828	0.1293	1,502,400	0.000	40,272	3,354,770	4	0.98	13,150,699]
Pentane	0.076	22,927,706	0.0135	4,530,828	0.0715	1,502,400	0.000	40,272	1,907,316	5	0.98	9,345,847		
Hexane	0.027	22,927,706	0.0025	4,530,828	0.0129	1,502,400	0.000	40,272	656,095	6	0.98	3,857,841		
Benzene	0.001	22,927,706	0.0021	4,530,828	0.0000	1,502,400	0.000	40,272	24,123	6	0.98	141,842	-	
Heptanes	0.010	22,927,706	0.0018	4,530,828	0.0065	1,502,400	0.000	40,272	247,480	7	0.98	1,697,714]
Toluene	0.000	22,927,706	0.0014	4,530,828	0.0001	1,502,400	0.000	40,272	17,492	7	0.98	119,996		
Octane	0.005	22,927,706	0.0011	4,530,828	0.0040	1,502,400	0.000	40,272	125,759	8	0.98	985,952		j
Ethyl benzene	0.000	22,927,706	0.0003	4,530,828	0.0000	1,502,400	0.000	40,272	4,028	8	0.98	31,582		j
Xylenes	0.000	22,927,706	0.0008	4,530,828	0.0001	1,502,400	0.000	40,272	9,881	8	0.98	77,465		
Nonane	0.000	22,927,706	0.0000	4,530,828	0.0003	1,502,400	0.000	40,272	10,888	9	0.98	96,030		j
Decane plus	0.000	22,927,706	0.0000	4,530,828	0.0000	1,502,400	0.000	40,272	143	10	0.98	1,399		j
											Subtotal	95,713,441	-	1

	Volume Emitted	Density of GHG ^c	Conversion Factor	GWF	Emiss	sions ^c
Pollutant	scf/year	lb/scf	lb/ton		lbs/hr	(tons/yr)
CO ₂	95,981,436	0.12	2000	1	1270.58	5,565.15
CH ₄	316,186	0.09	2000	25	3.36	14.71
				CO ₂ e Emissions	1,354.5	5932.85

GHG Emissions Summary

Notes

a Flashing/Working/Breathing Losses from ProMax output reports

b 40 CFR 98.233 (n)(4): Eqns: W-19, W-20 and W-21

c 40 CFR 98.233(v) Eqn W-36 - density at 60F and 14.7 psia

Table 12

Haul Road Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

	PM	PM10
Particle Size Multiplier (k)	0.8	0.36
Silt Content of Road Surface Material (s) (%)	5.1	5.1
Days per Year with Precipitation > 0.01 in (p)	150	150
Control Efficiency for Watering ¹ (%)	50	50

Tanker Truck Trip Calculation							
Condensate Production (bbl/day)	800						
PW Production (bbl/day)	4,800						
Truck Capacity (bbl)	200						

Pick Up Truck Trip Calculation						
No of Trips Per day	2					
Trips Per Year	730					

	# of Wheels	Mean Vehicle Weight (W)	Mean Vehicle Speed (S)	Miles Per Trip	Maximum Trips per Hour	Maximum Trips per Year	Vehicle Miles Travelled		Vehicle Miles Travelled		Vehicle Miles Travelled		Vehicle Miles Travelled		Vehicle Miles Travelled		Vehicle Miles Travelled		PM	PM10
		(tons)	(mph)	(miles)			(miles/hr)	(miles/year)	(lbs/VMT)	(lbs/VMT)										
Tanker Trucks Condensate	10	40	10	0.6000	1	1460	0.6000	876.0000	3.8175	1.7179										
Tanker Trucks PW	10	40	10	0.6000	1	8760	0.6000	5256.0000	3.8175	1.7179										
Pick Up Truck	4	3	10	0.2840	1	730	0.2840	207.3200	0.3467	0.1560										

			Uncontrolled Er	nissions			Controlled Emissions					
		PM			PM10			PM		PM10		
	(lbs/hr)	(lbs/year)	(tpy)	(lbs/hr)	(lbs/year)	(tpy)	(lbs/hr)	(lbs/year)	(tpy)	(lbs/hr)	(lbs/year)	(tpy)
Tanker Trucks Condensate	2.2905	3344.1557	1.6721	1.0307	1504.8701	0.7524	1.1453	1672.0779	0.8360	0.5154	752.4350	0.3762
Tanker Trucks PW	2.2905	20064.9345	10.0325	1.0307	9029.2205	4.5146	1.1453	10032.4672	5.0162	0.5154	4514.6103	2.2573
Pick Up Truck	0.0985	71.8736	0.0359	0.0443	32.3431	0.0162	0.0492	35.9368	0.0180	0.0222	16.1716	0.0081
Total Emissions	4.6795	23,480.9639	11.7405	2.1058	10,566.4337	5.2832	2.3397	11,740.4819	5.8702	1.0529	5,283.2169	2.6416

Enter any notes here:	LEPA, AP-42, Volume I, Section 13.2.2 Unpaved Roads (11/06); assume 2:1 moisture ratio Section 13.2.2 Unpaved Roads (11/06)
Settler any notes here.	Source: Attachment L, Fugitive Emissions from Unpaved Haul Roads, Rev 03/2007, West Virginia Department of Environmental Protection

Table 13

Engine Emissions Stanley Well Pad Doddridge, West Virginia Antero Resources Corporation

Kubota DG972-E2

Power (hp)	24
Fuel consumption (lbs/BHP-hr) ¹	0.449
Heat Content of Fuel (Btu/scf)	1247.06
Density of NG (lb/scf)	0.056
Operating Hours/year	8760

Pollutant	Emission (g/hp-hr)	on Factors (lb/MMBtu)	lb/hr	tpy
NOx ¹	5.97	(10) 111112 (0)	0.3158	1.3831
CO ²	106.7		5.6445	24.7228
CO ₂		110.000	26.3967	115.62
PM _{2.5}		9.910E-03	0.0024	0.0104
PM ₁₀		9.500E-03	0.0023	0.0100
PM (Total)		9.910E-03	0.0024	0.0104
SO ₂		5.880E-04	0.0001	0.0006
TOC		0.358	0.0859	0.3763
Methane		0.230	0.0552	0.2417
VOC ³		0.0296	0.0071	0.0311
	ı	HAPS		
Benzene		1.58E-03	3.79E-04	1.66E-03
Ethylbenzene		2.48E-05	5.95E-06	2.61E-05
Formaldehyde		2.05E-02	4.92E-03	2.15E-02
Naphthalene		9.71E-05	2.33E-05	1.02E-04
Toluene		5.58E-04	1.34E-04	5.86E-04
Xylene		1.95E-04	4.68E-05	2.05E-04

	lb/hr	tpy
TOTAL Uncontrolled VOC	0.007	0.031
TOTAL Uncontrolled NOx	0.316	1.383
TOTAL Uncontrolled HAPs	0.006	0.024
TOTAL Uncontrolled TAPs (Benzene)	0.000	0.002
TOTAL Uncontrolled TAPs (Formaldehyde)	0.005	0.022
TOTAL CO _{2e} Emissions	27.78	121.7

Enter Any Notes Here:

- 1. Emission factor used for the 24 HP engine's NOx is the 40 CFR 1054 standard indicated on the EPA's Certificate of Conformity. See Appendix P.
- 2. Emission factor for CO was the Certification CO level taken from EPA's Non-Road Small SI 2013 Certification issued by Office of Transportation and Air Quality, March 2014.
- 3. Emission factors for all other contaminants including VOCs were obtained from AP-42, Section 3.2 "Natural Gas-fired Reciprocating Engines", Table 3.2-3.

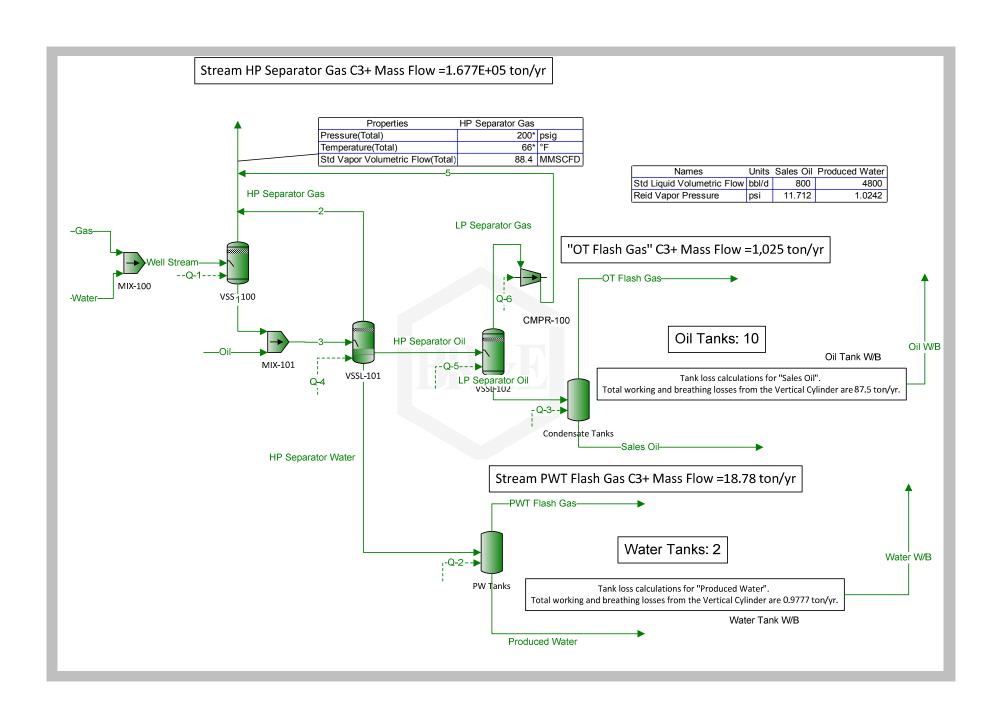


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	Simulation Report
Client Name:	Antero Resources Corporation
Location:	West Virginia
Job:	Stanley Well Pad

Project Name:	PROMAX SCENARIO 3
	ProMax@V:\AirQuality\ANTERO RESOURCES\ProMax\Antero WV_Updated 2Ph Separator\PROMAX SCENARIO 3.PMX
ProMax Version:	3.2.13330.0

Report Created:	6/12/2015 10:32



Process Streams		Well Stream	HP Separator Gas	HP Separator Water	HP Separator Oil	OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	- 1	2	LP Separator Oi
Phase: Total	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Mole Fraction		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Water		28.7041	0.156524	99.9661	0.0517839	0.233510	0.00486699	0	100	0	99.9967	3.02985	0.000118725	94.1901	99.9627	97.8661	0.0255382
H2S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitrogen	1	0.352671	0.493921	0.000123345	0.0164543	0.0116221	1.85250E-05	0.494658	0	0.0179998	4.42210E-06	0.377409	0.000455370	0.00669135	9.09774E-05	0.000466597	0.00106759
Carbon Dioxide	1	0.104603	0.146078	0.000972844	0.0357417	0.154871	0.00287906	0.146717	0	0.0309997	0.000589759	1.21632	0.182561	1.45262	0.00107601	0.00170363	0.0166204
Methane	1	55.3982	77.5806	0.0246369	4.91184	9.11491	0.0438867	77.7018	0	4.76595	0.00174859	72.6386	1.99841	3.57810	0.0279843	0.127358	0.863982
Ethane	1	10.1243	14.1780	0.00536606	5.72449	29.0118	0.861642	14.2004	0	5.72594	0.000438622	15.6378	36.6963	0.710738	0.00559480	0.125573	3.40665
Propane	1	3.20427	4.48718	0.00184921	6.53571	30.5911	3.39068	4.49433	0	6.54493	0.000165565	5.34325	32.6946	0.0591831	0.00194860	0.139181	5.84983
Isobutane	1	0.404010	0.565833	7.50256E-05	2.06276	5.87676	1.70532	0.566666	0	2.06698	2.48181E-06	0.230223	5.95316	0.000319269	7.82999E-05	0.0434295	2.08245
n-Butane	1	0.844100	1.18212	0.000324282	5.89758	12.9987	5.41519	1.18394	0	5.90894	2.27190E-05	0.957044	12.9337	0.00199737	0.000348886	0.124276	6.10080
Isopentane	1	0.267320	0.374384	5.44913E-05	3.76285	3.73637	4.06134	0.374944	0	3.76996	2.67515E-06	0.164443	3.55279	8.60034E-05	7.30268E-05	0.0791427	4.03196
n-Pentane	1	0.207781	0.291000	5.31537E-05	5.03533	3.84771	5.58289	0.291434	0	5.04595	2.58486E-06	0.160484	3.59826	6.12109E-05	5.44300E-05	0.105887	5.42602
2-Methylpentane	i	0	0	4.99297E-06	2.51940	0.821672	2.93319	0	0	2.52497	1.18622E-07	0.0154690	0.758355	1.12633E-06	0	0.0529588	2.74229
3-Methylpentane	1	0	0	8.06098E-06	1.64113	0.482477	1.91729	0	0	1.64498	4.99279E-07	0.0239978	0.442977	4.23634E-06	0	0.0345019	1.78757
n-Hexane	1	0.388680	0.544378	6.79802E-06	6.00456	1.42348	7.05779	0.545164	0	6.01594	1.29051E-07	0.0211643	0.0888805	5.96800E-08	3.58306E-05	0.126213	6.54840
Methylcyclopentane	1	0	0	1.13741E-05	0.921505	0.213396	1.08378	0	0	0.923991		0.0301263	0.179377	1.14368E-05	0	0.0193798	1.00509
Benzene	1	0	0	0.000170998	0.274434	0.0640181	0.322694	0	0	0.282997	0.000155332	0.0498717	0.00329177	5.81875E-05	0	0.00593558	0.299308
2-Methylhexane	1	0	0	1.27692E-06	2.37987	0.240437	2.83766	0	0	2.38498	2.57498E-08	0.00397064	0.0142108	4.73486E-09	0	0.0500225	2.60285
3-Methylhexane	1	0	0	1.00232E-06	1.87496	0.180833	2.23669	0	0	1.87898	2.11076E-08	0.00311392	0.160614	5.56530E-08	0	0.0394098	2.05082
Heptane		0	0	2.12665E-06	4.78171	0.365991	5.71602	0	0	4.79195	4.50293E-08	0.00660615	0.299701	8.66875E-08	0	0.100506	5.23233
Methylcyclohexane		0	0	8.88284E-06	3.39435	0.266867	4.05673	0	0	3.40197	1.02999E-06	0.0249223		2.02048E-06	0		3.71409
Toluene		0	0	0.000100368	0.737743	0.0474013	0.883021	0	0	0.743993	8.94474E-05	0.0347472	0.00524329	1.95012E-05	0	0.0156045	0.807474
Octane		0	0	7.97318E-07	9.66836	0.233165	11.6204	0	0	9.68890	1.12198E-08	0.00249472	0.179922	6.37813E-09	0	0.203215	10.5909
Ethylbenzene		0	0	2.09259E-05	0.507941	0.0109172	0.610660	0	0	0.509995	1.84366E-05	0.00791821	0.00225470	2.49928E-06	0	0.0106966	0.556439
m-Xylene		0	0	2.72562E-05	0.774078	0.0139419	0.930953	0	0	0.776992	2.41118E-05	0.0100029	0.00370661	3.52471E-06	0	0.0162966	0.848047
o-Xylene		0	0	3.36330E-05	0.789747	0.0127638	0.949978	0	0	0.792992	3.06764E-05	0.00941353	0.00292518	3.46805E-06	0	0.0166322	0.865246
Nonane		0	0	2.38078E-07	5.64496	0.0448234	6.79601	0	0	5.65694	5.28319E-09	0.000738787		8.89240E-10	0	0.118649	6.18565
C10+	i	0	0	3.19828E-10	24.0507	0.000454420	28.9784	0	0	24.1018	9.98073E-13	1.01182E-06	0.000217289	2.74765E-16	0	0.505510	26.3586
Molar Flow		lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h
Water		3902.21	15.1924	3886.97	0.0432295	0.0160807	0.00337209	0	3902.21	0	3886.93	0.0371224	5.36578E-07	0.0114108	3887.02	3887.02	0.0194528
H2S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitrogen	ĺ	47.9443	47.9407	0.00479600	0.0137362	0.000800360	1.28350E-05	47.9443	0	0.0149945		0.00462411	2.05804E-06	8.10634E-07	0.00353763	0.0185322	0.000813195
Carbon Dioxide		14.2204	14.1786	0.0378270	0.0298374	0.0106652	0.00199475	14.2204	0	0.0258239		0.0149027		0.000175980	0.0418404	0.0676644	0.0126600
Methane		7531.17	7530.09	0.957954	4.10043	0.627701	0.0304069	7531.17	0	3.97022	0.0679689	0.889985		0.000433474	1.08816	5.05838	0.658107
Ethane	<u> </u>	1376.36	1376.14	0.208648	4.77884	1.99790	0.596988	1376.36	0	4.76993	0.0170495	0.191598	0.100010	8.61034E-05	0.217552	1.007 10	2.59489
Propane		435.608	435.533	0.0719024	5.45605	2.10667	2.34923	435.608	0	5.45218	0.00643562	0.0654668	0.147763	7.16982E-06	0.0757707	5.52795	4.45590
Isobutane		54.9236	54.9206	0.00291721	1.72200	0.404705	1.18153	54.9236	0	1.72187	9.64695E-05	0.00282074	0.0269053	3.86783E-08	0.00304467	1.72492	1.58623
n-Butane	<u> </u>	114.752	114.739	0.0126090	4.92333	0.895158	3.75191	114.752	0	4.92238		0.0117259		2.41974E-07	0.0135663	4.93594	4.64707
Isopentane	<u> </u>	36.3411	36.3382	0.00211878	3.14125	0.257306	2.81389	36.3411	0	3.14052	0.000103985	0.00201479	0.0160568	1.04190E-08	0.00283962	3.14336	3.07120
n-Pentane		28.2470	28.2449	0.00206677	4.20352	0.264973	3.86810	28.2470	0	4.20347	0.000100475	0.00196629	0.0162623	7.41548E-09	0.00211649	4.20559	4.13307
2-Methylpentane		0	0	0.000194141	2.10321	0.0565847	2.03226	0	0	2.10340	4.61091E-06	0.000189530	0.00342739	1.36451E-10	0	2.10340	2.08884
3-Methylpentane		0	0	0.000313434	1.37002	0.0332259	1.32839	0	0	1.37034	1.94073E-05	0.000294027	0.00200203	5.13218E-10	0	1.37034	1.36162
n-Hexane		52.8395	52.8381	0.000264326 0.000442258	5.01264 0.769278	0.0980283 0.0146955	4.88998 0.750894	52.8395	0	5.01151	5.01628E-06 7.31426E-05	0.000259310 0.000369115	0.000401695 0.000810692	7.23002E-12 1.38552E-09	0.00139326	5.01290 0.769720	4.98801 0.765589
Methylcyclopentane	ł	0	0			0.00440862		0	0	0.769720					0	0.769720	
Benzene	ł	U	U	0.00664891	0.229099	0.0165577	0.223578 1.96607	0	0	0.235748 1.98678	0.00603787 1.00091F-06	0.000611040 4.86493E-05	1.48771E-05 6.42255E-05	7.04921E-09	0		0.227987
2-Methylhexane 3-Methylhexane	ļ							U								4 00070	
		0	0	4.96502E-05	1.98673			0						5.73611E-13	0	1.98678	1.98263
		0	0	3.89729E-05	1.56523	0.0124531	1.54969	0	0	1.56526	8.20464E-07	3.81525E-05	0.000725892	6.74217E-12	0	1.56526	1.56214
Heptane		0 0 0	0 0 0	3.89729E-05 8.26904E-05	1.56523 3.99180	0.0124531 0.0252041	1.54969 3.96034	0	0	1.56526 3.99188	8.20464E-07 1.75032E-06	3.81525E-05 8.09401E-05	0.000725892 0.00135450	6.74217E-12 1.05019E-11	0	1.56526 3.99188	1.56214 3.98554
Heptane Methylcyclohexane		0 0 0 0	0 0 0 0	3.89729E-05 8.26904E-05 0.000345391	1.56523 3.99180 2.83362	0.0124531 0.0252041 0.0183779	1.54969 3.96034 2.81070	0 0 0	0	1.56526 3.99188 2.83397	8.20464E-07 1.75032E-06 4.00363E-05	3.81525E-05 8.09401E-05 0.000305354	0.000725892 0.00135450 0.000979536	6.74217E-12 1.05019E-11 2.44774E-10	0 0 0 0	1.56526 3.99188 2.83397	1.56214 3.98554 2.82908
Heptane Methylcyclohexane Toluene		0 0 0 0 0	0 0 0 0 0	3.89729E-05 8.26904E-05	1.56523 3.99180	0.0124531 0.0252041	1.54969 3.96034	0 0 0 0	0 0 0 0	1.56526 3.99188	8.20464E-07 1.75032E-06	3.81525E-05 8.09401E-05	0.000725892 0.00135450 0.000979536	6.74217E-12 1.05019E-11	0 0 0 0	1.56526 3.99188	1.56214 3.98554
Heptane Methylcyclohexane		0 0 0 0 0 0	0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261	1.56523 3.99180 2.83362 0.615872	0.0124531 0.0252041 0.0183779 0.00326431	1.54969 3.96034 2.81070 0.611800	0 0 0 0 0	0 0 0 0 0	1.56526 3.99188 2.83397 0.619775	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688	3.81525E-05 8.09401E-05 0.000305354 0.000425731	0.000725892 0.00135450 0.000979536 2.36970E-05	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09	0 0 0 0 0	1.56526 3.99188 2.83397 0.619775	1.56214 3.98554 2.82908 0.615064
Heptane Methylcyclohexane Toluene Octane		0 0 0 0 0 0 0	0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05	1.56523 3.99180 2.83362 0.615872 8.07120	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569	1.54969 3.96034 2.81070 0.611800 8.05119	0 0 0 0 0 0	0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13	0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123	1.56214 3.98554 2.82908 0.615064 8.06725
Heptane Methylcyclohexane Toluene Octane Ethylbenzene		0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095	0 0 0 0 0 0 0	0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10	0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene		0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.0038678	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.00037242 0.00119241 2.05361E-07	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.7268BE-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13	0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169
Heptane Methylcyclohexane Toluene Octane Ethylibenzene m-Xylene o-Xylene Nonane C10+		0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.0019241 2.05361E-07 3.87957E-11	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10	0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Fraction		0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.0038678	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.00037242 0.00119241 2.05361E-07	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.7268BE-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13	0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169 20.0777
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m.Xylene o-Xylene Nonane C10- Mass Fraction Water		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.0019241 2.05361E-07 3.87957E-11	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.7268BE-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o-Xylene Nonane C10- Mass Fraction Water HZS		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.000136980 0.00130775 9.25716E-06 1.24359E-08	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244 20.0777 %	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878881 0.00308678 3.12937E-05 % 0.0950234 0	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 % 0.000708124 0	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 %	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.00119241 2.05361E-07 3.87957E-11 %	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05659E-05 9.70158E-05 0.000122568 0.000122568 0.00012558 0.0015337 9.05180E-06 1.23971E-08	0.000725892 0.00135450 0.000979536 2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13 3.3289E-20 \$\frac{\pi}{\pi}\$	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 %	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169 20.0777 % 0.00394482
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.89729E-05 8.26904E-05 0.00345391 0.00390261 3.10020E-05 0.000813658 0.00130775 9.25716E-06 1.24359E-08 99.9583 0.000191784	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.646205 0.646205 0.646205 0.646205 0.659285 4.71244 20.0777 % 0.00856629 0.00423256	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05 % 0.0950234 0.00735419	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 % 0.000708124 0 4.19114E-06	0 0 0.663391	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0 0.00462148	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000976642 0.000937242 0.00119241 2.05361E-07 3.87957E-11 % 99.9942 0.687611E-06	3.81525E-05 8.09401E-05 0.00303534 0.000425731 3.05659E-05 9.70158E-05 0.000122568 0.000115337 9.05180E-06 1.23971E-08 % 2.59400 0.502442	0.000725892 0.00138450 0.000979538 2.36970E-05 0.000813158 1.01901E-05 1.67200E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0.000288588	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27008E-10 4.27008E-10 4.20143E-10 1.07728E-13 3.32669E-20 92.0949 0.0101735	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.660593 4.71245 20.0777 % 88.4772 0.000655943	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169 20.0777 % 0.00394482 0.000256427
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m.Xylene o-Xylene Nonane C10+ Mass Fraction Water HZS Nitogen Carbon Dioxide		0.229448	0.307840	3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00165902 0.00130775 9.25716E-06 1.24359E-08 99.9583 0.000191784 0.000237637	1.56523 3.99180 2.83362 0.615872 8.07120 0.642032 0.642032 0.646205 0.659285 4.71244 20.0777 % 0.00429256 0.00429256	0.0124531 0.0252041 0.0183779 0.00326431 0.0100569 0.000751814 0.000960109 0.00087891 0.000308678 3.12937E-05 0.000735419 0.153957	1.54969 3.96034 2.81070 0.611800 8.05119 0.422095 0.422095 0.425010 0.658191 4.70861 20.0777 6 0.000708124 0 4.19114E-06 0.00102331	0 0 0.663391 0.309119	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660533 4.71245 20.0777	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.00118241 2.05361E-07 3.87957E-11 % 93.9942 0 6.87611E-06 0.00144069	3.81525E-05 8.09401E-05 0.000305554 0.000425731 3.05659E-05 9.70158E-05 0.000112558 0.00011337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392	0.000725892 0.00134540 0.000979536 2.36970E.05 0.000813158 1.01901E.05 1.67520E.05 1.67520E.05 1.32202E.05 0.000140808 9.82038E.07 4.83574E.05 0 0.000288588 0.181762	6.74217E-12 1.05019E-11 2.36251E-09 7.7268E-13 3.02778E-10 4.27005E-10 4.27005E-10 4.27005E-10 4.27005E-10 5.2005E-10 5.2	0.00262842	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.000655943	1.56214 3.98554 2.82908 0.615064 8.06725 0.423347 0.645970 0.645970 4.71169 20.0777 % 0.00394482 0.000256427 0.00627166
Heptane Metrylcyclohexane Toluene Octane Ettylbenzene mXylene Oxylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane		0.229448 44.2954	0.307840 59.5960	3.89726-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06 1.24359E-08 78 99.9583 0.00119784 0.00237637 0.00219373	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.656295 0.656295 0.00856629 0.00423266 0.0144437 0.723556	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.000878981 0.0008678 3.12937E-05 % 0.00073541 0.00735419 0.153957 3.30299	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 % 0.000708124 0.00102331 0.00068807	0 0 0.663391 0.309119 59.6762	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0 0.00462148 0.0125041 0.700758	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.000937242 2.05361E-07 3.87957E-111 % 99.9942 0.001144069 0.001444069 0.00145707	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.05695E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 % 2.59400 0 0.502442 2.54392 55.3792	0.000725892 0.00135450 0.000979536 2.38670E-05 0.000813158 1.01901E-05 1.16720E-05 1.16720E-05 0.000140808 9.82038E-07 W 4.83874E-05 0.000288588 0.181762 0.7256778	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72689E-13 3.02778E-10 4.2700E-10 4.2700E-10 1.07728E-13 3.32696E-20 % 92.0949 0.0101735 3.46966 3.11539	0.00262842 0.0249182	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647285 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00376254 0.102531	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169 20.0777 % 0.00394482 0 0.003256427 0.00627166 0.118842
Heptane Methylcyclohexane Taluene Octane Ethylbancane m.Xylene o.Xylene Nonane C10- Mas Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane		0.229448 44.2954 15.1732	0.307840 59.5960 20.4140	3.89726-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813656 0.00165980 0.00130775 9.25716E-06 1.24359E-08 99.9583 0 0.000191784 0.00237637 0.0085571	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.656298 4.71244 20.0777 % 0.00856625 0 0.00423256 0.0144437 0.723556	0.0124531 0.0252041 0.0252041 0.00183779 0.00326431 0.0036569 0.000751814 0.000967801 0.000977801 0.000977801 0.000977801 0.000977801 0.000977801 0.000977801 0.000977801 0.00097801	1,54969 3,96034 2,81070 0,611800 8,05119 0,423095 0,648010 0,658191 4,70861 20,0777 % 0,000708124 0 0,000708124 0,000708124 0,000708124 0,000708124	0 0 0.663391 0.309119 59.6762 20.4417	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.647265 0.660593 4.71245 20.0777 % 0 0 0.000462148 0.0125041 0.700758	8.20464E-07 1.7503ZE-06 4.00363E-05 0.00347688 4.36120E-07 0.00019642 0.000937242 0.000937242 0.000937242 0.000937242 0.0019241 2.05361E-07 3.87957E-11 % 99.9942 0 6.87611E-06 0.00144069 0.00155707 0.000732079	3.81525E-05 8.09401E-05 0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000122558 0.000122558 0.00012337 9.05180E-06 1.23971E-08 2.55400 0.002442 2.54392 2.54392 2.3462	0.000725892 0.00138450 0.000979536 2.36870E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.438874E-05 0 0.000288588 0.181762 0.725278 24.9627	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27005E-10 4.27005E-10 1.07728E-13 3.32695E-20 92.0949 0 0.0101735 3.46966 3.11539 1.15889	0.00262842 0.0249182 0.00933758	1.56526 3.99188 2.83397 0.619775 8.07123 0.0424846 0.647265 0.660593 4.71245 20.0777 \$ 88.4772 0 0.000655943 0.00376254 0.189485	1.56214 3.98554 2.82908 0.615064 8.06725 0.649970 0.649970 4.71169 20.0777 % 0.00394482 0.000256427 0.000256427 0.018842 0.118842 0.1787299
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m.Xylene o-Xylene Norane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane		0.229448 44.2954 15.1732 7.04234	0.307840 59.5960 20.4140 9.47464	3.89726-05 3.89726-05 0.00034591 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06 1.24359E-08 9.993583 0.000191784 0.00237637 0.0219373 0.00285571 0.000452591	1.56523 3.99180 2.83562 0.615872 8.07120 0.424032 0.646205 0.656285 4.71244 20.0777 % 0.00856239 0.00423256 0.0144437 0.723556 1.58057 2.64634	0.0124531 0.0252041 0.0183779 0.00326431 0.0160569 0.000751814 0.000960109 0.00096109 0.00096878 3.129372-05 % 0.00735419 0.153967 0.153967 3.30299 19.7050	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 5. 0.000708124 0.00102331 0.00568607 0.209245 1.20751	0 0.663391 0.309119 59.6762 20.4417 9.48766	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 \$\frac{0}{2}\$ 0.00462148 0.0125041 0.700758 1.57903 2.64514	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36100E-07 0.000176642 0.000937242 0.00019241 2.05361E-07 387957E-11 59.9942 0.63761E-06 0.00144068 0.00155707 0.0004522079 0.000405240	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.06569E-05 9.70158E-05 0.000125569 0.00015337 9.05180E-06 1.23971E-08 0.0002442 2.54392 2.54392 2.54392 2.23462	0.000725892 0.00135450 0.000979586 2.38670E-05 0.000813158 1.01901E-05 1.67520E-05 1.6220E-05 1.32203E-05 0.000140808 9.82038E-07 0.000140808 9.82038E-07 0.000288588 0.181762 0.725278 24.9627 23.6152	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02776E-10 4.27006E-10 4.27006E-10 4.27006E-10 4.27048E-10 1.07726E-13 3.22696E-20 9 92.0949 0.0101735 3.46966 3.11539 1.15389 1.15389	0.00262842 0.0249182 0.00933758 0.00476924	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00376254 0.102531 0.183465 0.307988	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659070 4.71169 20.0777 % 0.000354482 0.000256427 0.00627166 0.118842 0.878299 2.21174
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane		0.229448 44.2954 15.1732 7.04234 1.17038	0.307840 59.5960 20.4140 9.47464 1.57479	3.89726-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.00013656 0.00136775 9.25716E-06 1.24395E-08 99.9583 0.000197784 0.00237637 0.00245931 0.0045591	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.656205 0.656205 4.71244 20.0777 % 0.00856629 0.00423256 0.0144437 0.723556 1.58057 2.64634 1.10090	0.0124531 0.0252041 0.00252041 0.00183779 0.00326431 0.00160569 0.000751814 0.0009679811 0.000967981 0.000967881 0.00306678 3.12937E-05 % 0.0950234 0.00735419 0.153957 3.30229 13.7050 30.4702 7.71550	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 ** 0.000708124 0.011914E-06 0.00102331 0.00068607 0.209245 1.20751 0.800490	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0 0.00462148 0.0125041 0.0700758 1.57803 2.64514 1.10110	8.20464E-07 1.7503ZE-06 4.00363E-05 0.00347688 4.36120E-07 0.00016642 0.000937242 0.000937242 2.05361E-07 3.87957E-11 98.9942 0.687611E-06 0.00144069 0.00155707 0.000732079 0.000405240	3.81525-05 8.09401E-05 0.000305554 0.000425731 3.05659E-05 9.70158E-05 0.000125256 0.000125256 0.00012537 9.05180E-06 1.23971E-08	0.000725892 0.000138450 0.000979586 2.38670E-05 0.000813158 1.01901E-05 1.67520E-05 1.6220E-05 0.000140808 9.62038E-07 4.83874E-05 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27008E-10 4.27008E-10 1.07728E-13 3.32696-20	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660533 4.71245 20.0777 % 88.4772 0.000655943 0.00376264 0.102531 0.186485 0.307988 0.126673	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.6559070 4.71169 20.0777 % 0.00394482 0.000256427 0.000257166 0.118842 0.878299 2.21174 1.03780
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m.Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propene Isobutane n-Butane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.00013658 0.000130775 9.25716E-06 1.24359E-08 99.9583 0.000191784 0.00237637 0.0219737 0.00247637 0.00452591 0.000452591	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.646205 0.065285 4.71244 0.00856629 0.0042256 0.0044237 0.723566 1.58057 2.64634 1.10090	0.0124531 0.0125041 0.0183779 0.00326431 0.0160569 0.000751814 0.000067981 0.00006798 0.00006798 0.00006798 0.00006798 0.00006793 3.129372-05 % 0.000735419 0.153967 3.30299 13.7050 30.4702 7.71550	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.452010 0.645010 0.658191 4.70861 20.007708124 0 4.19114E-06 0.00102331 0.00668607 0.209245 1.20751 0.800490 2.54193	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 8.07123 0.42486 0.647265 0.060533 4.71245 0.000462148 0.000462148 0.000580 1.57803 2.64514 1.10110 3.14774	8.2046-0.07 1.75032E-06 4.00363E-06 4.00363E-06 0.00347688 4.36120E-07 0.000716642 0.00019241 2.05361E-07 % 99.9942 0.0014069 0.0014069 0.0014069 0.0014069 0.00152079 0.000405240 0.000452079	3.81525E-05 8.09401E-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 0.00012558 0.000115337 9.05180E-06 1.23971E-08	0.000725892 0.00135450 0.00097958 2.36970E-05 0.0009813158 1.01901E-05 1.132203E-05 1.132203E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.20145E-10 1.07728E-13 3.0278E-13 3.0278E-10 4.20145E-10 1.07728E-13 3.22696E-20 96 92.0948 0.0101735 3.46966 3.11539 1.15898 0.141639 0.00100714	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553	1.56526 3.99188 3.99189 0.619775 8.07123 0.428486 0.660593 4.71245 0.060593 4.71245 0.000762541 0.0000762541 0.102531 0.180485 0.307988 0.126673 0.362482	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 20.0777 % 0.000394482 0.000256427 0.00627166 0.118842 0.878299 2.21174 1.03780
Heptane Metrylcyclohexane Toluene Octane Ettylbenzene m-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propone Isobutane n-Butane Isopentane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	3.89726-05 8.26904E-05 0.00034591 0.00390261 3.10020E-05 0.000813658 0.00108980 0.00130775 9.25716E-06 1.24359E-08 78 99.9583 0.000191784 0.00237637 0.0219373 0.00285571 0.000452591 0.00016114 0.000161614 0.00018213	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.656295 0.656295 4.71244 20.0777 % 0.00856529 0.00423256 0.0144437 0.723356 1.58057 2.24634 1.10990 3.14755 2.49289	0.0124531 0.0252041 0.0183779 0.00326431 0.00326431 0.0003669 0.000751814 0.0009690109 0.000978981 0.00308678 3.12937E.05 7 0.0950234 0 0.007535419 0.007536419 0.0075603 3.30299 19.7050 3.30299 17.70550 30.4702 7.71550 17.0657 6.08923	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 10.000708124 0.00102331 0.00102331 0.00668607 0.209245 1.20751 0.800490 2.54193 2.36650	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0 0.00462148 0.0125041 0.700728 1.57803 2.64514 1.10110 2.445295	8.20464E-07 1.75032E-06 4.00363E-05 0.00347888 4.3610E-07 0.000716642 0.000973742 2.05361E-07 3.87957E-11 78 99.9942 0.00115241 0.000405240 8.006796-06 1.07136E-05 1.07134E-05	3.81525E-05 3.0940TE-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 9.70158E-05 0.00012537 9.05180E-06 1.23971E-08 % 2.59400 0.502442 2.54392 2.3462 11.1972 0.635914 2.64352 0.6563835	0.000725892 0.00135450 0.000979586 2.38670E-05 0.000913188 1.01901E-05 1.07520E-05 1.07520E-05 0.000140808 9.82038E-07 W 4.83874E-05 0.000288888 0.10181762 0.725278 24.9627 24.9627 72.2778 17.0066 5.79862	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.2700E-10 4.2700E-10 4.2700E-10 4.2700E-10 4.2700E-10 5.200E-10 6.200E-10	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647285 0.660593 4.71245 20.0777 \$ 88.4772 0.000655943 0.00376254 0.102531 0.189485 0.309988 0.126673 0.362482 0.286548	1.56214 3.96554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 20.0777 % 0.00394482 0.000256427 0.000257166 0.118842 0.878299 2.21174 1.03780 3.04036
Heptane Methylcyclohexane Toluene Octane Ethylbarnene m-Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopertane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	3.89726-05 2.826-05 2	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244 0.00356623 0 0.00420256 0.0144437 0.723556 1.58057 2.64634 1.10990 3.14755 2.49289 3.33591	0.0124531 0.0125041 0.0183779 0.00326431 0.0160569 0.000751814 0.000067881 0.000067881 0.0000735419 0.000735419 0.153967 3.30299 19.7050 30.4702 7.71550 17.0657 6.08823	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.452095 0.45210 0.658191 4.70861 0.0578124 0 4.19114E-0.65807 0.000708124 0 0.000708124 1.20751 0.800490 2.54193 2.36650 3.25309	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 0.000462148 0.000462148 0.700758 1.57803 2.64514 1.10110 1.14774 2.49295 3.33672	8.2046-0.07 1.75032-0.64 4.00363-0.61 4.00363-0.61 4.00363-0.61 0.00377688 4.36120-0.7 0.000716642 0.00015241 2.05361-0.7 3.879572-11 98.9942 0.00144069 0.0015707 0.000732079 0.00406240 8.006796-0.66 7.22600-0.61	3.81525E-05 8.09401E-05 0.000305554 0.000425731 3.06659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 2.55400 0 0.502442 2.544392 2.544392 2.544392 11.1972 0.635914 2.644352 0.6638354 0.650283	0.000725892 0.00135450 0.000979536 2.38970E-05 0.000979536 1.01901E-05 1.01901E-05 1.107200E-05 1.32203E-05 0.000140008 9.820038E-07 4.83874E-05 0.000288588 0.181762 0.725278 23.6152 7.82778 17.0065 5.79892	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.20143E-10 1.07728E-13 3.32698E-20 9.00101735 3.46966 3.11539 1.15889 0.141639 0.00100714 0.0003306770 0.000033688	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00376254 0.102531 0.189485 0.307988 0.307988 0.36422 0.36482 0.386380 0.386380	1.56214 3.98554 3.98554 0.615064 8.06725 0.423847 0.645970 0.645970 0.659070 4.71169 20.0777 0.000256427 0.000256427 0.000256427 0.00627166 0.118842 0.878229 2.21174 1.03780 3.04036 2.49425 3.356665
Heptane Methyloyclohexane Toluene Octane Ethylbezene m-Xylene Oxylene Norane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Sopentane n-Pentane 2-Methylpentane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105990 0.00130775 9.25716E-06 1.24359E-08 9.993583 0.00129737 0.0019774 0.00237637 0.0019373 0.00895571 0.000422591 0.000218213 0.000218213 0.000218213	1.56523 3.99180 2.83562 0.615872 8.07120 0.424032 0.646205 0.669285 4.71244 20.0777 9, 0.00856629 0.00423256 0.0044337 0.723556 1.58057 2.64634 1.10090 3.14475 2.246289 3.33591 1.99560	0.0124531 0.0128791 0.00326431 0.0183779 0.00326431 0.00366431 0.0007361814 0.000960109 0.00097881 0.0009678 3.128372-05 9, 0.00735419 0.153967 3.30299 19.7050 3.30792 17.71550 17.71550 17.7550 6.08923 6.27068	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.00770 4.19114E-06 0.00102331 0.0058807 0.209245 1.20751 0.800490 2.54193 2.36650 3.25099 2.04142	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 8.07123 0.424846 0.647265 0.66053 4.71245 0.000462148 0.000462148 0.002561 1.57803 2.64514 1.10110 3.14774 2.49295 3.33672 1.99429	8.20464E-07 1.75032E-06 4.00363E-06 1.00347688 4.3610E-07 0.000716642 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097242 0.00097240 0.00097	3.81525E-05 3.09401E-05 0.000305354 0.000425731 3.06659E-05 9.70158E-05 0.00012558 0.000115337 9.05180E-06 1.23971E-08 0.0002442 2.544392 55.3792 22.3462 11.1972 0.635914 2.64352 0.563835 0.550283	0.000725892 0.00135450 0.000979586 2.36970E-05 0.000979586 1.01901E-05 1.132203E-05 1.132203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000288588 0.181762 0.725278 24.9627 22.49627 7.82778 17.0066 5.79892 5.79892 5.79892	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02776E-10 4.27068E-10 4.27068E-10 4.27068E-10 4.27068E-10 4.27068E-10 4.27048E-10 1.07728E-13 3.22696E-20 9. 92.0949 0.0101735 3.46966 3.11539 1.1539 1.1539 0.00100714 0.000330770 0.000336770 0.000336770 0.000339688	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.07777 % 88.4772 0.000655943 0.000655943 0.126673 0.307988 0.126673 0.362482 0.286548 0.0383380 0.2290223	1.56214 3.38554 2.28598 0.515064 8.66725 0.423847 0.545970 0.656970 4.71169 2.00777 5.4 0.00034462 0.000256427 0.000256427 0.00025766 0.18842 0.878299 2.21174 1.03780 3.340436 2.249425 3.35665 2.20625
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10- Mass Fraction Weter H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isoperatane n-Perstane 2-Methylpentane 3-Methylpentane 3-Methylpentane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00169808 0.00130775 9.25716E-06 1.24359E-08 99.9583 0.000191784 0.00237637 0.0005127637 0.000522034 0.00146141 0.000218257 0.000212857 0.385658E-05	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.656205 0.666205 0.00423256 0.0044237 0.723556 1.58067 2.64634 1.10090 3.14755 2.49289 3.33591 1.99360	0.0124531 0.0252041 0.00183779 0.00326431 0.00326431 0.0000751814 0.000096109 0.000075881 0.000067881 0.00306678 3.12937E-05	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 \$ 0.000708124 0 0.001708124 0 0 0.001708124 0 0 0.001708124 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 3.99188 0.619775 8.07123 0.424846 0.647265 0.660583 4.71245 20.0777 % 0 0 0.00462148 0.0125041 0.700758 1.57803 2.64514 1.10110 3.14774 2.49295 3.33672 1.99429	8.20464E-07 1.75032E-06 4.00363E-05 0.00247688 4.36120E-07 0.000176642 0.000937242 0.000937242 2.05361E-07 3.87957E-11 \$\frac{\pi}{8}\$ 99.9942 0.687611E-06 0.00144069 0.00145707 0.000732079 0.000732079 0.000746240 8.00679E-06 1.03517E-05 5.67410E-07 2.38802E-06	3.81525-05 8.09401E-05 0.000402534 0.000425731 3.05659E-05 9.70158E-05 0.000122556 0.000122559 0.000122559 0.00012337 9.05180E-06 1.2371E-08 0.502442 2.54532 2.54532 2.54532 2.54532 0.563351 0.653351 0.550263 0.0633511	0.000725892 0.000979586 0.000979586 0.000979586 1.0879076-05 0.000813188 1.01901E-05 1.07520E-05 1.07520E-05 0.000140809 9.82038E-07 % 4.83874E-05 0.000288588 0.181762 0.725278 24.9627 22.6152 7.82778 17.0065 5.79892 5.87314 1.47844 0.086560	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.2700E-10 4.2700E-10 4.2700E-10 1.07728E-13 3.0289E-20 9 92.0949 0.0101735 3.46966 3.11539 0.141639 0.00100714 0.00630071 0.0000336770 0.0000336770	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00276254 0.102531 0.182465 0.126673 0.362482 0.2265484 0.383380 0.229023 0.149205	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 20.0777 % 0.00354482 0.000256427 0.00027166 0.118842 0.878299 2.21174 1.03780 3.04036 2.49425 3.35665 2.02625
Heptane Methylcyclohexane Toluene Octane Ethylbanzane m-Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isobutane n-Perlane 2-Methylpentane 3-Methylpentane n-Hexane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.000136590 0.00130775 9.25716E-06 1.24359E-08 9.993583 0.000191736 0.00037637 0.0219373 0.00237637 0.0019574 0.00042234 0.00042234 0.00042557 2.38818E-05 3.85658E-05	1.56523 3.99180 2.83362 0.615872 8.07120 0.424022 0.646205 0.646205 0.00426256 0.00423256 0.0044337 0.723556 1.58057 2.64634 1.10090 3.14755 2.49289 3.33591 1.99360 1.29662	0.0124531 0.0025041 0.0183779 0.00326431 0.0160569 0.000751814 0.000067981 0.000067981 0.00006783 3.128372-05 % 0.000735419 0.153967 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068 1.59943 0.939167 2.77088	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.452010 0.658191 4.70861 0.00708124 0 0.00708124 0 0.000708124 1.20751 0.0068607 0.009245 1.20751 0.800490 2.54193 2.36650 3.25309 2.04142 1.33438	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 0.619775 8.07123 0.424846 0.647265 0.0660933 4.71245 0.000462148 0.000462148 0.000589 1.57803 1.57803 2.64514 1.10110 2.49295 3.3672 1.29925 1.29925 1.29925	8.20464E-07 1.75032E-06 4.00363E-06 1.00347688 4.36120E-07 0.000716642 0.000937242 0.00019241 2.05361E-07 9, 99.9942 0.00140699 0.00156707 0.000712079 0.000465240 8.006796-06 1.707134E-05 1.00317E-05 5.67410E-07 2.38822E-06	3.81525E-05 8.09401E-05 0.000305354 0.000425731 3.06569E-05 9.70158E-05 9.00012558 0.00012558 0.00015337 9.05180E-06 1.23971E-08 0.002442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.653835 0.653835 0.6538351 0.0592794 0.0966753	0.000725892 0.00135450 0.000979586 2.36970E-05 0.000979586 1.01901E-05 1.01901E-05 1.12203E-05 1.32203E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065 5.79892 5.87314 1.47844 0.865800	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.27048E-13 3.02778E-14 4.27048E-10 1.07728E-13 3.32689E-20 92.0949 0.0101736 3.416539 0.141639 0.00100714 0.00630071 0.00630071 0.000239688 5.26790E-06 1.198136E-05	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443	1.56526 3.99188 3.99188 0.619775 8.07123 0.424846 0.647285 0.426846 0.647285 0.426846 0.067285 0.000655943 0.000655943 0.000376254 0.102531 0.126673 0.362442 0.286548 0.286548 0.286548 0.286548 0.286548 0.286548 0.286548	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.6599070 4.71169 20.00777 5.0 0.00394482 0.000256427 0.00627166 0.118842 0.878299 2.21174 1.03780 3.04036 2.49425 3.35665 2.02625 1.32081
Heptane Metrylcyclohexane Toluene Octane Ethylbezene m-Xylene O-Xylene Nonane C10- Mass-Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane Isopentane n-Butane Subpriserae 1-Subane Heptane Subpriserae Subpriser		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 8.26904E-05 0.00034591 0.00390261 3.10020E-05 0.000813658 0.00108980 0.00130775 9.25716E-06 1.24359E-08 36 95.9583 0.001191784 0.00218237 0.00237637 0.0219573 0.00285571 0.000452591 0.000452591 0.000452591 0.000452591 0.000218614 0.000218213 0.00021857 3.85563E-05 3.85563E-05 3.85565E-05 5.31306E-05	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.656926 4.71244 20.0777 % 0.00856629 0.00423256 0.0144437 0.723556 1.58007 2.24634 1.10090 3.14755 3.33591 1.99360 1.29862 4.75140 0.7712128	0.0124531 0.0252041 0.0183779 0.00326441 0.00326441 0.0009669 0.000751814 0.000967981 0.000978981 0.000987983 3.129372-05 % 0.0950234 0 0.007535419 0.153967 3.30299 19.7050 30.4702 7.71550 17.70567 6.08923 6.27068 1.59943 0.939167 2.77068	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.00770 % 0.000708124 0.00102331 0.00058607 0.209245 1.20751 0.800490 2.54193 2.54953 0.254193 2.54953 3.25309 2.04142 1.33438 4.91202	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0 0.00452148 0.0125041 0.700728 1.57903 2.646514 1.10110 3.14774 2.49295 3.33672 1.99429 1.29925 4.75154	8.20464E-07 1.75032E-06 4.00585E-05 0.00347888 4.3610E-07 0.000716642 0.000973242 0.000973242 2.05361E-07 3.87957E-11 78 99.9942 0.0015241 0.000405240 8.006796-06 1.03517E-06 1.03517E-06 1.03517E-06 5.67410E-07 2.38822E-06 6.17293E-07	3.81525E-05 3.0940TE-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 9.7015	0.000725892 0.00135450 0.000979586 2.38670E-05 0.000979586 1.01901E-05 1.07520E-05 1.07520E-05 1.07520E-05 1.07520E-05 1.07520E-05 1.07520E-05 1.07520E-05 0.0000140808 9.82038E-07 9.82038E-07 0.000288588 0.181762 0.725278 24.9627 24.9627 24.9627 7.82778 17.0066 17.7066	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.2700E-10 4.2700E-10 4.2700E-10 4.2700E-10 4.2700E-10 3.32869E-20 % 92.0849 0.0101735 3.46966 3.41539 1.15989 0.0100714 0.000336770 0.000336770 0.0000336770 0.0000336770 0.0000336770 0.000239688 5.26790E-06 1.98138E-05 2.279127E-07 5.22291E-05	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.0547285 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00376254 0.102531 0.189485 0.383380 0.126673 0.362482 0.286548 0.383380 0.229023 0.149205 0.458517	1.56214 3.96554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 20.0777 % 0.00394482 0.000256427 0.000257166 0.118842 0.878299 2.21174 1.03780 3.304036 2.49425 3.33665 2.20625 1.32081 4.83854 4.83854
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Fretion Water H2S Nitrogen Carbon Dioxide Methane Ethiane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Methylcyclopentane Methylcyclopentane n-Hexane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.00013658 0.00130775 9.25716E-06 1.24359E-08 99.9553 0.000191784 0.00237637 0.0219373 0.00287637 0.001961614 0.000212257 2.38818E-05 3.35658E-05 5.31308E-05	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.659285 4.71244 0.00856629 0.00423256 0.00442337 0.723556 1.58057 2.64634 1.110990 3.14755 2.49289 3.33591 1.99360 1.29862 4.75140 0.712128 0.7166399	0.0124531 0.0025041 0.0183779 0.00326431 0.0160569 0.000751814 0.0000878981 0.0005678 3.128372-05 0.000735419 0.153987 3.30299 19.7050 30.4702 7.71550 17.70557 6.08923 6.27068 1.59943 0.939167 2.77088 0.405669 0.012854	1.54969 3.96034 2.81070 0.611800 8.05119 0.423095 0.445010 0.658191 4.70861 0.0558191 4.70861 0.00708124 0 0.1114E-06 0.00102331 0.00568607 0.209245 1.20751 0.800499 2.54193 2.36569 2.24142 1.33438 4.91202 0.736522 0.73652	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 3.99189 0.619775 8.07123 0.424846 0.647265 0.660583 4.71245 0.000660583 4.71245 0.00060583 4.71245 0.000777 % 0.000462148 0.00125041 0.700758 1.57803 2.646514 1.10110 1.10110 2.49295 3.33672 1.99429 1.99429 1.99429 1.99429 1.99429 1.99925 4.75154 0.712719	8.2046-0.07 1.75032-0.64 4.00363-0.61 4.00363-0.61 4.00363-0.61 0.00377888 4.36120-0.7 0.000716642 0.00019241 2.05361-0.7 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-11 3.879972-12 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13 3.879972-13	3.81525E-05 8.09401E-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 0.000122558 0.000152558 0.00015337 9.05180E-06 1.23971E-08 2.55400 0 0.502442 2.54492 2.54492 2.54492 11.1972 0.635914 2.64352 0.650385 0.0633511 0.0632511 0.0682794 0.0866753 0.120492 0.185131	0.000725892 0.00135450 0.000979536 2.38970E-05 0.000979536 1.01901E-05 1.01901E-05 1.132203E-05 1.0201E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181782 0.725278 24.9627 32.6152 77.9065 5.79892 5.87314 1.47844 0.883600 0.173276 0.341521 0.00681695	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02778E-10 4.2014SE-13 3.02778E-10 4.2014SE-10 1.07728E-13 3.32698E-20 92.0949 0.0101735 3.46966 3.11539 0.141639 0.00100714 0.00630071 0.00023688 5.26790E-06 1.89138E-05 2.79127E-07 5.22391E-05	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 3.99189 0.619775 8.07123 0.424846 0.660593 4.71245 0.060593 4.71245 0.0777 % 88.4772 0.00076254 0.102531 0.182485 0.307988 0.125673 0.365482 0.286548 0.286548 0.289023 0.148248 0.148205 0.545817 0.0814884	1.56214 3.98554 3.98554 0.615064 8.06725 0.423847 0.645970 4.71169 20.00777 % 0.00394482 0 0.000256427 0.00627166 0.118842 0.878229 2.21174 1.03780 3.04036 2.49425 3.36665 2.02625 1.32081 4.83854 0.725275
Heptane Metrylcyclohexane Toluene Octane Ettrylbrozene m-Xylene Oxylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane -Peritane 2-Metrylprentane -heritane 3-Metrylprentane Methylcyclopentane Benzene Benzene Benzene -		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.000313658 0.00105990 0.00130777 9.25716E-06 1.24359E-06 9.993683 0.00197784 0.00218737 0.0218373 0.0218373 0.00985571 0.000242034 0.00014614 0.000218213 0.000218213 0.00021857 3.85663E-05 3.35656E-05 5.31306E-05 0.000741588	1.56523 3.99180 2.83562 0.616872 8.07120 0.424032 0.646205 0.656285 4.71244 20.0777 5.0 0.00856629 0.00423256 0.00423256 1.58057 2.64634 1.10090 3.14755 2.49289 3.33591 1.29862 4.75140 0.712128 0.798682	0.0124531 0.0252041 0.00252041 0.00326431 0.00326431 0.00326431 0.00326431 0.0007361814 0.000960109 0.000978181 0.00096078 3.122972-05 9, 0.00735419 0.153967 3.30299 19.7050 19.7050 3.304702 7.71550 17.70567 6.08923 6.27068 1.59943 0.039167 2.77068 0.039167 2.77088 0.405669 0.112954	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.00770 10.000708124 0.00102331 0.0058807 0.209245 1.20751 0.800490 2.54193 2.36650 3.2509 2.04142 1.33438 4.91202 0.736632 0.209571 2.29639	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 0.00777 8 0 0 0.00462148 0.0125041 0.700758 1.57803 2.64514 1.10110 3.14774 2.49295 3.33672 1.29925 4.75154 0.712719 0.20603 2.19032	8.20464E-07 1.75032E-06 4.00363E-06 1.00347688 4.3610E-07 1.000176642 1.00097742 1.000716642 1.00097742 1.000716642 1.00097742 1.00097464 1.000	3.81525E-05 3.09401E-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 0.000125589 0.000125337 9.05180E-06 1.23971E-08 0.502442 2.544392 2.53462 11.1972 0.635914 2.64352 0.563835 0.550263 0.00663531 0.0962794 0.0866753 0.120492 0.185131 0.0189080	0.000725892 0.00135450 0.000979586 2.36970E-05 0.000979586 1.01901E-05 1.67520E-05 1.782778 1.70.065 1.782778 1.70.065 1.782778 1.70.065 1.782778 1.70.065 1.782778 1.70.065 1.782778 1.70.065 1.782776 1.70.065 1.782776 1.70.065 1.782776 1.70.065 1.78276 1.78276 1.78276 1.78276 1.78276 1.78276	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02776E-10 4.2706E-10 4.270	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.07777 % 88.4772 0.000655943 0.00376254 0.102531 0.189485 0.126673 0.362482 0.286548 0.0382382 0.286548 0.0382382 0.286548 0.0382382 0.286548	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 2.00777 5 6 0.00394482 0.000256427 0.00627166 0.118842 0.878299 2.21174 1.03780 3.04036 2.49425 3.35665 2.49425 1.32081 4.33854 0.725275 0.200461
Heptane Methylcyclohexane Toluene Octane Ethylbancane m-Xylene o-Xylene Nonane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Perstane 2-Methylpentane n-Hexane Methylcyclopentane Methylcyclopentane Benzene 2-Methylpentane Benzene 2-Methylpentane 3-Methylpentane Benzene 3-Methylpentane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05 0.000813658 0.00105980 0.00130775 9.25716E-06 1.24359E-08 78 99.9583 0.001191784 0.00218737 0.00237637 0.00237637 0.00242034 0.0010452591 0.000452591 0.000242034 0.0010452591 0.000242334 0.0010455591 0.000242334 0.0010455591 0.000242357 3.8816E-05 3.85658E-05 3.25155E-05 5.31306E-05 0.00741368 0.007412506	1.56523 3.99180 2.83362 0.615872 8.07120 0.424032 0.646205 0.65629 0.00423266 0.0144437 0.723556 1.58057 2.64634 1.10090 3.147755 2.49289 3.33591 1.99360 1.29862 4.75140 0.712128 0.198639 2.18971	0.0124531 0.0252041 0.0183779 0.00326431 0.00326431 0.00036581 0.0000751814 0.000960109 0.000078981 0.00006788 3.12937E.05 78 0.0950234 0.007536419 0.153967 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068 1.59943 0.939167 2.277088 0.0456699 0.112954 0.152954 0.0406296	1.54969 3.396034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.0777 % 0.000708124 0.00102331 0.0066807 0.209245 1.20751 0.800490 2.54193 2.36560 3.25309 2.04142 1.33438 4.91202 0.736632 0.203571 2.29639 1.81005 6.810070 0.209245 1.33438 4.91202 0.736632 0.203571 2.29639 1.81005 6.810070 0.209245 1.33438 4.91202 0.736632 0.203571 2.29639 1.81005 6.810070 0.209245 1.33438 4.91202 0.736632 0.203571 1.81005 6.810070 0.209245 1.33438 4.91202 0.736632 0.203571 1.81005	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 20.0777 % 0 0.00462148 0.015041 0.700758 1.57803 2.64514 1.10110 3.14774 2.49295 3.33672 1.99429 1.29925 4.75154 0.712719 0.202603 2.19032	8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07 0.000716642 0.000937242 0.000937242 2.05361E-07 3.87957E-11 % 99.9942 0.687611E-06 0.0014696 0.0014696 0.0014696 0.0014696 1.03617E-06 5.67410E-07 2.288622E-06 6.17293E-07 2.288622E-06 0.000673484 1.43218E-07 1.17138E-07	3.81525-05 8.09401E-05 0.000402534 0.000425731 3.06569E-05 9.70158E-05 9.70158E-06 1.23971E-08 9.70158E-06 1.23971E-08 9.70158E-06 1.23971E-08 9.70158E-06 1.23971E-08 9.70158E-06 1.23971E-08 9.70158E-06 1.23971E-08 0.50258E-06 0.50258	0.000725892 0.000135450 0.000135450 0.000135450 0.000135450 0.000135450 0.000135450 0.000135450 0.000135450 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580 0.00013580	6.74217E-12 1.05019E-11 1.244774E-10 1.240774E-10 1.236251E-09 7.72688E-13 3.02778E-10 4.2700E-10 4.2700E-10 4.2700E-10 1.07728E-13 3.32869E-20 7 92.0949 0.0101735 3.346966 3.11539 0.0100714 0.00830071 0.000336770 0.000336770 0.000336770 0.000236881 2.79127E-07 5.22391E-05 0.000246881	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 2.83397 0.619775 8.07123 0.424846 0.0547265 0.660593 4.71245 20.0777 % 88.4772 0.000655943 0.00276254 0.102531 0.189485 0.326642 0.326642 0.326642 0.326642 0.3266543 0.0364848 0.036482 0.036482 0.036482 0.036482 0.03665543	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71189 20.0777 0.00394482 0 0.000256427 0.00627166 0.118842 0.878299 2.21174 1.03780 3.04036 2.49425 1.32081 4.83854 0.7725275 0.200461 2.23625
Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene Oxylene Norane C10- Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 1-Methylpentane Methylcyclopentane Benzene Methylcyclopentane Benzene 2-Methylpenane Benzene L-Methylpenane Methylcyclopentane Benzene L-Methylpenane L-Methylpenane Benzene L-Methylpenane		0.229448 44.2954 15.1732 7.04234 1.17038 2.44528 0.961285 0.747182 0	0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	3.89726-05 3.89726-05 0.000345391 0.00390261 3.10020E-05 0.000313658 0.00105990 0.00130777 9.25716E-06 1.24359E-06 9.993683 0.00197784 0.00218737 0.0218373 0.0218373 0.00985571 0.000242034 0.00014614 0.000218213 0.000218213 0.00021857 3.85663E-05 3.35656E-05 5.31306E-05 0.000741588	1.56523 3.99180 2.83562 0.616872 8.07120 0.424032 0.646205 0.656285 4.71244 20.0777 5.0 0.00856629 0.00423256 0.00423256 1.58057 2.64634 1.10090 3.14755 2.49289 3.33591 1.29862 4.75140 0.712128 0.798682	0.0124531 0.0252041 0.00252041 0.00326431 0.00326431 0.00326431 0.00326431 0.0007361814 0.000960109 0.000978181 0.00096078 3.122972-05 9, 0.00735419 0.153967 3.30299 19.7050 19.7050 3.304702 7.71550 17.70567 6.08923 6.27068 1.59943 0.039167 2.77068 0.039167 2.77088 0.405669 0.112954	1.54693 3.96034 2.81070 0.611800 8.05119 0.423095 0.645010 0.658191 4.70861 20.00770 10.000708124 0.00102331 0.0058807 0.209245 1.20751 0.800490 2.54193 2.36650 3.2509 2.04142 1.33438 4.91202 0.736632 0.209571 2.29639	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.56526 3.99188 0.619775 8.07123 0.424846 0.647265 0.660593 4.71245 0.00777 8 0 0 0.00462148 0.0125041 0.700758 1.57803 2.64514 1.10110 3.14774 2.49295 3.33672 1.29925 4.75154 0.712719 0.20603 2.19032	8.20464E-07 1.75032E-06 4.00363E-06 1.00347688 4.36120E-07 0.000716842 0.000937242 0.00019241 2.05361E-07 59.9942 0.00144069 0.00157607 0.000740692 0.00144069 1.0004762640 1.0004762640 1.0004762640 1.0004762640 1.00146660 1.00146660 1.00146600 1.00146600 1.00146600 1.00146600 1.00146600 1.00146600 1.00146600 1.00146600 1.001466000 1.001466000 1.001466000 1.001466000 1.001466000 1.00146600000000000000000000000000000000	3.81525E-05 3.09401E-05 0.000305554 0.000425731 3.06569E-05 9.70158E-05 0.000125589 0.000125337 9.05180E-06 1.23971E-08 0.502442 2.544392 2.53462 11.1972 0.635914 2.64352 0.563835 0.550263 0.00663531 0.0962794 0.0866753 0.120492 0.185131 0.0189080	0.000725892 0.00135450 0.000979586 2.36970E-05 0.000979586 1.01901E-05 1.01901E-05 1.12203E-05 1.12203E-05 1.12203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000148080 9.82038E-07 2.2.6152 7.82778 17.0065 5.79892 5.87314 1.47844 0.865800 0.173276 0.341521 0.006541695 0.0322138 0.384089	6.74217E-12 1.05019E-11 2.44774E-10 2.36251E-09 7.72688E-13 3.02776E-10 4.2706E-10 4.270	0.00262842 0.0249182 0.00933758 0.00476924 0.000252600 0.00112553 0.000292443 0.000217971 0	1.56526 3.99188 3.99189 0.619775 8.07123 0.424846 0.647285 0.424846 0.647285 0.426846 0.647285 0.000655943 0.000655943 0.000376284 0.102531 0.180485 0.126673 0.362442 0.286548 0.286548 0.286548 0.286548 0.286548 0.286548 0.286549 0.251536 0.159170 0.00232669	1.56214 3.98554 2.82908 0.615064 8.06725 0.423847 0.645970 0.659970 4.71169 2.00777 5 0.00394482 0.000256427 0.00627166 0.118842 0.878299 2.21174 1.03780 3.04036 2.49425 3.35665 2.49425 1.32081 4.33854 0.725275 0.200461

Toluene Octane		1			1	1	1	0	ii.	4	1	1	0		1	0	1
Octane		0	0	0.000513289	0.624170	0.0986541	0.657082	0	0	0.628285		0.152149	0.0109293	9.75197E-05	0	0.0721521	0.637918
		0	0	5.05511E-06	10.1411	0.601618	10.7202	0	0	10.1437		0.0135427	0.464952	3.95419E-08	0	1.16490	10.3730
Ethylbenzene		0	0	0.000123308	0.495167	0.0261803	0.523587	0	0	0.496243	0.000108645	0.0399500	0.00541525	1.44007E-05	0	0.0569884	0.506517
m-Xylene		0	0	0.000160610	0.754612	0.0334338	0.798210	0	0	0.756041	0.000142089	0.0504681	0.00890241	2.03093E-05	0	0.0868235	0.771964
o-Xylene		0	0	0.000198186	0.769887	0.0306086	0.814522	0	0	0.771610	0.000180773	0.0474943	0.00702558	1.99828E-05	0	0.0886114	0.787620
Nonane		0	0	1.69480E-06	6.64803	0.129856	7.03941	0	0	6.64973	3.76114E-08	0.00450300	0.0903983	6.18989E-09	0	0.763653	6.80229
C10+		0	0	3.63202E-09	45.1847	0.00210013	47.8837	0	0	45.1962	1.13348E-11	9.83822E-06	0.00100576	3.05110E-15	0	5.19032	46.2406
Mass Flow		lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
Water		70299.4	273.696	70024.9	0.778791	0.289699	0.0607491	0	70299.4	0	70024.2	0.668771	9.66660E-06	0.205569	70025.7	70025.7	0.350448
H2S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nitrogen		1343.08	1342.98	0.134352	0.384797	0.0224208	0.000359553	1343.08	0	0.420048	0.00481522	0.129537	5.76527E-05	2.27086E-05	0.0991009	0.519149	0.0227804
Carbon Dioxide		625.834	623.992	1.66475	1.31313	0.469371	0.0877882	625.834	0	1.13650	1.00889	0.655858	0.0363115	0.00774477	1.84138	2.97788	0.557159
Methane		120819	120801	15.3679	65.7810	10.0699	0.487801	120819	0	63.6921	1.09039	14.2776	0.144892	0.00695399	17.4568	81.1489	10.5577
Ethane		41385.7	41379.2	6.27384	143.695	60.0750	17.9508	41385.7	0	143.427	0.512663	5.76118	4.98692	0.00258905	6.54157	149.969	78.0259
Propane		19208.4	19205.1	3.17058	240.588	92.8948	103.591	19208.4	0	240.417	0.283783	2.88680	6.51571	0.000316158	3.34116	243.759	196.486
Isobutane		3192.28	3192.10	0.169555	100.087	23.5223	68.6731	3192.28	0	100.079	0.00560702	0.163948	1.56380	2.24807E-06	0.176963	100.256	92.1954
n-Butane		6669.65		0.732865	286.155	52.0286	218.069	6669.65	0	286.099	0.0513279	0.681537	3.39747	1.40641E-05	0.788504	286.888	270.098
Isopentane		2621.96	2621.76	0.152867	226.637	18.5643	203.019	2621.96	0	226.585	0.00750238	0.145365	1.15848	7.51718E-07	0.204875	226.790	221.583
n-Pentane		2037.99	2037.83	0.149115	303.279	19.1175	279.079	2037.99	0	303.275		0.141866	1.17331	5.35018E-07	0.152702	303.428	298.196
2-Methylpentane		0	0	0.0167302	181.245	4.87621	175.131	0	0	181.261	0.000397347	0.0163328	0.295356	1.17587E-08	0	181.261	180.007
3-Methylpentane		0	0	0.0270103	118.062	2.86325	114.475	0	0	118.089	0.00167243	0.0253379	0.172526	4.42267E-08	0	118.089	117.338
n-Hexane		4553.46	4553.34	0.0227784	431.966	8.44762	421.396	4553.46	0	431.869	0.000432280	0.0223461	0.0346162	6.23050E-10	0.120065	431.989	429.844
Methylcyclopentane		U	U	0.0372202	64.7420	1.23677	63.1948	U	U	64.7792	0.00615565	0.0310645	0.0682274	1.16605E-07	0	64.7792	64.4316
Benzene		U	U	0.519359	17.8953	0.344366	17.4641	U	U	18.4147	0.471629	0.0477294	0.00116208	5.50627E-07	U .	18.4147	17.8085
2-Methylhexane		U	U	0.00497504	199.074	1.65912	197.004	U	U	199.079	0.000100293	0.00487475	0.00643552	5.74769E-11	0	199.079	198.663
3-Methylhexane		U	U	0.00390516	156.839	1.24783	155.282	U	U	156.843	8.22121E-05	0.00382295	0.0727358	6.75578E-10	U	156.843	156.530
Heptane		U	U	0.00828574	399.986	2.52550	396.834	U	U C	399.994		0.00811036	0.135724	1.05231E-09	U	399.994	399.359
Methylcyclohexane		U	U	0.0339125	278.222	1.80445	275.971	U C	U	278.256	0.00393100	0.0299815	0.0961768	2.40334E-08	U	278.256	277.776
Toluene		U	U	0.359580	56.7455	0.300768	56.3703	U	U	57.1051	0.320354	0.0392262	0.00218341	2.17678E-07	U	57.1051	56.6711
Octane		0	0	0.00354131	921.961	1.83416	919.676	0	0	921.965	4.98173E-05	0.00349150	0.0928859	8.82630E-11	0	921.965	921.510
Ethylbenzene		0	0	0.0863820	45.0173 68.6043	0.0798164	44.9179 68.4774	0	0	45.1037	0.0760823	0.0102997	0.00108183	3.21445E-08	o o	45.1037 68.7169	44.9977
m-Xylene		0	0	0.112514				0	0	68.7169				4.53331E-08	0		68.5794
o-Xylene		0	0	0.138837 0.00118728	69.9930 604.395	0.0933170 0.395895	69.8769	0	0	70.1319 604.396	0.126592 2.63386E-05	0.0122447	0.00140354	4.46044E-08 1.38167E-11	0	70.1319	69.9702
Nonane		0	0				603.903	0	0						0	604.396	604.299
C10+		0	0	2.54437E-06	4107.90	0.00640269	4107.89	0	0	4107.90	7.93760E-09	2.53644E-06	0.000200925	6.81049E-18	0	4107.90	4107.90
Process Streams		Well Stream	HP Separator Gas	HP Separator Water	HP Separator Oil	OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	-	3	LP Separator Oil
Phase: Total	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Property Property	Units	Solved	Solved	Solved	Solved	Suived	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Suived
	°F	60.3	66.0	70.0	70.0	75.9	75.9	67.0	67.0	67.0	75.9	75.94	75 9425	75 9425	66	66.0894	70
Temperature 'Pressure g	psig	200	200	200	200	0	0	300	200	300	0	0	8.81720	-14.2252	200	200	40
Mole Fraction Vapor	%	71.3764	100	0	0	100	0	100	0	0	0	100	100	100	0	0	0
Mole Fraction Light Liquid	%	28.6236		100	100	0	100	0	100	100		0	0	0		2.10145	100
Mole Fraction Heavy Liquid	0/.																
		0	0	0	0	0	0	0	0	0	100	0	0	0	100	97 8985	0
	/o lb/lbmol	0 20.1	0 20.9	0	0	0 44.3	0	0 20.9	0	0	0	0 21 0422	0 44 2029	0 18 4251	0	97.8985	0
Molecular Weight	lb/lbmol lb/ft^3	0 20.1 1.1		0 18.0 62.3	0 108.9 45.0	0 44.3 0.1	0 123.8 45.8	0 20.9 1.3	0 18.0 62.3	0 109.1 45.2	100 0 18.0 62.2	0 21.0422 0.0540011	0 44.2029 0.185805	0 18.4251 0.00150976	100 0 18.0165 62.2960		0 116.628 45.4833
Molecular Weight I Mass Density I	lb/ft^3		0.8	0 18.0	0 108.9		0 123.8		0 18.0	0 109.1	0 18.0				0 18.0165	97.8985 19.9270	0 116.628
Molecular Weight I Mass Density I Molar Flow I	lb/ft^3	1.1	0.8 9706.1	0 18.0 62.3 3888.3	0 108.9 45.0 83.5	0.1 6.9	0 123.8 45.8 69.3	1.3 9692.4	0 18.0 62.3 3902.2	0 109.1 45.2 83.3	0 18.0 62.2 3887.1	0.0540011	0.185805	0.00150976	0 18.0165 62.2960	97.8985 19.9270 59.6893	0 116.628 45.4833 76.1714
Molecular Weight Mass Density Molar Flow Mass Flow	lb/ft^3	1.1 13594.6	0.8 9706.1 202699.9	0 18.0 62.3	0 108.9 45.0	0.1	0 123.8 45.8	1.3	0 18.0 62.3	0 109.1 45.2	0 18.0 62.2	0.0540011 1.22522	0.185805 0.451950	0.00150976 0.0121146	0 18.0165 62.2960 3888.46	97.8985 19.9270 59.6893 3971.77	0 116.628 45.4833
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow	lb/ft^3 lbmol/h lb/h	1.1 13594.6 272756.3	0.8 9706.1 202699.9	0 18.0 62.3 3888.3 70054.1	0 108.9 45.0 83.5 9091.3	0.1 6.9 304.9	0 123.8 45.8 69.3 8578.9	1.3 9692.4 202457.0	0 18.0 62.3 3902.2 70299.4	0 109.1 45.2 83.3 9089.0	0 18.0 62.2 3887.1 70028.3	0.0540011 1.22522 25.7815	0.185805 0.451950 19.9775	0.00150976 0.0121146 0.223214	0 18.0165 62.2960 3888.46 70056.4	97.8985 19.9270 59.6893 3971.77 79145.4	0 116.628 45.4833 76.1714 8883.75
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow	lb/ft^3 lbmol/h lb/h MCFH	1.1 13594.6 272756.3 238.3	0.8 9706.1 202699.9 240.4 1027.5	0 18.0 62.3 3888.3 70054.1 1.1	0 108.9 45.0 83.5 9091.3 0.2	0.1 6.9 304.9 2.6	0 123.8 45.8 69.3 8578.9 0.2	1.3 9692.4 202457.0 159.5	0 18.0 62.3 3902.2 70299.4 1.1 4.8	0 109.1 45.2 83.3 9089.0 0.2	0 18.0 62.2 3887.1 70028.3 1.1	0.0540011 1.22522 25.7815 0.477424	0.185805 0.451950 19.9775 0.107519	0.00150976 0.0121146 0.223214 0.147847	0 18.0165 62.2960 3888.46 70056.4 1.12457	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow	lb/ft^3 lbmol/h lb/h MCFH Mbbl/d MMSCFD	1.1 13594.6 272756.3 238.3 1018.7	0.8 9706.1 202699.9 240.4 1027.5 88.4	0 18.0 62.3 3888.3 70054.1 1.1	0 108.9 45.0 83.5 9091.3 0.2	0.1 6.9 304.9 2.6 11.3	0 123.8 45.8 69.3 8578.9 0.2 0.8	1.3 9692.4 202457.0 159.5 682.0	0 18.0 62.3 3902.2 70299.4 1.1	0 109.1 45.2 83.3 9089.0 0.2 0.9	0 18.0 62.2 3887.1 70028.3 1.1	0.0540011 1.22522 25.7815 0.477424 2.04079	0.185805 0.451950 19.9775 0.107519 0.459597	0.00150976 0.0121146 0.223214 0.147847 0.631985	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791	0 116.628 45.4833 76.1714 8883.75 0.195319
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow	lb/ft^3 lbmol/h lb/h MCFH Mbbl/d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4	0 108.9 45.0 83.5 9091.3 0.2 0.9	0.1 6.9 304.9 2.6 11.3 0.1	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6	1.3 9692.4 202457.0 159.5 682.0 88.3	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5	0 109.1 45.2 83.3 9089.0 0.2 0.9	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow	lb/ft^3 lbmol/h lb/h MCFH Mbbl/d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.8	0.1 6.9 304.9 2.6 11.3 0.1	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999	0 109.1 45.2 83.3 9089.0 0.2 0.9 0.8	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.68334	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.893741 0.842324 0.0246739 0.729261
Molecular Weight Mass Density Molar Flow Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Liquid Volumetric Flow Compressibility Specific Gravity API Gravity	ib/ft^3 ibmol/h ib/h MCFH Mbb//d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.8 0.9 0.091 0.722 63.3	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999	0 109.1 45.2 83.3 9089.0 0.2 0.9 0.8 0.9 0.135	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 10.0494	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy	Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 100.0 4478.2	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.8 0.9 0.091 0.722 63.3 -7.9	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 480.2	0 109.1 45.2 83.3 9089.0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 -7.9	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 477.8	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358	0 18.0165 62.2960 63888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 10.0494 4.478.465	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033 0.957035 16.1727 486.382	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 -7.61278
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Vapor Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Std Uquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy	ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4.478.2 6.6825.8	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.8 0.9 0.091 0.722 63.3 -7.9 -870.8	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 -841.9	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 480.2 6830.9	0 109.1 45.2 83.3 9089.0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 -7.9 871.0	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 4.477.8 6.6822.3	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.096263 0.726531	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45	0 18.0165 62.2960 3888.46 70056.4 11.12457 4.80708 35.4147 4.80506 10.0110067 0.998829 110.0494 4-478.465 6-6829.71	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.68334 0.927033 0.957035 16.1727 4486.382 -6145.42	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.834907 0.834907 0.0246739 0.729261 61.2683 -7.61278 -856.933
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Uquid Volumetric Flow Std Uquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy	Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d	1.1 (13594.6) (272756.3) (238.3) (1018.7) (123.8) (1574)	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 478.2 6625.8 1.0	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.09 0.09 0.722 63.3 7-7.9 -870.8 0.5	0.1 6.9 304.9 2.6 111.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 -841.9 0.5	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5	0 18.0 162.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 480.2 6830.9 1.0	0 109.1 45.2 83.3 9089.0 0.2 0.9 0.135 0.724 63.0 7-7.9 -871.0 0.5	0 18.0 62.2 3887.1 70028.3 1.1 1 4.8 35.4 4.8 0.001 0.998 10.0 477.8 66822.3 1.0	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531 -0.0459476 -1782.20 0.472150	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62 0.407902	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480	0 18.0165 62.2960 3888.46 770056.4 1.12457 4.80708 35.4147 4.80506 0.0110067 0.998829 10.0494 4.478.465 6829.71 0.998331	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033 0.957035 16.1727 -486.382 -6145.42 0.926432	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.842324 0.0246739 0.729261 61.2683 -7.61278 -86933 0.468470
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Mass Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy	ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4.78.2 6825.8 1.1 0.1 1.326	0 108.9 45.0 83.5 9091.3 0.2 0.9 0.8 0.9 0.091 0.722 53.3 7-7.9 870.8 0.5	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 -841.9	1.3 9692.4 202457.0 1159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 110.0 -480.2 -6830.9 1.0 1.326	0 109.1 45.2 83.3 9988.0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 7.79 871.0 0.5 1.051 1.051	0 18.0 62.2 3887.1 70028.3 1.1 4.8 3.3-4 4.8 0.001 0.091 0.0998 10.0 4477.8 -6822.3 1.0 1.3266	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531 0.0459476 -1782.20 0.472150 1.25095	0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62 0.407902 1.12548	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218	0 18.0165 62.2960 3888.46 770056.4 1.12457 4.80708 35.4147 4.80506 0.0110067 0.998829 10.0494 4.478.465 6.6829.71 0.983391 1.32600 0.983391	97.8985 159.8993 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033 0.957035 16.1727 4486.382 5145.42 0.926432 1.25284	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.893741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Sid Vapor Volumetric Flow Sid Liquid Volumetric Flow Sid Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpCv Ratio Dynamic Viscosity	Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSLFD Mbbl/d MMBtw/h Btu/lb Btu/(lb*°F)	1.1 (13594.6) (272756.3) (238.3) (1018.7) (123.8) (1574)	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4478.2 6825.8 1.0 1.326 1.0 0.1 1	0 108.9 445.0 83.5 9091.3 0.2 0.9 0.091 0.722 63.3 7-7.9 8-870.8 0.5 1.051 0.5	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4 1.125 0.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.06 0.8 0.007 0.734 59.4 7.2 841.9 0.5 1.044 0.7	1.3 99692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 480.2 6830.9 1.0 1.326 1.0 6 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6 1.326 1.0 6	0 109.1 45.2 83.3 9069.0 0.2 0.9 0.8 0.9 0.724 63.0 7-7.9 8-871.0 0.5	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 4477.8 68622.3 1.0 1.326 0.9 9	0.0540011 1.22522 25.7815 0.477424 2.04079 0.00502875 0.996283 0.726531 -0.0459476 -1782.20 0.472150 1.25095	0.185805 0.451950 19.9775 0.107519 0.459597 0.002411619 0.00241887 0.973171 1.52621 -0.0207090 -1036.62 0.407902 1.12548 0.00837416	0.00150976 0.0121146 0.022314 0.147847 0.631985 0.631985 0.999551 0.636170 -0.00123358 -5526.45 0.442480 0.132218 0.0102596	0 18.0165 62.2960 3888.46 770056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.99822 10.0494 4-478.465 6829.71 0.983391 1.32600 1.04079	97.8985 19.9270 59.6893 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.97000	0 116.628 45.4833 76.1714 8883.75 0.195519 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -456.933 0.486470 1.04737 0.603026
Molecular Weight Mass Deneity Molar Flow Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpCv Ratio Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Kinematic Viscosity	Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMBtu/h Btu/lb Btu/(lb*°F) cP cSt	1.1 (13594.6) (272756.3) (238.3) (1018.7) (123.8) (1574)	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0	0 18.0 62.3 3888.3 700541 1.1 4.8 35.4 4.8 0.011 0.998 10.0 11.0 1.326 1.0 1.326 1.0 1.326 1.0 1.326 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 108.9 45.0 83.5 99091.3 0.2 0.9 0.8 0.9 0.9 1.0 22 6.3 3 -7.9 870.8 0.5 1.051 0.5 0.5 0.7	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 -1043.3 0.4 1.125 0.0 4.5	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 -841.9 0.5	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.5 0.0 0.0 0.5 0.0 0.0 0.5 0.0 0.0 0.5 0.0 0.0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 110.0 1.326 1.0 1.326 1.0 1.1 0.999	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 7.7.9 871.0 0.5 1.051 0.5 0.5 1.051 0.5 0.8	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.995263 0.726531 -0.0459476 -1782.20 0.472150 1.25095 0.0106841 12.3513	0.185805 0.451950 19.9775 0.107519 0.459597 0.002411619 0.00221887 0.002411619 0.00207090 -1.036.62 0.407902 1.12548 0.00837416 2.81360	0.015976 0.0121146 0.223214 0.147847 0.831985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102596 424-229	0 18.0165 18.0165 62.2960 3888.46 70056 4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 110.0494 4-478.465 -6829.71 0.983391 1.32600 1.04779 1.05001	97.8985 19.8270 59.6893 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.957035 16.1727 486.382 -6145.42 0.957008 1.0936432 1.29284 0.970008	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.893741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.603026 0.827681
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow Compressibility Speefic Gravity API Gravity Enthulpy Mass Enthulpy Mass Cp Idelad Sa CpCv Tatlo Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Themal Conductivity	Ib/ft^3 Ibmol/h Ib/h MCFH MMSCFD MMSCFD MMbbl/d MMSCFD Bttu/lb Etu/(lb*F) CP cSt Bttu/(h*ft*F)	1.1 (13594.6) (272756.3) (238.3) (1018.7) (123.8) (1574)	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -1653.2 0.5 1.250 0.0 0.8 0.0 0.8 0.0 0.8	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4478.2 46825.8 1.0 1.326 1.0 1.0 0.3	0 108.9 44.5 0 83.5 90901.3 0.2 0.9 0.8 0.9 0.091 0.772 63.3 7-7.9 63.3 7-7.9 1.051 0.5 0.7 0.7 0.1 1.051 0.5 0.7 0.1	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4 1.125 0.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 -841.9 0.5 1.044 0.7	1.3 99692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 480.2 6830.9 1.0 1.326 1.0 1.326 1.0 0.3	0 109.1 145.2 83.3 99089.0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 7.7.9 9.7.9 0.5 1.051 0.5 0.8 0.9 0.9 0.1 1.051 0.5 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 4477.8 66822.3 1.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 25.7815 0.477424 2.04079 0.00502875 0.996283 0.726531 -0.0459476 -1782.20 0.472150 1.25095	0.185805 0.451950 19.9775 0.107519 0.459597 0.002411619 0.00241887 0.973171 1.52621 -0.0207090 -1036.62 0.407902 1.12548 0.00837416	0.00150976 0.0121146 0.022314 0.147847 0.631985 0.631985 0.999551 0.636170 -0.00123358 -5526.45 0.442480 0.132218 0.0102596	0 18.0165 62.2960 3888.46 770056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 10.0494 4-478.465 6.6829.71 0.983391 1.32600 1.04779 1.05001 0.344619	97.8985 159.8700 159.8700 159.8700 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.0127033 0.957035 16.1727 4.486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302802	0 116.628 45.4833 76.1714 8883.75 0.195319 0.893907 0.693741 0.842244 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.603026 0.827681 0.0691577
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Mass Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Uapid Volumetric Flow Std Uapid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Mass Enthalpy Mass Enthalpy Kinematic Viscosity Kinematic Viscosity Themal Conductivity Surface Tension	Ib/th*3 Ibmd/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCED Blu/lb Blu/lb Blu/lb CP SSt Blu/(h*f**F) Ib/fft	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 814.6 -2986.5 0.6 6 1.269	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -1653.2 0.5 1.250 0.0 0.8 0.0	0 18.0 62.3 3888.3 770054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 478.2 6825.8 1.0 1.0 1.326 1.0 1.0 0.3 0.005	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.9 1.3 0.72 63.3 7-7.9 8-70.8 0.5 1.051 0.5 0.7 0.1 0.001	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 -1043.3 0.4 1.125 0.0 4.5 0.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 -7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 110.0 480.2 6830.9 1.0 1.326 1.0 0.3 0.005	0 109.1 45.2 83.3 99089.0 0.2 0.9 0.8 0.9 0.135 0.724 653.0 6.7-7.9 871.0 0.5 1.051 0.5 0.8 0.1 0.05 0.5 0.8 0.1 0.05 0.8 0.1 0.001	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 477.8 6822.3 1.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 25.7815 0.477424 2.04079 0.011589 0.00502875 0.996263 0.726531 -0.0459476 -1782.20 0.472150 1.25095 0.01069841 12.3513 0.0169920	0.185805 0.451950 19,9775 0.107519 0.459597 0.0041619 0.00281887 0.973171 1.52621 -0.007090 -1036.62 0.407902 1.12548 0.00837416 2.81360 0.0105206	0.0150976 0.0121146 0.0223214 0.147847 0.631985 0.000110338 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102596 424.229 0.0122137	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 53.4147 4.80708 53.4147 4.80556 0.0110067 0.998829 10.0494 4.478.465 6829.71 0.998391 1.32600 1.104779 1.05001 0.344619 0.0957040	97.8985 19.9270 59.6893 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.302802 0.302802 0.302802	0 116.628 45.4833 76.1714 88883.75 0.195319 0.839407 0.048739 0.729261 61.2683 -7.61278 -865.933 0.486470 1.04737 0.693262 0.827681 0.0991577 0.00155152
Molecular Weight Mass Density Mass Density Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpC Patio Dynamic Viscosity Thermal Conductivity Surface Tension Net L G. Heating Value Surface Tension I Net L G. Heating Value	Ib/ft*3 Ib/md/h Ib/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d M	1.1 13594.6 272756.3 238.3 101018.7 123.8 45.3 0.674	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4-478.2 6825.8 1.0 1.326 1.0 0.3 0.005 0.4	0 108.9 445.0 83.5 9091.3 0.2 0.9 0.8 0.9 0.9 1.0 0.7 7.9 870.8 0.5 1.0 0.5 0.7 0.1 0.5 0.7 0.1 0.001 5.473.7	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 -1043.3 0.4 1.125 0.0 4.5	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-72 -841.9 0.5 1.044 0.7 0.9 0.1	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 1141.9	0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.	0 109.1 145.2 83.3 99089.0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 7.79 871.0 0.5 1.051 0.5 0.8 0.1 0.5 0.8 0.1 0.5 0.8 0.1 0.5 0.8 0.1 0.001 55484.2	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.0998 10.0 4477.8 6822.3 1.0 1.326 0.9 0.9 0.3 0.005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.0956263 0.726531 -0.0459476 -1782.20 0.472150 1.25095 0.0106841 12.3513 0.0166920	0.185805 0.451950 19.9775 0.107519 0.459597 0.0021887 0.0021887 0.0021887 0.00207090 -1.036.62 0.407902 1.12548 0.00237416 2.81360 0.0105206 2.314.25	0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.687355-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102996 424-229 0.0122137	0 18.0165 18.0165 18.0165 18.0165 18.0165 18.0165 18.0165 18.0165 19.0	97.8985 19.8270 59.6893 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.9127033 0.957035 16.1727 4485.382 -6145.42 0.926432 1.28284 0.970008 1.00336 0.302802 0.00451710 115.427	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 7.761278 486.933 0.486470 1.04737 0.603026 0.827681 0.0691577 0.00155152 5853.31
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Mass Flow Liquid Volumetric Flow Stid Vapor Volumetric Flow Stid Liquid Volumetric Flow Stid Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpC V Ratio Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Surface Tension Net Liquid Heating Value Net Liquid Heating Value	Ibift*3 Ibmol/h Ibifh MCFH Mbbl/d MMSCFD Mbbl/d MMBtu/h Btu/lb Btu/(lb**F) CP cSt Btu/(h*ft**F) Ibifft Btu/(r5 Btu/(r5 Btu/(r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5	1.1 13594.6 272756.3 228.3 228.3 228.3 45.3 0.674 -814.6 22986.5 0.6 1.269	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4478.2 46825.8 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2	0 108.9 45.0 83.5 9091.3 9091.3 9091.3 90.9 0.9 0.9 10.722 65.3 7-7.9 4870.8 0.5 1.061 0.5 0.7 0.1 1.061 0.5 473.7 18903.6	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4 1.125 0.0 0.0 2314.1 19678.9	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 59.4 7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 0.0 0.0 0.5 0.0 0.0	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 10.011 0.999 110.0 480.2 6830.9 1.0 1.326 1.0 1.0 0.3 0.005 0.0 -1059.8	0 109.1 45.2 83.3 9908.9 0.2 0.2 0.9 0.8 0.9 0.724 65.3 0.724 65.3 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.61 0.61 0.61 0.61 0.61 0.61 0.6	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 4477.8 66822.3 1.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 23.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01068841 12.3513 0.0169920 1095.87	0.185805 0.451950 0.451950 0.107519 0.459597 0.00411619 0.00231887 0.973171 1.55821 -0.0207090 -1.036 62 0.407902 1.12548 0.00837416 2.81360 0.0105206 2314.25 13710.4	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442400 1.32218 0.1002996 424.229 0.0122137	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998229 10.0494 4-478.465 -6829.71 0.983391 1.32600 1.04779 1.05001 0.044619 0.00507040 0.0409330 -1050.70	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.66374 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970000 1.00336 0.302802 0.00451710 115.427	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.84224 0.0246739 0.729261 61.2683 -7.61278 -865.933 0.486470 1.04737 0.603026 0.827881 0.0691577 0.00155152 5853.31 18874.2
Molecular Weight Mass Density Molar Flow Mass Piew Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Speedic Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Ideal Gas CpCv Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net LG. Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Gross Lis Heating Value Net Gross Lis Heating Value	Ibirth'3 Ibmol/In Ibirh MCFH MMSCFD MMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d Btl/lb*F) cP cSt Btl/(lb*F) ibirth Btl/ft	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 814.6 2298.5 0.6 6 1.269	0.8 9706.1 9202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1250 0.0 0.8 0.0 1140.1 206655.0 1257.0 1257.0	0 18.0 62.3 3888.3 700541 1.1 4.8 35.4 4.8 0.011 0.998 10.0 1.1 1.0 1.326 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2 50.7	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.9 0.001 0.722 63.3 7.7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.9 0.001 5473.7 18903.6 5577.5	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.043.3 0.4 1.125 0.0 2314.1 19678.9 2514.9	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 1141.9 20684.2 1258.8 1	0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 0.5 1.051 0.5 0.5 1.051 0.5 1	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.326 0.09 0.3 0.0 1.326 0.0 9 0.3 0.0 1.326 0.0 9 0.3 0.005 0.0 1.0005 0.0 1.058.8 50.4	0.0540011 1.22522 25.7815 0.477424 2.04078 0.0111589 0.00502875 0.095283 0.726531 0.0459476 -1782.20 0.472150 1.25995 0.0106841 12.3513 0.0169920 19573.5 19573.5	0.185805 0.451950 19,9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 0.0207090 1.102548 0.00207090 1.12548 0.00837416 2.81360 0.0105206 2314_25 1971.04 2515.16	0.00150976 0.0121146 0.0223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102256 424.229 0.0122137 45.4956 43.5288 97.6787	0 18.0165 62.2960 3888.46 700564 1.12457 4.80708 53.4147 4.80756 0.0110067 0.998829 110.0494 4.78.465 -6829.71 0.9983391 1.32600 1.04779 1.05070 0.344619 0.00507040 0.409330 -1050.70 50.7427	97.8985 19.9270 59.8983 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.917035 10.917035 10.917035 10.927035 10.17073 10.926432 1.29284 0.97008 1.00336 0.302802 0.302802 0.00451710 115.427 1240.98	0 116.628 45.4833 76.1714 88883.75 0.195319 0.834907 0.843974 0.842324 0.0246739 0.729261 61.2683 7.761278 -856.933 0.486470 1.04737 0.603026 0.827681 0.0091577 0.00155152 585.31 188874.2 6282.07
Molecular Weight Mass Density Molar Flow Mass Piew Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Speedic Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Ideal Gas CpCv Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net LG. Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Gross Lis Heating Value Net Gross Lis Heating Value	Ibift*3 Ibmol/h Ibifh MCFH Mbbl/d MMSCFD Mbbl/d MMBtu/h Btu/lb Btu/(lb**F) CP cSt Btu/(h*ft**F) Ibifft Btu/(r5 Btu/(r5 Btu/(r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5 Btu/r5	1.1 13594.6 272756.3 228.3 228.3 228.3 45.3 0.674 -814.6 22986.5 0.6 1.269	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 202655.0 1257.0 1257.0 1257.0 1257.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.998 10.0 4478.2 46825.8 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2	0 108.9 45.0 83.5 9091.3 9091.3 9091.3 90.9 0.9 0.9 10.722 65.3 7-7.9 4870.8 0.5 1.061 0.5 0.7 0.1 1.061 0.5 473.7 18903.6	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 -1043.3 0.4 1.125 0.0 0.0 2314.1 19678.9	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 59.4 7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 0.0 0.0 0.5 0.0 0.0	0 18.0 62.3 3902.2 70299.4 1.1 4.8 35.5 4.8 10.011 0.999 110.0 480.2 6830.9 1.0 1.326 1.0 1.0 0.3 0.005 0.0 -1059.8	0 109.1 45.2 83.3 9908.9 0.2 0.2 0.9 0.8 0.9 0.724 65.3 0.724 65.3 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.5 1.061 0.61 0.61 0.61 0.61 0.61 0.61 0.6	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 4477.8 66822.3 1.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 23.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01068841 12.3513 0.0169920 1095.87	0.185805 0.451950 0.451950 0.107519 0.459597 0.00411619 0.00231887 0.973171 1.55821 -0.0207090 -1.036 62 0.407902 1.12548 0.00837416 2.81360 0.0105206 2314.25 13710.4	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442400 1.32218 0.1002996 424.229 0.0122137	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998229 10.0494 4-478.465 -6829.71 0.983391 1.32600 1.04779 1.05001 0.044619 0.00507040 0.0409330 -1050.70	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.66374 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970000 1.00336 0.302802 0.00451710 115.427	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.84224 0.0246739 0.729261 61.2683 -7.61278 -865.933 0.486470 1.04737 0.603026 0.827881 0.0691577 0.00155152 5853.31 18874.2
Molecular Weight Mass Density Molar Flow Mass Piew Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Speedic Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Ideal Gas CpCv Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net LG. Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Gross Lis Heating Value Net Gross Lis Heating Value	Ibirth'3 Ibmol/In Ibirh MCFH MMSCFD MMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d Btl/lb*F) cP cSt Btl/(lb*F) ibirth Btl/ft	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 814.6 2298.5 0.6 6 1.269	0.8 9706.1 9202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1250 0.0 0.8 0.0 1140.1 206655.0 1257.0 1257.0	0 18.0 62.3 3888.3 700541 1.1 4.8 35.4 4.8 0.011 0.998 10.0 1.1 1.0 1.326 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2 50.7	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.9 0.001 0.722 63.3 7.7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.9 0.001 5473.7 18903.6 5577.5	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.043.3 0.4 1.125 0.0 2314.1 19678.9 2514.9	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 1141.9 20684.2 1258.8 1	0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 0.5 1.051 0.5 0.5 1.051 0.5 1	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.326 0.09 0.3 0.0 1.326 0.0 9 0.3 0.0 1.326 0.0 9 0.3 0.005 0.0 1.0005 0.0 1.058.8 50.4	0.0540011 1.22522 25.7815 0.477424 2.04078 0.0111589 0.00502875 0.095283 0.726531 0.0459476 -1782.20 0.472150 1.25995 0.0106841 12.3513 0.0169920 19573.5 19573.5	0.185805 0.451950 19,9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 0.0207090 1.102548 0.00207090 1.12548 0.00837416 2.81360 0.0105206 2314_25 1971.04 2515.16	0.00150976 0.0121146 0.0223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102256 424.229 0.0122137 45.4956 43.5288 97.6787	0 18.0165 62.2960 3888.46 700564 1.12457 4.80708 53.4147 4.80756 0.0110067 0.998829 110.0494 4.78.465 -6829.71 0.9983391 1.32600 1.04779 1.05070 0.344619 0.00507040 0.409330 -1050.70 50.7427	97.8985 19.9270 59.8983 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.917035 10.917035 10.917035 10.927035 10.17073 10.926432 1.29284 0.97008 1.00336 0.302802 0.302802 0.00451710 115.427 1240.98 173.189	0 116.628 45.4833 76.1714 88883.75 0.195319 0.834907 0.843741 0.842324 0.0246739 0.729261 61.2683 7.761278 -856.933 0.466470 1.04737 0.603026 0.827681 0.0091577 0.00155152 5853.31 18874.2 6282.07
Molecular Weight Mass Density Molar Flow Mass Piew Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Speedic Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Ideal Gas CpCv Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net LG. Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Liquid Heating Value Net Gross Lis Heating Value Net Gross Lis Heating Value	Ibirth'3 Ibmol/In Ibirh MCFH MMSCFD MMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d Btl/lb*F) cP cSt Btl/(lb*F) ibirth Btl/ft	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 814.6 2298.5 0.6 6 1.269	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 22778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.098 10.0 4.478.2 6825.8 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2 50.7 8.9	0 108.9 44.5 0 83.5 99091.3 0.2 0.9 0.8 0.9 0.91 0.722 63.3 7.7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.5 0.7 1.9903.6 55473.7 18903.6 55475.5 20309.5	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.043.3 0.4 1.125 0.0 2314.1 19678.9 2514.9	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 1141.9 20684.2 1258.8 1	0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.135 0.724 63.0 0.5 1.051 0.5 0.5 1.051 0.5 1	0 18.0 62.2 3887.1 770028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.326 0.09 0.3 0.0 1.326 0.0 9 0.3 0.0 1.326 0.0 9 0.3 0.005 0.0 1.0005 0.0 1.058.8 50.4	0.0540011 1.22522 25.7815 0.477424 2.04078 0.0111589 0.00502875 0.095283 0.726531 0.0459476 -1782.20 0.472150 1.25995 0.0106841 12.3513 0.0169920 19573.5 19573.5	0.185805 0.451950 19,9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 0.0207090 1.102548 0.00207090 1.12548 0.00837416 2.81360 0.0105206 2314_25 1971.04 2515.16	0.00150976 0.0121146 0.0223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102256 424.229 0.0122137 45.4956 43.5288 97.6787	0 18.0165 62.2960 3888.46 700564 1.12457 4.80708 53.4147 4.80756 0.0110067 0.998829 110.0494 4.78.465 -6829.71 0.9983391 1.32600 1.04779 1.05070 0.344619 0.00507040 0.409330 -1050.70 50.7427	97.8985 19.9270 59.8983 397.177 79145.4 1.32596 5.66791 36.1734 5.68334 0.917035 10.917035 10.917035 10.927035 10.17073 10.926432 1.29284 0.97008 1.00336 0.302802 0.302802 0.00451710 115.427 1240.98 173.189	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 7.7 61278 -856.933 0.486470 1.04737 0.603026 0.827681 0.0691577 0.00155152 55853.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Malar Flow Mass Flow Mass Flow Mass Flow Liquid Yolumetric Flow Stid Vapor Volumetric Flow Stid Uquid Volumetric Flow Stid Liquid Volumetric Flow Stid Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpC v Ratio Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Surface Tension Net LG, Heating Value Net Liquid Heating Value Gross LG, Heating Value Gross LG, Heating Value Gross LG, Heating Value Frocess Streams	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 46.3 0.674 5.3 1.259 814.6 2996.5 0.6 1.269 911.9 16930.0	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 222778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.0 1.8 9.9 HP Separator Water	0 108.9 45.0 83.5 9091.3 902 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.001 5473.7 18903.6 5877.5 20309.5	0.1 6.9 304.9 2.6 11.3 304.9 2.6 11.3 304.9 2.6 11.3 30.1 1.529 -0.3 -1.043.3 0.4 1.125 0.0 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.6 0.7 0.734 59.4 7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6656.5 20227.8	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 1141.9 20684.2 1258.8 22808.7	0 18.0 62.3 390.2 2 702.99.4 1.1 4.8 35.5 4.8 0.011 0.999 110.0 480.2 6830.9 1.0 1.326 1.0 0.3 0.005 0.0 -1059.8 50.3 0.0	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.724 63.0 7.74 63.0 0.5 1.051 0.5 0.8 0.1 1990.4 8 5888.7 20310.4	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 35.4 4.8 35.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0540011 1.22522 23.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01068941 12.3513 0.0168920 1095.87 199673.5 1209.42 21721.3	0.185805 0.451950 0.451950 0.451950 0.107519 0.459597 0.00411619 0.00281887 0.975171 1.55821 -0.0207090 -1.036.62 0.407902 1.12548 0.00837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110338 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102996 424.229 0.0122137 45.4956 4-43.5288 97.6787 10311.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80056 33.4147 4.80056 0.998829 10.04904 478.465 -6829.71 1.098391 1.32600 1.104779 1.05001 0.344619 0.344619 0.000507040 0.4093301 -1050.70 50.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.66334 0.957035 16.1727 -486.382 -6145.42 0.957036 1.0926432 1.29284 0.970008 1.00336 0.302802 0.00451710 115.427 1249.98 173.189 2340.8	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842224 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.06932761 0.0727881 0.0691577 0.00155152 5683.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Brow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Ideal Gas CpCr Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net LG. Heating Value Net Liquid Heating Value Gross LG Heating Value Gross LG Heating Value Gross LG Heating Value Frocess Streams Phase: Vapor	Ibirth'3 Ibmol/In Ibirh MCFH MMSCFD MMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d MMMSCFD Mbbl/d Btl/lb*F) cP cSt Btl/(lb*F) ibirth Btl/ft	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 -814.6 2986.5 0.6 1.269 11.9 16930.0	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 22778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 0.011 0.098 10.0 4.478.2 6825.8 1.0 1.326 1.0 0.3 0.005 0.4 -1051.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.0 0.983 1.529 -0.3 -1.404.3 0.4 1.125 0.0 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0	0 123.8 445.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7.2 -841.9 0.5 1.044 0.7 0.9 0.1 18845.6 6665.5 20227.8	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 0.5 2.5 0.0 0.5 0.5 0.0 0.5 0.5 0.0 0.5 0.5 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 11.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 23.7815 0.477424 2.04079 0.0111889 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.0106841 12.3513 0.0169920 1095.87 19673.5 1209.42 21721.3	0.185805 0.451950 10.9775 0.107791 0.107791 0.00416199 0.00281887 0.973171 1.52621 -0.0207090 -1.036.62 0.407902 1.12548 0.000837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.127347 0.147847 0.631985 0.000110336 1.88735E.05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102596 424.229 0.0102596 424.529 0.0122137 45.4956 -43.5288 97.6787 1031.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 3.54147 4.80556 0.0110067 0.998829 10.0494 478.465 -6829.71 0.98339 1.32600 1.04779 1.05001 0.344619 0.0967740 0.409330 -1050.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.734 5.66391 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3036 1.30388 1.313.189 2.340.8	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 7.7 61278 -856.933 0.486470 1.04737 0.603026 0.827681 0.0691577 0.00155152 55853.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Mass Density Mass Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Uapor Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpC V Ratio Dynamic Viscosity Kinematic Viscosity Surface Tension Net J. G. Heating Value Net Liquid Heating Value Gross I. G. Heating Value Gross Liquid Heating Value Process Streams	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 46.3 0.674 5.3 1.259 814.6 2996.5 0.6 1.269 911.9 16930.0	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 222778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.0 1.8 9.9 HP Separator Water	0 108.9 45.0 83.5 9091.3 902 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.001 5473.7 18903.6 5877.5 20309.5	0.1 6.9 304.9 2.6 11.3 304.9 2.6 11.3 304.9 2.6 11.3 30.1 1.529 -0.3 -1.043.3 0.4 1.125 0.0 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.6 0.7 0.734 59.4 7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6656.5 20227.8	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 1141.9 20684.2 1258.8 22808.7	0 18.0 62.3 390.2 2 702.99.4 1.1 4.8 35.5 4.8 0.011 0.999 110.0 480.2 6830.9 1.0 1.326 1.0 0.3 0.005 0.0 -1059.8 50.3 0.0	0 109.1 109.1 145.2 83.3 9908.9 0 0.2 0.9 0.8 0.9 0.724 63.0 7.74 63.0 0.5 1.051 0.5 0.8 0.1 1990.4 8 5888.7 20310.4	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 35.4 4.8 35.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0540011 1.22522 23.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01068941 12.3513 0.0168920 1095.87 199673.5 1209.42 21721.3	0.185805 0.451950 0.451950 0.451950 0.107519 0.459597 0.00411619 0.00281887 0.975171 1.55821 -0.0207090 -1.036.62 0.407902 1.12548 0.00837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110338 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102996 424.229 0.0122137 45.4956 4-43.5288 97.6787 10311.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80056 33.4147 4.80056 0.998829 10.04904 478.465 -6829.71 1.098391 1.32600 1.104779 1.05001 0.344619 0.344619 0.000507040 0.4093301 -1050.70 50.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 36.1734 5.66334 0.957035 16.1727 -486.382 -6145.42 0.957036 1.0926432 1.29284 0.970008 1.00336 0.302802 0.00451710 115.427 1249.98 173.189 2340.8	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842224 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.693026 0.827681 0.00155152 5683.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Brow Vapor Volumetric Flow Liquid Volumetric Flow Sit Vapor Volumetric Flow Sit Vapor Volumetric Flow Compressibility Specific Gravity API Gravity API Gravity API Gravity Enthalpy Mass Enthalpy Mass Enthalpy Mass Enthalpy India Gravity Mass Cp Ideal Gas CpC/ Ratio Dynamic Viscosity Kinematic Viscosity Themal Conductivity Sufface Tension Net I. G. Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Frocess Streams Phase: Vapor	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 46.3 0.674 5.3 1.259 814.6 2996.5 0.6 1.269 911.9 16930.0	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 222778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.0 1.8 9.9 HP Separator Water	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 304.9 2.6 11.3 304.9 2.6 11.3 30.1 1.529 -0.3 -1.043.3 0.4 1.125 0.0 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.6 0.7 0.734 59.4 7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6656.5 20227.8	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 0.5 2.5 0.0 0.5 0.5 0.0 0.5 0.5 0.0 0.5 0.5 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 11.0 1.326 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	0.0540011 1.22522 23.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01068941 12.3513 0.0168920 1095.87 199673.5 1209.42 21721.3	0.185805 0.451950 10.9775 0.107791 0.107791 0.00416199 0.00281887 0.973171 1.52621 -0.0207090 -1.036.62 0.407902 1.12548 0.000837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110338 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102996 424.229 0.0122137 45.4956 4-43.5288 97.6787 10311.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 3.54147 4.80556 0.0110067 0.998829 10.0494 478.465 -6829.71 0.98339 1.32600 1.04779 1.05001 0.344619 0.0967740 0.409330 -1050.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.734 5.66391 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3036 1.30388 1.313.189 2.340.8	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.693026 0.827681 0.00155152 5853.31 18874 2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow Compressibility Speefic Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Ideal Gas CpC Ratio Dynamic Viscosity Kinematic Viscosity Surface Tension Net Li Chiedan Value Ret Liquid Heating Value Gross Liquid Heating Value Frocess Streams Phase: Vapor Mole Fraction Water	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 125.8 14.6 2986.5 0.6 1.269 15.000.9 191.9 16930.0 15.000.9 191.9 16930.0 15.000.0 15	0.8 9706.1 9706.	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.0 1.8 9.9 HP Separator Water	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.043.3 0.4 1.125 0.0 2314.1 19678.9 2214.00.0 OT Flash Gas Solved %	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 18845.6 6656.5 20227.8 Sales Oil Solved	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 0.5 2.5 0.0 0.5 0.5 0.0 0.5 0.5 0.0 0.5 0.5 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 477.8 46822.3 1.0 1.326 0.9 0.3 0.005 0.0 1-1058.8 50.4 0.9 Produced Water Solved %	0.0540011 1.22522 2.5.7815 0.477424 2.04078 0.0111589 0.00502875 0.095623 0.726531 -0.0459476 -1.782.20 0.472150 1.25995 0.0106841 12.3513 0.0169920 1095.87 19673.5 1209.42 21721.3	0.185805 0.451950 10.451950 10.9775 0.107519 0.459597 0.00411619 0.00221887 0.973171 1.52621 -0.0207090 -1:036.62 0.0407902 1.12548 0.00837416 2.81580 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.0223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102296 424.229 0.0122137 45.4956 4-3.5288 97.6787 1031.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 110.0494 4-478.465 -6829.71 0.983391 1.32600 1.04779 1.05001 0.344619 0.00507040 0.409330 -1050.70 50.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.893741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.9333 0.486470 1.04737 0.603026 0.827681 0.091577 0.00155152 5853.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow API Gravity Enthalpy API Gravity Enthalpy Mass Enthalpy Mass Cap Stead Gas Cop'c Ratio Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Surface Tension Net LG Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Frocess Streams Phase: Vapor Mole Fraction Water H2S	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 6.2986.5 0.6 1.269 11.9 16930.0 911.9 16930.0 911.9 16930.0 911.9 16930.0 912.8 3646 9646 9646 9646 9646 9646 9646 9646	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 335.1 1.653.2 0.5 1.250 0.0 0.8 0.1140.1 20655.0 1257.0 222778.0 HP Separator Gas Solved % 0.156524 0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.0 1.8 9.9 HP Separator Water	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.529 -0.3 1.1043.3 0.4 1.125 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0 OT Flash Gas Solved % 0.233510 0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.7 0.7 94 -7.2 -841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6666.5 20227.8 Sales Oil Solved % 0.233510 0	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 1141.9 20684.2 1258.8 22808.7 Gas Solved % 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 35.4 4.8 35.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0540011 1.22522 28.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01058841 12.3513 0.0168941 12.3513 0.0168942 12721.3 PWT Flash Gas Solved % 3.02985 0	0.185805 0.451950 0.451950 0.451950 0.107519 0.107519 0.00459597 0.00411619 0.00281887 0.975171 1.55821 -0.0207090 -1.036.62 0.407902 1.12548 0.407902 1.12548 0.105206 2314.25 13710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.102296 424.229 0.0122137 45.4956 43.5288 97.6787 1031.2 Water W/B Solved % 94.1901 0	0 18.0165 62.2960 3388.46 70056.4 1.12457 4.80056 335.4147 4.80056 0.918829 10.0494 4.78.465 6829.71 1.098391 1.32600 1.104779 1.05001 0.344619 0.344619 0.156524 0	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.0603026 0.827681 0.0691577 0.00155152 5853.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Compressibility Speefic Gravity API Gravity Enthalpy Mass Emhalpy Mass Cp Ideal Gas CpCV Ratio Dynamic Viscosity Kinematic Viscosity Surface Tension Well CA Heating Value Net Liquid Heating Value Gross Liquid Heating Value Frocess Streams Phase: Vapor Mole Fraction Water	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 125.8 14.6 2986.5 0.6 1.269 15.000.9 191.9 16930.0 15.000.9 191.9 16930.0 15.000.0 15	0.8 9706.1 9706.	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.043.3 0.4 1.125 0.0 2314.1 19678.9 2214.00.0 OT Flash Gas Solved %	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 18845.6 6656.5 20227.8 Sales Oil Solved	1.3 9969.2.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 0.5 2.5 0.0 0.5 0.5 0.0 0.5 0.5 0.0 0.5 0.5 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 477.8 46822.3 1.0 1.326 0.9 0.3 0.005 0.0 1-1058.8 50.4 0.9 Produced Water Solved %	0.0540011 1.22522 2.5.7815 0.477424 2.04078 0.0111589 0.00502875 0.095623 0.726531 -0.0459476 -1.782.20 0.472150 1.25995 0.0106841 12.3513 0.0169920 1095.87 19673.5 1209.42 21721.3	0.185805 0.451950 10.451950 10.9775 0.107519 0.459597 0.00411619 0.00221887 0.973171 1.52621 -0.0207090 -1:036.62 0.0407902 1.12548 0.00837416 2.81580 0.0105206 2314.25 19710.4 2515.16 21435.1	0.0150976 0.0121146 0.0223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480 1.32218 0.0102296 424.229 0.0122137 45.4956 4-3.5288 97.6787 1031.2	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 35.4147 4.80556 0.0110067 0.998829 110.0494 4-478.465 -6829.71 0.983391 1.32600 1.04779 1.05001 0.344619 0.00507040 0.409330 -1050.70 50.7427 9.5	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.893741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.603026 0.827681 0.09151572 0.00155152 5853.31 18874.2 6282.07 20268.1
Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow API Gravity Enthalpy API Gravity Enthalpy Mass Enthalpy Mass Cap Stead Gas Cop'c Ratio Dynamic Viscosity Kinematic Viscosity Kinematic Viscosity Surface Tension Net LG Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Gross I.G. Heating Value Frocess Streams Phase: Vapor Mole Fraction Water H2S	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 6.2986.5 0.6 1.269 11.9 16930.0 911.9 16930.0 911.9 16930.0 911.9 16930.0 912.8 3646 9646 9646 9646 9646 9646 9646 9646	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 335.1 1.653.2 0.5 1.250 0.0 0.8 0.1140.1 20655.0 1257.0 222778.0 HP Separator Gas Solved % 0.156524 0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.993 1.529 -0.3 1.529 -0.3 1.1043.3 0.4 1.125 0.0 4.5 0.0 2314.1 19678.9 2514.9 21400.0 OT Flash Gas Solved % 0.233510 0	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.7 0.7 94 -7.2 -841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6666.5 20227.8 Sales Oil Solved % 0.233510 0	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 1141.9 20684.2 1258.8 22808.7 Gas Solved % 0	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 35.4 4.8 35.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0540011 1.22522 28.7815 0.477424 2.04079 0.011589 0.00502875 0.996283 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.01058841 12.3513 0.0168941 12.3513 0.0168942 12721.3 PWT Flash Gas Solved % 3.02985 0	0.185805 0.451950 0.451950 0.451950 0.107519 0.107519 0.00459597 0.00411619 0.00281887 0.975171 1.55821 -0.0207090 -1.036.62 0.407902 1.12548 0.407902 1.12548 0.105206 2314.25 13710.4 2515.16 21435.1	0.0150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.102296 424.229 0.0122137 45.4956 43.5288 97.6787 1031.2 Water W/B Solved % 94.1901 0	0 18.0165 62.2960 3388.46 70056.4 1.12457 4.80056 335.4147 4.80056 0.918829 10.0494 4.78.465 6829.71 1.098391 1.32600 1.104779 1.05001 0.344619 0.344619 0.156524 0	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.0693571 0.00155152 5853.31 18874.2 6282.07 20268.1 LP Separator Oi Solved % 0.325299 0
Molecular Weight Mass Density Molar Flow Mass Picw Mass Picw Varpor Volumetric Flow Liquid Volumetric Flow Stid Vagor Volumetric Flow Stid Vagor Volumetric Flow Stid Vagor Volumetric Flow Compressibility Speedic Gravity API Gravity Enthaley Mass Enthaley Mass Enthaley Mass Cp Ideal Gas CpC Ratio Dynamic Viscosity Circle Wiscosity Surface Tension Viscosity Surface Tension Net LG. Heading Value Gross LT Sensity Mass Vapor Mole Fraction Water H2S Nitrogen Carbon Dioxide	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 0.674 1.123.8 45.3 0.674 0.674 1.123.8 14.1 15080.0 9911.9 16930.0 9911.9 16930.0 9911.9 16930.0 0.494062	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20665.0 1257.0 22778.0	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 1.529 -0.3 1.125 0.0 4.1.125 0.0 4.5 0.0 2314.1 19978.9 2514.9 21400.0 OT Flash Gas Solved % 0.233510 0.0 0.0116221	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.6 0.8 0.7 0.734 59.4 -7.2 841.9 0.5 1.044 0.7 0.9 0.1 0.002 6205.1 18845.6 6656.5 20227.8 Sales Oil Solved % 0.233510 0 0.0116221	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 1.250 0.0 1141.9 20684.2 1258.8 22808.7 Gas Solved % 0 0 0.494658	0 18.0 62.3 390.2 2 70299.4 1.1 4.8 35.5 4.8 0.011 0.999 10.0 1.0 1.326 1.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 1.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.326 0.9 0.3 0.005 0.0 1.1058.8 50.4 0.9 Produced Water Solved % 3.02985 0 0.377409 1.21632	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.0996283 0.726531 -0.0459476 -1.782.20 0.472190 1.25095 0.0106841 12.3513 0.01699200 1095.87 199673.5 1209.42 21721.3 PWT Flash Gas Solved % 3.02985 0 0.377409 1.21632	0.185805 0.451950 0.451950 0.451950 0.107519 0.107519 0.0051887 0.00218887 0.00218887 0.00218887 0.0021111 1.52621 -0.0207090 -1.036.62 0.0407902 1.12548 0.000837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1 001 W/B Solved % 0.000118725 0.000455370	0.0150976 0.0121146 0.0223214 0.147847 0.631985 0.000110338 1.687352-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102237 45.4956 424.229 0.0122137 45.4956 43.5288 97.6787 1031.2 Water W/B Solved % 94.1901 0 0.00669135 1.45262	0 18.0165 62.2960 3888.46 70056.4 1.12457 4.80708 3.54147 4.80556 0.0110067 0.998829 10.0494 478.465 -6829.71 0.998331 1.32600 1.04779 1.05001 0.344619 0.00507040 0.499330 -1050.7427 9.5 1 Solved % 0.156524 0 0.493921	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.603026 0.827681 0.0691577 0.00155152 5853.31 18674.2 6252.07 20268.1
Molecular Weight Mass Density Mass Density Mass Prow Mass Flow I Mass Flow I Mass Flow I Wapr Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Speefic Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp I dela Gas CpC Patio Dynamic Viscosity Kinematic Viscosity Surface Tension I Net LG Heating Value Surface Tension Net LG Heating Value Foross IG. Heating Value Gross IG. Heating Value Frees Streams Phase: Vapor Mole Fraction Water H2S Nitrogen Carbon Dioxide Methane	Ibith*3 Ilibrio/Ih Ilibrio MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btu/lb*F) cP cSt Btu/lb*T*F) Ibifit Btu/lr*T*S Btu/lr*3 Btu/lr*3 Btu/lrb Btu/lr*3 Btu/lrb	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 14.6 22986.5 0.6 1.269 14.1 15080.0 911.9 16930.0 Well Stream Solved % 0.128387 0 0.494062 0.146090 77.6025	0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 8.0 0.0 1140.1 20655.0 1227.0 22778.0 4P Sayved % 0.156524 0.0 4.93921 0.416078 77.5806	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3 1.529 -0.3 1.1043.3 0.4 1.125 0.0 0.0 2314.1 19678.9 2514.9 21400.0 OT Flash Gas Solved % 0.233510 0 0.0116221 0.154871 9.11491	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 10845.6 6665.5 20227.8 Sales Oil Solved % 0.233510 0 0.0116221 0.154871 9.11491	1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.5 1.250 0.0 1141.9 20684.2 1258.8 22808.7 Gas Solved % 0 0 0.494658 0.494658	0 18.0 18.0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 0.001 0.998 10.0 1.10 1.326 0.9 0.3 0.00 1.1058.8 50.4 0.9 Produced Water Solved % 3.02985 0 0.377409 1.274632 72.6386	0.0540011 1.22522 23.7815 0.477424 2.04079 0.0111889 0.00502875 0.996263 0.726531 -0.0459476 -1.782.20 0.472150 1.25095 0.0106841 12.3513 0.0169820 1095.87 19673.5 1209.42 21721.3 PWT Flash Gas Solved % 3.02985 0 0.377409 1.21632 72.6386	0.185805 0.451950 0.451950 0.451950 0.107519 0.107519 0.0459597 0.00411619 0.00281887 0.973171 1.52521 0.0027090 1.1036.62 0.407902 1.12548 0.00837416 2.81360 0.0105206 2314.25 19710.4 2515.16 21435.1 OIL WIB Solved % 0.000116725 0 0.000455370 0.182561 1.99841	0.0150976 0.0121146 0.022314 0.127347 0.128147 0.147847 0.631985 0.000110336 1.88735E.05 0.999551 0.636170 -0.0123358 -5526.45 0.442480 1.32218 0.0102596 424.229 0.0102596 424.229 0.0102596 43.5288 97.6787 10312 Water W/B Solved % 94.1901 0 0.00669135	0 18.0165 18.02960 18.0165 18.0165 18.0165 18.0165 18.0165 19.0166 19.01667 19.0167 19	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 8883.75 0.195319 0.834907 0.693741 0.842324 0.0246739 0.729261 61.2683 -7.61278 -856.933 0.486470 1.04737 0.003026 0.827681 0.0951577 0.00155152 5583.31 18874.2 622.07 20268.1 LP Separator Oil Solved % 0.325299 0 0.176805 0.235012 47.0960
Molecular Weight Mass Density Molar Flow Mass Prow Mass Prow Mass Prow Liquid Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp Idel Gas CpC Patino Dynamic Viscosity Cifer Mass Cp Mass Enthalpy Mass Cp Lettage CpV Ratino Dynamic Viscosity Surface Tension Net LG Heating Value Gross LI Chaeting Value Heating Value Cross Liquid Heating Value Gross Liquid Heating Value Gross Liquid Flow Fraction Water H2S Nitrogen Carbon Dioxide	Ibith'3 Ilibmol/h Ilibrh MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d MMSCFD Mbbl/d Btl/lb Btl/lb Btl/lb Btl/lb Btl/lb Btl/lb Btl/lb Status	1.1 13594.6 272756.3 238.3 1018.7 123.8 45.3 0.674 45.3 0.674 814.6 2298.5 0.6 1.269 814.1 15080.0 991.9 16930.0 Well Stream Solved % 0.128387 0 0 0.494062 0.146090	0.8 9706.1 9202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2 0.5 1.250 0.0 0.8 0.0 1140.1 20655.0 1257.0 22778.0 HP Separator Gas Solved % 0.156524 0 0.493921 0.146078	0 18.0 62.3 3888.3 70054.1 1.1 4.8 35.4 4.8 35.4 4.8 35.4 6825.8 1.0 1.0 1.0 1.0 1.0 0.3 0.005 0.4 1.10 1.2 50.7 8.9	0 108.9 45.0 83.5 9991.3 0.2 0.9 0.8 0.9 0.8 0.9 0.722 63.3 7-7.9 870.8 0.5 1.051 0.5 0.7 0.1 0.1 18903.6 5877.5 20309.5 HP Separator Oil	0.1 6.9 304.9 2.6 1.1.3 0.1 0.0 0.993 1.529 0.3 1.529 0.4 1.125 0.0 4.5 1.125 0.0 2314.1 119678.9 2514.9 21400.0 OT Flash Gas Solved % 0.233510 0.0 0.0116221 0.154871	0 123.8 45.8 69.3 8578.9 0.2 0.8 0.6 0.8 0.007 0.734 59.4 7-7.2 -841.9 0.5 1.044 0.7 0.9 0.1 18845.6 6666.5 20227.8 Sales Oil Solved % 0.233510 0 0.0116221 0.154871	1.3 9969.2 4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5 1.250 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.0	0 18.0 18.0	0 109.1 109.1 145.2 83.3 99089.0 10.2 10.8 10.9 10.8 10.9 10.135 10.724 10.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5	0 18.0 62.2 3887.1 70028.3 1.1 4.8 35.4 4.8 35.4 4.8 35.4 4.8 35.4 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.0996283 0.726531 -0.0459476 -1.782.20 0.472190 1.25095 0.0106841 12.3513 0.01699200 1095.87 199673.5 1209.42 21721.3 PWT Flash Gas Solved % 3.02985 0 0.377409 1.21632	0.185805 0.451950 1.93775 0.107519 0.459587 0.00411619 0.00281887 0.973171 1.52621 4.0207090 -1.036.62 0.407902 1.12548 0.000837416 2.81360 0.0105206 2314.25 139710,4 2515.16 21435.1 Oil W/B Solved % 0.000118725 0 0.000455370 0.182561	0.0150976 0.0121146 0.0223214 0.147847 0.631985 0.000110338 1.687352-05 0.999551 0.636170 -0.00123358 -5526.45 0.442490 1.32218 0.0102237 45.4956 424.229 0.0122137 45.4956 43.5288 97.6787 1031.2 Water W/B Solved % 94.1901 0 0.00669135 1.45262	0 18.0165 18.02960 18.0165 18.0165 18.0165 18.0167 18.	97.8985 19.9270 59.6893 3971.77 79145.4 1.32596 5.66791 6.132796 6.1734 5.68331 0.957035 16.1727 -486.382 -6145.42 0.926432 1.29284 0.970008 1.00336 0.302800 0.302800 0.302800 1.100336 1.3036 1.3038 1.3038 1.3038 1.3038	0 116.628 45.4833 76.1714 88883.75 0.195319 0.839971 0.839971 0.84224 0.0246739 0.729261 61.2683 0.75.161278 -456.933 0.486470 1.04737 0.603026 0.00155152 5853.31 18874.2 6282.07 20268.1 LP Separator Oil Solved % 0.325299 0 0.176805 0.235012

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Isobutane		0.565994	0.565833	ļ		5.87676	5.87676	0.566666			0.230223	0.230223	5.95316	0.000319269	0.565833		1.85749
n-Butane		1.18245	1.18212	ļ		12.9987	12.9987	1.18394			0.957044	0.957044	12.9337	0.00199737	1.18212		3.77974
Isopentane		0.374489	0.374384	l		3.73637	3.73637	0.374944			0.164443	0.164443	3.55279	8.60034E-05	0.374384		0.958312
n-Pentane		0.291082	0.291000	ļ		3.84771	3.84771	0.291434			0.160484	0.160484	3.59826	6.12109E-05	0.291000		0.963818
		0.291002	0.291000	ļ				0.291434							0.291000		
2-Methylpentane		0	0	l		0.821672	0.821672	0			0.0154690	0.0154690	0.758355	1.12633E-06	0		0.196534
3-Methylpentane		0	0	l		0.482477	0.482477	0			0.0239978	0.0239978	0.442977	4.23634E-06	0		0.114985
n-Hexane		0.544534	0.544378	ļ		1.42348	1.42348	0.545164			0.0211643	0.0211643	0.0888805	5.96800E-08	0.544378		0.336947
Methylcyclopentane		0	0	ļ		0.213396	0.213396	0			0.0301263	0.0301263	0.179377	1.14368E-05	0		0.0504669
Benzene		0	0	ļ		0.0640181	0.0640181	0			0.0498717	0.0498717	0.00329177	5.81875E-05	0		0.0152082
2-Methylhexane		0	0	ļ		0.240437	0.240437	0			0.00397064	0.00397064	0.0142108	4.73486E-09	0		0.0560810
3-Methylhexane		0	0	l		0.180833	0.180833	0			0.00311392	0.00311392	0.160614	5.56530E-08			0.0421991
			•	l											_		0.0421991
Heptane		0	0	ļ		0.365991	0.365991	0			0.00660615	0.00660615	0.299701	8.66875E-08	0		
Methylcyclohexane		0	0	l		0.266867	0.266867	0			0.0249223	0.0249223	0.216736	2.02048E-06	0		0.0622117
Toluene		0	0	l		0.0474013	0.0474013	0			0.0347472	0.0347472	0.00524329	1.95012E-05	0		0.0110486
Octane		0	0	l		0.233165	0.233165	0			0.00249472	0.00249472	0.179922	6.37813E-09	0		0.0540869
Ethylbenzene		0	0	l		0.0109172	0.0109172	0			0.00791821	0.00791821	0.00225470	2.49928E-06	0		0.00252544
m-Xylene		0	0	ļ		0.0139419	0.0139419	0			0.0100029	0.0100029	0.00370661	3.52471E-06	0		0.00321761
o-Xylene		0	0	ļ		0.0127638	0.0127638	0			0.00941353	0.00941353	0.00292518	3.46805E-06	0		0.00294387
Nonane		0	0	l		0.0448234	0.0448234	0			0.000738787	0.000718787	0.00232570	8 89240F-10			0.0102543
		U	U	l				U						8.89240E-10	U		
C10+		0	0			0.000454420	0.000454420	0			1.01182E-06	1.01182E-06	0.000217289	0	0		0.000102967
Molar Flow		lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h
Water		12.4579	15.1924	ļ		0.0160807	0	0			0	0.0371224	5.36578E-07	0.0114108	0		0
H2S		0	0	ļ		0	0	0			0	0	0	0	0		0
Nitrogen		47.9406	47.9407	I		0.000800360	0	47.9443			0	0.00462411	2.05804E-06	8.10634E-07	0		0
Carbon Dioxide		14.1756	14.1786	I		0.0106652	0	14.2204			o	0.0149027	0.000825084	0.000175980	0		0
Methane		7530.04	7530.09	I		0.627701	0	7531.17			0	0.889985	0.00903181	0.000173300	0		0
Ethane		1376.13		l			0										0
			1376.14	l		1.99790	U	1376.36			U	0.191598	0.165849	8.61034E-05	U		U
Propane		435.525	435.533	ļ		2.10667	0	435.608			0	0.0654668	0.147763	7.16982E-06	0		0
Isobutane		54.9203	54.9206	l		0.404705	0	54.9236			0	0.00282074	0.0269053	3.86783E-08	0		0
n-Butane		114.738	114.739	ļ		0.895158	0	114.752			0	0.0117259	0.0584539	2.41974E-07	0		0
Isopentane		36.3380	36.3382	l		0.257306	0	36.3411			0	0.00201479	0.0160568	1.04190E-08	0		0
n-Pentane		28.2447	28.2449	l		0.264973	0	28.2470			0	0.00196629	0.0162623	7.41548E-09	0		0
2-Methylpentane		0	0	l		0.0565847	0	0			0	0.000189530	0.00342739	1.36451E-10	0		0
3-Methylpentane		0	0	l		0.0332259		0				0.000103330	0.00342733	5.13218E-10			0
		U	U	l			U	U			U				U		U
n-Hexane		52.8380	52.8381	l		0.0980283	0	52.8395			0	0.000259310	0.000401695	7.23002E-12	0		0
Methylcyclopentane		0	0	l		0.0146955	0	0			0	0.000369115	0.000810692	1.38552E-09	0		0
Benzene		0	0	ļ		0.00440862	0	0			0	0.000611040	1.48771E-05	7.04921E-09	0		0
2-Methylhexane		0	0	ļ		0.0165577	0	0			0	4.86493E-05	6.42255E-05	5.73611E-13	0		0
3-Methylhexane		0	0	ļ		0.0124531	0	0			0	3.81525E-05	0.000725892	6.74217E-12	0		0
Heptane		0	0	l		0.0252041	0	0			0	8.09401E-05	0.00135450	1.05019E-11	0		0
Methylcyclohexane		0	0	ļ		0.0183779		0			Ĭ.			1.000102 11			ľ
Toluene		0	ľ.									0.000305354	0.000070526	2 AA77AE 10	0		0
1333333		U		1			0	0			0	0.000305354	0.000979536	2.44774E-10	0		0
Octane			0			0.00326431	0	0			0	0.000425731	2.36970E-05	2.36251E-09	0		0
Ethylbenzene		0	0			0.00326431 0.0160569	0	0			0 0 0	0.000425731 3.05659E-05	2.36970E-05 0.000813158	2.36251E-09 7.72688E-13	0 0 0		0 0 0
m-Xylene		0 0	0			0.00326431 0.0160569 0.000751814	0 0 0	0 0			0 0 0	0.000425731 3.05659E-05 9.70158E-05	2.36970E-05 0.000813158 1.01901E-05	2.36251E-09 7.72688E-13 3.02778E-10	0 0 0		0 0 0 0
		0 0 0	0 0 0			0.00326431 0.0160569	0 0 0	0 0 0 0			0 0 0 0	0.000425731 3.05659E-05	2.36970E-05 0.000813158	2.36251E-09 7.72688E-13	0 0 0 0		0 0 0 0
o-Xylene		0 0 0	0 0 0 0			0.00326431 0.0160569 0.000751814	0 0 0 0 0	0 0 0 0			0 0 0 0	0.000425731 3.05659E-05 9.70158E-05	2.36970E-05 0.000813158 1.01901E-05	2.36251E-09 7.72688E-13 3.02778E-10	0 0 0 0 0		0 0 0 0 0
o-Xylene Nonane		0 0 0 0	0 0 0 0 0			0.00326431 0.0160569 0.000751814 0.000960109	0 0 0 0 0 0	0 0 0 0			0 0 0 0 0	0.000425731 3.05659E-05 9.70158E-05 0.000122558	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0
		0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0.00326431 0.0160569 0.000751814 0.000960109 0.000878981	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 0 0 0 0 0	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10	0 0 0 0 0 0 0		0 0 0 0 0 0
Nonane C10+		0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0	%	%	0 0 0 0 0 0 0	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10	0 0 0 0 0 0 0	%	0 0 0 0 0 0 0
Nonane C10+ Mass Fraction				%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%	%		0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13 0		%	
Nonane C10+ Mass Fraction Water		0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0.0 0.0 0.0 0.0 0.0 0	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%	%	0 0 0 0 0 0 0 0 0 0 2.59400	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	%	0 0 0 0 0 0 0 0 0 0 0 0
Nonane C10+ Mass Fraction Water H2S		0.110749 0	0.135025 0	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000678981 0.000678981 0.00308678 3.12937E-05 % 0.0950234	0.0950234 0	0	%	%	2.59400 0	0.00425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 % 2.59400	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.20143E-10 1.07728E-13 0 %	0.135025 0	%	0.206339
Nonane C10+ Mass Fraction Water H2S Nitrogen		0.110749 0 0.662711	0.135025 0 0.662547	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.0008678 3.12937E-05 % 0.0950234 0.000735419	0.0950234 0 0.00735419	0 0 0.663391	%	%	2.59400 0 0.502442	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000112558 0.000115337 9.05180E-06 1.23971E-08 9.259400 0.0502442	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000288588	2.36251E-09 7.72688E-13 3.02778E-10 4.27068E-10 4.20143E-10 1.07728E-13 0 92.0949 0	0.135025 0 0.662547	%	0.206339 0 0.174389
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide	-1	0.110749 0 0.662711 0.307853	0.135025 0	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05 % 0.0950234 0.00735419 0.153957	0.0950234 0 0.00735419 0.153957	0 0 0.663391 0.309119	%	%	2.59400 0 0.502442 2.54392	0.000425731 3.05659E-05 9.70158E-05 0.00012558 0.00012558 0.00115337 9.05180E-06 1.23971E-08 % 2.59400 0.502442 2.54392	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0.000288588 0.181762	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.27006E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46666	0.135025 0 0.662547 0.307840	%	0.206339 0 0.174389 0.364162
Nonane C10+ Mass Fraction Water H2S Nitrogen	-1	0.110749 0 0.662711	0.135025 0 0.662547	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.0008678 3.12937E-05 % 0.0950234 0.000735419	0.0950234 0 0.00735419	0 0 0.663391	%	%	2.59400 0 0.502442	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000112558 0.000115337 9.05180E-06 1.23971E-08 9.259400 0.0502442	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0.000288588	2.36251E-09 7.72688E-13 3.02778E-10 4.27068E-10 4.20143E-10 1.07728E-13 0 92.0949 0	0.135025 0 0.662547	%	0.206339 0 0.174389
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide		0.110749 0 0.662711 0.307853	0.135025 0 0.662547 0.307840	%	%	0.00326431 0.0160569 0.000751814 0.000960109 0.000878981 0.00308678 3.12937E-05 % 0.0950234 0.00735419 0.153957	0.0950234 0 0.00735419 0.153957	0 0 0.663391 0.309119	%	%	2.59400 0 0.502442 2.54392	0.000425731 3.05659E-05 9.70158E-05 0.00012558 0.00012558 0.00115337 9.05180E-06 1.23971E-08 % 2.59400 0.502442 2.54392	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0.000288588 0.181762	2.36251E-09 7.7268EE-13 3.02778E-10 4.2706EE-10 4.20143E-10 1.07728E-13 0 % 92.0949 0 0.0101735 3.46966 3.11539	0.135025 0 0.662547 0.307840	%	0.206339 0 0.174389 0.364162
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane		0.110749 0 0.662711 0.307853 59.6106 20.4190	0.135025 0 0.662547 0.307840 59.5960 20.4140	%	%	0.00326431 0.01605699 0.000751814 0.00096109 0.000878981 0.00306678 3.12937E-05 % 0.0950234 0 0.00735419 0.153967 3.30299 19.7050	0.0950234 0 0.00735419 0.153957 3.30299 19.7050	0 0 0.663391 0.309119 59.6762 20.4417	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 2.54392 2.3462	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627	2.36251E-09 7.72688E-13 3.02778E-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15989	0.135025 0 0.662547 0.307840 59.5960 20.4140	%	0.206339 0 0.174389 0.364162 26.6019 31.6338
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464	%	%	0.00326431 0.01605699 0.000751814 0.00096109 0.000978981 0.00308678 3.12937E-05 % 0.0950234 0 0.00735419 0.153987 3.30299 19.7050 30.4702	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702	0 0 0.663391 0.309119 59.6762 20.4417 9.48766	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972	0.000425731 3.05659E-05 9.70158E-05 0.00012558 0.000115337 9.05180E-06 1.23971E-08 % 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972	2.36970E-05 0.000813158 1.01901E-05 1.07901E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152	2.36251E-09 7.72688E-13 3.02778E-10 4.27046E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 0.115999 0.141639	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479	%	%	0.00326431 0.0160569 0.000751814 0.00096109 0.000967881 0.00306678 3.12937E-05 % 0.0950234 0.00735419 0.153967 3.30299 19.7050 30.4702 7.71550	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.00015337 9.05180E-06 1.23971E-08 % 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914	2.36970E-05 0.000813158 1.01901E-05 1.07501E-05 1.32203E-05 0.000140808 9.82038E-07	2.36251E-09 7.72688E-13 3.02778E-10 4.27006E-10 4.27006E-10 1.07728E-13 0 32.0949 0 0.0101735 3.46966 3.11539 1.156989 0.0116739	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	%	%	0.00326431 0.01605699 0.000751814 0.000960109 0.000878981 0.00036783 3.12937E-05 % 0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.0001125337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065	2.36251E-09 7.7268EE-13 3.02778E-10 4.2706EE-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15999 0.141639 0.00100714 0.00630071	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082 1.29374	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	%	0.00326431 0.01605699 0.000751814 0.00096109 0.000975181 0.00096709 0.000878981 0.000306678 3.129372-05 % 0.0950234 0 0.00735419 0.153967 3.30299 19.7050 30.4702 7.71550 17.70567 6.08923	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.563835	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 2.54392 2.3462 11.1972 0.635914 2.64352 0.635914 2.64352 0.6563835	2.36970E-05 0.000813158 1.01901E-05 1.07520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065 5.79892	2.36251E-09 7.72688E-13 3.02778E-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15989 0.141639 0.00100714 0.00630071	0.135025 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503 2.43441
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	%	%	0.00326431 0.01605699 0.000751814 0.000960109 0.000878981 0.00036783 3.12937E-05 % 0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.0001125337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352	2.36970E-05 0.000813158 1.01901E-05 1.67520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065	2.36251E-09 7.7268EE-13 3.02778E-10 4.2706EE-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15999 0.141639 0.00100714 0.00630071	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082 1.29374	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	%	0.00326431 0.01605699 0.000751814 0.00096109 0.000975181 0.00096709 0.000878981 0.000306678 3.129372-05 % 0.0950234 0 0.00735419 0.153967 3.30299 19.7050 30.4702 7.71550 17.70567 6.08923	0.0950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	%	%	2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.563835	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.000115337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 2.54392 2.3462 11.1972 0.635914 2.64352 0.635914 2.64352 0.6563835	2.36970E-05 0.000813158 1.01901E-05 1.07520E-05 1.32203E-05 0.000140808 9.82038E-07 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065 5.79892	2.36251E-09 7.72688E-13 3.02778E-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15989 0.141639 0.00100714 0.00630071	0.135025 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503 2.43441
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082 1.29374	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	%	0.00326431 0.01605699 0.000751814 0.000961099 0.000978981 0.00308678 3.12937E-05 % 0.0950234 0 0.00735419 0.153967 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068	0.0950234 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0667 6.08923 6.27068	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	%	%	2.59400 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64952 0.563835 0.550263	0.000425731 3.05659E-05 9.70158E-05 0.00012558 0.000115337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.6538335 0.550263	2.36970E-05 0.000813158 1.01901E-05 1.07901E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0 0.00028858 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065 5.79892 5.87314	2.36251E-09 7.72688E-13 3.02778E-10 4.27048E-10 1.07728E-13 0 1.07728E-13 0 0.0101735 3.46966 3.115399 1.15989 0.141639 0.0100714 0.00630071 0.000336770 0.000239688	0.135025 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	0.206339 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503 2.43441 2.44840
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane IsopentanePentane 2-Methylpentane 3-Methylpentane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082 1.29374 1.00559 0	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342 1.00534 0	%	%	0.00326431 0.01605699 0.000751814 0.000960109 0.000878981 0.000878981 0.00306678 3.12937E-05 % 0.00950234 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068 1.59943 0.939167	0.0950234 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.08923 6.27068 1.59943 0.939167	0 0 0.065391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507 1.00663 0	%	%	2.59400 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.563835 0.563835 0.0633511 0.0982794	0.000425731 3.05659E-05 9.70158E-05 0.000122558 0.0001125337 9.05180E-06 1.23971E-08 2.59400 0 0.502442 2.54392 22.3462 11.1972 0.635914 2.64352 0.635914 2.64352 0.583835 0.550263 0.0633511 0.0982794	2.36970E-05 0.000813158 1.01901E-05 1.32203E-05 1.32203E-05 0.000140808 9.82038E-07 4.33874E-05 0 0.00288588 0.181762 0.725278 22.9527 32.6152 7.82778 17.0065 5.79892 5.87314 1.47844 0.863600	2.36251E-09 7.7268EE-13 3.02778E-10 4.2706EE-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15999 0.141639 0.0100714 0.00630071 0.000336770 0.000239688 5.26790E-06 1.98136E-05	0.135025 0 0.662547 0.0507840 59.5960 20.4140 9.47464 1.75479 3.29002 1.29342 1.00534 0	%	0.206339 0 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503 2.43441 2.44840 0.596318 0.348884
Nonane C10+ Mass Fraction Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane 1-SeutanePentane 2-Methy/pentane		0.110749 0 0.662711 0.307853 59.6106 20.4190 9.47685 1.57518 3.29082 1.29374	0.135025 0 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	%	0.00326431 0.0160569 0.000751814 0.00096109 0.000978981 0.0000878981 0.00308678 3.12937E-05 % 0.00950234 0 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068	0.0950234 0.00735419 0.153957 3.30299 19.7050 30.4702 7.71550 17.0657 6.08923 6.27068 1.59943	0 0 0.663391 0.309119 59.6762 20.4417 9.48766 1.57677 3.29435 1.29507	*	%	2.59400 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64352 0.550263 0.0633511	0.000425731 3.05659E-05 9.70158E-05 0.00012558 0.000115337 9.05180E-06 1.23971E-08 % 2.59400 0 0.502442 2.54392 55.3792 22.3462 11.1972 0.635914 2.64362 0.563835 0.550263 0.0633511	2.36970E-05 0.000813158 1.01901E-05 1.07501E-05 1.32203E-05 0.000140808 9.82038E-07 % 4.83874E-05 0 0.000288588 0.181762 0.725278 24.9627 32.6152 7.82778 17.0065 5.79892 5.87314 1.47844	2.36251E-09 7.72688E-13 3.02778E-10 4.20143E-10 1.07728E-13 0 92.0949 0 0.0101735 3.46966 3.11539 1.15999 0.141639 0.00100714 0.00630071 0.000336770 0.000239688 5.26790E-06	0.135025 0.662547 0.307840 59.5960 20.4140 9.47464 1.57479 3.29002 1.29342	%	0.206339 0.174389 0.364162 26.6019 31.6338 21.2448 3.80125 7.73503 2.43441 2.44840 0.596318

Benzene		0	0			0.112954	0.112954	0			0.185131	0.185131	0.00581695	0.000246681	0		0.0418265
2-Methylhexane		0	0			0.544203	0.544203	0			0.0189080	0.0189080	0.0322138	2.57497E-08	0		0.197856
3-Methylhexane		0	0			0.409296	0.409296	0			0.0148283	0.0148283	0.364089	3.02659E-07	0		0.148880
	-																
Heptane		0	0			0.828381	0.828381	0			0.0314581	0.0314581	0.679382	4.71435E-07	0		0.301927
Methylcyclohexane		0	0			0.591873	0.591873	0			0.116291	0.116291	0.481425	1.07670E-05	0		0.215070
Toluene		0	0			0.0986541	0.0986541	0			0.152149	0.152149	0.0109293	9.75197E-05	0		0.0358431
Octane		0	0			0.601618	0.601618	0			0.0135427	0.0135427	0.464952	3.95419E-08	0		0.217532
Ethylbenzene		0	0			0.0261803	0.0261803	0			0.0399500	0.0399500	0.00541525	1.44007E-05	0		0.00944009
m-Xylene							0.0334338				0.0504681	0.0504681	0.00890241	2.03093E-05	0		0.0120274
		U	U					U							U		
o-Xylene		0	0			0.0306086	0.0306086	0			0.0474943	0.0474943	0.00702558	1.99828E-05	0		0.0110042
Nonane		0	0			0.129856	0.129856	0			0.00450300	0.00450300	0.0903983	6.18989E-09	0		0.0463062
C10+		0	0			0.00210013	0.00210013	0			9.83822E-06	9.83822E-06	0.00100576	0	0		0.000741756
Mass Flow		lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
Water		224.432	273.696			0.289699	0	0			0	0.668771	9.66660E-06	0.205569	0		0
H2S		0	0			0.200000	0	0			0	0.000111	0.000002 00	0.255555	0		
		U	U			U	U	U			U	U	U	U	U		ľ
Nitrogen		1342.98	1342.98			0.0224208	0	1343.08			0	0.129537	5.76527E-05	2.27086E-05	0		0
Carbon Dioxide		623.862	623.992			0.469371	0	625.834			0	0.655858	0.0363115	0.00774477	0		0
Methane		120800	120801			10.0699	0	120819			0	14.2776	0.144892	0.00695399	0		0
Ethane		41378.8	41379.2			60.0750	o	41385.7			0	5.76118	4.98692	0.00258905	0		0
Propane		19204.7	19205.1			92.8948		19208.4				2.88680	6.51571	0.000316158	0		
															_		<u> </u>
Isobutane		3192.09	3192.10			23.5223	U	3192.28			U	0.163948	1.56380	2.24807E-06	U		U
n-Butane		6668.80	6668.86			52.0286	0	6669.65			0	0.681537	3.39747	1.40641E-05	0		0
Isopentane		2621.74	2621.76			18.5643	0	2621.96			0	0.145365	1.15848	7.51718E-07	0		0
n-Pentane		2037.82	2037.83			19.1175	0	2037.99			0	0.141866	1.17331	5.35018E-07	0		0
2-Methylpentane		0	0			4.87621	0	0			0	0.0163328	0.295356	1.17587E-08	0		0
3-Methylpentane							0				0				0		
	-		0			2.86325						0.0253379	0.172526	4.42267E-08			
n-Hexane		4553.33	4553.34			8.44762	0	4553.46			0	0.0223461	0.0346162	6.23050E-10	0		0
Methylcyclopentane		0	0			1.23677	0	0			0	0.0310645	0.0682274	1.16605E-07	0		0
Benzene		0	0			0.344366	0	0			0	0.0477294	0.00116208	5.50627E-07	0		0
2-Methylhexane		0	0			1.65912	0	0			0	0.00487475	0.00643552	5.74769E-11	0		0
3-Methylhexane		0	0			1.24783	n	0			0	0.00382295	0.0727358	6.75578E-10	0		0
		o .				1.24700		P .			0	0.00002233	0.0121330		ı°		,
						0.50550	0				^	0.00044000	0.405704	4 050045 00	0		
Heptane		0	0			2.52550	0	0			0	0.00811036	0.135724	1.05231E-09	0		0
Methylcyclohexane		0	0			1.80445	0 0	0			0 0	0.0299815	0.0961768	2.40334E-08	0		0
		0 0 0	o o o				0 0 0	0 0 0			0 0 0				0 0 0		0
Methylcyclohexane		0 0 0 0	0			1.80445	0 0 0	0 0 0			0 0 0	0.0299815	0.0961768	2.40334E-08 2.17678E-07	0 0 0		0 0
Methylcyclohexane Toluene Octane		0 0 0 0	0			1.80445 0.300768 1.83416	0 0 0	0 0 0 0			0 0 0	0.0299815 0.0392262 0.00349150	0.0961768 0.00218341 0.0928859	2.40334E-08 2.17678E-07 8.82630E-11	0 0 0		0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene		0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997	0.0961768 0.00218341 0.0928859 0.00108183	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene		0 0 0 0 0	0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164 0.101930	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene		0 0 0 0 0 0	0 0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170	0 0 0 0 0 0	0 0 0 0 0 0			0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08	0 0 0 0 0 0		0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane		0 0 0 0 0 0 0	0 0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895	0 0 0 0 0 0	0 0 0 0 0 0 0			0 0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene		0 0 0 0 0 0 0	0 0 0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170	0 0 0 0 0 0	0 0 0 0 0 0 0 0			0 0 0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane		0 0 0 0 0 0 0	0 0 0 0 0 0 0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0			0 0 0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	HP Separator Water	HP Separator Oil	1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Water	Oil	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3	0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzane m:Xylene o:Xylene Nonane C10+ Process Streams	Status					1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas						0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0			
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10- Process Streams Phase: Vapor	Status	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 HP Separator Gas	HP Separator Water Solved	HP Separator Oil Solved	1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Water Solved	Oil Solved	0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11	0 0 0 0 0 0 0 0 0 0	3 Solved	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C:10+ Process Streams Phase: Vapor Property	Status Units	Solved	Solved			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved	Solved	Solved			Solved	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved	0.0961768 0.00218341 0.0928659 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.4604E-08 1.38167E-11 0 Water W/B	Solved		Solved
Methylcyclohexane Toluene Octane Ethylbenzane m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature	Units °F	Solved 60.3	Solved 66.0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas		Solved 67.0				0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved	Solved 66		
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property		Solved 60.3 200	Solved 66.0 200			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved	Solved	Solved 67.0 300			Solved	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved	0.0961768 0.00218341 0.092859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.4604E-08 1.38167E-11 0 Water W/B	Solved 66 200		Solved
Methylcyclohexane Toluene Octane Ethylbenzane m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature	Units °F	Solved 60.3	Solved 66.0			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved	Solved	Solved 67.0			Solved	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved	Solved 66		Solved
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor	Units °F	Solved 60.3 200	Solved 66.0 200			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.396895 0.00640269 OTFlish Gas Solved	Solved 75.9	Solved 67.0 300			75.9 0	0.0299815 0.0392582 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved	0.0961768 0.00218341 0.092859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved	Solved 66 200		Solved 70 40
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10- Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid	Units °F	Solved 60.3 200	Solved 66.0 200			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.396895 0.00640269 OTFlish Gas Solved	Solved 75.9	Solved 67.0 300			75.9 0	0.0299815 0.0392582 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved	0.0961768 0.00218341 0.092859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved	Solved 66 200		Solved 70 40
Methylcyclohexane Toluene Octane Ethylbenzane m.Xylene o.Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Heavy Liquid	Units °F psig % %	Solved 60.3 200 100 0	Solved 66.0 200 100 0			1.80445 0.300768 1.83416 0.00798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved	75.9 0 100 0	67.0 300 100 0			75.9 0 100 0	0.0299815 0.0392262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 0	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.006200925 Oil W/B Solved 75.9425 8.81720 100 0	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.6044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0	Solved 66 200 100 0		70 40 100 0
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor	Units °F psig % % lb/lbmol	Solved 60.3 200 100 0 20.9	Solved 66.0 200 100 0 20.9			1.80445 0.300768 1.83416 0.0798164 0.101930 0.0933170 0.396895 0.00640269 OT Flash Gas Solved	75.9 0 100 0 0 44.3	67.0 300 100 0 0 20.9			75.9 0	0.0299815 0.0392582 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 44.2029	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Uspor Mole Fraction Light Liquid Mole Fraction Light Liquid Molecular Weight Mass Density	Units °F psig % % % lb/lbmol lb/ft^3	60.3 200 100 0 0 20.9	Solved 66.0 200 100 0 0 20.9 0.8			1.80445 0.300768 1.83416 0.10798164 0.101930 0.0933170 0.396985 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1	75.9 0 100 0 44.3 0.1	67.0 300 100 0 0 20.9			75.9 0 100 0 21.0	0.0299815 0.039262 0.00349150 0.0102997 0.0130114 0.0122447 0.00110094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0160593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976	Solved 66 200 100 0		70 40 100 0
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor	Units °F psig % % lb/lbmol	Solved 60.3 200 100 0 20.9	Solved 66.0 200 100 0 20.9			1.80445 0.300768 1.83416 0.10798164 0.101930 0.0933170 0.396985 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1	75.9 0 100 0 44.3 0.1	67.0 300 100 0 0 20.9			75.9 0 100 0	0.0299815 0.0392582 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 44.2029	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Uspor Mole Fraction Light Liquid Mole Fraction Light Liquid Molecular Weight Mass Density	Units °F psig % % % lb/lbmol lb/ft^3	60.3 200 100 0 0 20.9	Solved 66.0 200 100 0 0 20.9 0.8			1.80445 0.300768 1.83416 0.101930 0.093170 0.395895 0.00640259 OT Flash Gas Solved 75.9 0 100 0 0 0 14.3 0.1 6.9	75.9 0 100 0 44.3 0.1	67.0 300 100 0 0 20.9			75.9 0 100 0 21.0	0.0299815 0.039262 0.00349150 0.0102997 0.0130114 0.0122447 0.00110094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0160593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Heavy Lquid Mole Craction Heavy Lquid Molecular Weight Mass Density Molar Flow	Units °F psig % % % lb/lbmol lb/ft^3 lbmol/h	Solved 60.3 200 100 0 20.9 9703.3	Solved 66.0 200 100 0 22.9 0.8 9706.1			1.80445 0.300768 1.83416 0.101930 0.093170 0.395895 OT Flash Gas Solved 75.9 0 0 44.3 0.1 6.9 304.9	75.9 0 100 0 44.3 0.1	67.0 300 100 0 0 20.9 1.3 9692.4			75.9 0 100 0 21.0 0.1	0.0299815 0.039262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 0 0 100 0 0 0 1025640011 1.22522	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 0 0 0.185805 0.451950	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.45034E-08 4.45034E-08 1.38167E-11 0 Water W/B Solved 1.5.9425 1.00 0 0 0 0 1.8.4251 0.00150976 0.0121146	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m. Xylene o. Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Light Liquid Molecular Weight Mass Chonsity Moles Friow Mass Flow	Units °F psig % % % lb/lbmol lb/ft^3 lbmol/h lb/h MCFH	Solved 60.3 200 100 0 0 20.9 9703.3 202649.0 237.2	Solved 66.0 200 100 0 20.9 0.8 9706.1 202699.9 240.4			1.80445 0.300768 1.83416 0.101930 0.0933170 0.395895 0.00640269 OT Flish Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6	75.9 0 100 0 44.3 0.1 0.0 0.0 0.0	Solved 67.0 300 100 0 20.9 1.3 9692.4 202457.0 159.5			75.9 0 100 0 0 21.0 0.1	0.0299815 0.03925262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.006200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.188805 0.451950 19.9775 0.107519	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m.Xylene o.Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Uspor Mole Fraction Light Liquid Mole Fraction Heavy Liquid Moles Fraction Heavy Liquid Moss Density Moss Flow Vapor Volumetric Flow Liquid Volumetric Flow Liquid Volumetric Flow	Units °F psig % % % lb/lbmol lb/ft^3 lbmol/h lb/ft MCFH Mbbl/d	Solved 60.3 200 100 0 0 20.9 9703.3 202649.0 237.2 1013.8	Solved 66.0 200 100 0 20.9 0.8 9706.1 202699.9 240.4 1027.5			1.80445 0.300768 1.83416 0.101930 0.093170 0.39895 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3	75.9 0 100 0 44.3 0.1 0.0 0.0 0.0	Solved 67.0 300 100 0 0 20.9 1.3 9692.4 202457.0 159.5 682.0			75.9 0 100 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0	0.0299815 0.0392562 0.00349150 0.0102997 0.0130114 0.0122447 0.00110094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011 1.22522 25.7815 0.477244 2.04079	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0160593 0.00200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 1.07519 0.4059597	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.5331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Say	Units F psig % % Ib/lbmol Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD	Solved 60.3 200 100 0 0 20.9 9703.3 20264.0 237.2 1013.8 88.4	Solved 66.0 100 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4			1.80445 0.300788 1.83416 0.101930 0.093170 0.398985 0.00640269 OT Flash Gas Solved 75.9 0 100 0 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1	Solved 75.9 0 100 0 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 1.3 9692.4 202457.0 159.5 682.0 88.3			Solved 75.9 0 100 0 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.039262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.0459997 0.00411619	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.45034E-08 4.53331E-09 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m. Xylene o. Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Moles Fraction Light Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Light Liquid Start Special Sylvine Mass Plow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow	Units °F psig % % % lb/lbmol lb/ft^3 lbmol/h lb/ft MCFH Mbbl/d	Solved 60.3 200 100 0 0 20.9 0.9 9703.3 202649.0 237.2 1013.8 88.4 40.5	Solved 66.0 200 100 0 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 20.9 1.3 9692.4 202457.0 159.5 688.3 40.5			75.9 0 100 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.03925262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.00111589 0.00502875	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B 75.9425 8.81720 100 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459597 0.006411619 0.00281887	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0		Solved 70 40 100 0 0 28.4016 0.28882 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Say	Units F psig % % Ib/lbmol Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD	Solved 60.3 200 100 0 0 20.9 9703.3 20264.0 237.2 1013.8 88.4	Solved 66.0 100 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1	Solved 75.9 0 100 0 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 1.3 9692.4 202457.0 159.5 682.0 88.3			Solved 75.9 0 100 0 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.039262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.0459997 0.00411619	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.45034E-08 4.53331E-09 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336	Solved 66 200 100 0 20.8837		70 40 100 0 0 28.4016
Methylcyclohexane Toluene Octane Ethylbenzane m. Xylene o. Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Fraction Light Liquid Mole Fraction Light Liquid Moles Fraction Light Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Fleavy Liquid Moles Fraction Light Liquid Start Special Sylvine Mass Plow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow	Units F psig % % Ib/lbmol Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD	Solved 60.3 200 100 0 0 20.9 0.9 9703.3 202649.0 237.2 1013.8 88.4 40.5	Solved 66.0 200 100 0 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 20.9 1.3 9692.4 202457.0 159.5 688.3 40.5			75.9 0 100 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.03925262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.00111589 0.00502875	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B 75.9425 8.81720 100 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459597 0.006411619 0.00281887	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0		Solved 70 40 100 0 0 28.4016 0.280882 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Vapor Volumetric Flow Liquid Volumetric Flow Std Liquid Volumetric Flow Std Liquid Volumetric Flow Compressibility	Units F psig % % Ib/lbmol Ib/ft^3 Ibmol/h Ib/h MCFH Mbbl/d MMSCFD	Solved 60.3 200 100 0 20.9 9703.3 202649.0 237.2 1013.8 88.4 40.5 0.940	Solved 66.0 200 100 0 0 20.9 0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943			1.80445 0.300768 1.83416 0.101930 0.0933170 0.395895 0.00640269 OT Flish Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.0 0.983	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 300 100 0 20.9 1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916			75.9 0 100 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.03925262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459937 0.00241887 0.973171	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Solved 70 40 100 0 0 28.4016 0.280882 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzane m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Mole Straction Light Liquid Molecular Weight Mass Density Molar Flow Liquid Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Specific Gravity API Gravity	Units "F psig %6 %6 %6 lb/lbmol lb/ft/3 lbmol/h lbb/h MCFH Mbbl/d MMSCFD Mbbl/d	Solved 60.3 200 100 0 0 9 9 9 9 9 20.9 9 9 9 7 3 202649 1013.8 88.4 40.5 0.940 0.721	Solved 66.0 100 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721			1.80445 0.300788 1.83416 0.101930 0.093170 0.39895 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721			75.9 0 100 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.0392562 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.40479 0.0111589 0.00502875 0.996263 0.726531	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.000200925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 119.9775 0.107519 0.00281887 0.973171 1.52621	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.45034E-08 4.5331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Solved 70 40 100 0 0 28.4016 0.280882 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzane m.Xylene o.Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Vapor Mole Fraction Vapor Mole Fraction Heavy Liquid Molecular Weight Mass Density Molar Flow Mass Flow Vapor Volumetric Flow Liquid Volumetric Flow Std Liquid Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy	Units "F psig % % % % % lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/l	Solved 60.3 200 100 0 0 20.9 9.9 9703.3 202649.0 237.2 10113.8 88.4 40.5 0.940 0.721	Solved 66.0 200 100 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 100 0 0 1.3 9692.4 202457.0 159.5 88.3 40.5 0.916 0.721			Solved 75.9 0 100 0 0 21.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0299815 0.03925262 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 100 0 21.0422 0.0540011 1.22522 25.7815 0.47724 2.04079 0.00502875 0.996263 0.726531 -0.0459476	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved 75.9425 8.81720 100 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459597 0.00211619 0.00281887 0.973171 1.52621	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Solved 70 40 100 0 0 28,4016 0,280882 0 0 0 0 0 0 0 0,972981 0,980629
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy	Units "F psig % % % % % lb/lbmol lb/ft^3 lbmol/h lb/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD	Solved 60.3 100 100 0 20.9 9703.3 202649.0 237.2 1013.8 88.4 40.5 0.940 0.721 -335.4 -1655.0	Solved 66.0 200 100 0 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 300 100 0 20.9 1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6			Solved 75.9 100 0 21.0 0.1 0.0 0.0 0.0 0.0	0.0299815 0.0392562 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531 -0.0459476 -1782.20	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved 75.9425 8.81720 100 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459937 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1053.17		Solved 70 40 100 0 28.4016 0.280882 0 0 0 0 0 0 0,972981 0,990629 0 -1339.94
Methylcyclohexane Toluene Octane Ethylbenzene m:Xylene o:Xylene Nonane C10- Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Fraction Light Liquid Molecular Weight Mass Density Moler Flow Uspor Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy Mass Cp	Units "F psig % % % % % lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/lb/l	Solved 60.3 200 100 0 0 0 0 9 9703.3 202649.0 237.2 1013.8 88.4 40.5 0.940 0.721 -335.4 -1655.0 0.5	Solved 66.0 100 0 0 0 20.9 0.8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -336.1 -1663.2 0.5			1.80445 0.300788 1.83416 0.101930 0.0983170 0.396895 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 11.3 0.1 0.0 0.993 1.529 -0.3 -1043.3 0.4	Solved 75.9 0 100 0 0 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 300 100 0 0 20.9 1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6 0.5			Solved 75.9 0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0299815 0.0392562 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.011589 0.00502875 0.996263 0.726531 -0.0459476 -1782.20 0.472150	0.0961768 0.00218341 0.0928859 0.00108183 0.00177848 0.00140354 0.0180593 0.00220925 Oil W/B Solved 75.9425 8.81720 100 0 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459597 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62 0.407902	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 0 18.4251 0.00159976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358 -5526.45 0.442480	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 10 0 0 10 10 10 10 1		Solved 70 40 100 0 0 28,4016 0,280882 0 0 0 0 0 0 0 0 0 0 0 0 0
Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Process Streams Phase: Vapor Property Temperature Pressure Mole Fraction Vapor Mole Vapor Volumetric Flow Liquid Volumetric Flow Std Vapor Volumetric Flow Std Vapor Volumetric Flow Compressibility Specific Gravity API Gravity Enthalpy Mass Enthalpy	Units "F psig % % % % % lb/lbmol lb/ft^3 lbmol/h lb/h MCFH Mbbl/d MMSCFD Mbbl/d MMSCFD	Solved 60.3 100 100 0 20.9 9703.3 202649.0 237.2 1013.8 88.4 40.5 0.940 0.721 -335.4 -1655.0	Solved 66.0 200 100 0 0 0 0 8 9706.1 202699.9 240.4 1027.5 88.4 40.5 0.943 0.721 -335.1 -1653.2			1.80445 0.300768 1.83416 0.101930 0.0798164 0.101930 0.0933170 0.395895 0.00640269 OT Flash Gas Solved 75.9 0 100 0 44.3 0.1 6.9 304.9 2.6 11.3 0.1 0.0 0.983 1.529 -0.3	Solved 75.9 0 100 0 44.3 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Solved 67.0 300 100 0 20.9 1.3 9692.4 202457.0 159.5 682.0 88.3 40.5 0.916 0.721 -334.4 -1651.6			Solved 75.9 100 0 21.0 0.1 0.0 0.0 0.0 0.0	0.0299815 0.0392562 0.00349150 0.0102997 0.0130114 0.0122447 0.00116094 2.53644E-06 PWT Flash Gas Solved 75.94 0 100 0 21.0422 0.0540011 1.22522 25.7815 0.477424 2.04079 0.0111589 0.00502875 0.996263 0.726531 -0.0459476 -1782.20	0.0961768 0.00218341 0.0928859 0.00168183 0.00177848 0.00140354 0.0180593 0.00200925 Oil W/B Solved 75.9425 8.81720 100 0 44.2029 0.185805 0.451950 19.9775 0.107519 0.459937 0.00411619 0.00281887 0.973171 1.52621 -0.0207090 -1036.62	2.40334E-08 2.17678E-07 8.82630E-11 3.21445E-08 4.53331E-08 4.46044E-08 1.38167E-11 0 Water W/B Solved 75.9425 -14.2252 100 0 18.4251 0.00150976 0.0121146 0.223214 0.147847 0.631985 0.000110336 1.68735E-05 0.999551 0.636170 -0.00123358	Solved 66 200 100 0 0 20.8837 0.843230 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1053.17		Solved 70 40 100 0 28.4016 0.280882 0 0 0 0 0 0,772981 0,990629 0 -1339.94

Dunamia Viscosity	-D	lo o	0.0	1	1	lo o	0.0	0.0	I	ı	lo o	0.0400044	0.00027446	0.0100506	0.0400042	T.	0.00067700
Dynamic Viscosity	cP	0.0	0.0			0.0	0.0	0.0			0.0	0.0106841	0.00837416	0.0102596	0.0106843		0.00967788
Kinematic Viscosity	cSt	0.8	0.8			4.5	4.5	0.5			12.4	12.3513	2.81360	424.229	0.791008		2.15098
Thermal Conductivity	Btu/(h*ft*°F)	0.0	0.0			0.0	0.0	0.0			0.0	0.0169920	0.0105206	0.0122137	0.0175999		0.0143978
Surface Tension	lbf/ft																
Net I.G. Heating Value	Btu/ft^3	1140.4	1140.1			2314.1	2314.1	1141.9			1095.9	1095.87	2314.25	45.4956	1140.12		1517.84
Net Liquid Heating Value	Btu/lb	20660.3	20655.0			19678.9	19678.9	20684.2			19673.5	19673.5	19710.4	-43.5288	20655.0		20163.5
Gross I.G. Heating Value	Btu/ft^3	1257.3	1257.0			2514.9	2514.9	1258.8			1209.4	1209.42	2515.16	97.6787	1256.95		1661.66
Gross Liquid Heating Value	Btu/lb	22783.6	22778 0			21400.0	21400.0	22808.7			21721.3	21721.3	21435.1	1031.2	22778.0		22085 1
													1-11-11				
Process Streams	1	Well Stream	HP Separator Gas	HP Separator Wate	HP Separator Oil	OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	1	3	LP Separato
Phase: Light Liquid	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Mole Fraction		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Water		99.9609	99.9627	99.9661	0.0517839	0.00486699	0.00486699		100	0	99.9967	99.9967	3.55133E-06	100.0000	99.9627	0.0466800	0.0255382
H2S		0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Nitrogen	-	9.49020E-05	9.09774E-05	0.000123345	0.0164543	1.85250E-05	1.85250E-05		0	0.0179998	4.42210E-06	4.42210E-06	1.18304E-06	2.51118E-09	9.09774E-05	0.0163595	0.00106759
Carbon Dioxide	-	0.00115147	0.00107601	0.000123343	0.0357417	0.00287906	0.00287906		0	0.0309997	0.000589759	0.000589759	0.00511986	2.26825E-05	0.00107601	0.0354666	0.0166204
									0								
Methane		0.0291377 0.00590427	0.0279843 0.00559480	0.0246369 0.00536606	4.91184 5.72449	0.0438867 0.861642	0.0438867 0.861642		0	4.76595 5.72594	0.00174859 0.000438622	0.00174859 0.000438622	0.0158785 1.77812	2.76748E-06 6.44255E-07	0.0279843 0.00559480	4.90085 5.72481	0.863982 3.40665
Ethane	4																
Propane		0.00214005	0.00194860	0.00184921	6.53571	3.39068	3.39068		U.	6.54493	0.000165565	0.000165565	5.84268	5.95505E-08	0.00194860	6.53561	5.84983
Isobutane		8.46856E-05	7.82999E-05	7.50256E-05	2.06276	1.70532	1.70532		0	2.06698	2.48181E-06	2.48181E-06	2.73553	1.12235E-10	7.82999E-05	2.06316	2.08245
n-Butane		0.000372380	0.000348886	0.000324282	5.89758	5.41519	5.41519		0	5.90894	2.27190E-05	2.27190E-05	8.55964	1.54731E-09	0.000348886	5.89895	6.10080
Isopentane		7.97064E-05	7.30268E-05	5.44913E-05	3.76285	4.06134	4.06134		0	3.76996	2.67515E-06	2.67515E-06	6.09035	4.58851E-11	7.30268E-05	3.76358	4.03196
n-Pentane		5.82560E-05	5.44300E-05	5.31537E-05	5.03533	5.58289	5.58289		0	5.04595	2.58486E-06	2.58486E-06	8.21953	3.23329E-11	5.44300E-05	5.03635	5.42602
2-Methylpentane		0	0	4.99297E-06	2.51940	2.93319	2.93319		0	2.52497	1.18622E-07	1.18622E-07	4.25860	2.84258E-13	0	2.51988	2.74229
3-Methylpentane		0	0	8.06098E-06	1.64113	1.91729	1.91729		0	1.64498	4.99279E-07	4.99279E-07	2.76691	2.90089E-12	0	1.64145	1.78757
n-Hexane		3.82516E-05	3.58306E-05	6.79802E-06	6.00456	7.05779	7.05779		0	6.01594	1.29051E-07	1.29051E-07	0.692196	1.19906E-14	3.58306E-05	6.00570	6.54840
Methylcyclopentane	1	0	0	1.13741E-05	0.921505	1.08378	1.08378		0	0.923991	1.88169E-06	1.88169E-06	1.42335	2.34823E-11	0	0.921677	1.00509
Benzene		0	0	0.000170998	0.274434	0.322694	0.322694		0	0.282997	0.000155332	0.000155332	0.0254522	5.94681E-09	0	0.274558	0.299308
2-Methylhexane		0	0	1.27692E-06	2.37987	2.83766	2.83766		0	2.38498	2.57498E-08	2.57498E-08	0.257844	1.01570E-15	0	2.38032	2.60285
3-Methylhexane	-	0	0	1.00232E-06	1 87496	2.23669	2 23669		0	1.87898	2.11076E-08	2.11076E-08	3.05295	1.015/0E-15	0	1.87531	2.05082
	-														•		
Heptane	4			2.12665E-06	4.78171	5.71602	5.71602			4.79195	4.50293E-08	4.50293E-08	7.16551	1.95658E-14		4.78261	5.23233
Methylcyclohexane	4	0	0	8.88284E-06	3.39435	4.05673	4.05673		0	3.40197	1.02999E-06	1.02999E-06	5.09273	2.75709E-12	0	3.39500	3.71409
Toluene		0	0	0.000100368	0.737743	0.883021	0.883021		0	0.743993	8.94474E-05	8.94474E-05	0.150080	1.65540E-09	0	0.737995	0.807474
Octane		0	0	7.97318E-07	9.66836	11.6204	11.6204		0	9.68890	1.12198E-08	1.12198E-08	13.6878	9.54306E-16	0	9.67017	10.5909
Ethylbenzene		0	0	2.09259E-05	0.507941	0.610660	0.610660		0	0.509995	1.84366E-05	1.84366E-05	0.193295	1.92908E-10	0	0.508051	0.556439
m-Xylene		0	0	2.72562E-05	0.774078	0.930953	0.930953		0	0.776992	2.41118E-05	2.41118E-05	0.378978	2.81836E-10	0	0.774255	0.848047
o-Xylene		0	0	3.36330E-05	0.789747	0.949978	0.949978		0	0.792992	3.06764E-05	3.06764E-05	0.333284	3.74821E-10	0	0.789941	0.865246
Nonane		0	0	2.38078E-07	5.64496	6.79601	6.79601		0	5.65694	5.28319E-09	5.28319E-09	7.27130	2.12703E-16	0	5.64602	6.18565
C10+		I.	0	3.19828E-10	24.0507	28.9784	28.9784		0	24.1018	9.98073E-13	9.98073E-13	20.0028	0	0	24.0553	26.3586
		0						lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h
Molar Flow		0 Ibmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	IDIIIOIJII		ibilioi/ii	101110411		1011101111				
Molar Flow Water		0 Ibmol/h 3889.75	Ibmol/h	Ibmol/h 3886.97	Ibmol/h 0.0432295	Ibmol/h	Ibmol/h 0.00337209	IDITIONT	3902.21	0	3886.93	0	0	0	3887.02	0.0389614	0.0194528
	-		Ibmol/h 0			Ibmol/h 0 0		ISHOUT		0		0	0	0	3887.02 0	0.0389614 0	0.0194528 0
Water H2S		3889.75 0	Ibmol/h 0 0	3886.97 0	0.0432295 0	0 0	0.00337209 0	isitosii		0	3886.93 0	0	0	0	0	0	0
Water H2S Nitrogen		3889.75 0 0.00369289		3886.97 0 0.00479600	0.0432295 0 0.0137362		0.00337209 0 1.28350E-05	ISHOU		0 0 0.0149945	3886.93 0 0.000171890	0 0	0 0	0 0 0	0 0.00353763	0 0.0136544	0 0.000813195
Water H2S Nitrogen Carbon Dioxide		3889.75 0 0.00369289 0.0448068		3886.97 0 0.00479600 0.0378270	0.0432295 0 0.0137362 0.0298374		0.00337209 0 1.28350E-05 0.00199475	ionout		0 0 0.0149945 0.0258239	3886.93 0 0.000171890 0.0229243	0 0 0 0	0 0 0 0	0 0 0	0 0.00353763 0.0418404	0 0.0136544 0.0296022	0 0.000813195 0.0126600
Water H2S Nitrogen Carbon Dioxide Methane		3889.75 0 0.00369289 0.0448068 1.13383		3886.97 0 0.00479600 0.0378270 0.957954	0.0432295 0 0.0137362 0.0298374 4.10043		0.00337209 0 1.28350E-05 0.00199475 0.0304069	ionout		0 0 0.0149945 0.0258239 3.97022	3886.93 0 0.000171890 0.0229243 0.0679689	0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0.00353763 0.0418404 1.08816	0 0.0136544 0.0296022 4.09049	0 0.000813195 0.0126600 0.658107
Water H2S Nitrogen Carbon Dioxide Methane Ethane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751		3886.97 0 0.00479600 0.0378270 0.957954 0.208648	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988	ionoen		0 0.0149945 0.0258239 3.97022 4.76993	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552	0 0.0136544 0.0296022 4.09049 4.77821	0 0.000813195 0.0126600 0.658107 2.59489
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane	-	3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752		3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884 5.45605		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923	ionovii		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707	0 0.0136544 0.0296022 4.09049 4.77821 5.45494	0 0.000813195 0.0126600 0.658107 2.59489 4.45590
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534		3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153	ionovii		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane	-	3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903		3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191	ionovii		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000883103	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane	-	3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159		3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090 0.00211878	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389	in in it is a second of the interest of the in		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000883103 0.00103885	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.01267900 0.00211878 0.00206677	0.0432295 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352	Ibmol/h	0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810	tollon		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347	3886.93 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00083103 0.000103985 0.00100475	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane n-Butane n-Pentane 1-Pentane 2-Methylpentane	-	3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090 0.00211878	0.0432295 0 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125	Ibmol/h	0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389	union		0 0 0149945 0.0258239 3,97022 4,76993 5,45218 1,72187 4,92238 3,14052 4,20347 2,10340	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.646955-05 0.00083103 0.00103885 0.000100475 4.61091E-06	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159		3886.97 0 0.00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.01267900 0.00211878 0.00206677	0.0432295 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810	Solitori		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347	3886.93 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00083103 0.000103985 0.00100475	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Wethylpentane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 .0.0479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677	0.0432295 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321		0.00337209 0 1.28350E-05 0.00199475 0.00304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.66810 2.03226	anioni .		0 0 0149945 0.0258239 3,97022 4,76993 5,45218 1,72187 4,92238 3,14052 4,20347 2,10340	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.646955-05 0.00083103 0.00103885 0.000100475 4.61091E-06	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307 2.08884
Water HZS Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane 2-Methylipentane 3-Methylipentane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.00479600 0.0378270 0.957954 0.026648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000194141 0.000313434	0.0432295 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 2.03226 1.32839	union		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000833103 0.000100385 0.000100475 4.61091E-06 1.94073E-05	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307 2.08884 1.36162
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0		3886.97 0 .0.0473600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000134344 0.000264326	0.0432295 0.0137362 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.29333 3.14125 4.20352 2.10321 1.37002 5.01264		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88998	Solitori		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034 5.01151	3886.93 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000683103 0.000103885 0.00100475 4.61091E-06 1.94073E-05 5.01628E-06	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.22356 3.14127 4.20358 2.10322 1.37003 5.01265	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307 2.08884 1.36162 4.98801
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Methylcyclopentane Methylcyclopentane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 .00479600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126990 0.0021878 0.00206677 0.000194141 0.000314344 0.000264326 0.000442258	0.0432295 0.0137362 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.010264 0.769278		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.38898 0.750894	Solitori		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034 5.01151 0.769720	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00083103 0.000103885 0.000100475 4.61091E-06 1.94073E-05 5.01628E-06 7.31426E-05 0.00603787	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.769277	0 0.000813195 0.0126600 0.658107 2.59489 4.4590 1.58623 4.64707 3.07120 4.13307 2.08884 1.36162 4.98801 0.765589
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane spopentane n-Pentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.00473600 0.0378270 0.957854 0.208648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000194141 0.000313434 0.000264326 0.000442258 0.00664891 4.96502E-05	0.0432295 0.0137362 0.0238374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.98673	Ibmot/h	0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88998 0.750894 0.750894	Solitori		0 0 0 0 0 0 0 0 0 0 0 0 0 0	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000883103 0.00103895 0.0010475 4.61091E-06 1.94073E-05 5.01628E-06 7.31426E-05 0.00603787 1.00091E-06	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296002 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.769277 0.229160 1.98673	0 0.00813195 0.0126600 0.658107 2.59489 4.45590 4.45590 3.07120 4.13307 2.08884 1.36162 4.98801 0.765589 0.227987 1.98263
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane 3-Methylhexane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h	3886.97 0 0.00475600 0.00475600 0.9378270 0.957954 0.208648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000194141 0.0003134344 0.000264326 0.000442258 0.0064891 4.96502E-05 3.89729E-05	0.0432295 0.0137362 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.96673 1.566523		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88998 0.750894 0.223578 1.96607 1.54969	Solitori		0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 5.01151 0.769720 0.235748 1.96678 1.96656	3886.93 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000683103 0.000103885 0.000100475 4.61091E-06 1.94073E-05 5.01628E-06 7.31426E-05 0.00091787 1.00091E-06 8.20464E-07	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.20358 2.10322 1.37003 5.01265 0.789277 0.229160 1.98673 1.56523	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 2.08884 1.36162 4.98801 0.765589 1.59283 1.56214
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.0473600 0.0378270 0.957954 0.208648 0.0719024 0.00291721 0.0126900 0.00211878 0.00206677 0.000194141 0.000313434 0.0003264326 0.000442258 0.00664891 4.96502E-05 8.26904E-05	0.0432295 0.0137362 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.29333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.98673 1.56523 3.99180		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88998 0.750894 0.22378 1.96607 1.96607	Solitori		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034 5.01151 0.769720 0.235748 1.98678 1.98678 1.98678 3.99188	3886.93 0.000171890 0.0029243 0.0679689 0.0170495 0.00643562 9.6495E-05 0.00683103 0.00103985 0.00103985 0.0010475 4.61091E-06 7.31426E-05 0.00603787 1.00091E-06 8.20464E-07 1.75032E-06	0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.769277 0.229160 1.99673 1.56523 3.99180	0 0.00813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 2.08884 1.3307 2.08884 1.36162 0.765589 0.227987 1.98263 1.56214 3.98554
Water H2S Nitrogen Carbon Dioxide Mehane Ethane Propane Isobutane Isobutane Isopentane I-Pentane 2-Methylpentane 3-Methylpentane Benzene 2-Methylhexane Heptane Methylcyctopentane Methylcyctopentane Heptane Methylcyctopent		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h	3886.97 0 0.0479600 0.0378270 0.057954 0.208648 0.0719024 0.00291721 0.0126090 0.0021878 0.00206677 0.000194141 0.00034326 0.00024258 0.00664891 4.96502E-05 3.89729E-05 8.26904E-05 0.000345391	0.0432295 0.0137362 0.0137362 4.10043 4.77884 5.45605 1.72200 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.96673 1.56653 3.99180 2.83362	Ibmot/h	0.00337209 0 1.28350E-05 0.00199475 0.00199475 0.00199475 0.00199475 0.00199475 0.00199475 0.00199475 1.8153 3.75191 2.81389 3.86810 2.03226 1.32839 4.32839 4.32839 1.96607 1.54699 3.96034 2.81070	Solitori		0 0 0 0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034 5.01151 0.769720 0.235748 1.96678 1.56526 3.99188 2.83397	3886.93 0.000171890 0.0029243 0.0629243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00083103 0.000100475 4.61091E-06 1.94078E-05 0.00603787 1.00063787 1.00063787 1.00063787 1.00063787 1.00063787 1.00063787	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.079621 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.769277 0.229160 1.99673 1.56623 3.99180 2.83363	0 0.000813195 0.0126600 0.058107 0.58107 0.59107 0.59489 4.45590 1.58623 4.64707 3.07120 0.8884 1.39162 4.98801 0.227987 1.98263 1.56214 3.98554 2.82908
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 3-Methylpentane n-Hexane Methylcyclopertane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopertane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h	3886.97 0 0.00473600 0.0378270 0.957954 0.298648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000194141 0.000313434 0.000264326 0.000442258 0.00664891 4.96502E-05 3.89729E-05 2.86904E-05 0.000345391 0.00390261	0.0432295 0.0137362 0.0238374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.98673 1.56523 3.99180 2.83362 0.615872	Ibmot/h	0.00337209 0 1.28350E-05 0.00199475 0.00394669 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88988 0.750894 0.222578 1.96607 1.54969 3.96034 2.81070 0.611800	Solitori		0 0 0 0 0 0 0 0 0 0 0 0 0 0	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00010385 0.00010385 0.00010385 0.0010475 4.61091E-06 1.94073E-05 5.01628E-06 7.31426E-05 0.00603787 1.00091E-06 8.20464E-07 1.75032E-06 0.00347688	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.7695277 0.229160 1.98673 1.56523 3.99180 2.83363 0.615967	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307 2.08884 1.36162 4.98001 0.765589 0.227987 1.98263 1.56214 3.98554 2.82908 0.615064
Water H2S Nirogen Carbon Dloxide Methane Ethane Propane Isobutane n-Butane Isopentane n-PentanePentaneMethylpentane n-Hexane Methylcyclopentane Benzene 2-MethylhexaneMethylhexane Heptane Methylcyclopentane Toluene Octane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h 0 0 0 0 0 0 0 0 0	3886.97 0 0.00475600 0.00475600 0.957854 0.208648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.00014141 0.000313434 0.000264326 0.00042258 0.0004891 4.96502E-05 3.89729E-05 8.26904E-05 0.000345391 0.00390261 3.10020E-05	0.0432295 0.0137362 0.0137362 0.0298374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.96673 1.56523 3.99180 2.83362 0.615872 8.07120		0.00337209 0 1.28350E-05 0.00199475 0.0304069 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88998 0.750894 0.223578 1.96607 1.54969 3.96034 2.81070 0.611800 0.611810	Solitori		0 0 0.0149945 0.0258239 3.97022 4.76993 5.45218 1.72187 4.92238 3.14052 4.20347 2.10340 1.37034 5.01151 0.769720 0.235748 1.96678 1.56526 3.99188 2.83397 0.619775 8.07123	3886.93 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.000633103 0.000103885 0.000103885 0.000100475 4.61091E-06 1.94073E-05 5.01628E-06 7.31428E-05 0.00003787 1.00091E-06 8.20464E-07 1.75032E-06 4.00363E-05 0.00347688 4.36120E-07	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.292366 3.14127 4.20358 2.10322 1.37003 5.01265 0.789277 0.229160 1.98673 1.56523 3.99180 2.83363 0.615967 8.07120	0 0.00813195 0.0126600 0.058107 2.59489 4.45590 11.58623 3.07120 4.13307 2.08884 4.98801 0.765589 0.227987 1.98263 1.56214 3.98554 2.8298 6.15964 8.06725
Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 3-Methylpentane n-Hexane Methylcyclopertane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopertane		3889.75 0 0.00369289 0.0448068 1.13383 0.229751 0.0832752 0.00329534 0.0144903 0.00310159 0.00226690 0	Ibmol/h	3886.97 0 0.00473600 0.0378270 0.957954 0.298648 0.0719024 0.00291721 0.0126090 0.00211878 0.00206677 0.000194141 0.000313434 0.000264326 0.000442258 0.00664891 4.96502E-05 3.89729E-05 2.86904E-05 0.000345391 0.00390261	0.0432295 0.0137362 0.0238374 4.10043 4.77884 5.45605 1.72200 4.92333 3.14125 4.20352 2.10321 1.37002 5.01264 0.769278 0.229099 1.98673 1.56523 3.99180 2.83362 0.615872	Ibmot/h	0.00337209 0 1.28350E-05 0.00199475 0.00394669 0.596988 2.34923 1.18153 3.75191 2.81389 3.86810 2.03226 1.32839 4.88988 0.750894 0.222578 1.96607 1.54969 3.96034 2.81070 0.611800	Solitori		0 0 0 0 0 0 0 0 0 0 0 0 0 0	3886.93 0 0.000171890 0.0229243 0.0679689 0.0170495 0.00643562 9.64695E-05 0.00010385 0.00010385 0.00010385 0.0010475 4.61091E-06 1.94073E-05 5.01628E-06 7.31426E-05 0.00603787 1.00091E-06 8.20464E-07 1.75032E-06 0.00347688			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00353763 0.0418404 1.08816 0.217552 0.0757707 0.00304467 0.0135663 0.00283962 0.00211649 0 0	0 0.0136544 0.0296022 4.09049 4.77821 5.45494 1.72201 4.92356 3.14127 4.20358 2.10322 1.37003 5.01265 0.7695277 0.229160 1.98673 1.56523 3.99180 2.83363 0.615967	0 0.000813195 0.0126600 0.658107 2.59489 4.45590 1.58623 4.64707 3.07120 4.13307 2.08884 1.36162 4.98001 0.765589 0.227987 1.98263 1.56214 3.98554 2.82908 0.615064

o-Xylene		0	0	0.00130775	0.659285	0	0.658191		0	0.660593	0.00119241	0	0	0	0	0.659323	0.659070
Nonane		0	0	9.25716E-06	4.71244	0	4.70861		0	4.71245	2.05361E-07	0	0	0	0	4.71244	4.71169
C10+		0	0	1.24359E-08	20.0777	0	20.0777		0	20.0777	3.87957E-11	0	0	0	0	20.0777	20.0777
Mass Fraction		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Water		99.9538	99.9561	99.9583	0.00856629	0.000708124	0.000708124		100	0	99.9942	99.9942	5.79731E-07	99.9999	99.9561	0.00772077	0.00394482
H2S		0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Nitrogen		0.000147560	0.000141459	0.000191784	0.00423256	4.19114E-06	4.19114E-06		0	0.00462148	6.87611E-06	6.87611E-06	3.00304E-07	3.90484E-09	0.000141459	0.00420750	0.000256427
Carbon Dioxide		0.00281272	0.00262842	0.00237637	0.0144437	0.00102331	0.00102331		0	0.0125041	0.00144069	0.00144069	0.00204174	5.54111E-05	0.00262842	0.0143303	0.00627166
Methane		0.0259450	0.0249182	0.0219373	0.723556	0.00568607	0.00568607		0	0.700758	0.00155707	0.00155707	0.00230822	2.46442E-06	0.0249182	0.721824	0.118842
Ethane		0.0233430	0.00933758	0.0213573	1.58057	0.209245	0.209245		0	1.57803	0.000732079	0.000732079	0.484481	1.07532E-06	0.00933758	1.58041	0.878299
Propane		0.00523779	0.00476924	0.00452591	2.64634	1.20751	1.20751		0	2.64514	0.000102013	0.000405240	2.33455	1.45760E-07	0.00476924	2.64588	2.21174
Isobutane		0.00323779	0.00470924	0.00432391	1.10090	0.800490	0.800490		0	1.10110	8.00679F-06	8.00679F-06	1.44072	3.62101E-10	0.00470924	1.10094	1.03780
n-Butane		0.000273199	0.000252600	0.000242034	3.14755	2.54193	2.54193		0	3.14774	7.32960E-05		4.50809	4.99203E-09	0.000252600	3.14779	3.04036
Isopentane					2.49289	2.36650	2.36650					7.32960E-05					
		0.000319191	0.000292443	0.000218213					0	2.49295	1.07134E-05	1.07134E-05	3.98168	1.83764E-10	0.000292443	2.49298	2.49425
n-Pentane		0.000233291	0.000217971	0.000212857	3.33591	3.25309	3.25309			3.33672	1.03517E-05	1.03517E-05	5.37367	1.29489E-10	0.000217971	3.33606	3.35665
2-Methylpentane		0	0	2.38818E-05	1.99360	2.04142	2.04142		0	1.99429	5.67410E-07	5.67410E-07	3.32541	1.35974E-12	0	1.99366	2.02625
3-Methylpentane		0	0	3.85563E-05	1.29862	1.33438	1.33438		0	1.29925	2.38822E-06	2.38822E-06	2.16060	1.38763E-11	0	1.29867	1.32081
n-Hexane		0.000182962	0.000171383	3.25155E-05	4.75140	4.91202	4.91202		0	4.75154	6.17293E-07	6.17293E-07	0.540515	5.73563E-14	0.000171383	4.75155	4.83854
Methylcyclopentane		0	0	5.31306E-05	0.712128	0.736632	0.736632		0	0.712719	8.79023E-06	8.79023E-06	1.08545	1.09699E-10	0	0.712149	0.725275
Benzene		0	0	0.000741368	0.196839	0.203571	0.203571		0	0.202603	0.000673484	0.000673484	0.0180151	2.57845E-08	0	0.196897	0.200461
2-Methylhexane		0	0	7.10172E-06	2.18971	2.29639	2.29639		0	2.19032	1.43218E-07	1.43218E-07	0.234114	5.64936E-15	0	2.18978	2.23625
3-Methylhexane		0	0	5.57450E-06	1.72514	1.81005	1.81005		0	1.72562	1.17398E-07	1.17398E-07	2.77199	6.93916E-14	0	1.72519	1.76198
Heptane		0	0	1.18276E-05	4.39964	4.62571	4.62571		0	4.40085	2.50449E-07	2.50449E-07	6.50606	1.08826E-13	0	4.39977	4.49539
Methylcyclohexane		0	0	4.84091E-05	3.06030	3.21687	3.21687		0	3.06145	5.61345E-06	5.61345E-06	4.53102	1.50265E-11	0	3.06040	3.12679
Toluene		0	0	0.000513289	0.624170	0.657082	0.657082		0	0.628285	0.000457464	0.000457464	0.125302	8.46646E-09	0	0.624285	0.637918
Octane		0	0	5.05511E-06	10.1411	10.7202	10.7202		0	10.1437	7.11388E-08	7.11388E-08	14.1678	6.05092E-15	0	10.1414	10.3730
Ethylbenzene		0	0	0.000123308	0.495167	0.523587	0.523587		0	0.496243	0.000108645	0.000108645	0.185950	1.13681E-09	0	0.495197	0.506517
m-Xylene		0	0	0.000160610	0.754612	0.798210	0.798210		0	0.756041	0.000142089	0.000142089	0.364578	1.66088E-09	0	0.754665	0.771964
o-Xylene		0	0	0.000198186	0.769887	0.814522	0.814522		0	0.771610	0.000180773	0.000180773	0.320620	2.20884E-09	0	0.769954	0.787620
Nonane		0	0	1.69480E-06	6.64803	7.03941	7.03941		0	6.64973	3.76114E-08	3.76114E-08	8.45049	1.51428E-15	0	6.64823	6.80229
C10+		0	0	3.63202E-09	45 1847	47 8837	47 8837		0	45 1962	1.13348E-11	1.13348E-11	37 0845	0	0	45 1861	46.2406
Mass Flow		lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
		10/11				10/11											
Water		70074.0	0	70024 0	0.770701	n	0.0607401			0		0	0	0	70005 7	0.701001	0.350449
Water		70074.9	0	70024.9	0.778791	0	0.0607491		70299.4	0	70024.2	0	0	0	70025.7	0.701901	0.350448
H2S		0	0	0	0	0	0			0	70024.2 0	0	0	0	0	0	0
H2S Nitrogen		0 0.103450	0	0 0.134352	0 0.384797	0	0 0.000359553			0 0 0.420048	70024.2 0 0.00481522	0 0 0	0 0 0	0	0 0.0991009	0 0.382507	0 0.0227804
H2S Nitrogen Carbon Dioxide		0 0.103450 1.97193	0 0 0	0 0.134352 1.66475	0 0.384797 1.31313	0 0 0	0 0.000359553 0.0877882			0 0 0.420048 1.13650	70024.2 0 0.00481522 1.00889	0 0 0 0	0 0 0 0	0 0 0	0 0.0991009 1.84138	0 0.382507 1.30278	0 0.0227804 0.557159
H2S Nitrogen Carbon Dioxide Methane		0 0.103450 1.97193 18.1894	0 0 0 0	0 0.134352 1.66475 15.3679	0 0.384797 1.31313 65.7810	0 0 0	0 0.000359553 0.0877882 0.487801			0 0 0.420048 1.13650 63.6921	70024.2 0 0.00481522 1.00889 1.09039	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0.0991009 1.84138 17.4568	0 0.382507 1.30278 65.6215	0 0.0227804 0.557159 10.5577
H2S Nitrogen Carbon Dioxide Methane Ethane		0 0.103450 1.97193 18.1894 6.90840	0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384	0 0.384797 1.31313 65.7810 143.695	0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508			0 0 0.420048 1.13650 63.6921 143.427	70024.2 0 0.00481522 1.00889 1.09039 0.512663	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157	0 0.382507 1.30278 65.6215 143.676	0 0.0227804 0.557159 10.5577 78.0259
H2S Nitrogen Carbon Dioxide Methane Ethane Propane		0 0.103450 1.97193 18.1894 6.90840 3.67207	0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058	0 0.384797 1.31313 65.7810 143.695 240.588	0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591			0 0.420048 1.13650 63.6921 143.427 240.417	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116	0 0.382507 1.30278 65.6215 143.676 240.539	0 0.0227804 0.557159 10.5577 78.0259 196.486
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533	0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555	0 0.384797 1.31313 65.7810 143.695 240.588 100.087	0 0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591 68.6731			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963	0 0.382507 1.30278 65.6215 143.676 240.539 100.087	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane		0 .103450	0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155	0 0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079 286.099	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane		0 .103450	0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155 226.637	0 0 0 0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069 203.019			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.585	70024.2 0 0.00481522 1.09089 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane		0 .103450	0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155	0 0 0 0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079 286.099	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane		0 .103450	0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867	0 0.384797 1.31313 65.7810 143.695 240.588 240.587 286.155 226.637 303.279 181.245	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.0877882 0.487801 17.9508 103.591 218.069 203.019 279.079 175.131			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.585	70024.2 0 0.00481522 1.09089 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196 180.007
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane		0 .103450	0 0 0 0 0 0 0 0 0 0	0 .134352	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155 226.637 303.279	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.000359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane		0 .103450	0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302	0 0.384797 1.31313 65.7810 143.695 240.588 240.587 286.155 226.637 303.279 181.245	0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.0877882 0.487801 17.9508 103.591 218.069 203.019 279.079 175.131			0 0 420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.585 303.275 181.261	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.007504915	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196 180.007
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane sopentane 2-Methylipentane 3-Methylipentane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 115.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.0270103	0 0.384797 1.31313 65.7810 144.695 240.588 100.087 286.155 236.37 303.279 181.245 118.062	0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.0877882 0.487801 179 508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475			0 0 0.420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.000724915 0.000397347	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063	0 0.0227804 0.557759 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 62.7384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.027784	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155 226.637 303.279 1818.062 431.966	0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.000397347 0.00167243 0.000432280	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063 431.967	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 429.844
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane scopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 1.53679 6.27384 3.17058 0.732865 0.732865 0.162567 0.149115 0.0167302 0.0270103 0.0227784 0.0372202	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 266.155 226.637 303.279 181.245 118.062 431.966 64.7420	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.087882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396 63.1948			0 0 0 420048 1.13650 63.8921 143.427 240.417 100.079 226.099 226.595 303.275 181.261 118.089 64.7792	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.285783 0.00560702 0.00153279 0.00750238 0.00724915 0.00037347 0.000167243 0.000432280	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.5215 143.676 240.539 100.087 266.639 303.283 181.245 118.063 431.967 64.7419	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.088 221.583 298.196 180.007 117.338 429.844 64.4316
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane h-Hexane Methylcyclopentane Benzene		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.027784 0.0372202 0.519359	0 0.384797 1.31313 1.3	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.0677882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 11.4.475 421.396 63.1948 17.4641			0 0 420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089 64.7792 18.4147	70024.2 0 0.00481522 1.00889 1.09639 1.09639 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.000337347 0.00167243 0.000432280 0.000432280	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063 4431.967 64.7419 17.9001	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 444 64.4316 17.8085
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isoputane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylpexane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 11.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.152867 0.0167302 0.027784 0.0372202 0.519359 0.00497504	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155 226.637 303.279 181.245 118.062 431.966 64.7420 17.8953 199.074		0 0.00359553 0.0677882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089 431.869 64.7792 18.4147 199.079	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00770238 0.00724915 0.000397347 0.00167243 0.000432280 0.00615565 0.471629 0.000100293	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074	0 0.0227804 0.557159 10.5577 78.0259 196.486 227.098 221.583 298.196 180.007 117.388 429.844 17.8085 198.663
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylpexane 3-Methylpexane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516	0 0.384797 1.31313 65.7810 143.695 240.588 100.87 7266.155 226.637 303.279 1181.062 431.966 64.7420 17.8953 199.074 156.839		0 0.00359553 0.0877882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089 431.869 64.7792 18.4.147 199.079 156.843	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.000397347 0.00167243 0.000432280 0.006155655 0.471629 0.000100293 8.22121E-05	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 181.8063 431.967 64.7419 17.9001 199.074 156.839	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 270.098 221.536 221.538 429.844 64.4316 17.8085 17.8085 198.663 156.530
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane scopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylpexane 3-Methylpexane Heptane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 1.53679 6.27384 3.17058 0.169555 0.152867 0.149115 0.0167302 0.0270784 0.0372202 0.519359 0.00497504 0.00390516 0.00828574	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 286.155 226.637 303.279 181.245 118.062 431.996 64.7420 17.9893 199.074 156.839 399.986		0 0.00359553 0.087882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971			0 0 420048 1.13650 63.6921 143.427 240.417 100.079 286.099 226.595 303.275 181.261 118.089 64.7792 18.4147 199.079 156.843 399.994 278.256	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.00037347 0.000167243 0.000615565 0.471629 0.000100293 8.22121E-05 0.000175385	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 369.966 278.223	0 0.0227804 0.0577159 10.5577 78 0.0259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 399.359 277.776
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Benzane 2-Methylpentane 3-Methylpentane h-Hexane Hethylcobpentane Benzane 2-Methylpexane 3-Methylpexane Toluene		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00828574 0.0039125 0.359580	0 0.384797 1.31313 1.3		0 0.00359553 0.0677882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 421.396 63.946 17.4641 197.004 155.282 396.834 275.971 56.3703			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 266.099 226.585 303.275 181.261 118.089 431.869 64.7792 18.4147 199.079 156.843 339.94 278.256 57.1051	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.0003937347 0.00167243 0.000432280 0.00615565 0.471629 0.000100293 8.22121E-05 0.00017385	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 1.30278 1.30278 1.30278 1.30278 1.43.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.986 278.223 56.7542	0 0.0227804 0.557159 10.5577 78 0.259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopentane Benzene Toluene Octane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.0028574 0.0390516 0.00354131	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 7266.155 226.637 303.279 1181.062 431.966 64.7420 17.8953 199.074 156.839 399.966 278.222 56.7455 921.961		0 0.00359553 0.0877882 0 0.487801 17.9508 103.591 68.6731 278.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971 58.3703 919.676			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 266.099 226.585 303.275 181.261 181.261 181.269 431.869 64.7792 18.4147 199.079 156.843 399.94 278.256 57.1051 921.965	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.000397347 0.00167243 0.000432280 0.006155655 0.471629 0.000100293 8.22121E-05 0.000933100 0.320354 4.98173E-05	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 268.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962	0 0.0227804 0.557159 10.557177 78.0259 196.486 92.1954 2770.098 221.583 298.196 180.007 1117.338 429.844 64.4316 17.8065 198.665 30 399.359 277.776 56.6711 921.510
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane sopentane n-Pentane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.66475 1.65475 1.53679 6.27384 3.17058 0.169555 0.152867 0.149115 0.0167302 0.0270703 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00828574 0.0339125 0.359580 0.00354131 0.0863820	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 256.155 226.637 303.279 181.245 1118.062 431.966 64.7420 17.9953 199.074 156.839 399.986 278.222 56.7455 5921.961 45.0173		0 0.00359553 0.087882 0 0.487801 17.9508 103.591 68.6731 278.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971 56.3703 5919.676 44.9179			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 266.099 226.585 303.275 181.261 181.889 431.869 64.7792 18.447 190.843 399.994 278.256 577.1051 921.965 45.1037	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724215 0.000397347 0.000167243 0.000432280 0.000162565 0.471629 0.00010933 8.221216-05 0.000175385 0.000397347 4.8813736-05	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 286.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 196.839 399.966 278.223 56.7542 921.962 45.0187	0 0.0227804 0.5571804 0.557180 0.557187 778.0259 196.486 92.1954 2271.583 298.196 180.007 117.338 444 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.510 44.9977
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylbevane 3-Methylpexane Heptane Methylcyclopentane Ethylbevane Toluene Octane Ethylberzene m-Xylene		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.66475 1.53679 6.27384 3.17058 0.169555 0.732865 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00628574 0.0399580 0.0039580 0.00354131 0.0863820 0.112514	0 0.384797 1.31313 1.31313 5.57810 143.695 240.588 100.087 226.637 303.279 181.245 118.062 431.966 64.7420 17.8953 199.074 156.839 369.396 278.222 56.7455 931.956 145.0173 68.6043		0 0.00359553 0.087882 0 0.487801 17.9508 103.591 68.6731 218.069 229.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 336.834 275.971 55.3703 9919.676 44.9179 68.4774			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 226.099 226.595 303.275 181.261 118.089 64.7792 18.4147 199.079 18.4147 199.079 399.994 278.256 57.1051 921.965 57.1051 921.965	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.0050702 0.00513279 0.00750238 0.00724915 0.000397347 0.000167243 0.000615565 0.471629 0.000100293 8.22121E-05 0.000175385 0.00333100 0.320354 4.98173E-05 0.076023	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.5215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 369.966 278.223 56.7542 991.962 45.0187 68.6072	0 0.0227804 0.5577159 10.5577 78 0.259 196.486 92.1954 270.098 221.583 298.196 180.007 117.386 429.844 64.4316 17.8085 198.663 156.530 156.5794 921.510 921.51
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Grund		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.68475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0067302 0.0270103 0.0227784 0.03972202 0.519359 0.00497504 0.00390516 0.0025674 0.00390516 0.00354131 0.0863820 0.00354131 0.18837	0 0.384797 1.31313 65.7810 143.695 240.588 1100.087 266.155 226.637 303.279 118.062 431.966 64.7420 117.9653 199.074 156.839 399.966 2778.222 256.7455 921.961 45.0173 68.6043 69.9930		0 0.00359553 0.0077882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 1175.131 114.475 421.396 63.1948 117.4641 1197.004 155.282 336.834 2275.971 56.3703 919.676 44.9179 68.4774 69.8769			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089 431.869 64.7792 18.4147 199.079 155.843 399.994 278.256 57.1051 921.905 45.1037 68.7169 70.1319	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.0003937347 0.00167243 0.000432280 0.00615565 0.471629 0.000100293 8.22121E-05 0.00017385 0.000437385 0.00043230 0.00393100 0.320334 4.88173E-05 0.0760823 0.0760823 0.0995023 0.126592	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962 45.0187 68.6072 69.9971	0 0.0227804 0.5577159 10.5577 78 0.259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.510 44.977 68.5794 68.5794 69.9702
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane n-Hexane Methylocyclopentane Benzene 2-Methylpentane n-Hexane Methylcyclopentane Benzene Tolluene Gottane Ethylbenzene Tolluene Octane Ethylbenzene m-Xylene o-Xylene Nonane		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.0028574 0.0390516 0.00354131 0.0863820 0.112514 0.138837 0.00118728	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 7266.155 226.637 303.279 1181.062 431.966 64.7420 17.8953 199.074 156.839 399.966 278.222 56.7455 921.961 45.0173 68.6043 69.9930 604.395		0 0.00359553 0.0877882 0.487801 17.9508 103.591 68.6731 278.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971 58.3703 919.676 44.9179 68.4774 68.8774 68.8774 68.8774 68.8779 603.903			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 266.099 226.585 303.275 181.261 181.261 181.269 431.869 64.7792 18.4147 199.079 156.843 399.94 278.256 57.1051 921.965 45.1037 68.7169 70.1319 604.396	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00750238 0.00750238 0.00750238 0.0073947 0.00167243 0.000432280 0.00010293 8.22121E-05 0.00010293 8.22121E-05 0.000393100 0.320334 4.98173E-05 0.0760823 0.0995023 0.126592 2.63386E-05	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962 45.0187 68.6072 69.9971 604.395	0 0.0227804 0.557159 10.5577 78.0259 196.486 92.1954 277 0.98 221.583 298.196 180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.510 44.9977 68.5794 69.9702 604.299
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Grund		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0		0 0.134352 1.68475 15.3679 6.27384 3.17058 0.169555 0.732865 0.152867 0.149115 0.0067302 0.0270103 0.0227784 0.03972202 0.519359 0.00497504 0.00390516 0.0025674 0.00390516 0.00354131 0.0863820 0.00354131 0.18837	0 0.384797 1.31313 65.7810 143.695 240.588 1100.087 266.155 226.637 303.279 118.062 431.966 64.7420 117.9653 199.074 156.839 399.966 2778.222 256.7455 921.961 45.0173 68.6043 69.9930		0 0.00359553 0.0077882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 1175.131 114.475 421.396 63.1948 117.4641 1197.004 155.282 336.834 2275.971 56.3703 919.676 44.9179 68.4774 69.8769			0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 286.099 226.585 303.275 181.261 118.089 431.869 64.7792 18.4147 199.079 155.843 399.994 278.256 57.1051 921.905 45.1037 68.7169 70.1319	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.00750238 0.00724915 0.0003937347 0.00167243 0.000432280 0.00615565 0.471629 0.000100293 8.22121E-05 0.00017385 0.000437385 0.00043230 0.00393100 0.320334 4.88173E-05 0.0760823 0.0760823 0.0995023 0.126592	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962 45.0187 68.6072 69.9971	0 0.0227804 0.5577159 10.5577 78 0.259 196.486 92.1954 270.098 221.583 298.196 180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.510 44.977 68.5794 68.5794 69.9702
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Benzene 2-Methylpexane 3-Methylpexane Heptane Methylcyclopexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+		0 0.103450 1.07193 1.1.197193 1.1.1984 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0 0.128270 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.152867 0.149115 0.0167302 0.0270703 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00828574 0.039580 0.00354131 0.0863820 0.112514 0.138837 0.00118728 2.54437E-06	0 0.384797 1.31313 1.31313 5.57810 143.695 240.588 100.087 2266.57 303.279 181.245 118.062 431.966 64.7420 17.8953 199.074 156.839 399.986 278.222 56.7455 9321.961 45.0173 68.6043 69.9930 604.395 604.395 4107.90		0 0.00359553 0.087882 0 0.487801 17.9508 103.591 68.6731 2218.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971 56.3703 919.676 44.9779 68.4774 69.8769 603.903 4107.89		70299.4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 420048 1.13650 63.9921 143.427 240.417 100.079 266.099 2266.595 303.275 181.261 118.089 64.7792 18.4147 199.679 156.843 399.994 278.256 57.1051 95.7155 45.1037 68.7169 70.1319 604.396 4107.90	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.00513279 0.00750238 0.00724915 0.00037347 0.000167243 0.000615565 0.471629 0.000100293 8.22121E-05 0.000175385 0.009339100 0.320354 4.98173E-05 0.0766823 0.0995023 0.126592 2.63386E-05 7,93760E-09	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962 45.0187 68.6072 69.9971 604.395	0 0.0227804 0.557159 78 0.259 10.55775 77 78 0.259 196.486 92.1954 270.098 196.180.007 117.338 444 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.597 68.5794 69.9702 604.299 4107.90
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Benzene 2-Methylpexane Hetylareane Methylcyclopentane Benzene 2-Methylpexane Toluene Cotane Ethylbenzene m-Xylene o-Xylene Nonane C10+		0 0.103450 1.97193 18.1894 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0 0.128270 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 1.53679 6.27384 3.17058 0.169555 0.732865 0.732865 0.152867 0.149115 0.0167302 0.0270103 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00328574 0.039125 0.359580 0.00497504 0.00354131 0.00663820 0.112514 0.138837 0.00118728 2.54437E-06	0 0.384797 1.31313 65.7810 143.695 240.588 100.087 226.637 303.279 181.245 118.062 431.966 64.7420 17.8953 199.074 156.839 399.96 278.222 56.7455 9321.455 9321.455 9321.455 9321.455 9321.455 94.917 68.6043 69.9930 604.395 4107.90	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.087882 0.487801 17.9508 103.591 68.6731 218.069 203.019 279.079 175.131 114.475 63.1948 17.4641 197.004 155.282 366.834 275.971 56.3703 919.676 49.179 68.4774 69.8769 603.903 4107.89	Gas	70299.4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0.420048 1.13650 63.8921 143.427 240.417 100.079 266.099 226.585 303.275 181.261 118.089 431.889 64.7792 156.843 3994 278.256 57.1051 921.965 45.1037 68.7169 70.1319 604.396 4107.90	70024.2 0 0.00481522 1.00689 1.09039 0.512663 0.283783 0.00560702 0.0513279 0.007724915 0.0007324915 0.000397347 0.00167243 0.000432280 0.00615565 0.471629 0.000100293 8.22121E-05 0.00393100 0.320354 4.88173E-05 0.00393100 0.320354 0.995023 0.126592 2.63386E-05 7.93760E-09	D	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 1.84138 1.74568 6.54157 3.34116 0.179636 0.788504 0.204875 0.152702 0 0 0.120065 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 363.996 278.223 56.7542 99.971 68.6072 69.9971 604.395 4107.90	0 0.0227804 0.0527804 0.0527804 0.0527809 10.55777 78 0.0259 196.486 92.1954 270.098 196.180.007 117.338 429.844 64.4316 17.8085 198.663 156.530 199.56711 921.510 921.7776 98.5794 99.9702 604.299 4107.90
H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane 2-Methylpentane 3-Methylpentane Benzene 2-Methylpexane 3-Methylpexane Heptane Methylcyclopexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+	Status Units	0 0.103450 1.07193 1.1.197193 1.1.1984 6.90840 3.67207 0.191533 0.842208 0.223776 0.163554 0 0 0.128270 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.134352 1.66475 15.3679 6.27384 3.17058 0.169555 0.152867 0.149115 0.0167302 0.0270703 0.0227784 0.0372202 0.519359 0.00497504 0.00390516 0.00828574 0.039580 0.00354131 0.0863820 0.112514 0.138837 0.00118728 2.54437E-06	0 0.384797 1.31313 1.31313 5.57810 143.695 240.588 100.087 2266.57 303.279 181.245 118.062 431.966 64.7420 17.8953 199.074 156.839 399.986 278.222 56.7455 9321.961 45.0173 68.6043 69.9930 604.395 604.395 4107.90	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.00359553 0.087882 0 0.487801 17.9508 103.591 68.6731 2218.069 203.019 279.079 175.131 114.475 421.396 63.1948 17.4641 197.004 155.282 396.834 275.971 56.3703 919.676 44.9779 68.4774 69.8769 603.903 4107.89		70299.4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 420048 1.13650 63.9921 143.427 240.417 100.079 266.099 2266.595 303.275 181.261 118.089 64.7792 18.4147 199.679 156.843 399.994 278.256 57.1051 95.7155 45.1037 68.7169 70.1319 604.396 4107.90	70024.2 0 0.00481522 1.00889 1.09039 0.512663 0.283783 0.00560702 0.00513279 0.00750238 0.00724915 0.00037347 0.000167243 0.000615565 0.471629 0.000100293 8.22121E-05 0.000175385 0.009339100 0.320354 4.98173E-05 0.0766823 0.0995023 0.126592 2.63386E-05 7,93760E-09	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0.0991009 1.84138 17.4568 6.54157 3.34116 0.176963 0.788504 0.204875 0.152702 0 0	0 0.382507 1.30278 65.6215 143.676 240.539 100.087 266.168 226.639 303.283 181.245 118.063 431.967 64.7419 17.9001 199.074 156.839 399.966 278.223 56.7542 921.962 45.0187 68.6072 69.9971 604.395	0 0.0227804 0.557159 78 0.259 10.55775 77 78 0.259 196.486 92.1954 270.098 196.180.007 117.338 444 64.4316 17.8085 198.663 156.530 399.359 277.776 56.6711 921.597 68.5794 69.9702 604.299 4107.90

Pressure	psig	200	200	200	200	0	0		200	300	0	0	8.81720	-14.2252	200	200	40
Mole Fraction Vapor	%	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Mole Fraction Light Liquid	%	100	100	100	100	100	100		100	100	100	100	100	100	100	100	100
Mole Fraction Heavy Liquid	%	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Molecular Weight	lb/lbmol	18.0	18.0	18.0	108.9	123.8	123.8		18.0	109.1	18.0	18.0157	110.358	18.0153	18.0165	108.921	116.628
Mass Density	lb/ft^3	62.3	62.3	62.3	45.0	45.8	45.8		62.3	45.2	62.2	62.2171	44.4786	62.2179	62.2960	45.1281	45.4833
Molar Flow	lbmol/h	3891.3	0.0	3888.3	83.5	0.0	69.3		3902.2	83.3	3887.1	0	0	0	3888.46	83.4649	76.1714
Mass Flow	lb/h	70107.3	0.0	70054.1	9091.3	0.0	8578.9		70299.4	9089.0	70028.3	0	0	0	70056.4	9091.07	8883.75
Vapor Volumetric Flow	MCFH	1.1	0.0	1.1	0.2	0.0	0.2		1.1	0.2	1.1	0	0	0	1.12457	0.201451	0.195319
Liquid Volumetric Flow	Mbbl/d	4.8	0.0	4.8	0.9	0.0	0.8		4.8	0.9	4.8	0	0	0			0.834907
Std Vapor Volumetric Flow	MMSCFD	35.4	0.0	35.4	0.8	0.0	0.6		35.5	0.8	35.4	0	0	0	35.4147	0.760167	0.693741
Std Liquid Volumetric Flow	Mbbl/d	4.8	0.0	4.8	0.9	0.0	0.8		4.8	0.9	4.8	0	0	0	4.80556	0.878259	0.842324
Compressibility		0.011	0.011	0.011	0.091	0.007	0.007		0.011	0.135	0.001	0.000740333	0.0101496	2.37153E-05	0.0110067	0.0918411	0.0246739
Specific Gravity		1.000	0.999	0.998	0.722	0.734	0.734		0.999	0.724	0.998	0.997564	0.713153	0.997577	0.998829	0.723565	0.729261
API Gravity		10.1	10.0	10.0	63.3	59.4	59.4		10.0	63.0		10.0153	64.7846	10.0135			61.2683
Enthalpy	MMBtu/h	-479.2	0.0	-478.2	-7.9	0.0	-7.2		-480.2	-7.9	-477.8	0	0	0	-478.465	-7.93357	-7.61278
Mass Enthalpy	Btu/lb	-6835.2	-6829.7	-6825.8	-870.8	-841.9	-841.9		-6830.9	-871.0	-6822.3	-6822.34	-888.613	-6822.66	-6829.71		-856.933
Mass Cp	Btu/(lb*°F)	1.0	1.0	1.0	0.5	0.5	0.5		1.0	0.5	1.0	0.982731	0.494366	0.982746	0.983391	0.487817	0.486470
Ideal Gas CpCv Ratio		1.326	1.326	1.326	1.051	1.044	1.044		1.326	1.051	1.326	1.32555	1.04937	1.32556	1.32600	1.05104	1.04737
Dynamic Viscosity	cP	1.1	1.0	1.0	0.5	0.7	0.7		1.0	0.5	0.9	0.924432		0.924434		0.540870	0.603026
Kinematic Viscosity	cSt	1.1	1.1	1.0	0.7	0.9	0.9		1.0	0.8				0.927556			0.827681
Thermal Conductivity	Btu/(h*ft*°F)	0.3	0.3	0.3	0.1	0.1	0.1		0.3	0.1	0.3	0.349779	0.0684433	0.349835	0.344619		0.0691577
Surface Tension	lbf/ft	0.005	0.005	0.005	0.001	0.002	0.002		0.005	0.001	0.005	0.00499710	0.00147181	0.00499737	0.00507040	0.00143115	0.00155152
Net I.G. Heating Value	Btu/ft^3	0.4	0.4				6205.1		0.0	5484.2		0.0409897					5853.31
Net Liquid Heating Value	Btu/lb	-1050.2	-1050.7	-1051.2	18903.6	18845.6	18845.6		-1059.8	18904.8	-1058.8	-1058.84	18949.3	-1059.76			18874.2
Gross I.G. Heating Value	Btu/ft^3	50.8	50.7				6656.5		50.3	5888.7							6282.07
Gross Liquid Heating Value	Btu/lb	10.0	9.5	8.9	20309.5	20227.8	20227.8		0.0	20310.4	0.9	0.930057	20377.1	0.000825555	9.48135	20309.7	20268.1
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Process Streams		Well Stream	HP Separator Gas	HP Separator Water	HP Separator Oil	OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	1	3	LP Separator Oil
Phase: Heavy Liquid	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved

Process Streams		Well Stream	HP Separator Gas	HP Separator Water	HP Separator Oil	OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	1	3	LP Separator Oil
Phase: Heavy Liquid	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Mole Fraction		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Water					99.9661											99.9659	
H2S					0											0	
Nitrogen					0.000123345											0.000125446	
Carbon Dioxide					0.000972844											0.000978889	
Methane					0.0246369											0.0248925	!
Ethane					0.00536606											0.00538224	!
Propane					0.00184921											0.00187777	!
Isobutane					7.50256E-05											7.46803E-05	!
n-Butane					0.000324282											0.000318584	!
Isopentane					5.44913E-05											5.38236E-05	!
n-Pentane					5.31537E-05											5.16053E-05	!
2-Methylpentane					4.99297E-06											4.77877E-06	!
3-Methylpentane					8.06098E-06											7.79338E-06	!
n-Hexane					6.79802E-06											6.49815E-06	!
Methylcyclopentane					1.13741E-05											1.14021E-05	
Benzene					0.000170998											0.000169430	!
2-Methylhexane					1.27692E-06											1.26913E-06	!
3-Methylhexane					1.00232E-06											9.93998E-07	!
Heptane					2.12665E-06											2.17128E-06	!
Methylcyclohexane					8.88284E-06											8.64437E-06	
Toluene					0.000100368											9.79261E-05	
Octane					7.97318E-07											7.55697E-07	
Ethylbenzene					2.09259E-05											2.06033E-05	
m-Xylene					2.72562E-05											2.65736E-05	
o-Xylene					3.36330E-05											3.26560E-05	
Nonane					2.38078E-07											2.25535E-07	!
C10+					3.19828E-10											2.92527E-10	
Molar Flow		lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	Ibmol/h	lbmol/h	lbmol/h
Water					0											3886.98	
H2S					0											0	'
Nitrogen					0											0.00487774	
Carbon Dioxide					0											0.0380622	1
Methane			1		0			1		1						0.967895	

Ethane				0											0.209278	
Propane				0											0.0730135	
Isobutane				U											0.00290380	
n-Butane				0											0.0123875	
Isopentane				0											0.00209282	
n-Pentane				0											0.00200657	
2-Methylpentane				U											0.000185813	
3-Methylpentane				0											0.000303030	
n-Hexane				0											0.000252668	
Methylcyclopentane				0											0.000443349	
Benzene				0											0.00658794	
2-Methylhexane				0											4.93476E-05	
3-Methylhexane				0											3.86497E-05	
Heptane				0											8.44259E-05	
Methylcyclohexane				0											0.000336119	
Toluene				0											0.00380767	
Octane				0											2.93838E-05	
Ethylbenzene															0.000801120	
				U												
m-Xylene				U											0.00103326	
o-Xylene				0											0.00126977	
Nonane				0											8.76949E-06	
C10+				0											1.13743E-08	
					.,											
Mass Fraction	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Water				99.9583											99.9581	
H2S				0											0	
Nitrogen				0.000191784											0.000195051	
Carbon Dioxide				0.00237637											0.00239114	
Methane				0.0219373											0.0221648	
Ethane				0.00895571											0.00898272	
Propane				0.00452591											0.00459583	
Isobutane			1	0.000242034			1	1							0.000240920	
n-Butane				0.00104614											0.00102776	
Isopentane				0.000218213											0.000215539	
Isopentane n-Pentane				0.000218213 0.000212857											0.000215539 0.000206656	
Isopentane				0.000218213											0.000215539	
Isopentane n-Pentane 2-Methylpentane				0.000218213 0.000212857 2.38818E-05											0.000215539 0.000206656 2.28573E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane				0.000218213 0.000212857 2.38818E-05 3.85563E-05											0.000215539 0.000206656 2.28573E-05 3.72764E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05 0.000741368											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05 0.000741368											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05 0.000741368 7.10172E-06											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25155E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclobexane				0.000218213 0.000212857 2.38818E-05 3.85663E-05 3.25156E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane				0.000218213 0.000212857 2.38818E-05 3.85663E-05 3.25156E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05											0.00215539 0.00206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopentane				0.000218213 0.000212857 2.388186-05 3.85563E-05 3.85565E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.000513289											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05 0.000500800	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopexane Toluene Octane				0.000218213 0.000212857 2.38818E-05 3.85563E-05 3.25156E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-05 4.84091E-05 0.000513289 5.05511E-06											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05 0.000500800 4.79123E-06	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclobexane Toluene Octane Ethylbenzene				0.000218213 0.000212857 2.38818E-05 3.856563E-05 5.31306E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.000613289 5.00511E-06											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 5.32615E-05 0.000734867 7.05841E-06 5.52824E-06 1.20758E-05 0.00058E-05 0.000508000 4.79123E-06 0.000121407	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopexane Toluene Octane				0.000218213 0.000212857 2.38818E-05 3.385563E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-05 1.18276E-05 4.84091E-05 0.000513289 5.05511E-06 0.000123308 0.000160610											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05 0.000500800 4.79123E-06	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene				0.000218213 0.000212857 2.38818E-05 3.385563E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-05 1.18276E-05 4.84091E-05 0.000513289 5.05511E-06 0.000123308 0.000160610											0.000215539 0.00026656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734667 7.05841E-06 5.52824E-06 1.20758E-05 0.000500800 4.79123E-06 0.000121407 0.000156887	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclobexane Toluene Octane Ethylbenzene m-Xylene o-Xylene				0.000218213 0.000212857 2.38818E-05 3.325155E-05 3.325155E-05 5.31306E-05 0.000741368 7.10172E-06 5.7450E-06 1.18276E-05 4.84091E-05 0.000513289 5.05511E-06 0.000160610 0.000198186											0.000215539 0.000206656 2.285732-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000500800 4.79123E-06 0.00012429	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane				0.000218213 0.000021857 2.38818E-05 3.385650E-05 3.25155E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.000153389 5.05511E-06 0.000123308 0.000160610 0.000198186 1.69480E-06											0.000215539 0.00026656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.71095E-05 0.000121407 0.000156587 0.00019229 1.60551E-06	
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclobexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonene C10+				0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09											0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 5.32615E-05 0.000734567 7.05841E-06 5.52624E-06 1.20758E-05 4.71095E-05 0.000508004 4.79123E-06 0.000121407 0.0001565887 0.000192429 1.60651E-06 3.32197E-09	
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane	lb/h	lb/h	lb/h	0.000218213 0.000021857 2.38818E-05 3.385650E-05 3.25155E-05 5.31306E-05 0.000741368 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.000153389 5.05511E-06 0.000123308 0.000160610 0.000198186 1.69480E-06	bh	łb/h	lb/h	lb/h	ib/h	lb/h	lb/h	ib/h	ĭb/h	lb/h	0.000215539 0.00026656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.71095E-05 0.000121407 0.000156587 0.00019229 1.60551E-06	lbih
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclobexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonene C10+	lb/h	lb/h	lb/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	1b/h	lb/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05 0.000500800 4.79123E-06 0.000121407 0.000156587 0.000192429 1.60551E-06 3.32197E-09	Ibh
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene Nonane C10+ Mass Flow Water	lb/h	ib/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	ib/h	ib/h	ibih	ib/h	lb/h	lb/h	ib/h	lb/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 5.32615E-05 0.000734567 7.05841E-06 5.52624E-06 1.20758E-05 4.71095E-05 0.000508004 4.79123E-06 0.000121407 0.0001565887 0.000192429 1.60651E-06 3.32197E-09	1b/h
Isopentane n-Pentane 2-Methylpentane n-Hexane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane 3-Methylnexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S	lb/h	lb/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	ib/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000500000 4.79123E-06 0.000121407 0.000156587 0.000159229 1.60551E-06 3.32197E-09 10h	lb/h
Isoperitane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclopexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen	ib/h	lb/h	ibih	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	lb/h	ib/h	lb/h	ib/h	lb/h	ib/h	lb/h	lb/h	ib/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.79123E-06 0.000121407 0.000156587 0.000192429 1.000510 0.32197E-09 1bth 70025.0 0.136642	lbih
Isopentane n-Pentane 2-Methylpentane n-Hexane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane 3-Methylnexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S	lb/h	lb/h	tb/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	łb/h	lb/h	lb/h	tb/h	lb/h	tb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000500000 4.79123E-06 0.000121407 0.000156587 0.000159229 1.60551E-06 3.32197E-09 10h	lb/h
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide	lb/h	lb/h	lb/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 3.325155E-05 5.31306E-05 0.000741388 7.10172E-06 5.57450E-06 1.18276E-05 4.84091E-05 0.00013389 5.005511E-06 0.000123308 0.000106010 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	1b/h	ib/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.79123E-06 0.000121407 0.000165887 0.000192429 1.60551E-06 3.32197E-09 10.1	lbih
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nilrogen Carbon Dioxide Methane	lb/h	Ib/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lbíh	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	Ib/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 3.2615E-05 0.000724667 7.05841E-06 5.52824E-06 1.20758E-05 0.00058E-05 0.00058E-05 0.00058E-05 0.00058E-05 0.000121407 0.000128429 1.60551E-06 3.22197E-09 0.00	lbih
Isopentane n-Pentane 2-Methylpentane n-Hexane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane 3-Methylnexane 3-Methylnexane Toluene Octane Ethylbenzane m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethene	lb/h	ib/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	ib/h	ib/h	lb/h	lb/h	lb/h	ib/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.5284E-06 1.20758E-05 0.000508000 4.71095E-05 0.000152407 0.00156887 0.00015249 1.60551E-06 3.32197E-09 10.hh 70025 0 0 0.136642 1.67510	lb/h
Isoperitane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Ethane Fropane	ib/h	ib/h	ibih	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	ib/h	lb/h	ib/h	lb/h.	ib/h	lb/h	lb/h	ib/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52624E-06 1.20758E-05 0.000508000 4.79123E-06 0.000121407 0.000156587 0.000192429 1.60551E-06 3.2197E-09 1b/h 70025.0 0.136642 1.67510 1.5.5274 6.29279 3.21958	lbih
Isopentane n-Pentane 2-Methylpentane n-Hexane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane 3-Methylnexane 3-Methylnexane Toluene Octane Ethylbenzane m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethene	łb/h	lb/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	tb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.5284E-06 1.20758E-05 0.000508000 4.71095E-05 0.000152407 0.00156887 0.00015249 1.60551E-06 3.32197E-09 10.hh 70025 0 0 0.136642 1.67510	lb/h
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane	lb/h	lb/h	lb/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	Ib/h	lb/h	lb/h	1b/h	ib/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 4.71095E-05 0.000508000 4.79123E-06 0.000121407 0.0001565887 0.000192429 1.60551E-06 3.32197E-09 1.50551E-06 0.136642 1.67510 15.5274 6.29279 3.21988 0.168775	lb/h
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Proppane Isobutane n-Butane	ib/h	ib/h	ibih	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	ib/h	ib/h	ibíh	ib/h	lb/h	lb/h	lb/h	lb/h	ib/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.79123E-06 0.000121407 0.000156587 0.00192429 1.60551E-06 3.32197E-09 1.60551E-06 1.32197E-09 1.166642 1.67510 1.5.5274 6.29279 3.21989	lbh
Isopentane n-Pentane 2-Methylpentane n-Hexane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane 3-Methylnexane 3-Methylnexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane	lb/h	ib/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	ib/h	ib/h	ib/h	ib/h	lb/h	lb/h	ib/h	lb/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.5284E-06 1.20758E-05 4.71095E-05 0.000500800 4.79123E-06 0.00121407 0.00156587 0.00159229 1.60551E-06 3.22197E-09 10:h 70025.0 0 0.136642 1.67510 1.5.5274 6.29279 3.21958 0.168775 0.719989 0.159995	Ibfh
Isopertane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Proppane Isobutane n-Butane	ib/h	ib/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	ib/h	ibíh	ib/h	ib/h	ib/h	lb/h	lb/h	ib/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000508000 4.79123E-06 0.000121407 0.000156587 0.00192429 1.60551E-06 3.32197E-09 1.60551E-06 1.32197E-09 1.166642 1.67510 1.5.5274 6.29279 3.21989	lbh
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylhexane 3-Methylhexane Heptane Methylcyclohexane Toluene Octane Ethylbenzene m-Xyfene o-Xyfene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane	tb/h	lb/h	ib/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	<u>lb/h</u>	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000500800 4.79123E-06 0.00121407 0.00156587 0.00192429 1.60551E-06 3.32197E-09 1b/h 70025 0 0.136642 1.67510 1.55274 6.29279 3.21958 0.168775 0.719989 0.150995 0.150995 0.150995	lbih
Isoperitane n-Pentane 2-Methylpentane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclopentane Benzene 2-Methylhexane Heptane Methylcyclobexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonene C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Eithane Propane Isobutane n-Butane Isoperitane n-Pentane 12-Methylpentane 2-Methylpentane	lb/h	lb/h	Ibíh	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	ib/h	ib/h	ib/h	ib/h	Ib/h	lb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.72764E-05 3.3.0812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52624E-06 1.20758E-05 4.7193E-06 0.000121407 0.0001565887 0.00012407 0.00156587 0.0012505 0 0.3.2197E-09 10.1	Ibih
Isopentane n-Pentane 2-Methylpentane 3-Methylpentane n-Hexane n-Hexane Methylcyclopentane Benzene 2-Methylnexane Heptane Methylcyclopentane E-Methylnexane Heptane Methylcyclopexane Toluene Octane Ethylbenzene m-Xylene o-Xylene Nonane C10+ Mass Flow Water H2S Nitrogen Carbon Dioxide Methane Ethane Propane Isobutane n-Butane Isopentane n-Pentane	lb/h	lb/h	tb/h	0.000218213 0.000212857 2.38818E-05 3.85653E-05 5.31206E-05 5.31206E-05 5.37450E-06 1.18276E-05 4.84091E-05 0.000731289 5.005511E-06 0.000123308 0.0001080180 0.000198186 1.69480E-06 3.63202E-09	lb/h	lb/h	lb/h	lb/h	tb/h	lb/h	lb/h	lb/h	lb/h	tb/h	0.000215539 0.000206656 2.28573E-05 3.72764E-05 3.10812E-05 5.32615E-05 0.000734567 7.05841E-06 5.52824E-06 1.20758E-05 0.000500800 4.79123E-06 0.00121407 0.00156587 0.00192429 1.60551E-06 3.32197E-09 1b/h 70025 0 0.136642 1.67510 1.55274 6.29279 3.21958 0.168775 0.719989 0.150995 0.150995 0.150995	lb/h

		_															
n-Hexane					0											0.0217737	
Methylcyclopentane					0											0.0373120	
Benzene					0											0.514596	
2-Methylhexane					0											0.00494473	
3-Methylhexane					0											0.00387277	
Heptane					0											0.00845964	
Methylcyclohexane					0											0.0330022	
Toluene					0											0.350832	
Octane					0											0.00335647	
Ethylbenzene					0											0.0850509	
m-Xylene					0											0.109696	
o-Xylene					D											0.134805	
Nonane					0											0.00112473	
C10+					D											2.32719E-06	
Process Streams		Well Stream	-	HP Separator Water		OT Flash Gas	Sales Oil	Gas	Water	Oil	Produced Water	PWT Flash Gas	Oil W/B	Water W/B	1	3	LP Separator Oil
Phase: Heavy Liquid	Status	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Property	Units																
Temperature	°F				70.0											66.0894	
Pressure	psig				200											200	
Mole Fraction Vapor	%			1	0											0	
Mole Fraction Light Liquid	%			1	0											0	
Mole Fraction Heavy Liquid	%				100											100	
Molecular Weight	lb/lbmol				18.0											18.0167	
Mass Density	lb/ft^3				62.3											62.2979	
Molar Flow	lbmol/h				0.0											3888.30	
Mass Flow	lb/h				0.0											70054.4	
Vapor Volumetric Flow	MCFH				0.0											1.12451	
Liquid Volumetric Flow	Mbbl/d				0.0											4.80679	
Std Vapor Volumetric Flow	MMSCFD				0.0											35.4132	
Std Liquid Volumetric Flow	Mbbl/d				0.0											4.80508	
Compressibility					0.011											0.0110046	
Specific Gravity					0.998											0.998860	
API Gravity					10.0											10.0432	
Enthalpy	MMBtu/h				0.0											-478.448	
Mass Enthalpy	Btu/lb				6825.8											-6829.67	
Mass Cp	Btu/(lb*°F)				1.0											0.983352	
Ideal Gas CpCv Ratio					1.326											1.32600	
Dynamic Viscosity	cP				1.0											1.04689	
Kinematic Viscosity	cSt				1.0											1.04907	
Thermal Conductivity	Btu/(h*ft*°F)				0.3											0.344705	
Surface Tension	lbf/ft				0.005											0.00506994	
Net I.G. Heating Value	Btu/ft^3				0.4											0.388970	
Net Liquid Heating Value	Btu/lb				1051.2											-1051.15	
Gross I.G. Heating Value	Btu/ft^3				50.7											50.7208	
Gross Liquid Heating Value	Btu/lb				8.9											9.0	

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

For: Antero Resources Appalachian Corp.

1625 17th Street

Denver, Colorado 80202

Sample: Prunty No. 1H (Lockhart Heirs Pad)

Separator Hydrocarbon Liquid Sampled @ 200 psig & 66 oF

Date Sampled: 09/05/13 Job Number: 35453.002

CHROMATOGRAPH EXTENDED ANALYSIS- GPA 2186-M

COMPONENT	MOL%	LIQ VOL%	WT%
N.17.	0.040	0.004	0.005
Nitrogen	0.018	0.004	0.005
Carbon Dioxide	0.031	0.011	0.013
Methane	4.766	1.667	0.703
Ethane	5.726	3.161	1.584
Propane	6.545	3.722	2.654
Isobutane	2.067	1.396	1.105
n-Butane	5.909	3.845	3.159
2,2 Dimethylpropane	0.174	0.138	0.116
Isopentane	3.770	2.846	2.502
n-Pentane	4.872	3.645	3.233
2,2 Dimethylbutane	0.188	0.162	0.149
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.408	0.345	0.323
2 Methylpentane	2.525	2.163	2.001
3 Methylpentane	1.645	1.386	1.304
n-Hexane	4.430	3.760	3.511
Heptanes Plus	56.925	71.749	77.639
Totals:	100.000	100.000	100.000

Characteristics of Heptanes Plus:

Specific Gravity	0.7695	(Water-1)
0API Gravity	52.38	@ 60°F
Molecular Weight	148.3	
Vapor Volume	16.47	CF/Gal
Weight	6.41	Lbs/Gal

Characteristics of Total Sample:

Specific Gravity	0.7111	(Water=1)
oAPI Gravity	67.48	@ 60°F
Molecular Weight	108.7	
Vapor Volume	20.76	CF/Gal
Weight	5.93	Lbs/Gal

Base Conditions: 14.850 PSI & 60 oF

Certified: FESCO, Ltd. - Alice, Texas

Analyst: XG Processor: JCdjv Cylinder ID: W-1106

David Dannhaus 361-661-7015

TANKS DATA INPUT REPORT

COMPONENT	Mol%	LiqVol%	Wt%
Carbon Dioxide	0.031	0.011	0.013
Nitrogen	0.018	0.004	0.005
Methane	4.766	1.667	0.703
Ethane	5.726	3.161	1.584
Propane	6.545	3.722	2.654
Isobutane	2.067	1.396	1.105
n-Butane	6.083	3.983	3.274
Isopentane	3.770	2.846	2.502
n-Pentane	4.872	3.645	3.233
Other C-6's	4.766	4.057	3.778
Heptanes	10.970	9.986	9.818
Octanes	13.091	12.723	13.001
Nonanes	5.657	6.431	6.603
Decanes Plus	24.100	40.280	45.352
Benzene	0.283	0.163	0.203
Toluene	0.744	0.514	0.630
E-Benzene	0.510	0.406	0.498
Xylenes	1.570	1.245	1.533
n-Hexane	4.430	3.760	3.511
2,2,4 Trimethylpentane	0.000	0.000	0.000
Totals:	100.000	100.000	100.000

Characteristics of Total Sample:

Specific Gravity	0.7111	(Water-1)
•API Gravity	67.48	@ 60°F
Molecular Weight	108.7	
Vapor Volume	20.76	CF/Gal
Weight	5.93	Lbs/Gal

Characteristics of Decanes (C10) Plus:

Specific Gravity	0.8007	(Water-1)
Molecular Weight	204.6	

Characteristics of Atmospheric Sample:

0API Gravity	59.13	@ 60°F
Reid Vapor Pressure (ASTM D-5191)	3.41	osi

QUALITY CONTROL CHECK				
	Sampling Conditions	Test Samples		
Cylinder Number		W-1106*	W-1020	
Pressure, PSIG	200	176	173	
Temperature, ₀F	66	70	70	

^{*} Sample used for analysis

Job Number: 35453.002

TOTAL EXTENDED REPORT

COMPONENT	Male/	Lig\/o10/	Wt%
COMPONENT	Mol%	LiqVol%	VV1%
Nitrogen	0.018	0.004	0.005
Carbon Dioxide	0.031	0.011	0.013
Methane	4.766	1.667	0.703
Ethane	5.726	3.161	1.584
Propane	6.545	3.722	2.654
Isobutane	2.067	1.396	1.105
n-Butane	5.909	3.845	3.159
2,2 Dimethylpropane	0.174	0.138	0.116
Isopentane	3.770	2.846	2.502
n-Pentane	4.872	3.645	3.233
2,2 Dimethylbutane	0.188	0.162	0.149
Cyclopentane	0.000 0.408	0.000 0.345	0.000 0.323
2,3 Dimethylbutane	2.525	2.163	2.001
2 Methylpentane3 Methylpentane	2.525 1.645	1.386	1.304
n-Hexane	4.430	3.760	3.511
Methylcyclopentane	0.924	0.675	0.715
Benzene	0.283	0.163	0.203
Cyclohexane	0.990	0.695	0.766
2-Methylhexane	2.385	2.288	2.198
3-Methylhexane	1.879	1.780	1.732
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C-7's	0.950	0.888	0.867
n-Heptane	3.842	3.658	3.540
Methylcyclohexane	3.402	2.823	3.072
Toluene	0.744	0.514	0.630
Other C-8's	6.777	6.822	6.870
n-Octane	2.912	3.079	3.059
E-Benzene	0.510	0.406	0.498
M & P Xylenes	0.777	0.622	0.758
0-Xylene	0.793	0.623	0.775
Other C-9's	3.760	4.227	4.366
n-Nonane	1.897	2.203	2.238
Other C-10's	3.702	4.574	4.810
n-decane	1.350	1.710	1.766
Undecanes(11)	3.614	4.581	4.885
Dodecanes(12)	2.655	3.636	3.932
Tridecanes(13)	2.209	3.243	3.555
Tetradecanes(14) Pentadecanes(15)	1.728 1.331	2.718 2.242	3.020 2.521
Hexadecanes(16)	1.068	1.923	2.181
Heptadecanes(17)	0.926	1.763	2.018
Octadecanes(18)	0.821	1.647	1.896
Nonadecanes(19)	0.691	1.442	1.670
Eicosanes(20)	0.601	1.304	1.519
Heneicosanes(21)	0.459	1.048	1.228
Docosanes(22)	0.372	0.884	1.042
Tricosanes(23)	0.349	0.862	1.021
Tetracosanes(24)	0.313	0.800	0.952
Pentacosanes(25)	0.261	0.693	0.829
Hexacosanes(26)	0.243	0.668	0.803
Heptacosanes(27)	0.193	0.550	0.664
Octacosanes(28)	0.192	0.565	0.684
Nonacosanes(29)	0.157	0.479	0.582
Triacontanes(30)	0.150	0.470	0.574
Hentriacontanes Plus(31+)	0.717	2.481	3.199
Total	100.000	100.000	100.000



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

For: Antero Resources Appalachian Corp. Date Sampled: 09/05/13

1625 17th Street

Denver, Colorado 80202 Date Analyzed: 09/13/13

Job Number: J35434

Sample: Prunty No. 1H (Lockhart Heirs Pad)

FLASH LIBERATION OF SEPARATOR WATER				
Separator Stock Tank				
Pressure, psig	200	0		
Temperature, "F	66	70		
Gas Water Ratio (1)		1.55		
Gas Specific Gravity (2)		0.922		

(1) - Scf of water saturated vapor per barrel of stock tank water

(2)- Air= 1.000

(3) - Separator volume / Stock tank volume

Analyst: O. A.

Piston No.: WF-133*

Base Conditions: 14.85 PSI& 60 "F

Certified: FESCO, Ltd. Alice, Texas

David Dannhaus 361-661-7015

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

For: Antero Resources Appalachian Corp.

1625 17th Street

Denver, Colorado 80202

Sample: Prunty No. 1H (Lockhart Heirs Pad)

Gas Liberated from Separator Water From 200 psig &~66~oF to 0 psig &~70~oF

Date Sampled: 09/05/13 Job Number: 35453.001

CHROMATOGRAPH EXTENDED ANALYSISSUMMATION REPORT

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	< 0.001	
Nitrogen	0.000	
Carbon Dioxide	1.891	
Methane	63.614	
Ethane	17.120	4.615
Propane	7.633	2.119
Isobutane	1.356	0.447
n-Butane	3.304	1.050
2-2 Dimethylpropane	0.064	0.025
Isopentane	1.192	0.439
n-Pentane	1.225	0.448
Hexanes	1.136	0.472
Heptanes Plus	1.465	0.652
Totals	100.000	10.266

Computed Real Characteristics Of Heptanes Plus:

Specific Gravity	3.602	(Air=1)
Molecular Weight	103.68	
Gross Heating Value	5501	BTU/CF

Computed Real Characteristics Of Total Sample:

Specific Gravity	0.922	(Air=1)
Compressibility (Z)	0.9937	
Molecular Weight	26.54	
Gross Heating Value		
Dry Basis	1548	BTU/CF

Saturated Basis------ 1522 BTU/CF *Hydrogen Sulfide tested in laboratory by: Stained Tube Method (GPA 2377)

Results: <0.013 Gr/100 CF, <0.2 PPMV or <0.001 Mol%

Base Conditions: 14.850 PSI & 60 Deg F

Certified: FESCO, Ltd. Alice, Texas

Analyst: MR Processor: ANB Cylinder ID: WF# 13 S

David Dannhaus 361-661-7015

FESCO, Ltd. Job Number: 35453.001

CHROMATOGRAPH EXTENDED ANALYSIS TOTAL REPORT

COMPONENT	MOL%	GPM	WT%
Hydrogen Sulfide*	< 0.001		< 0.001
Nitrogen	0.000		0.000
Carbon Dioxide	1.891		3.135
Methane	63.614		38.445
Ethane	17.120	4.615	19.393
Propane	7.633	2.119	12.680
Isobutane	1.356	0.447	2.969
n-Butane	3.304	1.050	7.234
2,2 Dimethylpropane	0.064	0.025	0.174
Isopentane	1.192	0.439	3.240
n-Pentane	1.225	0.448	3.330
2,2 Dimethylbutane	0.035	0.015	0.114
Cyclopentane	0.019	0.008	0.050
2,3 Dimethylbutane	0.060	0.025	0.195
2 Methylpentane	0.334	0.140	1.084
3 Methylpentane	0.207	0.085	0.672
n-Hexane	0.481	0.199	1.562
Methylcyclopentane	0.071	0.025	0.225
Benzene	0.042	0.012	0.124
Cyclohexane	0.089	0.031	0.282
2-Methylhexane	0.113	0.053	0.427
3-Methylhexane	0.108	0.050	0.408
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C?'s	0.121	0.053	0.452
n-Heptane	0.183	0.085	0.691
Methylcyclohexane	0.161	0.065	0.596
Toluene	0.057	0.019	0.198
Other C8's	0.217	0.102	0.901
n-Octane	0.070	0.036	0.301
Ethylbenzene	0.003	0.001	0.012
M & P Xylenes	0.031	0.012	0.124
0-Xylene	0.005	0.002	0.020
Other C9's	0.099	0.051	0.471
n-Nonane	0.033	0.019	0.159
Other C10's	0.044	0.026	0.234
n-Decane	0.010	0.006	0.054
Undecanes (11)	0.008	0.005	0.044
Totals	100.000	10.266	100.000

Computed Real Characteristics Of Total Sample:

Specific Gravity	0.922	(Air-1)
Compressibility (Z)	0.9937	
Molecular Weight	26.54	
Gross Heating Value		
Dry Basis	1548	BTU/CF
Saturated Basis	1522	BTU/CF

Antero Resources Prunty Unit 1H - Lockhart Heirs Pad

Tag Name	Value I	Units	Timestamp
Accumulated Gas Flow	560999.8 I		10/16/2013 16:11:13
Casing Pressure	450.96		10/16/2013 10:11:13
Current Day Gas Flow	2287.78		10/16/2013 17:03:03
Differential Pressure	57.03 i		10/16/2013 16:11:13
Flow Rate		MCF Per Day	
		•	10/16/2013 16:11:13
Pressure	108.81 9462.83		10/16/2013 16:11:13
Previous Day Energy			10/16/2013 16:11:15
Previous Day Gas Flow	7588.11		10/16/2013 16:11:15
Temperature	60.11		10/16/2013 16:11:13
Tubing Pressure	748.58		10/16/2013 17:05:05
Daily AP	63.93		10/16/2013 09:00:00
Daily DP	111.06 i		10/16/2013 09:00:00
Daily Energy	9462.83		10/16/2013 09:00:00
Daily Flow	7588.11		10/16/2013 09:00:00
Daily Tf	59.56		10/16/2013 09:00:00
Hourly AP	110.1		10/16/2013 10:00:00
Hourly DP	61.64		10/16/2013 10:00:00
Hourly Energy	399.7		10/16/2013 10:00:00
Hourly Flow Time		Seconds	10/16/2013 10:00:00
Hourly Tf	61.1		10/16/2013 10:00:00
Hourly Volume	320.5		10/16/2013 10:00:00
Argon	0 '		10/16/2013 16:11:25
BTU	1247.06		10/16/2013 16:11:13
C02	0.1467		10/16/2013 16:11:25
Carbon Monoxide	0 '	%	10/16/2013 16:11:25
Decane	0 '	-	10/16/2013 16:11:25
Ethane	14.1987		10/16/2013 16:11:25
Helium	0 '	-	10/16/2013 16:11:25
Heptane	0 '	-	10/16/2013 16:11:25
Hexane	0.5451	%	10/16/2013 16:11:25
Hydrogen	0 '	-	10/16/2013 16:11:25
Hydrogen Sulfide	0 '	%	10/16/2013 16:11:25
Iso-Butane	0.5666		10/16/2013 16:11:25
Iso-Pentane	0.3749	%	10/16/2013 16:11:25
Methane	77.6927	%	10/16/2013 16:11:25
N2	0.4946	%	10/16/2013 16:11:25
N-Butane	1.1838	%	10/16/2013 16:11:25
Nonane	0 (%	10/16/2013 16:11:25
N-Pentane	0.2914	%	10/16/2013 16:11:25
Octane	0 (%	10/16/2013 16:11:25
Oxygen	0.0117	%	10/16/2013 16:11:25
Plate Size	3.75	Inches	10/16/2013 16:11:20
Propane	4.4938	%	10/16/2013 16:11:25
SPG	0.7248		10/16/2013 16:11:13
Water	0 9	%	10/16/2013 16:11:25

Attachment J

Class I Legal Advertisement



Attachment J

Air Quality Permit Notice Notice of Application Stanley Well Pad Antero Resources Corporation Doddridge, West Virginia

Notice is given that Antero Resources Corporation has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Registration for an Oil and Natural Gas facility located at 0.20 mile south from the intersection of Taylor Drain Rte. 19 and Cabin Run Rte. 21/1. in Doddridge, West Virginia.

The latitude and longitude coordinates are:

39.236867 degrees N and -80.879461 degrees W

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be:

Pollutants	TOTALS (tpy):
VOC	41.4430
NO _X	7.0589
CO _{2e}	11484.7000
СО	29.4905
SO ₂	0.0260
PM _{2.5}	0.4140
PM ₁₀	2.9719
Lead	2.84E-05
Total HAPs	2.2851
Benzene	0.0595
Formaldehyde	0.0247
Xylenes	0.1933

Startup of operation is planned to begin in May 2016. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the____, 2015

By: Antero Resources Corporation Barry Schatz Senior Environmental & Regulatory Manager 1615 Wynkoop Street Denver, CO 80202

Attachment K

Electronic Submittal



Attachment K

Electronic Submittal
Stanley Well Pad
Antero Resources Corporation
Doddridge West Virginia

No electronic submission was made.



Attachment L

General Permit Registration Application Fee



Conestoga-Rovers & Associates, Inc.

▼ PLEASE DETACH AND RETAIN FOR YOUR RECORDS

INVOICE NUMBER	^o DATE	VOUCHER NO.	AMOUNT
Account Number: CR60215	6/2/2015	40WVDEPAQ 40 400953358	7684 1,500.00
		TOTAL:	1,500.00

THIS DOCUMENT IS PROTECTED BY A MICRO-PRINT SIGNATURE LINE, FLUORESCENT PAPER FIBERS, A WATERMARKED BACKER, AND IS REACTIVE TO CHEMICAL ALTERATION **M&T BANK** Conestoga-Rovers & Associates, Inc. MANUFACTURERS AND TRADERS TRUST COMPANY Commercial Banking Main Office, Ithaca, NY 14850 50-7063-2213 2055 NIAGARA FALLS BLVD, SUITE 3 S Agraes NIAGABA FALLS, NY 14304 Receive and expert of the TO SERVICE STREET, SERVICE STR kgatement a second been a se Tilse valente britiski kanaleti OG LOBOSO FRANCO OSPACIORES 6/2/2015 Marketon (1947) victies ville · 大型医院的 40人 STATE OF THE STATE GENTS ... NTS \$ ********1,500.00 DOLLARS AND PAY **********************1,500 se be v Activision of the second The standard program Cor WV Dept. of Environmental Protectio TO THE **Division Air Quality** Charleston,, WV 25304 US ORDER A STATE OF S WARNING: THIS DOCUMENT IS VOID IF ACCOUNT NUMBER DOES NOT APPEAR ON THE REVERSE SIDE IN RED

Attachment M

Siting Criteria Waiver



Attachment M

Siting Waiver Stanley Well Pad Antero Resources Corporation Doddridge County, West Virginia

A Siting Waiver form is not required because there are no occupied dwelling structures within 300 feet of Stanley Well Pad.



Attachment N

Material Safety Data Sheet



Attachment N

Description of Material Safety Data Sheets (MSDS) Stanley Well Pad Antero Resources Corporation Doddridge County, West Virginia

Three generic Material Safety Data Sheets (MSDS), and analysis of the condensate and produced water of a similar well with the same formation are provided. Antero Resources Corporation has developed its own MSDS for these materials.

- Natural Gas: The MSDS for natural gas reflects pipeline quality odorized gas. This is essentially
 the same as the material delivered to the metering and downstream gathering lines from the
 Antero well pad.
- 2. Condensate: Condensate is the hydrocarbon liquid that has been separated from raw natural gas through the well pad gas production unit. The liquid is often characterized as having a gasoline-like odor and consistency.
- 3. Produced Water: Produced water is primarily groundwater with residual trace hydrocarbons that has been withdrawn from the ground during the gas extraction process and then separated from the natural gas and condensate in the gas production units.





Material Name: Dry Field Natural Gas US GHS

SYNONYMS: CNG, Natural Gas, Methane.

* * * Section 1 - PRODUCT AND COMPANY IDENTIFICATION * * *

PRODUCT NAME: Dry Field Natural Gas EMERGENCY PHONE: (800) 878-1373
PRODUCT CODES: CAS Reg. No. 68410-63-9 AFTER HOURS: (800) 878-1373

PRODUCER: Antero Resources

ADDRESS: 1615 Wynkoop Street CHEMTREC PHONE: (800) 424-9300

Denver, Colorado 80202

* * * Section 2 - HAZARDS IDENTIFICATION * * *

GHS Classification:

Flammable Gas – Category 1.

Gases Under Pressure - Gas.

Specific Target Organ Systemic Toxicity (STOT) – Single Exposure Category 2.

GHS LABEL ELEMENTS Symbol(s)







Signal Word

Danger

Hazard Statements

Extremely flammable gas.

Contains gas under pressure, may explode if heated.

May cause damage to central nervous and respiratory systems.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Do not breathe fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Material Name: Dry Field Natural Gas US GHS

Response

Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

If exposed to gas, or concerned about possible exposure: Call a POISON CENTER or doctor/physician.

Storage

Protect from sunlight. Store in a well-ventilated place.

Store in a secure area.

Disposal

Dispose of contents/containers in accordance with local/regional/national/international regulations.

* * * Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS * * *

CAS#	Component	Percent
74-82-8	Methane	95.01
78-84-0	Ethane	3.99
74-98-6	Propane	0.32
106-97-8	Butanes	0.07
109-66-0	Pentanes	0.02
110-54-3	Hexanes	0.01
7727-37-9	Nitrogen	0.35
124-38-9	Carbon Dioxide	0.19
7782-44-7	Oxygen	0.03

Because natural gas is a natural product, composition can vary greatly.

* * * Section 4 - FIRST AID MEASURES * * *

First Aid: Eyes

In case of freeze burn, cover eyes to protect from light. Flush eyes with running water for at least fifteen (15) minutes. Following flushing, seek medical attention.

First Aid: Skin

Remove contaminated clothing. In case of blistering, frostbite or freeze burns, seek immediate medical attention.

Material Name: Dry Field Natural Gas US GHS

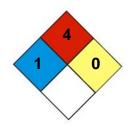
First Aid: Ingestion

Risk of ingestion is extremely low. However, if oral exposure occurs, seek immediate medical assistance.

First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

* * * Section 5 - FIRE FIGHTING MEASURES * * *



NFPA 704 Hazard Class

Health: 1 Flammability: 4 Instability: 0 (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

General Fire Hazards

See Section 9 for Flammability Properties.

Forms a flammable mixture with air. If released, the resulting vapors will disperse with the prevailing wind. If a source of ignition is present where the vapor exists at a 5-15% concentration in air, the vapor will burn along the flame front toward the source of the fuel.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Extinguishing Media

Any extinguisher suitable for Class B fires, dry chemical, fire fighting foam, CO2, and other gaseous agents. However, fire should not be extinguished unless flow of gas can be immediately stopped.

Unsuitable Extinguishing Media

None.

Fire Fighting Equipment / Instructions

Gas fires should not be extinguished unless flow of gas can be immediately stopped. Shut off gas source and allow gas to burn out. If spill or leak has not ignited, determine

Material Name: Dry Field Natural Gas US GHS

if water spray may assist in dispersing gas or vapor to protect personnel attempting to stop leak. Use water to cool equipment, surfaces and piping exposed to fire and excessive heat. For large fire, the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Isolate area, particularly around piping. Let the fire burn unless leak can be stopped. Concentrate fire-fighting efforts on objects / materials ignited by the initial fire. Withdraw immediately in the event of a rising sound from a venting safety device.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH-approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

* * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

Recovery and Neutralization

Stop the source of the release, if safe to do so.

Materials and Methods for Clean-Up

Consider the use of water spray to disperse gas vapors. Do not use water spray to direct gas vapors toward sewer or drainage systems. Isolate the area until gas has dispersed. Ventilate and gas test area before entering.

Emergency Measures

Evacuate nonessential personnel and secure all ignition sources. No road flares, smoking or flames in hazard area. Consider wind direction. Stay upwind and uphill, if possible. Vapor cloud may be white, but color will dissipate as cloud disperses. Fire and explosion hazard is still present.

Personal Precautions and Protective Equipment

Cooling effect of expanding gas from leak may present frostbite / freeze burn hazard. Wear flame retardant (FR) clothing around un-ignited leak. Wear fire protective clothing around an active fire.

Environmental Precautions

Do not flush gas vapors toward sewer or drainage systems.

Prevention of Secondary Hazards

None.

Material Name: Dry Field Natural Gas US GHS

* * * Section 7 – HANDLING AND STORAGE * * *

Handling Procedures

Keep away from flame, sparks and excessive temperatures. Bond and ground containers. Use only in well ventilated areas.

Storage Procedures

Natural gas will be contained in the pipeline. Keep away from flame, sparks, excessive temperatures and open flames. Empty pipeline segments may contain explosive residues from natural gas liquids. Do not cut, heat, weld or expose containers to sources of ignition sections of pipeline unless the sections have been purged of natural gas residues.

Incompatibilities

Keep away from strong oxidizers, ignition sources and heat.

* * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION * * *

Component Exposure Limits

Methane (74-82-8)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)

Ethane (74-84-0)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)

Propane (74-98-6)

ACGIH: 2500 ppm TWA (listed under Aliphatic hydrocarbon gases : Alkane C1-4)

Butane (106-97-8)

ACGIH: 800 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)

Pentanes (109-66-0)

ACGIH: 600 ppm TWA (listed under Pentane, all isomers)

Hexanes (110-54-3)

ACGIH: 50 ppm TWA (listed under n-Hexane)

Material Name: Dry Field Natural Gas US GHS

Nitrogen (7727-37-9)

Simple Asphyxiant

Carbon Dioxide (124-38-9)

ACGIH: 5000 ppm TWA (listed under Carbon Dioxide)

Oxygen (7782-44-7)

N/A – Necessary for life

Engineering Measures

Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use explosion-proof equipment and lighting in classified / controlled areas.

Personal Protective Equipment: Respiratory

Use a NIOSH approved positive-pressure, supplied air respirator with escape bottle or self-contained breathing apparatus (SCBA) for gas concentrations above occupational exposure limits, for potential for uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere. CAUTION: Flammability limits (i.e., explosion hazard should be considered when assessing the need to expose personnel to concentrations requiring respiratory protection.

Personal Protective Equipment: Hands

Use cold-impervious, insulating flame-retardant (FR) gloves where contact with pressurized gas may occur.

Personal Protective Equipment: Eyes

Where there is a possibility of pressurized gas contact, wear splash-proof safety goggles and faceshield.

Personal Protective Equipment: Skin and Body

Where contact with pressurized gas may occur, wear flame-retardant (FR) and a faceshield.

* * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * *

Odorless to slight

Appearance: Colorless Odor: petroleum odor

Physical State:GaspH:NDVapor Pressure:40 atm @ -187°F (-86°C)Vapor Density:0.6Boiling Point:-259°F (-162°C)Melting Point:ND

Solubility (H2O): 3.5% **Specific Gravity:** 0.4 @ -263°F (-164°C)

Material Name: Dry Field Natural Gas US GHS

Evaporation Rate: ND VOC: ND

Octanol / H2O Coeff.: ND Flash Point: Flammable Gas

Flash Point Method: N/A

Lower Flammability Limit: 3.8 – 6.5 Upper Flammability Limit: 13-17

(LFL): (UFL):

Auto Ignition: 900-1170°F (482-632°C) Burning Rate: ND

* * * Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Keep away from strong oxidizers, ignition sources and heat.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

* * * Section 11 - TOXICOLOGICAL INFORMATION * * *

Acute Toxicity

A: General Product Information

Methane and ethane, the main components of natural gas, are considered practically inert in terms of physiological effects. At high concentrations these materials act as simple asphyxiants and may cause death due to lack of oxygen.

B. Component Analysis – LD50/LC50

Methane (74-82-8)

Inhalation LC50 Mouse 326 g/m3 2h

Ethane (74-84-0)

Inhalation LC50 Rat 658 mg/l 4h

Propane (74-98-6)

Inhalation LC50 Rat 658 mg/l 4h

Material Name: Dry Field Natural Gas US GHS

Butanes (106-97-8)

Inhalation LC50 Rat 658 g/m3 4h

Pentanes (109-66-0)

Inhalation LD50 Rat 364 g/m3 4h

Hexanes (110-54-3)

Inhalation LC50 Rat > 20 mg/l 4h

Nitrogen (7727-37-9)

Simple Asphyxiant

Carbon Dioxide (124-38-9)

Inhalation LC50 Human 100,000 ppm 1minute

Oxygen (7782-44-7)

N/A – Necessary for life

Potential Health Effects: Skin Corrosion Property / Stimulativeness

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

This product is not reported to have any carcinogenic effects.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product may cause damage to the heart.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ repeat effects.

Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazard effects.

Page 8 of 11

Material Name: Dry Field Natural Gas US GHS

* * * Section 12 - ECOLOGICAL INFORMATION * * *

Ecotoxicity

A: General Product Information

Keep gas and vapors out of sewers, drainage areas, and waterways. Report spills and releases, as applicable under Federal and State regulations.

B: Component Analysis – Ecotoxicity – Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistance / Degradability

No information available.

Bioaccumulation

No information available.

Mobility in Soil

No information available.

* * * Section 13 - DISPOSAL CONSIDERATIONS * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment Recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents / container in accordance with local / regional / national / international regulations.

* * * Section 14 - TRANSPORTATION INFORMATION * * *

DOT Information

Shipping Name: Natural Gas, Compressed

UN #: 1971 **Hazard Class:** 2.1

Placard:



Material Name: Dry Field Natural Gas US GHS

* * * Section 15 - REGULATORY INFORMATION * * *

Regulatory Information

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A.

n-hexane is listed under SARA Section 313 (40 CFR 372.65). However the concentration of this component is approximately 0.01 % in compressed natural gas and is therefore far under the reporting threshold for the chemical.

n-hexane is listed under CERCLA (40 CFR 302.4). However the concentration of this component is approximately 0.01 % in compressed natural gas and is therefore far under the reporting threshold for the chemical.

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	<u>Fire</u>	Sudden Release of Pressure	Reactive
		Χ	X	

SARA Section 313 – Supplier Notification

This product contains one chemical (n-Hexane) that is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-know act (EPCRA) of 1986 and of 40 CFR 372. However the concentration of this component is approximately 0.01 % in compressed natural gas and is therefore far under the reporting threshold for the chemical.

State Regulations

Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Methane	74-82-8	No	No	Yes	Yes	Yes	No
Ethane	78-84-0	No	No	Yes	Yes	Yes	No
Propane	74-98-6	No	No	Yes	Yes	Yes	Yes
Butane	106-97-8	Yes	No	Yes	Yes	Yes	Yes
Pentanes	109-66-0	Yes	No	Yes	Yes	Yes	Yes
Hexanes	110-54-3	Yes	Yes	Yes	Yes	Yes	Yes
Nitrogen	7727-37-9	No	No	No	No	No	No
Carbon Dioxide	124-38-9	Yes	No	Yes	Yes	Yes	Yes
Oxygen	7782-44-7	No	No	No	No	No	No

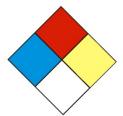
Material Name: Dry Field Natural Gas US GHS

* * * Section 16 - OTHER INFORMATION * * *

NFPA® Hazard Rating Health 1

Fire 4

Reactivity 0



HMIS® Hazard Rating Health 1 Moderate

Fire 4 Severe Physical 0 Minimal

* Chronic

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act: ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

The information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

Date of Preparation: January 30, 2014

Date of Last Revision: March 4, 2014

End of Sheet



Material Name: Natural Gas Condensate US GHS

SYNONYMS: Drips; Condensate; Field Condensate; Gas Well Condensate; High

Pressure Inlet Liquids; Lease Condensate; Natural Gas Liquids; Pipeline

Liquids

* * * Section 1 - PRODUCT AND COMPANY IDENTIFICATION * * *

PRODUCT NAME: Natural Gas Condensate EMERGENCY PHONE: (800) 878-1373
PRODUCT CODES: 64741-47-5 AFTER HOURS: (800) 878-1373

PRODUCER: Antero Resources

ADDRESS: 1615 Wynkoop Street CHEMTREC PHONE: (800) 424-9300

Denver, Colorado 80202

* * * Section 2 - HAZARDS IDENTIFICATION * * *

GHS Classification:

Flammable Liquids – Category 2.

Acute Toxicity Inhalation - Category 3

Germ Cell Mutagenicity - Category 1B

Carcinogenicity - Category 1A

Specific Target Organ Systemic Toxicity (STOT) – Single Exposure Category 3

Specific Target Organ Systemic Toxicity (STOT) - Repeat Exposure Category 1

Aspiration Toxicity - Category 1

Toxic to the Aquatic Environment Acute – Category 3

GHS LABEL ELEMENTS

Symbol(s)









Signal Word

Danger

Material Name: Natural Gas Condensate US GHS

Hazard Statements

Highly flammable liquid and vapor.

Toxic if inhaled.

May cause genetic defects.

May cause cancer.

May cause respiratory irritation.

May cause drowsiness or dizziness.

May cause damage to organs (liver, kidneys, blood, nervous system, and skin) through prolonged or repeated exposure.

May be fatal if swallowed and enters airways.

Harmful to aquatic life.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not breathe gas/mist/vapors/spray.

Do not handle until all safety precautions have been read and understood.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Response

If on SKIN (or hair): Wash with plenty of soap and water. Remove / Take off all contaminated clothing immediately. Rinse skin with water/shower.

If INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a poison center/doctor if the victim feels unwell.

If SWALLOWED: Immediately call a poison center or doctor / physician. Do not Induce vomiting.

If exposed or concerned: Get medical advice/attention.

In case of fire: Use water spray, fog or fire-fighting foam.

Storage

Store in a well-ventilated place. Keep cool.

Store in a secure area.

Material Name: Natural Gas Condensate US GHS

Disposal

Dispose of contents/containers in accordance with local/regional/national/international regulations.

* * * Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS * * *

CAS#	Component	Percent
111-65-9	Octanes	25 - 95
142-82-5	Heptanes	25 - 95
110-54-3	Hexanes as n-Hexane	25 - 95
109-66-0	Pentanes as n-Pentane	5 - 70
106-97-8	N-butane	0 - 45
74-98-6	Propane	0 - 15
78-84-0	Ethane	0 - 5
71-43-2	Benzene	< 1
108-88-3	Toluene	< 1
1330-20-7	m-,o-,p-Xylene	< 1

Because natural gas condensate is a natural product, composition can vary greatly.

* * * Section 4 - FIRST AID MEASURES * * *

First Aid: Eyes

Flush eyes with clean running water for at least fifteen (15) minutes. Following flushing, seek medical attention.

First Aid: Skin

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops. Wash contaminated clothing before reuse.

First Aid: Ingestion (swallowing)

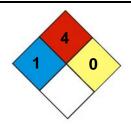
DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean the victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

Material Name: Natural Gas Condensate US GHS

First Aid: Inhalation (breathing)

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

* * * Section 5 – FIRE FIGHTING MEASURES * * *



NFPA 704 Hazard Class

Health: 1 **Flammability:** 4 **Instability:** 0 (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

General Fire Hazards

See Section 9 for Flammability Properties.

Extremely flammable. Vapors may be ignited rapidly when exposed to heat, spark, open flame, or other source of ignition (e.g., static electricity, pilot lights, mechanical / electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Flammable vapors can burn in the open or explode in confined spaces. Vapors are heavier than air, and may travel distances to an ignition source and flash back. Runoff to sewer systems may cause fire or explosion.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, firefighting foam, water spray, carbon dioxide (CO_2), or other gaseous extinguishing agents. Use caution when applying CO_2 in confined spaces.

LARGE FIRES: Water spray, fog or fire-fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Unsuitable Extinguishing Media

None

Material Name: Natural Gas Condensate US GHS

Fire Fighting Equipment / Instructions

Small fires in the beginning stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing.

* * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

Recovery and Neutralization

Contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

Emergency Measures

Evacuate nonessential personnel and secure all ignition sources. No road flares, smoking or flames in hazard area. Consider wind direction. Stay upwind and uphill, if possible. Vapor cloud may be white, but color will dissipate as cloud disperses. Fire and explosion hazard is still present.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8). Extremely flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of

Material Name: Natural Gas Condensate

US GHS

ignition and hot metal surfaces away from spill/release if safe to do so.

The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons downwind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. If spill occurs on water notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

Prevention of Secondary Hazards

None

* * * Section 7 - HANDLING AND STORAGE * * *

Handling Procedures

Keep away from flame, sparks and excessive temperatures. Bond and ground containers. Use non-sparking tools. Use only outdoors or in well ventilated areas. Wear protective gloves / clothing and eye / face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Storage Procedures

Store only in approved containers. Bond and ground containers. Keep away from flame, sparks, excessive temperatures and open flames. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Material Name: Natural Gas Condensate US GHS

Incompatibilities

Keep away from strong oxidizers, ignition sources and heat.

* * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION * * *

Component Exposure Limits

Octanes (111-65-9)

ACGIH: 300 ppm TWA (listed under Octane, all isomers)

Heptanes (142-82-5)

ACGIH: 400 ppm TWA (listed under n-Heptane)

n-Hexane (110-54-3)

ACGIH: 20 ppm TWA (listed under n-Hexane)

n-Pentane (109-66-0)

ACGIH: 600 ppm TWA (listed under Pentane, all isomers)

n-Butane (106-97-8)

ACGIH: 600 ppm TWA (listed under n-Butane)

Propane (74-98-6)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases C1-C4)

Ethane (74-84-0)

ACGIH: 1000 ppm TWA (listed under Aliphatic hydrocarbon gases C1-C4)

Benzene (71-43-2)

ACGIH: 0.5 ppm (TWA); NIOSH: 0.1 ppm (TWA); OSHA 1 ppm (TWA)

Toluene (108-88-3)

ACGIH: 20 ppm TWA (listed under Toluene)

m-, o-, p-Xylene (1330-20-7)

ACGIH: 100 ppm TWA (listed under Xylene o, m & p isomers)

Material Name: Natural Gas Condensate US GHS

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use explosion-proof equipment and lighting in classified / controlled areas.

Personal Protective Equipment: Respiratory

Use a NIOSH-approved positive-pressure, supplied air respirator with escape bottle or self-contained breathing apparatus (SCBA) for gas concentrations above occupational exposure limits, for potential for uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere (oxygen content less than 19.5 percent). A respiratory program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant the use of a respirator.

If benzene concentrations equal or exceed applicable exposure limits, OSHA requirements for personal protective equipment, exposure monitoring, and training may apply (29 CFR 1910.1028 – Benzene).

CAUTION: Flammability limits (i.e., explosion hazard should be considered when assessing the need to expose personnel to concentrations requiring respiratory protection.

Personal Protective Equipment: Hands

Gloves constructed of nitrile or neoprene are recommended.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying. Eye protection that meets or exceeds ANSI Z.87.1 is recommended. Depending on conditions of use, a face shield may be necessary.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

Hygiene Measures

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use gasoline or solvents (naphtha, kerosene, etc.) for washing this product from

Material Name: Natural Gas Condensate

US GHS

exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

* * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * *

Appearance: Colorless to straw yellow **Odor:** Aromatic, Gasoline;

Physical State: Liquid pH: ND

Vapor Pressure: 110 – 200 psia (Reid VP) Vapor Density (air = 1): > 1

@ 100°F/37.8°C

Boiling Point: Approx. 85 - 437°F **Melting Point:** ND

(39 – 200°C)

Solubility (H2O): Insoluble to slightly Specific Gravity: AP 0.62-0.76 (varies)

soluble

Evaporation Rate:HighVOC:NDOctanol / H2O Coeff.:NDFlash Point:-40°F

-40°C

Flash Point Method: Tag Closed Cup (TCC)

Lower Flammability Limit: ND (NFPA Gasoline 1.4) Upper Flammability Limit: ND (NFPA Gasoline 7.6)

(LFL): (UFL):

Auto Ignition: AP 480°F (250°C) Burning Rate: ND

* * * Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Keep away from ignition sources and high temperatures.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Material Name: Natural Gas Condensate US GHS

* * * Section 11 - TOXICOLOGICAL INFORMATION * * *

Acute Toxicity

A: General Product Information

Harmful if swallowed.

B. Component Analysis - LD50/LC50

Octanes (111-65-9)

Inhalation LC50 rat = 118,000 mg/m3 / 4H

Heptanes (142-82-5)

Inhalation LC50 rat = 103,000 mg/m3 / 4H

Hexanes as n-Hexane (110-53-3)

Inhalation LC50 rat = 48,000 ppm / 4H

Pentanes as n-Pentane (109-66-0)

Inhalation LC50 rat = 364,000 mg/m3 / 4H

Butanes as n-Butane (106-97-8)

Inhalation LC50 rat 658,000 mg/l / 4H

Propane (74-98-6)

Inhalation LC50 Rat > 800,000 ppm / 0.25H

Ethane (74-84-0)

Inhalation LC50 Rat 658,000 mg/l / 4H

Benzene (71-43-2)

Inhalation LC50 Rat 44,700 mg/m3 /

Toluene (108-88-3)

Inhalation LD50 Rat 12/5 mg/l / 4H

m-, o-, p-Xylene (1330-20-7)

Inhalation LC50 Rat 5000 ppm / 4H

Potential Health Effects: Skin Corrosion Property / Stimulativeness

May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

Material Name: Natural Gas Condensate US GHS

Potential Health Effects: Eye Critical Damage / Stimulativeness

Contact with eyes may cause moderate irritation.

Potential Health Effects: Ingestion (swallowing)

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Potential Health Effects: Inhalation (breathing)

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

Respiratory Organs Sensitization / Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

May cause genetic defects. Some crude oils and crude oil fractions have been positive in mutagenicity studies.

Carcinogenicity

A: General Product Information

May cause cancer.

This product contains benzene, although at very low concentrations. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH.

Exposure to light hydrocarbons in the same boiling range as this product have been associated in animal studies with effects to the central nervous system, peripheral nervous system, liver, and kidneys. The significance of these animal models to predict similar human response is uncertain. Observing good work practices and personal hygiene procedures (Sections 7 and 8) can minimize potential risks to humans.

B: Component Carcinogenicity

Benzene (71-43-2)

ACGIH: A1 - Confirmed Human Carcinogen

OSHA: 5 ppm STEL (Cancer hazard, Flammable, See 29 CFR 1910.1028,

15 min); 0.5 ppm Action Level; 1 ppm TWA

NIOSH: potential occupational carcinogen

NTP: Known Human Carcinogen (Select Carcinogen)

Page 11 of 17

Material Name: Natural Gas Condensate US GHS

IARC: Monograph 100F [in preparation]; Supplement 7 [1987]; Monograph

29 [1982] (Group 1 (carcinogenic to humans))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

May cause damage to organs (liver, kidneys, blood, nervous system and skin) through prolonged or repeated exposure.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - ECOLOGICAL INFORMATION * * *

Ecotoxicity

A: General Product Information

Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable under Federal and State regulations.

B: Component Analysis – Ecotoxicity – Aquatic Toxicity Benzene (71-43-2)

Test and Species	Conditions
96 Hr LC50 Pimephales promelas	10.7-14.7 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	5.3 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	22.49 mg/L [static]
96 Hr LC50 Poecilia reticulata	28.6 mg/L [static]
96 Hr LC50 Pimephales promelas	22330-41160 µg/L [static]
96 Hr LC50 Lepomis macrochirus	70000-142000 μg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	29 mg/L
48 Hr EC50 Daphnia magna	8.76 - 15.6 mg/L [static]
48 Hr EC50 Daphnia magna	10 mg/L

Material Name: Natural Gas Condensate US GHS

Natural Gas condensates (68919-39-1)

Test and Species	Conditions
96 Hr LC50 Alburnus alburnus	119 mg/L [static]
96 Hr LC50 Cyprinodon variegatus	82 mg/L [static]
72 Hr EC50 Pseudokirchneriella subcapitata	56 mg/L
24 Hr EC50 Daphnia magna	170 mg/L

Persistence / Degradability

No information available

Bioaccumulation

No information available

Mobility in Soil

No information available

* * * Section 13 - DISPOSAL CONSIDERATIONS * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment Recommendations.

Disposal of Contaminated Containers or Packaging

Recover or recycle if possible. It is the responsibility of the generator to determine the toxicity and physical properties of the material generated so as to properly classify the waste and ensure disposal methods comply with applicable regulations. This material, if discarded should be fully characterized for ignitability (D001), reactivity (D003) and benzene (D018) prior to disposal (40 CFR261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material. Do not dispose of by draining onto the ground. This will result in soil and groundwater contamination. Waste arising from spillage or tank cleaning should be disposed of in accordance with applicable regulations.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a qualified drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

Material Name: Natural Gas Condensate US GHS

* * * Section 14 - TRANSPORTATION INFORMATION * * *

DOT Information

Shipping Name: Petroleum Products, n.o.s. (condensate)

UN #: 1268 Hazard Class: 3

Additional Info.: Dependent on the product's properties, the shipper may also elect to classify as Gasoline UN1203 or Petroleum Crude Oil UN1267 - reference 49 CFR

172.101 for further description (e.g., packing group determination).

Placard:



* * * Section 15 - REGULATORY INFORMATION * * *

Regulatory Information

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Benzene (71-43-2)

SARA 313: 0.1% de minimis concentration

CERCLA: 10 lb final RQ (received an adjusted RQ of 10 lbs based on

potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential

carcinogenicity in an August 14, 1989 final rule)

SARA Section 311/312 – Hazard Classes

Acute Health X X Sudden Release of Pressure Reactive X -- Reactive

SARA SECTION 313 – SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372:

Material Name: Natural Gas Condensate **US GHS**

CONCENTRATION PERCENT BY WEIGHT INGREDIENT NAME (CAS NUMBER)

Benzene (71-43-2) <0.1 to 2

Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the DSL/NDSL

Controlled Products Regulations (CPR) and the SDS contains all the Inventory

information required by the Regulations.

Workplace B2 - Flammable Liquid

Hazardous D1A – Material Causing Immediate and Serious Toxic Effects - Very Toxic

Materials Material

Information D2A: Material Causing Other Toxic Effects Very Toxic D2B - Material Causing Other Toxic Effects - Toxic Material System

European Union Regulatory Information

Product is dangerous as defined by the European Union Dangerous

Substances / Preparations Directives. Labeling

Contains: Low Boiling Point Naphtha

F+ Extremely Flammable

T Toxic

Symbol **N** Dangerous for the Environment

R12-45-38-65-67-51/53

Extremely flammable. May cause cancer. Irritating to skin. Harmful: may cause lung damage if swallowed. Vapors may cause drowsiness

Risk Phrases and dizziness. Toxic to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.

S16-53-45-2-23-24-29-43-62

Keep away from sources of ignition – No smoking. Avoid exposure – obtain special instructions before use. In case of accident or if you feel

unwell, seek medical advice immediately (show the label where

Safety **Phrases** possible). Keep out of reach of children. Do not breathe vapor. Avoid

> contact with skin. Do not empty into drains. In case of fire use foam/dry powder/CO2. If swallowed, do not induce vomiting: seek

medical advice immediately and show this container or label.

Material Name: Natural Gas Condensate **US GHS**

State Regulations

Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists

Component	CAS	CA	MA	MN	NJ	РА	RI
Octanes	111-65-9	Yes	No	Yes	Yes	Yes	Yes
Heptanes	142-82-5	Yes	No	Yes	Yes	Yes	Yes
n-Hexane	110-54-3	Yes	Yes	Yes	Yes	Yes	Yes
n-Pentane	109-66-0	Yes	No	Yes	Yes	Yes	Yes
n-Butane	106-97-8	Yes	No	Yes	Yes	Yes	Yes
Propane	74-98-6	No	No	Yes	Yes	Yes	Yes
Ethane	78-84-0	No	No	Yes	Yes	Yes	No
Benzene	71-43-2	Yes	Yes	Yes	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	Yes
m-, o-, p-Xylene	1330-20-7	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause Reproductive / developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

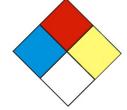
Component	CAS#	Minimum Concentration
Benzene	71-43-2	0.1%

* * * Section 16 - OTHER INFORMATION * * *
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NFPA® Hazard Rating Health 1

> Fire 4

Reactivity 0



HMIS® Hazard Rating Health Slight

Fire 4 Severe Physical 0 Minimal

* Chronic

Material Name: Natural Gas Condensate US GHS

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act: ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

The information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

Date of Preparation: January 29, 2014

Date of Last Revision: March 4, 2014

End of Sheet



Material Name: Produced Water US GHS

SYNONYMS: Produced Brine Water, Brine, Brine Water, Formation Water

* * * Section 1 - PRODUCT AND COMPANY IDENTIFICATION * * *

PRODUCT NAME: Produced Water EMERGENCY PHONE: (800) 878-1373
PRODUCT CODES: Mixture AFTER HOURS: (800) 878-1373

PRODUCER: Antero Resources

ADDRESS: 1615 Wynkoop Street CHEMTREC PHONE: (800) 424-9300

Denver, Colorado 80202

* * * Section 2 - HAZARDS IDENTIFICATION * * *

GHS Classification:

Eye Irritant – Category 2A.

GHS LABEL ELEMENTS Symbol(s)



Signal Word

Warning

Hazard Statements

Causes serious eye irritation

Precautionary Statements

Prevention

Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on SKIN (or hair): Rinse skin with water / shower. Remove / Take off all contaminated clothing immediately.

Material Name: Produced Water US GHS

If in EYES: Rinse cautiously with water for at least fifteen (15) minutes. Remove Contact Lenses, if present and easy to do. Continue rinsing.

If EYE irritation persists, get medical advice / attention.

Storage

Store in a secure area.

Disposal

Dispose of contents/containers in accordance with regulations.

* * * Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS * * *

CAS#	Component	Percent
7732-18-5	Water	80
7647-14-5	Sodium Chloride	20

Because brine water is a natural product, composition can vary greatly.

* * * Section 4 - FIRST AID MEASURES * * *

First Aid: Eyes

Flush eyes with clean running water for at least fifteen (15) minutes. If irritation or redness develops from exposure, following flushing, seek medical attention.

First Aid: Skin

First aid is not required, normally. However, it is a good practice to wash any chemical from the skin.

First Aid: Ingestion (Swallowing)

First aid is not required, normally. If spontaneous vomiting occurs, lean the victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. If symptoms develop, seek medical attention.

First Aid: Inhalation (Breathing)

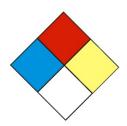
Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

Material Name: Produced Water US GHS

Most important symptoms and effects

None known or anticipated.

* * * Section 5 - FIRE FIGHTING MEASURES * * *



NFPA 704 Hazard Class

Health: 1 Flammability: 0 Instability: 0 (0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe)

General Fire Hazards

No fire hazards are expected.

General Fire Hazards

No unusual fire or explosion hazards are expected. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media

The material is non-flammable. Use extinguishing agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment / Instructions

Small fires in the beginning stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment. Isolate area around container involved in fire and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from the immediate hazard area if it can be done safely. Cool equipment exposed to fire with water, if it can be done safely.

Hazardous Combustion Products

None Anticipated. See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

Material Name: Produced Water US GHS

* * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

Recovery and Neutralization

Contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios of this material. However, local conditions and regulations may influence or limit the choice of appropriate actions to be taken. See Section 13 for information on appropriate disposal.

Emergency Measures

The material is not considered hazardous. Nevertheless, evacuate nonessential personnel and secure the area. Stay upwind and uphill, if possible.

Personal Precautions and Protective Equipment

Stay upwind and away from the spill/release. Avoid direct contact with the material. For large spillages, notify persons downstream of the spill/release. Isolate the immediate hazard area and keep unauthorized personnel out. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking or absorbents, if possible. Do not flush down sewer or drainage systems. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If a spill occurs on water, notify appropriate authorities and advise shipping of any hazard.

Prevention of Secondary Hazards

None

Material Name: Produced Water US GHS

* * * Section 7 - HANDLING AND STORAGE * * *

Handling Procedures

Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29 CFR 1910.146. Do not wear contaminated clothing or shoes.

Storage Procedures

Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well ventilated areas. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

Incompatibilities

Keep away from excessive heat to prevent rupture of container.

* * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION * * *

Component Exposure Limits

Water (7732-18-5)

ACGIH: Not listed

Sodium Chloride (7647-14-5)

ACGIH: Not listed

Engineering Measures

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Personal Protective Equipment: Respiratory

Emergencies or conditions that could result in significant airborne exposures may require the use of NIOSH approved respiratory protection. An industrial hygienist or other appropriate health and safety professional should be consulted for specific guidance under these situations.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR

Material Name: Produced Water US GHS

1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

Personal Protective Equipment: Skin and Hands

The use of skin protection is not normally required; however, good industrial hygiene practice suggests the use of gloves or other appropriate skin protection whenever working with chemicals.

Personal Protective Equipment: Eyes

Safety glasses or goggles that meet or exceed ANSI Z-87.1 are recommended where there is a possibility of splashing or spraying.

Hygiene Measures

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and launder before reuse.

* * * Section 9 - PHYSICAL AND CHEMICAL PROPERTIES * * *

Appearance:	Clear to Brown	Odor:	Salty
Physical State:	Liquid	pH:	ND
Vapor Pressure:	< 0.36 psia @ 70°F / 21.1°C	Vapor Density:	> 1
Boiling Point:	212°F / 100°C	Melting Point:	2.4°F / -16.5°C
Solubility (H2O):	Complete	Specific Gravity:	1.1 @ 68°F / 20°C
Evaporation Rate:	Variable	VOC:	ND
Octanol / H2O Coeff.:	ND	Flash Point:	ND
Flash Point Method:	ND		
Lower Flammability Limit:	ND	Upper Flammability Limit:	ND
(LFL):		(UFL):	
Auto Ignition:	ND	Burning Rate:	ND

Material Name: Produced Water US GHS

* * * Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will react with alkali and alkaline metals to form flammable hydrogen gas.

Conditions to Avoid

Avoid contact with alkali metals (lithium, sodium, potassium), alkaline metals (beryllium, magnesium, calcium, strontium, and barium), and metallic hydrides like lithium aluminum hydride.

Hazardous Decomposition Products

Not anticipated under normal conditions of use.

Hazardous Polymerization

Not known to occur.

* * * Section 11 - TOXICOLOGICAL INFORMATION * * *

Acute Toxicity

A: General Product Information

Unlikely to be harmful.

B. Component Analysis - D50/LC50

Water (7732-18-5)

Oral LD50 Rat 90 g/kg

Sodium Chloride (7647-14-5)

Oral LD50 Rat 3 g/kg

Potential Health Effects: Skin Corrosion Property / Stimulativeness

May cause skin irritation with prolonged or repeated contact. Not expected to be a skin sensitizer.

Potential Health Effects: Eye Critical Damage / Stimulativeness

Contact with eves may cause moderate irritation.

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Material Name: Produced Water US GHS

Potential Health Effects: Ingestion

Ingestion may result in nausea, vomiting, diarrhea, abdominal cramps, and dehydration (thirst).

Potential Health Effects: Inhalation

No information available on the mixture. However, none of the components have been classified for respiratory sensitization (or are below the concentration threshold for classification).

Generative Cell Mutagenicity

Not expected to cause genetic effects.

Carcinogenicity

General Product Information

Not expected to cause cancer. This substance is not listed as a carcinogen by IARC. NTP or OSHA.

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ general toxicity multiple exposure effects.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - ECOLOGICAL INFORMATION * * *

Ecotoxicity

A: General Product Information

Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable under Federal and State regulations.

Material Name: Produced Water US GHS

Persistence / Degradability

No information available

Bioaccumulation

No information available

Mobility in Soil

No information available

* * * Section 13 - DISPOSAL CONSIDERATIONS * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment Recommendations.

Disposal of Contaminated Containers or Packaging

Recover or recycle if possible. It is the responsibility of the generator to determine the toxicity and physical properties of the material generated so as to properly classify the waste and ensure disposal methods comply with applicable regulations.

This material, if discarded as produced, is not a RCRA "listed" hazardous waste, and is not believed to exhibit characteristics of hazardous waste. Consult state and local regulations regarding the proper disposal of this material. Do not dispose of brine water by draining onto the ground. This will result in soil and groundwater contamination. Waste arising from spillage or tank cleaning should be disposed of in accordance with applicable regulations.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate should not be considered a RCRA hazardous waste but must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a qualified drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

* * * Section 14 - TRANSPORTATION INFORMATION * * *

DOT Information

Shipping Description: Not Regulated

UN #: Not Regulated

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Material Name: Produced Water US GHS

* * * Section 15 - REGULATORY INFORMATION * * *

CERCLA/SARA – Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA – Section 313 and 40 CFR 372):

This material does not contain any chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372.

EPA (CERCLA) Reportable Quantity (in pounds):

This material does not contain any chemicals with CERCLA Reportable Quantities.

State Regulations

Component Analysis

The following components appear on one or more of the following state hazardous substances list.

California Proposition 65:

This material does not contain any chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the warning requirements of California Proposition 65.

National Chemical Inventories:

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.

U.S. Export control classification Number: EAR99.

* * * Section 16 - OTHER INFORMATION * * *

NFPA® Hazard Rating

Health 1
Fire 0
Reactivity0

HMIS® Hazard Rating Health 1 Slight

Fire 0 Minimal Physical 0 Minimal

Material Name: Produced Water US GHS

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act: ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

The information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

Date of Preparation: January 28, 2014

Date of Last Revision: March 4, 2014

End of Sheet

Attachment O

Emissions Summary Sheet



Attachment O: G70-A Emissions Summary Sheet Emission Points Data Summary Sheet

					Table	1: Emissions Data							
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	rch Emission Type1 This Point (Must match Emission Units Table &		This Point Device (Must match flust match Emission Units Table & Emission Units Table & Plot		This Point Device (Must match fust match Emission Units Table & Emission Units Table & Plot		All Regulated Pollutants - Chemical Name/CAS ₃ (Speciate VOCs & HAPS)		n Potential d Emissions 4	Maximum Controlled		Emission Form or Phase (At exit conditions, Solid, Liquid or	Est. Method Used 6
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr	Gas/Vapor)		
EP-H001, EP-H002, EP-	Vertical Stack	H001, H002, H003,	Gas Production	N/A		CO (630080)	0.8083	3.5404	0.8083	3.5404	Gas/Vapor	MB	
H003, EP-H004, EP- H005, EP-H006, EP-		H004, H005, H006, H007, H008	Heaters			NOx (10102439)	0.9623	4.2147	0.9623	4.2147	/Solid (for PM)	AP-42	
H007, EP-H008		11007,11008				Pb (7439-92-1)	4.81E-06	2.11E-05	4.81E-06	2.11E-05			
						CO2 Equivalent N2O (10024972), CO2 (124389), CH4 (74828)	1161.5778	5087.7107	1161.5778	5087.7107			
						SO2 (7446095)	5.77E-03	0.0253	5.77E-03	0.0253			
						PM, PM10, PM2.5	0.0731	0.3203	0.0731	0.3203			
						Benzene (71432)	2.02E-05	8.85E-05	2.02E-05	8.85E-05			
						Toluene (108883)	3.27E-05	1.43E-04	3.27E-05	1.43E-04			
						Hexane (110543)	0.0173	0.0759	0.0173	0.0759			
						Formaldehyde (50000)	7.22E-04	3.16E-03	7.22E-04	3.16E-03			
						2-Methylnaphthalene (91576)	2.31E-07	1.01E-06	2.31E-07	1.01E-06			
						Dichlorobenzene (95501)	1.15E-05	5.06E-05	1.15E-05	5.06E-05			
						Fluoranthene (206440)	2.89E-08	1.26E-07	2.89E-08	1.26E-07			
						Fluorene (86737)	2.69E-08	1.18E-07	2.69E-08	1.18E-07			
						Naphthalene (91203)	5.87E-06	2.57E-05	5.87E-06	2.57E-05			
						Phenanathrene (85018)	1.64E-07	7.17E-07	1.64E-07	7.17E-07			
						Total VOCs	0.0529	0.2318	0.0529	0.2318			
F001	n/a	F001	Fugitives	N/A		Benzene (71432)	5.22E-03	0.0229	5.22E-03	0.0229	Gas/Vapor	MB	
						Toluene (108883)	1.62E-02	0.0709	1.62E-02	0.0709			
						Ethyl benzene (100414)	0.0128	0.0560	0.0128	0.0560			
						Hexane (110543)	0.2191	0.9596	0.2191	0.9596			
						o,m,p-xylenes (95476,108383,106423)	0.0393	0.1723	0.0393	0.1723			
						CO2 Equivalent CO2 (124389)), CH4	64.5797	282.8590	64.5797	282.8590			
						VOCs	3.0422	13.3250	3.0422	13.3250			
						TAPs (benzene)	5.22E-03	0.0229	5.22E-03	0.0229			

Attachment O: G70-A Emissions Summary Sheet Emission Points Data Summary Sheet

					Table :	1: Emissions Data																					
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	h Emission Type1 This Point Table (Must match Emission Units Table &		This Point Device (Must match tch Emission Units Table & Emission Units Table & Plot		This Point Device (Must match Chemical Name/CAS3 lust match Emission Units Table & Emission Units Table & Plot (Speciate VOCs		Maximum Potential Uncontrolled Emissions 4		Maximum Potential Controlled Emissions 5		Emission Form or Phase (At exit conditions, Solid, Liquid or	Est. Method Used 6															
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr	Gas/Vapor)	· ·															
EP-L001, EP-L002	n/a	L001, L002	Loading	N/A		VOCs	8.6819	5.2868	8.6819	5.2868	Gas/Vapor	MB															
			(Condensate), Loading (Water)			toluene (108883)	1.28E-03	7.83E-04	1.28E-03	7.83E-04																	
			Loading (water)			ethyl benzene (100414)	6.34E-04	3.86E-04	6.34E-04	3.86E-04																	
						hexane (110543)	0.0203	0.0123	0.0203	0.0123																	
						o,m,p-xylenes (95476,108383,106423)	1.87E-03	1.14E-03	1.87E-03	1.14E-03																	
						CO2 Equivalent CO2 (124389), CH4	3.0944	4.7720	3.0944	4.7720]																
						benzene (71432)	6.84E-04	4.25E-04	6.84E-04	4.25E-04																	
		1	1								TAPs (benzene)	6.84E-04	4.25E-04	6.84E-04	4.25E-04												
EP-HR001	n/a	HR001	Haul Truck	N/A		PM, PM10, PM2.5	4.6795	11.7405	2.3397	5.8702	Solid	MB															
EP-EC001, EP-EC002	n/a	TANKCOND001-	Condensate Tank F/W/B, PW Tank	F/W/B, PW Tank	N/A	Enclosed	CO (630080)	0.00E+00	0.00E+00	0.2802	1.2273	Gas/Vapor/	MB														
		010, TANKPW001-				Combustor	NOx (10102439)	0.00E+00	0.00E+00	0.3336	1.4611	Solid (for PM)															
		002, EC001, EC002	Combustor			Pb (7439-92-1)	0.00E+00	0.00E+00	1.67E-06	7.31E-06																	
						CO2 Equivalent N2O (10024972), CO2 (124389), CH4	0.00E+00	0.0000	1359.8315	5956.0619																	
																					SO2 (7446095)	0.00E+00	0.00E+00	1.51E-05	6.62E-05		
																					PM, PM10, PM2.5	0.00E+00	0.00E+00	0.0254	3.52E-05		
						Ī	B	Br	Вє	Benzene (71432)	0.3933	1.7225	7.87E-03	0.0344													
						Toluene (108883)	0.3422	1.4987	6.84E-03	0.0300																	
				.	1	ethyl benzene (100414)	0.0912	8.4558	1.82E-03	0.1691	1																
						hexane (110543)	8.5046	37.2501	0.1701	0.7450																	
					l		o,m,p-xylenes (95476,108383,106423)	0.2237	0.9797	4.47E-03	0.0196	1															
				Formaldehyde (50000)	0.00E+00	0.00E+00	1.89E-06	8.28E-06																			
						VOCs	253.0431	1108.3288	5.0610	22.1672																	
EP-PCV	valve	valve PCV Pneumatic CV N/A	valve PCV Pneumatic CV N/A		hexane (110543)	1.09E-02	0.0477	1.09E-02	0.0477	Gas/Vapor	MB																
						CO2 Equivalent CO2 (124389)), CH4	7.2262	31.6506	7.2262	31.6506	i																
						VOCs	0.0916	0.4012	0.0916	0.4012																	

Attachment O: G70-A Emissions Summary Sheet Emission Points Data Summary Sheet

					Table :	1: Emissions Data																						
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type1	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match Emission Units Table & Plot		Device (Must match its Table & Emission Units Table & Plot		All Regulated Pollutants - Chemical Name/CAS ₃ (Speciate VOCs & HAPS)	-	n Potential d Emissions 4	Maximum Controlled I		Emission Form or Phase (At exit conditions, Solid, Liquid or	Est. Method Used 6
		ID No.	Source	ID No.	Device Type		lb/hr	ton/yr	lb/hr	ton/yr	Gas/Vapor)																	
EP-ENG001	Vertical Stack	ENG001	Compressor Engine	N/A		CO (630080)	5.6445	24.7228	5.6445	24.7228	Gas/Vapor/ Solid (for PM)	МВ																
						NOx (10102439)	0.3158	1.3831	0.3158	1.3831																		
						CO2 Equivalent N2O (10024972), CO2 (124389), CH4 (74828)	27.7765	121.6612	27.7765	121.6612																		
						SO2 (7446095)	1.41E-04	6.18E-04	1.41E-04	6.18E-04																		
						PM, PM10, PM2.5	2.28E-03	0.0100	2.28E-03	0.0100																		
						TAPs Benzene (71432)	3.79E-04	1.66E-03	3.79E-04	1.66E-03																		
						Toluene (108883)	1.34E-04	5.86E-04	1.34E-04	5.86E-04																		
						TAPs Formaldehyde (50000)	4.92E-03	0.0215	4.92E-03	0.0215																		
						Naphthalene (91203)	2.33E-05	1.02E-04	2.33E-05	1.02E-04																		
						o,m,p-xylenes (95476,108383,106423)	4.68E-05	2.05E-04	4.68E-05	2.05E-04																		
						Total VOCs	7.10E-03	0.0311	7.10E-03	0.0311																		

Attachment C/O: G70-A Emissions Summary Sheet Fugitive Emissions Data Summary Sheet

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants	-	m Potential ed Emissions 2	Maximum Controlled I	Est. Method	
	Chemical Name/CAS 1	lb/hr	ton/yr	lb/hr	ton/yr	Used 4
Haul Road/Road Dust Emissions	n/a					
Paved Haul Roads						
Unpaved Haul Roads	PM, PM10, PM2.5	4.6795	11.7405	2.3397	5.8702	MB
Loading/Unloading Operations	VOCs	8.6819	5.2868	8.6819	5.2868	MB
	toluene (108883)	1.28E-03	7.83E-04	1.28E-03	7.83E-04	
	ethyl benzene (100414)	6.34E-04	3.86E-04	6.34E-04	3.86E-04	
	hexane (110543)	0.0203	0.0123	0.0203	0.0123	
	o,m,p-xylenes (95476,108383,106423)	1.87E-03	1.14E-03	1.87E-03	1.14E-03	
	CO2 Equivalent CO2 (124389), CH4	3.0944	4.7720	3.0944	4.7720	
	benzene (71432)	6.84E-04	4.25E-04	6.84E-04	4.25E-04	
	TAPs (benzene)	6.84E-04	4.25E-04	6.84E-04	4.25E-04	
Equipment Leaks (Components)	Benzene (71432)		0.0229	-	0.0229	MB
	Toluene (108883)		0.0709		0.0709	
	Ethyl benzene (100414)		0.0560		0.0560	
	Hexane (110543)		0.9596		0.9596	
	o,m,p-xylenes (95476,108383,106423)	Does not apply	0.1723	Does not apply	0.1723	
	CO2 Equivalent CO2 (124389)), CH4		282.8590		282.8590	1
	VOCs		13.3250		13.3250	
	TAPs (benzene)		0.0229		0.0229	
Equipment Leaks (PCVs)	hexane (110543)	0.0109	0.0477	0.0109	0.0477	MB
	CO2 Equivalent CO2 (124389)), CH4	7.2262	31.6506	7.2262	31.6506	
	VOCs	0.0916	0.4012	0.0916	0.4012	

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS2, VOCs, H2S, Inorganics, Lead, Organics, O3, NO, NO2, SO2, SO3, all applicable Greenhouse Gases (including CO2 and methane), etc. DO NOT LIST H2, H2O, N2, O2, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

Attachment P

Other Supporting Documentation (Engine EPA's Certificate of Conformity and Technical Information)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 2013 MODEL YEAR CERTIFICATE OF CONFORMITY WITH THE CLEAN AIR ACT OF 1990

OFFICE OF TRANSPORTATION AND AIR QUALITY ANN ARBOR, MICHIGAN 48105

Byron J. Bunker, Division Director

Compliance Division

Certificate Issued To: Kubota Corporation

(U.S. Manufacturer or Importer)

Certificate Number: DKBXS.9622HP-002

Effective Date: 11/20/2012

Expiration Date: 12/31/2013

Issue Date: 11/20/2012

Revision Date: N/A

Manufacturer: Kubota Corporation Engine Family: DKBXS.9622HP

Certificate Number: DKBXS.9622HP-002

Useful Life: 1000 Hours / 5 Years Engine Class: Nonhandheld-Class II Fuel: Natural Gas (CNG/LNG)

Emission Standards: NMHC + NOx (g/kW-hr): 8

CO (g/kW-hr): 610

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547), 40 CFR Part 1054, 40 CFR Part 1068 and 40 CFR Part 60 (stationary only and combined stationary and mobile), and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued for the following small nonroad engine family, more fully described in the documentation required by 40 CFR Part 1054 and produced in the stated model year.

This certificate of conformity covers only those new small nonroad engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 1054 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 1054. This certificate of conformity does not cover small nonroad engines imported prior to the effective date of the certificate.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068.20 and 1068, Subpart E and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 1054. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 1068.

This certificate does not cover small nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

TECHNICAL INFORMATION DG972-SAEH-S1

NATURAL GAS FUEL ENGINE

July, 2006

KUBOTA Corporation

CONTENTS

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- 2. PERFORMANCE CURVES
- 3. DIMENSIONS
- 4. TECHNICAL DATA
 - 4-1) BRAKE HORSE POWER
 - 4-2) FUEL CONSUMPTION
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 - 1. Combustion air requirements
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 - 3. Combustion and cooling air requirements
 - 4-5) EXHAUST GAS VOLUME
 - 4-6) HEAT REJECTION TO COOLING WATER (Ho)
 - 4-7) COOLING FAN DATA
 - 4-8) CENTER OF GRAVITY
 - 4-9) UNBALANCED FORCES OF ENGINES
 - 4-10) MASS ELASTIC SYSTEM
- 5. FUEL SYSTEM AND FUEL DIAGRAM

Specifications and dimensions are subject to change without prior notice.

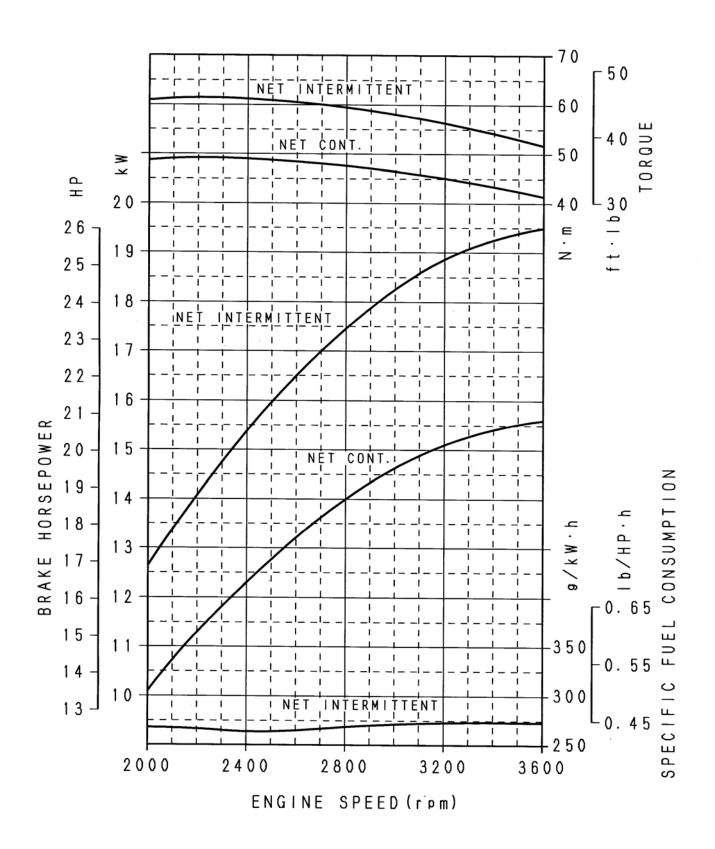
1. GENERAL SPECIFICATIONS

ITEM	UNIT	SPECIFICATIONS
Engine model		DG972-SAEH-S1
Туре		Vertical, In line, 4cycle Natural Gas engine
Cooling system		Water cooling with water pump
Number of cylinders		3
Cylinder bore	mm(in)	74.5 (2.93)
Stroke	mm(in)	73.6 (2.90)
Total displacement	L(cu. in)	0.962 (58.7)
High idle	rpm	3850
Low idle	rpm	1500
Horsepower	kW(HP)	19.5(26.1)
Max. torque (SAE J1349)	Nm(ft-lb) /rpm	61.2 (45.2)/2400
Compression ratio		9.2
Firing order		1-2-3
Ignition timing		B.T.D.C.15° /1000rpm B.T.D.C.28° /3600rpm
Ignition system		Distributor-less Solid State type
Fuel		Natural Gas only
Direction of rotation		Counter-clockwise from flywheel side
Starting system		Electric starting with cell starter
Starter output	V-kW	12-1.0
Alternator output	V-W	12-480 (Standard)
Lubricating system		Forced lubricating by trochoid pump
Lubricating oil		Quality better than SH class
Lube. oil capacity	L(US gal)	3.4 (0.90)
Coolant capacity	L(US gal)	1.22 (0.32)
Governor type		Centrifugal flyweight mechanical type governor
Dimensions (LxBxH)	mm(in)	526x415x503 (20.7x16.3x19.8)
Dry weight	kg(lb)	Approx. 95.4(210)
Application		Stationary only

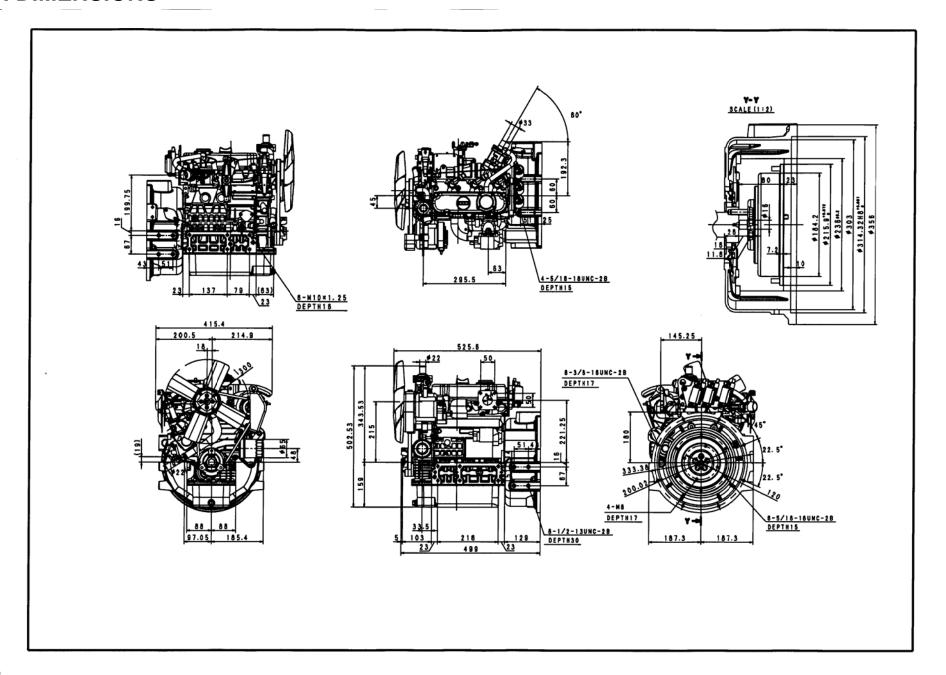
2. PERFORMANCE CURVES

DG972 PERFORMANCE CURVES

Higher calorific value: 11000kcal/m³ (1236BTU/ft³)



3. DIMENSIONS



4. TECHNICAL DATA

ITEM		SPECIFICATIONS		
Engine mode	I	DG972-SAEH-S1		
Brake horse p	oower	See attached sheet		
Top Clearance	е	1.35 to 1.65mm (0.05315 to 0.06496in)		
Compression pressure		1.32MPa (192psi)		
Fuel consump	otion	See attached sheet	4-2)	
Lube. oil cons	sumption	Max.0.67g/kWh (0.5g/HPh) at rated load		
Lube. oil pres	curo	at idling speed: more than 69kPa (more than 9.95	ipsi)	
Lube. Oil pres	Suite	at rated speed: 196 to 441kPa (28.44 to 63.99p	si)	
Noise level		See attached sheet	4-3)	
Combustion a	air requirements			
Cooling air re	quirements	See attached sheet	4.4	
Combustion and		(Refer to 25deg.C and 1000hPa)	4-4)	
cooling air requirements		See attached sheet		
Exhaust gas volume		(Refer to 25deg.C and 1000hPa)	4-5)	
Cold starting	limits	-15deg.C (5deg.F)		
Heat rejection	1	See attached sheet	4-6)	
	Front or Rear	30° (Less than 10min. continuous operation)		
Angles of tilt	down	20° (Continuous operation)		
Angles of the	Left or Right	30° (Less than 10min. continuous operation)		
	side down	20° (Continuous operation)		
Valve timing		[Inlet valve] Open: TDC -20° Close: BDT +45°)	
valve tilling		[Exhaust valve] Open: BDC –50° Close: TDC +1	5°	
Cooling fan d	ata	See attached sheet	4-7)	
Center of grav	vity	See attached sheet	4-8)	
Unbalanced forces of engines		See attached sheet		
Mass elastic s	system	See attached sheet 4-10		
		Opening temperature: 71±1.5deg.C (159.8±2.7de	g.F)	
Thermostat s	pecifications	Fully opened temperature: 85deg.C (185deg.F) [at Thermostat lift:8mm (0.31in)]		

4-1) BRAKE HORSE POWER

SAE J1349

Engine speed	rpm	2000	2400	2800	3200	3600
	kW	12.6	15.4	17.4	18.9	19.5
Net intermittent	HP	16.9	20.6	23.3	25.3	26.1
	PS	17.1	20.9	23.7	25.7	26.5
	kW	10.1	12.3	13.9	15.1	15.6
Net continuous	HP	13.5	16.5	18.7	20.3	20.9
	PS	13.7	16.8	18.9	20.6	21.2

Note

1. Conversion rates 1kW=1.35962PS=1.34048HP

1PS=0.7355kW=0.985925HP 1HP=0.7457kW=1.01428PS

2. Fuel detail Japanese standard gas

higher calorific value: 11000kcal/m3 (1236BTU/ft3)

supply pressure : 0.98 – 2.45kPa (7.35 – 18.38mmHg)

4-2) FUEL CONSUMPTION

Specific at net intermittent (SAE J1349)

Engine speed	rpm	2000	2400	2800	3200	3600
	kW	12.6	15.4	17.4	18.9	19.5
Brake horse power	HP	16.9	20.6	23.3	25.3	26.1
	PS	17.1	20.9	23.7	25.7	26.5
	g/kWh	269	264	269	273	273
Fuel consumption	g/HPh	200	197	200	204	204
	g/PSh	198	194	198	201	201
	lb/HPh	0.442	0.434	0.442	0.449	0.449

Note

1. Conversion rates 1kW=1.35962PS=1.34048HP 1kg=2.20462lb (1g=0.00220462lb)

1PS=0.7355kW=0.985925HP 1lb=0.45359kg

1HP=0.7457kW=1.01428PS

2. Fuel detail Japanese standard gas

higher calorific value: 11000kcal/m³ (1236BTU/ft³)

supply pressure : 0.98 - 2.45 kPa (7.35 - 18.38 mmHg)

4-3) NOISE LEVEL

Load×rpm	Unit	Sound pressure at 1m(3.3ft)
0/4 × 3850	dB(A)	90.0
4/4 × 3850 15.6kW (20.9HP)	dB(A)	92.0
0/4×1500	dB(A)	72.0

These data show the average noise level at four points.

Note

1. Measurement conditions: With radiator, cooling fan, air cleaner and muffler.

4-4) AIR REQUIREMENTS

1. Combustion air requirements (Refer to 25deg.C and 1000hPa)

rpm	2000	2400	2800	3200	3600
L/sec	12.35	14.81	17.28	19.75	22.22
m ³ /h	44.44	53.33	62.22	71.11	80.00
in ³ /sec	753	904	1055	1205	1356
ft ³ /min	26.13	31.35	36.58	41.80	47.03

Combustion air requirements calculating formula

 $Q_1 = Vh \cdot N \cdot C \cdot \eta \cdot 10^{-3}$

Q₁: Amount of intake air (m³/min) η: Intake efficiency Vh: Total displacement (L) Natural Gas: 0.77

N: Engine speed (rpm) C: Coefficient=0.5

2. Cooling air requirements (Refer to 25deg.C and 1000hPa)

rpm	2000	2400	2800	3200	3600
L/sec	571.2	737.2	824.7	833.9	764.7
m ³ /h	2056	2654	2969	3002	2753
in ³ /sec	34859	44984	50327	50888	46667
ft ³ /min	1210.2	1561.8	1747.3	1766.7	1620.2

Above data is decided by following conditions.

- 1. Using the standard radiator.
- 2. Engine is run as open unit.

3. Combustion and cooling air requirements (Refer to 25deg.C and 1000hPa)

rpm	2000	2400	2800	3200	3600
L/sec	583.5	752.0	842.0	853.7	786.9
m ³ /h	2100.4	2707.3	3031.2	3073.1	2833.0
in ³ /sec	35612	45888	51382	52093	48023
ft ³ /min	1236.3	1593.2	1783.9	1808.5	1667.2

Note

1. Cooling fan and fan pulley specifications(Cooling fan Part No. 15881-74112)

Item	
Fan diameter	300mm (11.81in)
No. of blade and type of shape	4, S type
Diameter of fan driving pulley	100mm (3.94in)
Diameter of fan pulley	84mm (3.31in)

2. Conversion rates

1L=61.0237in³=0.035315ft³ 1ft³=28.3168L 1L/sec=3.6m³/h=2.1189ft³/min

4-5) EXHAUST GAS VOLUME

Refer to 25deg.C and 1000hPa

rpm	2000	2400	2800	3200	3600
L/sec	35.46	42.55	49.65	56.74	63.83
m ³ /h	127.67	153.19	178.73	204.26	229.80
in³/sec	2164	2597	3030	3462	3895
ft ³ /min	75.05	90.06	105.07	120.08	135.09

Note

1. Conversion rates 1L=61.0237in³=0.035315ft³

 $1ft^3 = 28.3168L$

1L/sec=3.6m³/h=127.133ft³/hr

4-6) HEAT REJECTION TO COOLING WATER

1. Specific at net intermittent (SAE J1349)

Engine speed	rpm	2000	2400	2800	3200	3600
	kW	12.6	15.4	17.4	18.9	19.5
Brake horse power	HP	16.9	20.6	23.3	25.3	26.1
	PS	17.1	20.9	23.7	25.7	26.5
	g/kWh	269	264	269	273	273
Fuel consumption	g/HPh	200	197	200	204	204
ruei consumption	g/PSh	198	194	198	201	201
	lb/HPh	0.442	0.434	0.442	0.449	0.449
Heat rejection to	MJ/h	29.05	31.52	38.79	45.13	51.82
Heat rejection to cooling water	kcal/h	6940	7529	9267	10781	12379
	BTU/h	12491	13551	16679	19404	22281

Note

Heat rejection to cooling water calculating formula

Ho=Hu•Ne•be•i

Ho: Heat rejection to cooling water

Hu: Fuel low calorific value

Japanese standard gas; 49.4MJ/kg, 11800kcal/h, 212391BTU/lb

Ne: Brake horse power

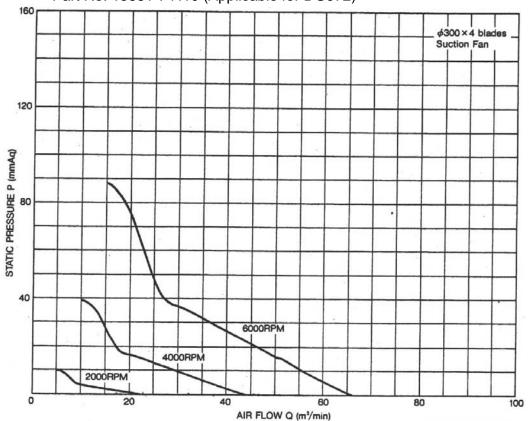
Be: Specific fuel consumption

i: Dispersion ratio to cooling water

4-7) COOLING FAN DATA

1. Performance curves <P-Q>

• Part No. 15881-74110 (Applicable for DG972)



4-8) CENTER OF GRAVITY

1. With standard flywheel and rear-end plate

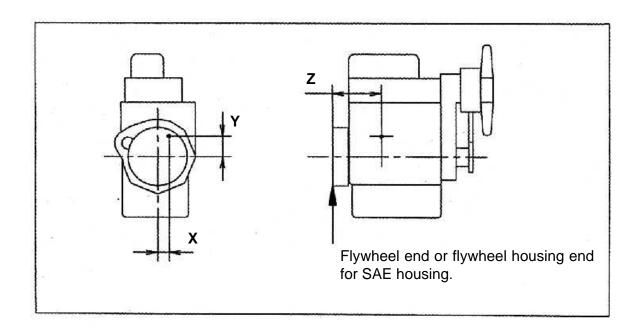
	Dry weight		Center of gravity	у
Model	kg	X mm	Y mm	Z mm
	(lb)	(in)	(in)	(in)
WC/DE072	72.0	-25.5	73.3	179.5
WG/DF972	(159)	(-1.00)	(2.89)	(7.07)

2. With SAE flywheel and flywheel housing

	Dry weight	Center of gravity			
Model	kg	X mm	Y mm	Z mm	
	(lb)	(in)	(in)	(in)	
DG972	95.4	-10.0	28.0	207.0	
-SAEH-S1	(210)	(0.39)	(1.10)	(8.15)	

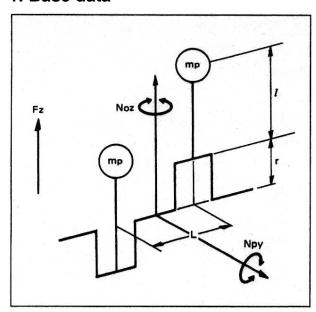
Note

Cooling water and lubricating oil weight is not included in above engine weight.



4-9) UNBALANCED FORCES OF ENGINES

1. Base data



FZ: Unbalanced inertia force

Npy, Noz: Unbalanced inertia couple

mp: Reciprocating mass

r: Crank radius

I: Center distance of connecting rod

L: Cylinder distance

ω: Angular velocity

ω=2πn/60 n: Engine speed(rpm)

l=0.098m	Cylinder bore	mp
r=0.0368m	(mm)	(kg)
L=0.080m	74.5	0.37/9.80665

2. Unbalanced inertia force and couple

 $(x\omega^2)$

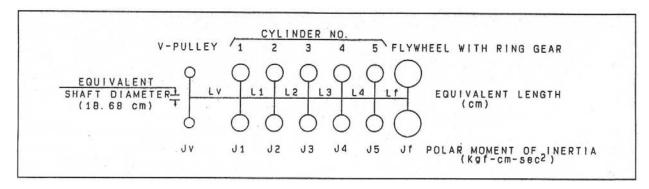
Model	No. of Cylinder	Cylinder Bore	Order	Fz	Npy	Noz
WG/DF/DG	/G/DF/DG	74.5mm	1	0	0.000096	0.000096
972	3	74.511111	2	0	0.000072	0

▼An example of calculation

Calculation condition	ω^2	Fz, Npy, Noz			
Calculation condition	ω		Order	Calculation	
		Fz	1	0	
Engine model DG972 Engine speed 3600(rpm)	[2 x π x 3600/60] ² =142122		2	0	
		Nlov	1	0.000096 × 142122=13.6kg	
		Npy	2	0.000072 × 142122=10.2kg	
		Noz	1	0.000096 × 142122=13.6kg	
			2	0	

4-10) MASS ELASTIC SYSTEM

Equivalent torsional vibration data



MODEL	EQUIVALENT LENGTH (cm)				POLAR MOMENT OF INERTIA (kgfcm-sec ²)				
	LV	L1	L2	Lf	JV	J1	J2	J3	Jf
DG972 -SAEH-S1	35082	4528	4528	2824	0.013	0.026	0.026	0.026	1.281

Note: Flywheel E8052-25110, V-Pulley 16861-74280

5. FUEL SYSTEM AND FUEL DIAGRAM

- All fuel connections added to this engine must be installed by qualified personnel utilizing recognized procedures and standards.
- These non-KUBOTA installed parts, such as hoses, shutoff solenoid valve should be approved for Natural gas use.
- An approved, listed fuel filter and shutoff solenoid valve must be installed between the gas tank and Kubota regulator.
- Two fuel cut solenoids must be installed in series before the regulator on the fuel supply line for safety (backup) purpose.

1. Tightening torque and leak check

- 1) The joint must be installed to the gas entrance of the regulator by screw with O-ring. Screw is tightened to the specified torque using a driver, and leak check must be performed as shown in the below table.
- 2) The connector on the gas mixer may be mounted on any position since it is not sealed. The lock nut may be loosened using a wrench. The connector may be changed to any specified angle. The lock nut should be tightened to the specified torque using a wrench as shown in the below table.

[TIGHTENING TORQUE AND LEAK CHECK]

			Tightening torque			Leak check pressure	
	Qty.	Size	Nm	kgfm	ft-lb	Leak Check pressure	
SCREW	2	M4	1.9 to 2.9	0.2 to 0.3	1.5 to 2.2	Soap solution or its	
LOCK NUT	1	M16×1	19.6 to 39.2	2.0 to 4.0	14.5 to 28.9	equivalent	

2. Setting of the regulator

- 1) Install the regulator in **UPRIGHT** position, it must be installed within 4G vibration level. If not, it may not supply necessary fuel to the engine.
- DO NOT connect any extension hose to the air vent pipe of the regulator. This may cause an improper supply of fuel to the engine.

3. Caution for FUEL SYSTEM

The standard engine is equipped with ϕ 6.6 jet for the fuel calorific gas value of 11000kcal/m³ (1236BTU/ft³).

When the engine is operated with the different calorific gas, it is necessary to select the correct jet of the mixer.

In that case, refer to the manual [Adjustment for Natural Gas Engine DG972].

Japanese standard gas higher calorific value: 11000kcal/m³ (1236BTU/ft³)

supply pressure : 0.98 - 2.45 kPa (7.35 - 18.38 mmHg)

Equipments Vacuum Meter: Not KUBOTA supplied

Adjustable Jet : Service Tool

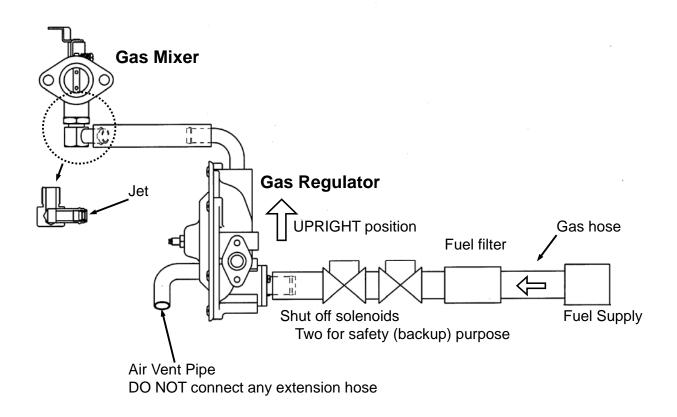
4. Application Check Item

The items as shown below must be managed for all engines, and these items must be informed to KUBOTA with Application Check results.

Refer to the attached sheet [Application Check Sheet for DG972].

- 1) The diameter of the jet (with the intake vacuum curve)
- 2) The calorific value of the gas
- 3) The supply pressure of gas
- 4) The serial number of the engine

5. Fuel diagram





NATURAL GAS ENGINE

KUBOTA DG SERIES (3-cylinder)

DG972-E2



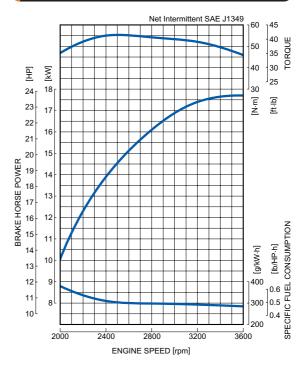
RATED POWER

17.6kW@3600rpm



Photograph may show non-standard equipment

PERFORMANCE CURVE



FEATURES and BENEFITS

New Engine Series

- •The Kubota DG Series offers a new solution to the increasing needs for natural gas engine. The diesel engine based Kubota DG Series gives users the same foot-print, reliability and durability of D902, WG972, and DF972 acknowledged as the world's top quality small industrial engines.
- Kubota offers SAE Flywheel Housing and Rear End Plate specifications for the DG972 engine. These options offer users flexible Power Take Off (PTO) choices.
- The Kubota DG Series is designed to endure use outdoors under severe environment. This series is equipped with a bypass breather tube to avoid freezing below zero.

Emission

Kubota DG Series complies with EPA Tier 2
 Emissions Regulations. EPA regulation is one of the most stringent emissions regulations in the world.

Best Fuel System

•Specialized for Natural Gas use, the DG972 engine eliminated the carburetor, regulator and a fuel filter parts, which are only necessary for Gasoline or LPG use. Also, Kubota adopts the best jet set and the ignition timing that provides the best engine performance in severe conditions.

Ease maintenance cost and time

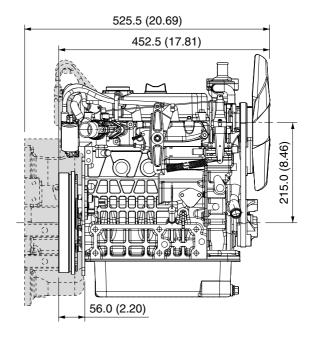
 Mechanical governor system will contribute to lower maintenance cost and prevents users from having to deal with complicated electric maintenance. Moreover, water resistant spark plug caps are adopted for outdoor use.

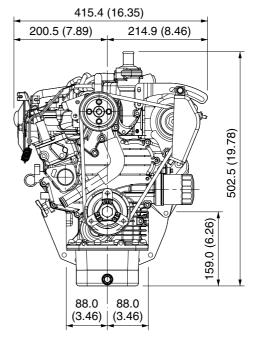
GENERAL SPECIFICATION

Model		DG972-E2		
Emission Regulation		Tier 2		
Туре		Vertical 4-cycle Liquid Cooled Natural Gas		
Number of Cylinders		3		
Bore	mm (in)	74.5 (2.93)		
Stroke	mm (in)	73.6 (2.9)		
Displacement	L (cu.in)	0.962 (58.70)		
Fuel		Natural Gas		
Intake System		Naturally Aspirated		
Maximum Speed	rpm	3600		
Output: Net Intermittent	kW	17.6		
	hp	23.6		
	ps	23.9		
Direction of Rotation		Counterclockwise Viewed on Flywheel		
Oil Pan Capacity	L (gal)	3.7 (0.98)		
Starter Capacity	V-kW	12-1.0		
Alternator Capacity	V-A	12-40		
Length	mm (in)	525.5 (20.69)*1/452.5 (17.81)*2		
Width	mm (in)	415.4 (16.35)		
Height (1)	mm (in)	502.5 (19.78)		
Height (2)	mm (in)	159.0 (6.26)		
Dry Weight kg (lb)		72.0 (158.7)*1/ 95.4 (210.3)*2		

^{*}Specification is subject to change without notice.

DIMENSIONS







Your Driving Force KUBOTA ENGINE

KUBOTA Corporation

2-47, Shikitsuhigashi 1-chome, Naniwa-ku, Osaka, 556-8601 Japan Fax: 06-6648-3521

^{*}Output: Net Intermittent SAE J1349

^{*}Dry weight is according to Kubota's standard specification. When specification varies, the weight will vary accordingly.

*1 with SAE Flywheel and Housing

*2 with Rear End Plate