NMED AIR QUALITY
SIGNIFICANT REVISION APPLICATION
IACX Roswell LLC
Red Bluff No. 3 Compressor Station

Prepared By:

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972-960-3219

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505-266-6611

February 2020

Project 193201.0231

Trinity Consultants

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Mail Application To:		**For Department use only:**
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		AIRS No.:

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. See Section 1-I for submittal instructions for other permits.

This application is submitted as (check all that apply)**:** ☐ Request for a No Permit Required Determination (no fee)
☐ **Updating** an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
Construction Status: ☐ Not Constructed ☑ Existing Permitted (or NOI) Facility ☐ Existing Non-permitted (or NOI) Facility
Minor Source: ☐ a NOI 20.2.73 NMAC ☑ 20.2.72 NMAC application or revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) ☐ Title V renewal ☐ TV minor mod. ☐ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

☑ I acknowledge that a pre-application meeting is available to me upon request. ☐ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.

☑ $500 NSR application Filing Fee enclosed OR ☐The full permit fee associated with 10 fee points (required w/ streamline applications).

☑ Check No.: 186 in the amount of $500

☑ I acknowledge the required submittal format for the hard copy application is printed double sided 'head-to-toe', 2-hole punched (except the Sect. 2 landscape tables is printed 'head-to-head'), numbered tab separators. Incl. a copy of the check on a separate page.

☐This facility qualifies to receive assistance from the Small Business Environmental Assistance program (SBEAP) and qualifies for 50% of the normal application and permit fees. Enclosed is a check for 50% of the normal application fee which will be verified with the Small Business Certification Form for your company.

☐This facility qualifies to receive assistance from the Small Business Environmental Assistance Program (SBEAP) but does not qualify for 50% of the normal application and permit fees. To see if you qualify for SBEAP assistance and for the small business certification form go to https://www.env.nm.gov/aqb/sbap/small_business_criteria.html).

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.72.219.D.1(a) NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

		AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.): 13	Updating Permit/NOI #: NSR 0412-M3-R10
1	Facility Name: Red Bluff No. 3 Compressor Station	Plant primary SIC Code (4 digits): 4922	
		Plant NAIC code (6 digits): 48621	
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): Go North out of Roswell, N.M. on U.S. Highway 285 approximately 17.5 miles past the Roswell city limits sign to Red Bluff Road (just before Mile Marker 132). Turn right (East) on Red Bluff Road and go 0.5 miles to "Y" in road (just before road with cattle guard that goes to El Paso Natural Gas Co.). Turn left at "Y" in the road and go 10.3 miles on main traveled road to cross road. Turn left at cross road and go 0.7 miles. Turn right and go 0.4 miles. Turn left and go 100 yards to station site. (Station is painted Carlsbad Cavern brown)		

2	Plant Operator Company Name: IACX Roswell LLC	Phone/Fax: 972-960-3210/ N/A
a	Plant Operator Address: 5001 LBJ Freeway, Suite 300, Dallas, TX 75244	
b	Plant Operator's New Mexico Corporate ID or Tax ID: 82-2010347	
3	Plant Owner(s) name(s): IACX Roswell LLC	Phone/Fax: 972-960-3210/ N/A
a	Plant Owner(s) Mailing Address(s): 5001 LBJ Freeway, Suite 300, Dallas, TX 75244	
4	Bill To (Company): IACX Roswell LLC	Phone/Fax: 972-960-3210/ N/A
a	Mailing Address: 5001 LBJ Freeway, Suite 300, Dallas, TX 75244	E-mail: tonyhines@iacx.com
5	☐ Preparer: ☑ Consultant: Trinity Consultants, Inc.	Phone/Fax: 505-266-6611/ N/A
a	Mailing Address: 9400 Holly Ave NE, Bldg 3, Suite 300, Albuquerque, NM 87122	E-mail: mrussell@trinityconsultants.com
6	Plant Operator Contact: Tony Hines	Phone/Fax: 972-960-3219/ N/A
a	Address: 5001 LBJ Freeway, Suite 300, Dallas, TX 75244	E-mail: tonyhines@iacx.com
7	Air Permit Contact: Tony Hines	Title: Senior Vice President of Operations
a	E-mail: tonyhines@iacx.com	Phone/Fax: 972-960-3219/ N/A
b	Mailing Address: 5001 LBJ Freeway, Suite 300, Dallas, TX 75244	
c	The designated Air permit Contact will receive all official correspondence (i.e. letters, permits) from the Air Quality Bureau.	

Section 1-B: Current Facility Status

1.a	Has this facility already been constructed? ☑ Yes ☐ No	1.b If yes to question 1.a, is it currently operating in New Mexico? ☑ Yes ☐ No
2	If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? ☐ Yes ☑ No	If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? ☑ Yes ☐ No
3	Is the facility currently shut down? ☐ Yes ☑ No	If yes, give month and year of shut down (MM/YY): N/A
4	Was this facility constructed before 8/31/1972 and continuously operated since 1972? ☐ Yes ☑ No	
5	If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? ☐Yes ☐No ☑N/A	
6	Does this facility have a Title V operating permit (20.2.70 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: P073-R3M2
7	Has this facility been issued a No Permit Required (NPR)? ☐ Yes ☑ No	If yes, the NPR No. is: N/A
8	Has this facility been issued a Notice of Intent (NOI)? ☐ Yes ☑ No	If yes, the NOI No. is: N/A
9	Does this facility have a construction permit (20.2.72/20.2.74 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: 0412-M3R10
10	Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? ☐ Yes ☑ No	If yes, the register No. is: N/A

Section 1-C: Facility Input Capacity & Production Rate

1	What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: 1.04 MMscf	Daily: 25 MMscf	Annually: 9,125 MMscf
b	Proposed	Hourly: 1.04 MMscf	Daily: 25 MMscf	Annually: 9,125 MMscf

2	What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: 1.04 MMscf	Daily: 25 MMscf	Annually: 9,125 MMscf
b	Proposed	Hourly: 1.04 MMscf	Daily: 25 MMscf	Annually: 9,125 MMscf

Section 1-D: Facility Location Information

1	Section: 10	Range: 25E	Township: 7S	County: Chaves	Elevation (ft): 3,825
2	UTM Zone: ☐ 12 or ☑ 13			Datum: ☐ NAD 27 ☐ NAD 83 ☑ WGS 84	
a	UTM E (in meters, to nearest 10 meters): 556,800 m			UTM N (in meters, to nearest 10 meters): 3,731,370 m	
b	**AND** Latitude (deg., min., sec.): 33°43'15"			Longitude (deg., min., sec.): -104°23'13"	
3	Name and zip code of nearest New Mexico town: Roswell, NM 88201				
4	Detailed Driving Instructions from nearest NM town (attach a road map if necessary): Go North out of Roswell, N.M. on U.S. Highway 285 approximately 17.5 miles past the Roswell city limits sign to Red Bluff Road (just before Mile Marker 132). Turn right (East) on Red Bluff Road and go 0.5 miles to "Y" in road (just before road with cattle guard that goes to El Paso Natural Gas Co.). Turn left at "Y" in the road and go 10.3 miles on main traveled road to cross road. Turn left at cross road and go 0.7 miles. Turn right and go 0.4 miles. Turn left and go 100 yards to station site. (Station is painted Carlsbad Cavern brown)				
5	The facility is 23 miles northeast of Roswell, NM.				
6	Status of land at facility (check one): ☐ Private ☐ Indian/Pueblo ☑ Federal BLM ☐ Federal Forest Service ☐ Other (specify)				
7	List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: **Municipalities**: None; **Indian Tribes**: None; **Counties**: Chaves.				
8	**20.2.72** NMAC applications **only**: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.env.nm.gov/aqb/modeling/class1areas.html)? ☑ Yes ☐ No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers: Yes; Salt Creek Wilderness, 11.1 km.				
9	Name nearest Class I area: Salt Creek Wilderness				
10	Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): 11.1 km				
11	Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: 2,450 m				
12	Method(s) used to delineate the Restricted Area: Fencing "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.				
13	Does the owner/operator intend to operate this source as a portable stationary source as defined in 20.2.72.7.X NMAC? ☐ Yes ☑ No A portable stationary source is not a mobile source, such as an automobile, but a source that can be installed permanently at one location or that can be re-installed at various locations, such as a hot mix asphalt plant that is moved to different job sites.				
14	Will this facility operate in conjunction with other air regulated parties on the same property? ☒ No ☐ Yes If yes, what is the name and permit number (if known) of the other facility? N/A				

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

1	Facility **maximum** operating ($\frac{\text{hours}}{\text{day}}$): 24	($\frac{\text{days}}{\text{week}}$): 7	($\frac{\text{weeks}}{\text{year}}$): 52	($\frac{\text{hours}}{\text{year}}$): 8,760		
2	Facility's maximum daily operating schedule (if less than 24 $\frac{\text{hours}}{\text{day}}$)? Start: N/A		☐AM ☐PM	End: N/A	☐AM ☐PM	
3	Month and year of anticipated start of construction: Upon receipt of permit					

4	Month and year of anticipated construction completion: TBD
5	Month and year of anticipated startup of new or modified facility: TBD
6	Will this facility operate at this site for more than one year? ☑ Yes ☐ No

Section 1-F: Other Facility Information

1	Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? ☑ Yes ☐ No If yes, specify: NOV		
a	If yes, NOV date or description of issue: 7/29/2019		NOV Tracking No: IACX-0019-1901
b	Is this application in response to any issue listed in 1-F, 1 or 1a above? ☑ Yes ☐ No If Yes, provide the 1c & 1d info below:		
c	Document Title: Notice of Violation	Date: 7/29/2019	Requirement # (or page # and paragraph #): Violation 1
d	Provide the required text to be inserted in this permit: See Section 3		
2	Is air quality dispersion modeling or modeling waiver being submitted with this application? ☑ Yes ☐ No		
3	Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? ☐ Yes ☑ No		
4	Will this facility be a source of federal Hazardous Air Pollutants (HAP)? ☑ Yes ☐ No		
a	If Yes, what type of source? ☐ **Major** (☐ ≥10 tpy of any single HAP **OR** ☐ ≥25 tpy of any combination of HAPS) **OR** ☑ **Minor** (☑ <10 tpy of any single HAP **AND** ☑ <25 tpy of any combination of HAPS)		
5	Is any unit exempt under 20.2.72.202.B.3 NMAC? ☐ Yes ☑ No		
a	If yes, include the name of company providing commercial electric power to the facility: N/A Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user.		

Section 1-G: Streamline Application

(This section applies to 20.2.72.300 NMAC Streamline applications only)

1	☐ I have filled out Section 18, "Addendum for Streamline Applications." ☑ N/A (This is not a Streamline application.)

Section 1-H: Current Title V Information - Required for all applications from TV Sources

(Title V-source required information for all applications submitted pursuant to 20.2.72 NMAC (Minor Construction Permits), or 20.2.74/20.2.79 NMAC (Major PSD/NNSR applications), and/or 20.2.70 NMAC (Title V))

1	Responsible Official (R.O.) (20.2.70.300.D.2 NMAC): Tony Hines	Phone: 972-960-3219
a	R.O. Title: Senior Vice President of Operations	R.O. e-mail: tonyhines@iacx.com
b	R. O. Address: 5001 LBJ Freeway, Suite 300, Dallas, Texas 75244	
2	Alternate Responsible Official (20.2.70.300.D.2 NMAC): Loran Zimmerman	Phone: 620-264-5067
a	A. R.O. Title: Vice President of Operations	A. R.O. e-mail: loranzimmerman@iacx.com
b	A. R. O. Address: 504 Topeka St., Larned, KS 67550	
3	Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): IACX Energy LLC is the parent company of IACX Roswell LLC	
4	Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): IACX Energy LLC is the parent company of IACX Roswell LLC	
a	Address of Parent Company: 5001 LBJ Freeway, Suite 300, Dallas, Texas 75244	
5	Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): IACX Roswell LLC	

6	Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: Russell Gibbs, Roswell Area Manager: 575-363-3142
7	Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: N/A

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (**NOI**), a 20.2.70 NMAC (**Title V**), a 20.2.72 NMAC (**NSR** minor source), or 20.2.74 NMAC (**PSD**) application package shall consist of the following:

Hard Copy Submittal Requirements:

1) One hard copy **original signed and notarized application package** **printed double sided** **'head-to-toe'** **2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be head-to-head. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required. Please include a copy of the check on a separate page.

2) If the application is for a minor NSR, PSD, NNSR, or Title V application, include one working hard **copy** for Department use. This copy should be printed in book form, 3-hole punched, and **must be double sided**. Note that this is in addition to the head-to-to 2-hole punched copy required in 1) above. Minor NSR Technical Permit revisions (20.2.72.219.B NMAC) only need to fill out Sections 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical permit revision. TV Minor Modifications need only fill out Sections 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.

3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically. Electronic files for applications for NOIs, any type of General Construction Permit (GCP), or technical revisions to NSRs must be submitted with compact disk (CD) or digital versatile disc (DVD). For these permit application submittals, **two** CD copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a single CD submittal. Electronic files for other New Source Review (construction) permits/permit modifications or Title V permits/permit modifications can be submitted on CD/DVD or sent through AQB's secure file transfer service.

Electronic files sent by (check one):

☑ CD/DVD attached to paper application

☐ secure electronic transfer. Air Permit Contact Name_____

Email_____

Phone number _____

a. If the file transfer service is chosen by the applicant, after receipt of the application, the Bureau will email the applicant with instructions for submitting the electronic files through a secure file transfer service. Submission of the electronic files through the file transfer service needs to be completed within 3 business days after the invitation is received, so the applicant should ensure that the files are ready when sending the hard copy of the application. The applicant will not need a password to complete the transfer. **Do not use the file transfer service for NOIs, any type of GCP, or technical revisions to NSR permits.**

4) Optionally, the applicant may submit the files with the application on compact disk (CD) or digital versatile disc (DVD) following the instructions above and the instructions in 5 for applications subject to PSD review.

5) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver** and/or electronic air dispersion modeling report, input, and output files. The dispersion modeling ***summary report only*** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau.

6) If the applicant submits the electronic files on CD and the application is subject to PSD review under 20.2.74 NMAC (PSD) or NNSR under 20.2.79 NMC include,
   a. one additional CD copy for US EPA,
   b. one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
   c. one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

   If the application is submitted electronically through the secure file transfer service, these extra CDs do not need to be submitted.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

1) All required electronic documents shall be submitted as 2 separate CDs or submitted through the AQB secure file transfer service. Submit a single PDF document of the entire application as submitted and the individual documents comprising the application.

2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text and formulas in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible

format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc,), submit these items in hard copy format. We must be able to review the formulas and inputs that calculated the emissions.

3) It is preferred that this application form be submitted as 4 electronic files (3 MSWord docs: Universal Application section 1 [UA1], Universal Application section 3-19 [UA3], and Universal Application 4, the modeling report [UA4]) and 1 Excel file of the tables (Universal Application section 2 [UA2]). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.

4) The electronic file names shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: "A-3423-FacilityName". The "A" distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with "A-". Modifications to existing facilities should use the core permit number (i.e. '3423') the Department assigned to the facility as the next 4 digits. Use 'XXXX' for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: "A-3423-9-description", where "9" stands for the section # (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the header information throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision number (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. Do not use special symbols (#, @, etc.) in file names. The footer information should not be modified by the applicant.

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Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number[1]	Source Description	Make	Model #	Serial #	Manufacturer's Rated Capacity[3] (Specify Units)	Requested Permitted Capacity[3] (Specify Units)	Date of Manufacture[2] / Date of Construction/ Reconstruction[2]	Controlled by Unit # / Emissions vented to Stack #	Source Classification Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB)[4]	Replacing Unit No.
C-865	RICE 4SLB	Caterpillar	G3516 TALE	4EK04116	1265 hp	1265 hp	2/1/1991 6/5/2006	N/A C-865	31000203	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	4SLB	N/A
C-867	RICE 4SRB	Waukesha	L7042 GSIU	350138	1195 hp	1195 hp	2/10/1984 2/25/2019	C-867 C-867	31000203	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced	4SRB	N/A
C-868	RICE 4SRB	Waukesha	L7042 GSIU	363094	1195 hp	1195 hp	2/10/1984 3/7/2019	C-868 C-868	31000203	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced	4SRB	N/A
C-878	RICE 4SLB	Superior	8GTLA	286649	1073 hp	1073 hp	1/7/1982 1/7/1982	N/A C-878	31000203	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	4SLB	N/A
C-880	RICE 4SLB	Caterpillar	G3516 TALE	3RC00411-4EK	1265 hp	1265 hp	1991 2017	N/A C-880	31000203	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	4SLB	N/A
C-320	RICE 4SLB	Caterpillar	CG137-12	TBD	600 hp	600 hp	2019 2019	C-320 C-320	31000203	☐ Existing (unchanged) ☐ To be Removed ☑ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	4SRB	N/A
CAP-1	Microturbine	Capstone	65R-HG4-BU00	9620	65 kW	87.2 hp	11/15/2017 12/1/2017	N/A CAP-1	20100201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
CAP-2	Microturbine	Capstone	65R-HG4-BU00	9621	65 kW	87.2 hp	11/20/2017 12/1/2017	N/A CAP-2	20100201	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
Dehy-1	Dehydrator Still Vent/ Flash Tank	Latoka	N/A	4140-02	25 MMscf/d	25 MMscf/d	1/1/1981 1/1/1981	N/A N/A	31000304	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced	N/A	N/A
TK-1	Condensate Tank	N/A	115238	595	300 bbl	300 bbl	2009 2009	N/A N/A	40400311	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced	N/A	N/A
TK-2	Condensate Tank	N/A	115239	4585	300 bbl	300 bbl	2009 2009	N/A N/A	40400311	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced	N/A	N/A
FUG	Facility-wide Fugitive Emissions	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	31000220	☐ Existing (unchanged) ☐ To be Removed ☑ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A
SSM/M	Startup, Shutdown, and Maintenance and Malfunction emissions	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	310888811	☐ Existing (unchanged) ☐ To be Removed ☑ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced	N/A	N/A

[1] Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.

[2] Specify dates required to determine regulatory applicability.

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

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

Table 2-B: Insignificant Activities[1] (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

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

Unit Number	Source Description	Manufacturer	Model No. / Serial No.	Max Capacity / Capacity Units	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5) / Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Manufacture /Reconstruction[2] / Date of Installation /Construction[2]	For Each Piece of Equipment, Check Onc
Rebl-1	Reboiler	Thermoflux	N/A 4140-02	1.0 MMBtu/hr	20.2.72.202.B.5 NMAC N/A	1981 1981	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
Load	Loading Emissions from Condensate Tanks	N/A	N/A N/A	N/A N/A	20.2.72.202.B.5 NMAC N/A	N/A N/A	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced
NGL Load	Loading Emissions from NGL Tank	N/A	N/A N/A	N/A N/A	20.2.72.202.B.5 NMAC N/A	N/A N/A	☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☑ To Be Modified ☐ To be Replaced
Haul	Unpaved Haul Road Emissions	N/A	N/A N/A	N/A N/A	20.2.72.202.B.5 NMAC N/A	N/A N/A	☐ Existing (unchanged) ☐ To be Removed ☑ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
T-1	Lube Oil Storage Tank	N/A	N/A N/A	1500 gal	20.2.72.202.B.2 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
T-2	Ambitrol Storage Tank	N/A	N/A N/A	1500 gal	20.2.72.202.B.2 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
T-3	Glycol Storage Tank	N/A	N/A N/A	1500 gal	20.2.72.202.B.2 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
T-4	Oily Waste Water	N/A	N/A N/A	50 bbl	20.2.72.202.B.2 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
T-5	Used Lube Oil Storage Tank	N/A	N/A N/A	50 bbl	20.2.72.202.B.2 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
HRU	Helium Recovery Unit	N/A	N/A N/A	2 MMscf/day	20.2.72.202.B.5 NMAC N/A	2017 2017	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
NRU-1	Five Nitrogen Rejection Units (2 MMscf/d capacity each)	N/A	N/A N/A	10 MMscf/day	20.2.72.202.B.5 NMAC N/A	N/A N/A	☑ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced

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

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

Table 2-C: Emissions Control Equipment

Unit and stack numbering must correspond throughout the application package. Only list control equipment for TAPs if the TAP's maximum uncontrolled emissions rate is over its respective threshold as listed in 20.2.72 NMAC, Subpart V, Tables A and B. In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions.

Control Equipment Unit No.	Control Equipment Description	Date Installed	Controlled Pollutant(s)	Controlling Emissions for Unit Number(s)[1]	Efficiency (% Control by Weight)	Method used to Estimate Efficiency
C-867	NSCR Catalyst and AFR	12/24/2004	NO_X, CO, and VOC	C-867	NO_X 80%; CO 80%; VOC 88%	catalyst manafacturer
C-868	NSCR Catalyst and AFR	12/6/2004	NO_X, CO, and VOC	C-868	NO_X 80%; CO 80%; VOC 88%	catalyst manafacturer
C-320	NSCR Catalyst	2019	NO_X, CO, and VOC	C-320	NO_X 95%; CO 95%; VOC 79%	catalyst manafacturer

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

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

☐ **This Table was intentionally left blank because it would be identical to Table 2-E.**

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

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
C-865[2]	4.43	19.40	5.58	24.50	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	-	-
C-867	29.97	131.26	20.75	90.87	0.69	3.03	0.11	0.46	0.066	0.29	0.066	0.29	0.066	0.29	-	-	-	-
C-868	25.50	111.68	17.65	77.32	0.59	2.58	0.090	0.40	0.066	0.29	0.066	0.29	0.066	0.29	-	-	-	-
C-878[2]	11.80	51.80	7.19	31.10	1.80	7.80	0.48	2.10	0.060	0.25	0.060	0.25	0.060	0.25	<	<	-	-
C-880[2]	4.43	19.40	5.58	24.50	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	-	-
C-320	13.19	57.76	13.19	57.76	0.46	2.03	3.02E-03	0.013	0.044	0.19	0.044	0.19	0.044	0.19	-	-	-	-
TK-1	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	-	-
TK-2	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	-	-
CAP-1[2]	0.031	0.13	0.081	0.35	6.50E-03	0.03	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	-	-
CAP-2[2]	0.031	0.13	0.081	0.35	6.50E-03	0.03	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	-	-
FUG	-	-	-	-	1.30	5.68	-	-	-	-	-	-	-	-	-	-	-	-
Dehy-1	-	-	-	-	8.42	36.88	-	-	-	-	-	-	-	-	-	-	-	-
Totals	89.37	391.56	70.10	306.75	19.06	83.41	0.68	2.98	0.38	1.66	0.38	1.66	0.38	1.66	-	-	-	-

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

[2] Units C-865, C-878, and C-880 emissions are representative of NSR permit 412-M3R3. Units CAP-1 and CAP-2 emissions are representative of NSR 412-M3R5.

"<" representative of permit P073-R3M2.

"-" indicates emissions of this pollutant are not expected.

Table 2-E: Requested Allowable Emissions

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

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
C-865[2]	4.43	19.40	5.58	24.50	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	-	-
C-867	5.48	23.99	2.32	10.18	0.35	1.51	0.11	0.46	0.066	0.29	0.066	0.29	0.066	0.29	-	-	-	-
C-868	0.45	1.96	1.86	8.14	0.29	1.29	0.090	0.40	0.066	0.29	0.066	0.29	0.066	0.29	-	-	-	-
C-878[2]	11.80	51.80	7.19	31.10	1.80	7.80	0.48	2.10	0.060	0.25	0.060	0.25	0.060	0.25	<	<	-	-
C-880[2]	4.43	19.40	5.58	24.50	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	-	-
C-320	0.66	2.90	0.66	2.90	0.097	0.43	3.02E-03	0.013	0.044	0.19	0.044	0.19	0.044	0.19	-	-	-	-
TK-1	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	-	-
TK-2	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	-	-
CAP-1[2]	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	-	-
CAP-2[2]	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	-	-
FUG	-	-	-	-	1.30	5.68	-	-	-	-	-	-	-	-	-	-	-	-
Dehy-1	-	-	-	-	8.42	36.88	-	-	-	-	-	-	-	-	-	-	-	-
Totals	27.31	119.71	23.36	102.02	18.06	79.00	0.68	2.98	0.38	1.66	0.38	1.66	0.38	1.66	-	-	-	-

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

[2] Units C-865, C-878, and C-880 emissions are representative of TV permit P073-R3M2. Units CAP-1 and CAP-2 are representative of NSR 412-M3R5.

"<" representative of permit P073-R3M2.

"-" indicates emissions of this pollutant are not expected.

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

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

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

Unit No.	NOx		CO		VOC		SOx		PM[2]		PM10[2]		PM2.5[2]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
SSM/M	-	-	-	-	*	10.00	-	-	-	-	-	-	-	-	-	-	-	-
Totals	-	-	-	-	*	10.00	-	-	-	-	-	-	-	-	-	-	-	-

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

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

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

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

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

Stack No.	Serving Unit Number(s) from Table 2-A	NOx		CO		VOC		SOx		PM		PM10		PM2.5		□ H_2S or □ Lead	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals:																	

Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions. If the facility has multiple operating scenarios, complete a separate Table 2-H for each scenario and, for each, type scenario name here:

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
C-865	C-865	V	No	24	225	32.0	-	-	40.8	1.00
C-867	C-867	V	No	40	1060	16.4	-	-	30.3	0.83
C-868	C-868	V	No	40	1060	16.4	-	-	30.3	0.83
C-878	C-878	V	No	40	960	40.1	-	-	42.2	1.10
C-880	C-880	V	No	24	255	32.0	-	-	40.8	1.00
C-320	C-320	V	No	18	1042	42.7	-	-	54.3	1.00
CAP-1	CAP-1	V	No	15	588	9.0	-	-	11.5	1.00
CAP-2	CAP-2	V	No	15	588	9.0	-	-	11.5	1.00

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

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

Stack No.	Unit No.(s)	Total HAPs		Formaldehyde ☑ HAP or ☐ TAP		n-Hexane ☑ HAP or ☐ TAP		Benzene ☑ HAP or ☐ TAP		Toluene ☑ HAP or ☐ TAP		Xylenes ☑ HAP or ☐ TAP		Provide Pollutant Name Here ☐ HAP or ☐ TAP		Provide Pollutant Name Here ☐ HAP or ☐ TAP		Provide Pollutant Name Here ☐ HAP or ☐ TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
C-865	C-865	0.44	1.92	0.28	1.23	-	-	-	-	-	-	-	-						
C-867	C-867	0.80	3.51	0.16	0.70	-	-	0.012	0.054	4.35E-03	0.019	1.52E-03	6.66E-03						
C-868	C-868	0.68	2.99	0.14	0.60	-	-	0.010	0.046	3.70E-03	0.016	1.29E-03	5.67E-03						
C-878	C-878	0.37	1.63	0.24	1.05	-	-	-	-	-	-	-	-						
C-880	C-880	0.44	1.92	0.28	1.23	-	-	-	-	-	-	-	-						
C-320	C-320	0.13	0.58	0.093	0.41	-	-	-	-	-	-	-	-						
N/A	TK-1	0.12	0.53	-	-	0.11	0.49	6.66E-03	0.029	1.91E-03	8.38E-03	-	-						
N/A	TK-2	0.12	0.53	-	-	0.11	0.49	6.66E-03	0.029	1.91E-03	8.38E-03	-	-						
CAP-1	CAP-1	8.00E-03	0.035	3.20E-03	0.014	2.97E-04	1.30E-03	1.14E-04	5.00E-04	6.85E-05	3.00E-04	2.28E-04	1.00E-03						
CAP-2	CAP-2	8.00E-03	0.035	3.20E-03	0.014	2.97E-04	1.30E-03	1.14E-04	5.00E-04	6.85E-05	3.00E-04	2.28E-04	1.00E-03						
N/A	FUG	0.05	0.23	-	-	-	-	-	-	-	-	-	-						
N/A	SSM	-	-	-	-	-	-	-	-	-	-	-	-						
N/A	Dehy-1	0.58	2.55	-	-	0.54	2.36	-	-	5.90E-03	0.026	0.023	0.10						
Totals:		3.76	16.47	1.20	5.25	0.76	3.33	0.036	0.16	0.018	0.078	0.027	0.12						

Table 2-J: Fuel

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

Unit No.	Fuel Type (low sulfur Diesel, ultra low sulfur diesel, Natural Gas, Coal, …)	Fuel Source: purchased commercial, pipeline quality natural gas, residue gas, raw/field natural gas, process gas (e.g. SRU tail gas) or other	Specify Units				
			Lower Heating Value	Hourly Usage	Annual Usage	% Sulfur	% Ash
C-865	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	9.5 Mscf	83.3 MMscf	0.25 gr S/100 scf	-
C-867	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	7.43 Mscf	65.06 MMscf	0.25 gr S/100 scf	-
C-868	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	6.32 Mscf	55.36 MMscf	0.25 gr S/100 scf	-
C-878	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	8.1 Mscf	71.0 MMscf	0.25 gr S/100 scf	-
C-880	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	9.5 Mscf	83.6 MMscf	0.25 gr S/100 scf	-
C-320	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	4.2 Mscf	37.0 MMscf	0.25 gr S/100 scf	-
CAP-1	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	0.8 Mscf	6.7 MMscf	0.25 gr S/100 scf	-
CAP-2	Natural Gas	Pipeline quality natural gas	1050 Btu/scf	0.8 Mscf	6.7 MMscf	0.25 gr S/100 scf	-

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

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

Tank No.	SCC Code	Material Name	Composition	Liquid Density (lb/gal)	Vapor Molecular Weight (lb/lb*mol)	Average Storage Conditions		Max Storage Conditions	
						Temperature (°F)	True Vapor Pressure (psia)	Temperature (°F)	True Vapor Pressure (psia)
TK-1	40400311	Condensate	Condensate	32.7	68.02	70	14.7	70	14.7
TK-2	40400311	Condensate	Condensate	32.7	68.02	70	14.7	70	14.7

Table 2-L: Tank Data

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

Tank No.	Date Installed	Materials Stored	Seal Type (refer to Table 2-LR below)	Roof Type (refer to Table 2-LR below)	Capacity		Diameter (M)	Vapor Space (M)	Color (from Table VI-C)		Paint Condition (from Table VI-C)	Annual Throughput (gal/yr)	Turn-overs (per year)
					(bbl)	(M^3)			Roof	Shell			
TK-1	2009	Condensate	FX	NA	300	29.5	3.66	3.66	WH	WH	Good	15,330	1.22
TK-2	2009	Condensate	FX	NA	300	29.5	3.66	3.66	WH	WH	Good	15,330	1.22

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

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

Note: 1.00 bbl = 0.159 M^3 = 42.0 gal

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

Material Processed				Material Produced			
Description	**Chemical Composition**	**Phase (Gas, Liquid, or Solid)**	**Quantity (specify units)**	**Description**	**Chemical Composition**	**Phase**	**Quantity (specify units)**
Natural Gas	Natural Gas	Gas	25 MMscf/day	Natural Gas	Natural Gas	Gas	25 MMscf/day

Table 2-N: CEM Equipment

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

Stack No.	Pollutant(s)	Manufacturer	Model No.	Serial No.	Sample Frequency	Averaging Time	Range	Sensitivity	Accuracy
N/A - The facility does not operate CEM Equipment.									

Table 2-O: Parametric Emissions Measurement Equipment

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

Unit No.	Parameter/Pollutant Measured	Location of Measurement	Unit of Measure	Acceptable Range	Frequency of Maintenance	Nature of Maintenance	Method of Recording	Averaging Time
C-867	Catalyst Inlet O_2	Inlet to catalyst	V	0.5 to 1.0	as needed	replacement	Electronic	N/A
C-867	Catalyst Inlet Temperature	Inlet to catalyst	F	550°F to 1300°F	as needed	replacement	Electronic	N/A
C-868	Catalyst Inlet O_2	Inlet to catalyst	V	0.5 to 1.0	as needed	replacement	Electronic	N/A
C-868	Catalyst Inlet Temperature	Inlet to catalyst	F	550°F to 1300°F	as needed	replacement	Electronic	N/A

Table 2-P: Greenhouse Gas Emissions

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

		CO_2 ton/yr	N_2O ton/yr	CH_4 ton/yr	SF_6 ton/yr	PFC/HFC ton/yr[2]									Total GHG Mass Basis ton/yr[4]	Total CO_2e ton/yr[5]
Unit No.	**GWPs [1]**	**1**	**298**	**25**	**22,800**	**footnote 3**										
C-865	**mass GHG**	5125.00	0.0097	0.097											5125.11	
	CO_2e	5125.00	2.89	2.43												5130.32
C-867	**mass GHG**	3995.54	0.0075	0.075											3995.6225	
	CO_2e	3995.54	2.235	1.875												3999.65
C-868	**mass GHG**	3399.55	0.0064	0.064											3399.62	
	CO_2e	3399.55	1.91	1.60												3403.06
C-878	**mass GHG**	4156.00	0.0078	0.078											4156.09	
	CO_2e	4156.00	2.32	1.95												4160.27
C-880	**mass GHG**	5125.00	0.0097	0.097											5125.11	
	CO_2e	5125.00	2.89	2.43												5130.32
C-320	**mass GHG**	2274.88	0.00429	0.043											2274.93	
	CO_2e	2274.88	1.28	1.08												2277.23
CAP-1	**mass GHG**	392.20	0.00074	0.0074											392.21	
	CO_2e	392.20	0.22052	0.185												392.61
CAP-2	**mass GHG**	392.20	0.00074	0.0074											392.21	
	CO_2e	392.20	0.22052	0.185												392.61
Dehy-1	**mass GHG**	512.36	0.001	0.01											512.37	
	CO_2e	512.36	0.30	0.25												512.91
FUG	**mass GHG**	0.014	-	14.83											14.84	
	CO_2e	0.014	-	370.75												370.76
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO2e															
Total	**mass GHG**	25372.74	0.048	15.31											25,388.10	
	CO_2e	25372.74	14.27	382.72												25,769.73

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

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

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

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

[5] **CO_2e** means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

Section 3

Application Summary

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

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

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

IACX Roswell LLC is submitting this application pursuant to 20.2.72.219.D.(1)(a) NMAC for a significant revision to NSR Permit 0412-M3-R10 for the Red Bluff No. 3 Compressor Station. The proposed revision seeks to include the provisions listed in Condition A112 of the TV Permit P073-R3M2 along with e-mail correspondence from Dr. James E. Nellessen received on October 3, 2019. The e-mail received from Dr. Nellessen on October 3, 2019 was in correspondence to the Notice of Violation (NOV) (Track No. IACX-0019-1901) issued on July 29, 2019. This NSR significant revision is part of the corrective action for Violation 1 in the NOV, which will be followed by a TV permit application 12-months after the NSR permit is issued.

The updates to the permit include revisions to the emissions for the glycol dehydrator (Unit Dehy-1); condensate tanks (Units TK-1 and TK-2); startup, shutdown, maintenance, and malfunction (Unit SSM/M); facility-wide fugitives (Unit FUG); and two RICE engines (Units C-867 and C-868. Revisions were also made to the following exempt emission sources: truck loadout from the condensate tanks (Unit Load); NGL loadout (Unit NGL Load); and unpaved haul road (Unit Haul).

The facility is located approximately 23 miles northeast of Roswell in Chaves County, New Mexico. The Red Bluff No. 3 Compressor Station is an extension of a local gas transportation system that gathers casinghead gas from multiple wells in the area. The facility compresses the gas for delivery to a main line.

Equipment currently authorized at the site includes Units C-865 and C-880, Caterpillar G3516 compressor engines; Units C-867 and C-868, Waukesha L7042GSI compressor engines; Unit C-878, a Superior 8GTLA compressor engine; Unit C-320, rinse compressor engine; and two Capstone C65 microturbines (units CAP-1 and CAP-2). A 1.0 MMBtu/hr glycol dehydration unit reboiler (unit Rebl-1), and one glycol dehydration contactor (unit Dehy-1); a nitrogen rejection unit; and related ancillary equipment typically located at compressor stations. The five nitrogen rejection units were added to the facility via an exemption form in September 2017. The nitrogen rejection units will feed to the helium recovery unit, unit HRU. The helium recovery unit will recover 97% of the helium and 3% of the N_2 in the gas stream.

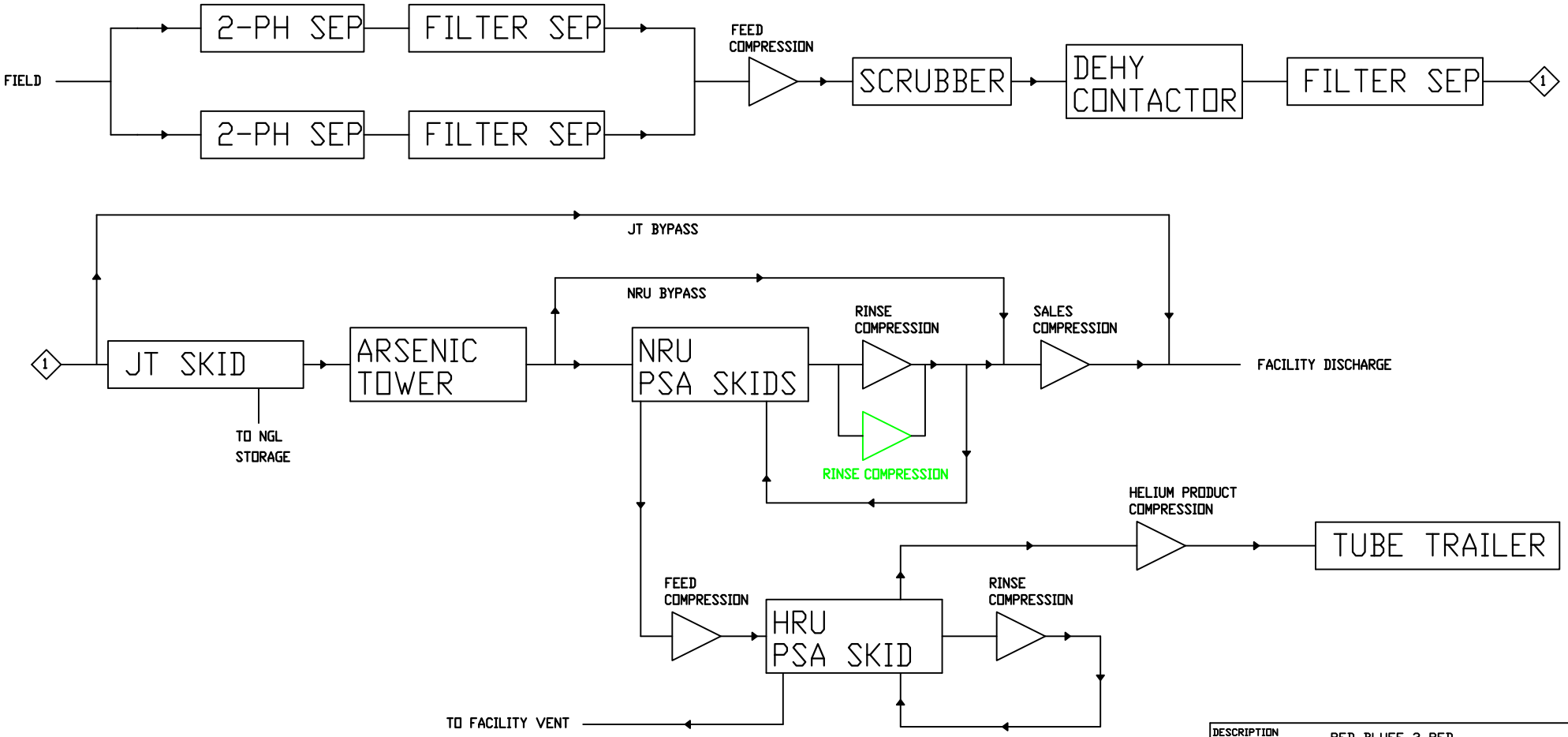
Section 4

Process Flow Sheet

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

A process flow diagram is attached.

REV.	DATE	COMMENT	BY	APPD
0	4/30/19	FIRST ISSUE	AMJ	



DESCRIPTION	RED BLUFF 3 PFD
CUSTOMER	IACX ENERGY

Section 5

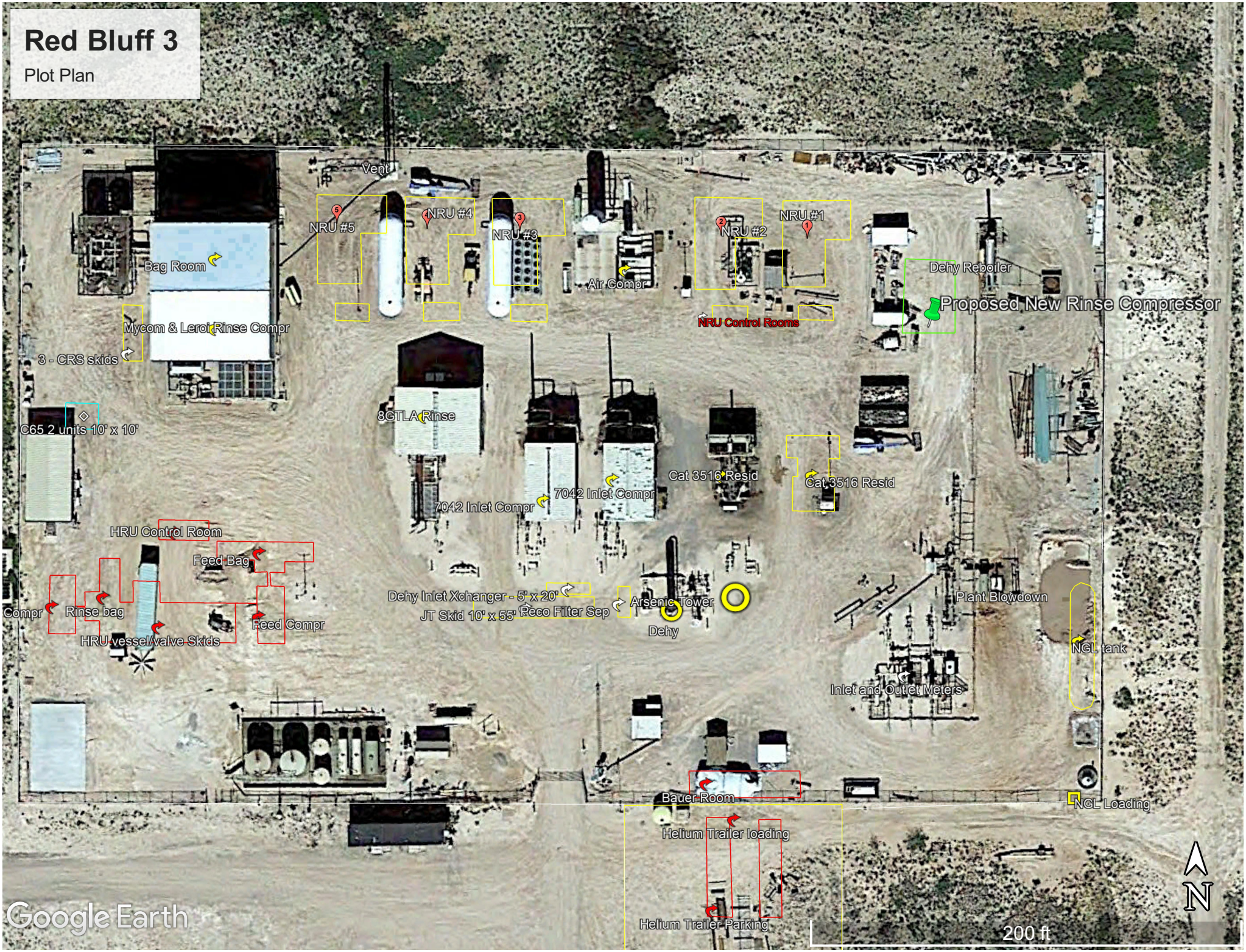
Plot Plan Drawn To Scale

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

A plot plan is attached.

Red Bluff 3

Plot Plan



Section 6

All Calculations

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

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

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

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

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

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

Significant Figures:

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

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

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

(1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;

(2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**

(3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.

(4) The final result of the calculation shall be expressed in the units of the standard.

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

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

Updated Calculations

Compressor Engines (Units C-867 and C-868)
The emission rates for NO_X and CO were calculated using emissions factors from the most recent stack test with a 20% safety factor included. Emissions for VOCs were calculated using emission factors from the catalyst manufacturer data (Johnson & Matthey). SO_2 emissions were calculated based on the pipeline quality natural gas sulfur content of 5 gr/100 scf. Emission rates for particulate matter were calculated using emission factors from AP-42 Table 1.4-2 and hazardous air pollutants (HAPs) were calculated using emission factors from AP-42 Table 3.2-3. Greenhouse gas emissions were calculated using manufacturer fuel usage and emission factors from 40 CFR 98 Tables C-1 and C-2 for natural gas. Global warming potentials were taken from 40 CFR 98 Table A-1.

Glycol Dehydrator (Unit Dehy-1)
The regenerator and flash tank emissions for Dehy-1 were calculated using GRI-GLYCalc.

Condensate Tanks (Units TK-1 and TK-2)
Flashing, working, and breathing emissions from the tanks were calculated using BR&E ProMax.

Truck Loadout from Condensate Tanks (Unit Load)
Loading emissions from the condensate tanks were calculated using BR&E ProMax. The emissions are exempt pursuant to 20.2.72.202.B.5 NMAC.

Unpaved Truck Hauling Emissions (Unit Haul)
Unpaved haul road emissions are calculated using AP-42 13.2.2 Equations 1a and 2. This unit is exempt pursuant to 20.2.72.202.B.5 NMAC.

Truck Loadout from NGL bullet tank (Unit NGL Load)
Loading emissions from the NGL bullet tank were calculated using PV = nRT; where R = Universal Gas Constant 10.73 cubic feet *psi/lbmole * deg R. This unit is exempt pursuant to 20.2.72.202.B.5 NMAC.

Facility-wide Fugitive Emissions (Unit FUG)
Fugitive emissions were calculated using component counts provided by facility engineers and emissions factors referenced from the “Protocol for Equipment Leak Emission Estimates” from the EPA (Table 2-4). A site-specific gas analysis was used to estimate composition.

Startup, Shutdown, and Maintenance/Malfunction (Unit SSM/M)
IACX is requesting 10 tpy VOC emissions associated with Startup, Shutdown and Maintenance (SSM) and Malfunction activities at the facility.

There are two types of blowdown events: unit blowdowns and facility blowdowns. Unit blowdowns are typically associated with SSM activities because they are predictable and they can be scheduled in most cases. Unit blowdowns occur each time a unit is taken offline for maintenance and/or during startup. Regularly scheduled blowdowns would occur every month for regularly scheduled maintenance. Units are usually offline for two hours or less during a normal preventative maintenance procedure.

Facility blowdowns are emergency events that cannot be anticipated. These occur when the inlet valve must be shut due to unforeseen circumstances such as control valve failure. Facility shut downs are rare and thus would not be considered SSM events, they are considered malfunctions.

Based on the above description, IACX has determined to request a maximum VOC emission limit of 10 tons per year to account for Startup, Shutdown, and Maintenance/Malfunction (SSM/M). In accordance with “Implementation Guidance for permitting SSM Emissions and Excess Emission” document issued 7 June 2012, "Instead of permitting SSM and upset/malfunction emissions separately, the applicant may request that emissions from both SSM and upset/malfunction be consolidated in the permit with a total limit of 10 tons per year per pollutant per facility for the combined category to reduce concerns about the appropriateness of activities listed as SSM."

Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO_2e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO_2e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO_2e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO2e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following ☐ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

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

Global Warming Potentials (GWP):
Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO_2 over a specified time period.

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

Metric to Short Ton Conversion:
Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.
1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

Please see Table 2-P for GHG Emissions.

IACX Roswell LLC - Red Bluff #3 Compressor Station

Red Bluff No. 3 Compressor Station

Emissions Summary

Emission Units: All

Description: Facility-wide emissions

Uncontrolled Emissions[1]																		
Unit No.	NO_X		CO		VOC		SO_X		PM		PM_{10}		$PM_{2.5}$		H_2S		HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
C-865	4.43	19.4	5.58	24.5	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	0.44	1.92
C-867	29.97	131.26	20.75	90.9	0.69	3.03	0.11	0.46	0.066	0.29	0.066	0.29	0.066	0.29	-	-	0.80	3.51
C-868	25.50	111.68	17.65	77.3	0.59	2.58	0.090	0.40	0.066	0.29	0.066	0.29	0.066	0.29	-	-	0.68	2.99
C-878	11.8	51.8	7.19	31.1	1.8	7.8	0.48	2.1	0.060	0.25	0.060	0.25	0.060	0.25	<	<	0.37	1.63
C-880	4.43	19.4	5.58	24.5	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	0.44	1.92
C-320	13.2	57.8	13.2	57.8	0.46	2.03	3.02E-03	0.013	0.044	0.19	0.044	0.19	0.044	0.19	-	-	0.13	0.58
TK-1	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	0.12	0.53
TK-2	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	0.12	0.53
CAP-1	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	8.00E-03	0.035
CAP-2	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	8.00E-03	0.035
FUG	-	-	-	-	1.30	5.68	-	-	-	-	-	-	-	-	-	-	0.053	0.23
SSM	-	-	-	-	*	10.00	-	-	-	-	-	-	-	-	-	-	-	-
Dehy-1	-	-	-	-	8.42	36.88	-	-	-	-	-	-	-	-	-	-	0.58	2.55
Total	89.37	391.56	70.10	306.75	19.06	93.41	0.68	2.98	0.38	1.66	0.38	1.66	0.38	1.66	-	-	3.76	16.47

Controlled Emissions[2]																		
Unit No.	NO_X		CO		VOC		SO_X		PM		PM_{10}		$PM_{2.5}$		H_2S		HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
C-865	4.43	19.4	5.58	24.5	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	0.44	1.92
C-867	5.48	23.99	2.32	10.18	0.35	1.51	0.11	0.46	0.066	0.29	0.066	0.29	0.066	0.29	-	-	0.80	3.51
C-868	0.45	1.96	1.86	8.14	0.29	1.29	0.090	0.40	0.066	0.29	0.066	0.29	0.066	0.29	-	-	0.68	2.99
C-878	11.8	51.8	7.19	31.1	1.8	7.8	0.48	2.1	0.060	0.25	0.060	0.25	0.060	0.25	<	<	0.37	1.63
C-880	4.43	19.4	5.58	24.5	1.36	5.95	<	<	0.070	0.32	0.070	0.32	0.070	0.32	<	<	0.44	1.92
C-320	0.66	2.90	0.66	2.90	0.097	0.43	3.02E-03	0.013	0.044	0.19	0.044	0.19	0.044	0.19	-	-	0.13	0.58
TK-1	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	0.12	0.53
TK-2	-	-	-	-	1.54	6.72	-	-	-	-	-	-	-	-	-	-	0.12	0.53
CAP-1	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	8.00E-03	0.035
CAP-2	0.031	0.13	0.081	0.35	6.50E-03	0.029	5.22E-04	2.30E-03	5.20E-06	2.30E-05	5.20E-06	2.30E-05	5.22E-06	2.30E-05	<	<	8.00E-03	0.035
FUG	-	-	-	-	1.30	5.68	-	-	-	-	-	-	-	-	-	-	0.053	0.23
SSM	-	-	-	-	*	10.00	-	-	-	-	-	-	-	-	-	-	-	-
Dehy-1	-	-	-	-	8.42	36.88	-	-	-	-	-	-	-	-	-	-	0.58	2.55
Total	27.31	119.71	23.36	102.02	18.06	89.00	0.68	2.98	0.38	1.66	0.38	1.66	0.38	1.66	-	-	3.76	16.47

[1] Units C-865, C-878, and C-880 emissions are representative of NSR permit 412-M3R3. Units CAP-1 and CAP-2 emissions are representative of NSR 412-M3R5.

[2] Units C-865, C-878, and C-880 emissions are representative of TV permit P073-R3M2. Units CAP-1 and CAP-2 are representative of NSR 412-M3R5.

"<" representative of permit P073-R3M2.

"-" indicates emissions of this pollutant are not expected.

Engine Emission Calculations

Engine Input Information	
Engine Make/Model	Waukesha L7042 GSIU
Unit	C-867
Engine Type	4SRB

Engine Parameters			
Specification	**Value**	**Units**	**Notes**
Hours of Operation	8760	hr/yr	-
Maximum Horsepower	1195	hp	TV Permit P073R3
Requested Horsepower	1045.63	hp	2019 Stack Test Data
Maximum Speed	1000	rpm	Manufacturer
Volumetric Exhaust	1113.18	CFM	2019 Stack Test Data
Fuel HHV	1050	Btu/scf	Nominal
Fuel Usage Rate	7458	Btu/hp-hr	Manufacturer
Heat Input Rating	7.80	MMBtu/hr	Calculated
Hourly Fuel Usage	7.43	Mscf/hr	Calculated
Annual Fuel Usage	65.06	MMscf/yr	Calculated
Stack Temp	1060	deg F	TV Permit P073R3
Stack Diameter	0.83	ft	TV Permit P073R3
Stack Height	40	ft	TV Permit P073R3
Stack Velocity	34.29	ft/s	Calculated

Uncontrolled Emissions for Criteria Pollutants, VOCs, and HAPs				
Pollutant	**EF (g/hp-hr)**	**Emissions (lb/hr)**	**(tpy)**	**Notes**
NO_X[1]	13.00	29.97	131.26	Manufacturer
CO[1]	9.00	20.75	90.87	Manufacturer
VOC[1]	0.30	0.69	3.03	Manufacturer
$PM/PM_{10}/PM_{2.5}$[2]	-	0.066	0.29	AP-42 Table 1.4-2
SO_2[3]	-	0.11	0.46	Pipeline Quality Natural Gas
Total HAPs[2]	-	0.80	3.51	AP-42 Table 3.2-3 (4SRB)
Formaldehyde[2]	-	0.16	0.70	AP-42 Table 3.2-3 (4SRB)

Controlled Emissions for Criteria Pollutants, VOCs, and HAPs					
Pollutant	**EF (g/hp-hr)**	**EF (With Safety Factor)[4] (g/hp-hr)**	**Emissions (lb/hr)**	**(tpy)**	**Notes**
NO_X	1.98	2.38	5.48	23.99	2019 Stack Test
CO	0.84	1.01	2.32	10.18	2019 Stack Test
VOC	0.15	-	0.35	1.51	Johnson & Matthey Catalyst
$PM/PM_{10}/PM_{2.5}$	-	-	0.066	0.29	AP-42 Table 1.4-2
SO_2	-	-	0.11	0.46	Pipeline Quality Natural Gas
Total HAPs	-	-	0.80	3.51	AP-42 Table 3.2-3 (4SRB)
Formaldehyde	-	-	0.16	0.70	AP-42 Table 3.2-3 (4SRB)

GHG Emissions Calculations					
Pollutant		**EF[5] kg/MMBtu**	**Emissions (lb/hr)**	**(tpy)**	**Notes**
CO_2		53.06	912.22	3,995.54	40 CFR 98 Subpart C Table C-1
CH_4		1.0E-03	0.017	0.075	40 CFR 98 Subpart C Table C-2
N_2O		1.0E-04	1.72E-03	0.0075	40 CFR 98 Subpart C Table C-2
CO_2e		-	913.17	3,999.67	

[1] Based on TV Permit P073R3

[2] AP-42 (7/2000) Table 3.2-3, 4-stroke rich burn (4SRB)

[3] SO_2 emissions calculated based on the pipeline quality natural gas sulfur content of 5 gr/100 scf

5 grains S/100 scf * 1 lb S/7000 grains S *(64 g/mol SO_2) / (32 g/mol S) * Fuel usage Mscf/hr

[4] A 20% safety factor has been added to NOx and CO emissions.

[5] 40 CFR Part 98, Subpart C, Table C-1 and Table C-2

IACX Roswell LLC - Red Bluff #3 Compressor Station

Engine Emission Calculations

Engine Input Information	
Engine Make/Model	Waukesha L7042 GSIU
Unit	C-868
Engine Type	4SRB

Engine Parameters			
Specification	**Value**	**Units**	**Notes**
Hours of Operation	8760	hr/yr	-
Maximum Horsepower	1195	hp	TV Permit P073R3
Requested Horsepower	889.66	hp	2019 Stack Test Data
Maximum Speed	1000	rpm	Manufacturer
Volumetric Exhaust	1252.21	CFM	2019 Stack Test Data
Fuel HHV	1050	Btu/scf	Nominal
Fuel Usage Rate	7458	Btu/hp-hr	Manufacturer
Heat Input Rating	6.64	MMBtu/hr	Calculated
Hourly Fuel Usage	6.32	Mscf/hr	Calculated
Annual Fuel Usage	55.36	MMscf/yr	Calculated
Stack Temp	1060	deg F	TV Permit P073R3
Stack Diameter	0.83	ft	TV Permit P073R3
Stack Height	40	ft	TV Permit P073R3
Stack Velocity	38.57	ft/s	Calculated

Uncontrolled Emissions for Criteria Pollutants, VOCs, and HAPs				
Pollutant	**EF (g/hp-hr)**	**Emissions (lb/hr)**	**Emissions (tpy)**	**Notes**
NO_X[1]	13.00	25.50	111.68	Manufacturer
CO[1]	9.00	17.65	77.32	Manufacturer
VOC[1]	0.30	0.59	2.58	Manufacturer
$PM/PM_{10}/PM_{2.5}$[2]	-	0.066	0.29	AP-42 Table 1.4-2
SO_2[3]	-	0.090	0.40	Pipeline Quality Natural Gas
Total HAPs[2]	-	0.68	2.99	AP-42 Table 3.2-3 (4SRB)
Formaldehyde[2]	-	0.14	0.60	AP-42 Table 3.2-3 (4SRB)

Controlled Emissions for Criteria Pollutants, VOCs, and HAPs					
Pollutant	**EF (g/hp-hr)**	**EF (With Safety Factor)[4] (g/hp-hr)**	**Emissions (lb/hr)**	**Emissions (tpy)**	**Notes**
NO_X	0.19	0.23	0.45	1.96	2019 Stack Test
CO	0.79	0.95	1.86	8.14	2019 Stack Test
VOC	0.15	-	0.29	1.29	Johnson & Matthey Catalyst
$PM/PM_{10}/PM_{2.5}$	-	-	0.066	0.29	AP-42 Table 1.4-2
SO_2	-	-	0.090	0.40	Pipeline Quality Natural Gas
Total HAPs	-	-	0.68	2.99	AP-42 Table 3.2-3 (4SRB)
Formaldehyde	-	-	0.14	0.60	AP-42 Table 3.2-3 (4SRB)

GHG Emissions Calculations					
Pollutant		**EF[5] kg/MMBtu**	**Emissions (lb/hr)**	**Emissions (tpy)**	**Notes**
CO_2		53.06	776.15	3,399.55	40 CFR 98 Subpart C Table C-1
CH_4		1.0E-03	0.015	0.064	40 CFR 98 Subpart C Table C-2
N_2O		1.0E-04	1.46E-03	0.0064	40 CFR 98 Subpart C Table C-2
CO_2e		-	776.95	3,403.06	

[1] Based on TV Permit P073R3

[2] AP-42 (7/2000) Table 3.2-3, 4-stroke rich burn (4SRB)

[3] SO_2 emissions calculated based on the pipeline quality natural gas sulfur content of 5 gr/100 scf

5 grains S/100 scf * 1 lb S/7000 grains S *(64 g/mol SO_2) / (32 g/mol S) * Fuel usage Mscf/hr

[4] A 20% safety factor has been added to NOx and CO emissions.

[5] 40 CFR Part 98, Subpart C, Table C-1 and Table C-2

Glycol Dehydrator Emission Calculations

Dehydrator Input Information		
Make	Lakota	
Model Number	N/A	
Serial Number	N/A	
Unit(s):	Dehy-1	
Annual Operating Hours	8760	hr
Dry Gas Flow Rate	25	MMscf/day

VOC and HAP Emissions

Pollutant Emissions	Uncontrolled Flash Tank Emissions[1]		Regenerator Emissions[2]		Total Uncontrolled Emissions[3]		Total Controlled Emissions	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Methane	11.2623	49.3289	0.0150	0.0658	11.2773	49.3947	11.28	49.39
Carbon Dioxide	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
Hydrogen Sulfide	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
Ethane	2.3901	10.4686	0.0107	0.0471	2.4008	10.5157	2.40	10.52
Propane	2.2873	10.0185	0.0176	0.0770	2.3049	10.0955	2.30	10.10
Isobutane	0.6984	3.0588	0.0060	0.0261	0.7044	3.0849	0.70	3.08
n-Butane	1.5862	6.9474	0.0148	0.0648	1.6010	7.0122	1.60	7.01
Isopentane	0.7093	3.1068	0.0042	0.0184	0.7135	3.1252	0.71	3.13
n-Pentane	0.8083	3.5404	0.0043	0.0187	0.8126	3.5591	0.81	3.56
n-Hexane	0.5358	2.3470	0.0021	0.0093	0.5379	2.3563	0.54	2.36
Cyclo Hexane	0.0201	0.0881	0.0002	0.0010	0.0203	0.0891	0.02	0.09
Other Hexanes	0.7502	3.2857	0.0031	0.0137	0.7533	3.2994	0.75	3.30
Methylcyclohexane	0.2338	1.0238	0.0016	0.0071	0.2354	1.0309	0.24	1.03
Heptanes	0.4664	2.0428	0.0013	0.0055	0.4677	2.0483	0.47	2.05
Benzene	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
Toluene	0.0057	0.0249	0.0002	0.0008	0.0059	0.0257	0.01	0.03
Ethylbenzene	0.0151	0.0659	0.0004	0.0019	0.0155	0.0678	0.02	0.07
Xylenes	0.0227	0.0993	0.0007	0.0031	0.0234	0.1024	0.02	0.10
C8+	0.2249	0.9850	0.0001	0.0001	0.2250	0.9851	0.23	0.99
TOTAL VOC	8.36	36.64	0.06	0.25	8.42	36.88	**8.42**	**36.88**
TOTAL HAP	0.58	2.54	0.003	0.015	0.58	2.55	**0.58**	**2.55**

[1] From "Flash Tank Off Gas" stream in GLYCalc Report

[2] From "Controlled Regenerator Emissions" stream in GLYCalc Report (controlled with condenser).

[3] Summation of the Uncontrolled Flash Tank Emissions and Regenerator Emissions

Condensate Tank Emissions

Uncontrolled Tank Emissions[1]				
Emissions	Total VOC		Total HAP	
	TK-1	TK-2	TK-1	TK-2
	tpy	tpy	tpy	tpy
Flash	0.70	0.70	0.04	0.04
Working & Breathing	6.02	6.02	0.49	0.49
Total	6.72	6.72	0.53	0.53

Notes

[1] Emissions are calculated using ProMax.

Facility-Wide Fugitive Emissions

Emission Factors and Emission Rates for VOCs and HAPs							
Equipment Type	**Emission Factor (lb/hr/ source)**	**Source Count ***	**% VOC C3+**	**VOC Emission Rate (lb/hr)**	**VOC Emission Rate (tpy)**	**HAP Emission Rate (lb/hr)**	**HAP Emission Rate (tpy)**
Valves - Inlet Gas	0.00992	100	9.071%	0.09	0.39	0.01	0.05
Valves - Liquid	0.00551	20	100.00%	0.11	0.48	0.00	0.01
Relief Valves/Other	0.01940	105	9.07%	0.18	0.81	0.024	0.105
Pump Seals - Liquid	0.02866	30	100.00%	0.86	3.77	0.010	0.044
Flanges/Connectors - Inlet Gas	0.00086	35	9.07%	2.73E-03	0.01	3.53E-04	1.55E-03
Flanges/Connectors - Liquid	0.00024	25	100.00%	6.05E-03	0.03	7.10E-05	3.11E-04
Compressor Seals	0.01940	25	9.07%	0.044	0.19	0.006	0.025
Total				**1.30**	**5.68**	**0.053**	**0.23**

* Source counts are actuals from the facility.
Source: EPA Protocol for Equipment Leak Emission Estimates, November, 1995, EPA-453/R-95-017

Exempt Equipment

IACX Roswell LLC - Red Bluff #3 Compressor Station

Dehydrator Reboiler Emission Calculations

Heater Input Information	
Make/Model	Thermoflux
Serial Number	4140-02
Unit(s):	Rebl-1

Heater Parameters		
Input heat rate	1.00	MMBtu/hr
Fuel heat value	1050	Btu/scf
Fuel rate	0.95	Mscf/hr
Annual operating hours	8760	hours
Annual fuel usage	8.34	MMscf/yr

Emissions for Criteria Pollutants, VOCs and HAPs

NO_x [1]	CO [1]	VOC [1]	SO_2 [2]	PM [1,3]	HCHO	Toluene	Benzene	n-Hexane	Naphthalene	Dichlorobenzene	HAPs	Units
100	84	5.5	-	7.6	0.075	3.40E-03	2.10E-03	1.80E+00	6.10E-04	1.20E-03	-	lb/MMscf
102.9	86.5	5.7	-	7.8	0.077	3.50E-03	2.16E-03	1.85E+00	6.28E-04	1.24E-03	-	lb/MMscf
0.098	0.082	0.0054	0.014	0.0075	7.35E-05	3.33E-06	2.06E-06	1.76E-03	5.98E-07	1.18E-06	1.85E-03	lb/hr [4]
0.43	0.36	0.024	0.060	0.033	3.22E-04	1.46E-05	9.02E-06	7.73E-03	2.62E-06	5.15E-06	8.08E-03	tons/yr [5]

GHG Emissions Calculations

Pollutant	EF [6] kg/MMBtu	Emissions (lb/hr)	Emissions (tpy)	Notes
CO_2	53.06	116.98	61.41	40 CFR 98 Subpart C Table C-1
CH_4	1.0E-03	2.20E-03	1.16E-03	40 CFR 98 Subpart C Table C-2
N_2O	1.0E-04	2.20E-04	1.16E-04	40 CFR 98 Subpart C Table C-2
CO_2e	-	117.10	61.48	

[1] Emission factors from AP-42 Tables 1.4-1 and 1.4-2 (7/98)
Emission factors have been adjusted according to AP-42: EF (at fuel heating value) = Fuel Heat Value / EF Heat Value (1020 Btu/scf) * EF (at 1020 Btu/scf)

[2] SO_2 emissions based on fuel content of 5 grains of sulfur per 100 scf
SO_2 lb/hr = 5gr S/100 scf * Fuel usage (scf/hr) * 1 lb/7000 gr * 64lb SO_2/ 32lb S

[3] Assumes PM (Total) = PM_{10}= $PM_{2.5}$

[4] Hourly emission rates calculated as follows:
NO_X, CO, VOC, PM, HAPs lb/hr = EF (lb/MMscf) * Fuel usage (Mscf/hr) * 1MMscf/1000Mscf

[5] Annual emissions calculated as follows:
tons/yr = Hourly emissions (lb/hr) * Hours of operation * 1ton/2000lb

[6] GHG emission factors taken from 40 CFR Part 98, Subpart C, Table C-1 and Table C-2

Truck Loading

Emission unit: Load

Source Description: Condensate Loading

ProMax Tank Loading Emissions		
Condensate Tanks		
VOC Emissions		
0.020	lb/hr	Total
0.087	tpy	Total
HAP Emissions		
0.0071	lb/hr	Total
0.031	tpy	Total

Individual HAP Emission Calculations	
Condensate Tanks	
HAP	**tons/yr**
n-Hexane	0.007
Benzene	3.76E-04
Toluene	1.09E-04
Ethylbenzene	1.08E-06
Xylenes	7.33E-06
Total	**0.0071**

TPY Values for All Tanks	
Pollutant	**tons/yr**
VOC	0.087
HAPs	0.031

IACX Roswell LLC - Red Bluff #3 Compressor Station

Red Bluff No. 3 Compressor Station

Unit: NGL LOAD

Hose Parameters

Vapor Hose Diameter	2	inches
Vapor Hose Length	10	foot
Hose Volume	0.218	ft^3
Number of Hoses	2	
Total Hose Volume	0.436	ft^3

NGL Data[1]

NGL Tank Pressure	321.27	psia
NGL Throughput	24	bbl/day
NGL Throughput	28,000	gal/month
Capacity of Tank	9000	gal/load
NGL Throughput	3.11	loads/month

[1] Values obtained from a similar facility.

Physical Data

Loadout Temperature (T)	591.67	R
Molecular Weight	46.315	lb/lbmol
Moles in the vapor phase (n)	2.21E-02	$lbmol/ft^3$
Vapor Density[2]	1.02E+00	lb/ft^3

[2] Calculated using PV = nRT, where R = Universal Gas Constant 10.73 cubic feet *psi/lbmole * deg R

VOC Emissions from Pressurized NGL Loadout

Source	Density (lb/ft^3)	Hose Volume (ft^3/load)	Loads per month	Monthly Emissions (lb/month)[3]	Annual Emissions (tpy)[4]
Vapor Hoses	1.023	0.436	3.11	1.39	0.0083
Total				1.39	0.0083

[3] Monthly Emissions (lb/month) = Density (lb/ft^3) x Hose Volume (ft^3/load) x Loads per month (load/month)

$$\text{Monthly Emission Rate (lb/month)} = \frac{1.02\ \text{lb}}{ft^3} \times \frac{0.436332313}{\text{load}} \times \frac{3.1111111}{\text{month}} = \frac{1.39\ \text{lb}}{\text{month}}$$

[4] Annual Emission Rate (tpy) = Uncontrolled emission rate (lb/hr) x (8,760 hr/yr) / (2,000 lb/ton).

$$\text{Annual Emission Rate (tpy)} = \frac{1.39}{\text{month}} \times \frac{12\ \text{months}}{\text{yr}} \times \frac{1\ \text{ton}}{2{,}000\ \text{lb}} = \frac{8.33\text{E-}03\ \text{lb}}{\text{yr}}$$

Haul Road Emissions

Haul Road Input Information	
Unit(s):	Haul
Source Description:	Fugitive Dust Generated by Trucks

Unpaved Haul Road Parameters		
Parameter	**Value**	**Unit**
Empty Vehicle Weight[1]	16	ton
Load Size [2]	26.8	ton
Loaded Vehicle Weight[3]	42.8	ton
Mean Vehicle Weight[4]	29.4	ton
Vehicles Per Day [5]	1.00	VPD
Vehicles Per Year	365	VPY
Segment Length	7.58E-03	mile
Trips per Segment	1	-
Effective Segment Length[6]	7.58E-03	mile
Trips per Hour[7]	0.042	-
Wet Days[8]	70	day
Surface Silt Content[9]	4.8	%
Control Efficiency	0	%

[1] Empty vehicle weight includes driver and occupants and full fuel load.

[2] Include cargo, transported materials, etc. (7.1 lb/gal RVP5 *7560 gal truck/ 2000lb/ton)

[3] Loaded vehicle weight = Empty + Load Size

[4] Mean Vehicle weight = (Loaded Weight + Empty Weight) / 2

[5] Client provided

[6] Effective segment length = trips per segment * segment length

[7] Trips per hour = Vehicles per day * Segments per trip ÷ Hours of Operation per Day

[8] Wet days is the NM default allowed by NMED without additional justification

[9] Surface silt content based on AP-42 Section 13.2.2.3

Unpaved Road Emission Factors																		
	Calculation Parameters [1]												Hourly Emission Factors			Annual Emission Factors		
	s	W	P	k			a			b			E [2]			E_{ext}		
Route	Silt Content [1]	Mean Vehicle Weight	Wet Days	PM_{30}	PM_{10}	$PM_{2.5}$	PM_{30}	PM_{10}	$PM_{2.5}$	PM_{30}	PM_{10}	$PM_{2.5}$	PM_{30}	PM_{10}	$PM_{2.5}$	PM_{30}	PM_{10}	$PM_{2.5}$
	%	tons	day	lb/VMT	lb/VMT	lb/VMT							lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT	lb/VMT
Trucks	4.8	29.42	70	4.9	1.5	0.15	0.70	0.90	0.90	0.45	0.45	0.45	7.21	1.84	0.18	5.83	1.48	0.15

[1] Emission factors calculated per AP-42 Sec. 13.2.2.3 November, 2006, Equation 2.

Unpaved Road Emissions																		
	Calculation Inputs						Uncontrolled Emissions						Controlled Emissions					
Route	Annual Operation	Segment Length	Trips per Segment	Number of Trucks per Year	Effective Segment Length	Average VMT/yr	PM_{30}		PM_{10}		$PM_{2.5}$		PM_{30}		PM_{10}		$PM_{2.5}$	
	hr	mi		trucks/yr	mi	mi/yr	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Trucks	8,760	7.58E-03	1	365	0.01	3	0.0023	0.0081	0.00058	0.0021	0.000058	0.00021	0.0023	0.0081	0.00058	0.0021	0.00006	0.00021
Totals							**0.0023**	**0.0081**	**0.00058**	**0.0021**	**0.000058**	**0.00021**	**0.0023**	**0.0081**	**0.00058**	**0.0021**	**0.00006**	**0.00021**

[1] Surface silt = % of 75 micron diameter and smaller particles

[2] E = k x (s/12)^a x (W/3)^b (AP-42 page 13.2.2-4 Equation 1a, November 2006)

E= Size Specific Emission Factor (lb/VMT)

s = surface material silt content (%)

k, a, b = constants from AP-42 Table 13.2.2-2

W = Weighted Mean Vehicle Weight from Haul Road Inputs (tons)

[3] VMT/hr = Vehicle Miles Travelled per hour= Trips per hour * Segment Length

[4] Wet Day Emission Factor = E * (365 - Wet Days)/365. Wet days value is the NM default allowed by NMED without additional justification.

[5] Controlled Emissions = Uncontrolled Emissions * (1 - Control Factor/100%)

Control Efficiency = 0%

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

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

Updated Calculations

Compressor Engines (Units C-867 and C-868)

- 2019 Stack Tests
- Manufacturer Engine and Catalyst Data (Johnson & Matthey)
- AP-42 Table 1.4-2
- AP-42 Table 3.2-3
- 40 CFR 98 Subparts A and C

Glycol Dehydrator (Unit Dehy-1)

- Extended Gas Analysis
- GRI-GLYCalc
- 40 CFR 98 Subparts A and C

Condensate Tanks (Units TK-1 and TK-2)

- Liquids Analysis
- BR&E ProMax

Truck Loadout from Condensate Tanks (Unit Load)

- Liquids Analysis
- BR&E ProMax

Unpaved Truck Hauling Emissions (Unit Haul)

- AP-42 13.2.2 Equations 1a and 2

Facility-wide Fugitive Emissions (Unit FUG)

- Gas analysis
- Protocol for Equipment Leak Emission Estimates from the EPA (Table 2-4)

2.0 PERFORMANCE OVERVIEW SUMMARY

Results of the emissions test are summarized in Table 2-1 and Table 2-2 below; the site conditions are tabulated in Table 2-3: Test Conditions and Operational Data. Emissions rates and factors were calculated using the methods discussed in Section 5 – Emissions Calculations.

Table 2-1: Customer and Source Summary

TEST INFORMATION	
Test Prepared For	IACX Energy 5400 LBJ Freeway, Suite 460 Dallas, TX 75240
Responsible Contact	David Rowland Phone: 575-513-0572 Email: davidrowland@iacxroswell.com
Test Location	RedBluff#3
Unit Number	867
Test Date	Oct 10, 2019
Source	Waukesha L7042GSIU
Source Serial Number	350138
Site Rated Horsepower	1195
Source Purpose	Compressor
Permit Number	P073R2M1
Hour Meter Reading	167385

Table 2-2: Test Results

TEST RESULTS AND UNIT OPERATIONAL DATA					
Parameter	**Units**	**Average**	**Run 1**	**Run 2**	**Run 3**
Fuel Consumption	(sft^3/hr)	7,283.98	7,299.42	7,285.64	7,266.87
O2 Percentage	%	0.21	0.20	0.21	0.21
Adjusted O2 Percentage	%	0.02	0.03	0.02	0.02
Exhaust Flow Rate	($dsft^3$/hr)	66,790.82	67495.23	67406.56	67231.02
Engine Power	(bhp)	967.80	1,044.43	1,045.63	813.33
Engine Load	%	80.99	87.40	87.50	68.06
Speed	RPM	874.33	874.00	875.00	874.00
Parameter	**Permitted**	**Average**	**Run 1**	**Run 2**	**Run 3**
CO					
ppmvd		332.68	397.93	337.74	262.37
ppm at 15% O2		93.79	112.24	95.19	73.95
lb/MMBTU HHV		0.21	0.25	0.21	0.17
g/bhp-hr		0.77	0.84	0.71	0.71
lb/hr	2.30	1.62	1.94	1.64	1.27
ton/yr		7.08	8.49	7.19	5.57
NOx					
ppmvd		379.91	324.37	369.19	446.15
ppm at 15% O2		107.10	91.49	104.06	125.76
lb/MMBTU HHV		0.40	0.34	0.39	0.47
g/bhp-hr		1.44	1.13	1.28	1.98
lb/hr	5.30	3.03	2.59	2.95	3.55
ton/yr		13.28	11.37	12.90	15.55

Table 2-3: Test Conditions and Operational Data

TEST RUN TIMES					
			Run 1	Run 2	Run 3
		Start Time	17:50:54	18:16:19	18:42:24
		End Time	18:11:54	18:37:19	19:03:24
SITE CONDITIONS					
Parameter	**Units**	**Average**	**Run 1**	**Run 2**	**Run 3**
Ambient Temperature	F	77.00	75.00	77.00	79.00
Humidity	%	32.00	30.00	34.00	32.00
Barometric Pressure	"Hg	30.01	30.01	30.01	30.01
ENGINE DATA					
Manifold Pressure	PSIg	7.00	7.00	7.00	7.00
Speed	RPM	874.33	874.00	875.00	874.00
Intake Manifold Temp	°F	110.33	110.00	109.00	112.00

2.0 PERFORMANCE OVERVIEW SUMMARY

Results of the emissions test are summarized in Table 2-1 and Table 2-2 below; the site conditions are tabulated in Table 2-3: Test Conditions and Operational Data. Emissions rates and factors were calculated using the methods discussed in Section 5 – Emissions Calculations.

Table 2-1: Customer and Source Summary

TEST INFORMATION	
Test Prepared For	IACX Energy 5400 LBJ Freeway, Suite 460 Dallas, TX 75240
Responsible Contact	David Rowland Phone: 575-513-0572 Email: davidrowland@iacxroswell.com
Test Location	Red Bluff #3
Unit Number	868
Test Date	Dec 16, 2019
Source	Waukesha L7042GSIU
Source Serial Number	23528/A
Site Rated Horsepower	1195
Source Purpose	Compressor
Permit Number	P073R2M1
Hour Meter Reading	4749

Table 2-2: Test Results

TEST RESULTS AND UNIT OPERATIONAL DATA					
Parameter	**Units**	**Average**	**Run 1**	**Run 2**	**Run 3**
Fuel Consumption	(sft^3/hr)	8,100.76	8,179.75	8,076.87	8,045.66
O2 Percentage	%	0.06	0.06	0.06	0.06
Adjusted O2 Percentage	%	0.00	0.00	0.00	0.00
Exhaust Flow Rate	($dsft^3$/hr)	74,201.41	75132.42	74186.68	73901.48
Engine Power	(bhp)	879.44	889.66	876.34	872.32
Engine Load	%	73.59	74.45	73.33	73.00
Speed	RPM	884.67	886.00	884.00	884.00
Parameter	**Permitted**	**Average**	**Run 1**	**Run 2**	**Run 3**
CO					
ppmvd		259.58	285.83	237.10	255.81
ppm at 15% O2		73.10	80.50	66.77	72.04
lb/MMBTU HHV		0.16	0.18	0.15	0.16
g/bhp-hr		0.72	0.79	0.66	0.71
lb/hr	2.30	1.40	1.56	1.28	1.37
ton/yr		6.14	6.82	5.59	6.01
NOx					
ppmvd		39.68	42.22	38.86	37.95
ppm at 15% O2		11.17	11.89	10.94	10.69
lb/MMBTU HHV		0.04	0.04	0.04	0.04
g/bhp-hr		0.18	0.19	0.18	0.17
lb/hr	5.30	0.35	0.38	0.34	0.33
ton/yr		1.54	1.66	1.50	1.46

Table 2-3: Test Conditions and Operational Data

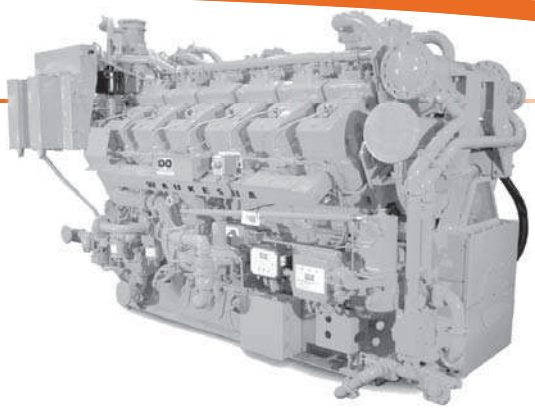
TEST RUN TIMES					
			Run 1	Run 2	Run 3
		Start Time	13:36:00	14:01:00	14:26:00
		End Time	13:57:00	14:22:00	14:47:00
SITE CONDITIONS					
Parameter	**Units**	**Average**	**Run 1**	**Run 2**	**Run 3**
Ambient Temperature	F	50.00	50.00	50.00	50.00
Humidity	%	50.00	50.00	50.00	50.00
Barometric Pressure	"Hg	30.00	30.00	30.00	30.00
ENGINE DATA					
Ignition Timing	BTDC	24.00	24.00	24.00	24.00
Speed	RPM	884.67	886.00	884.00	884.00

DRESSER Waukesha

L7042GSI

VHP® Series Gas Engine Extender Series®
987 - 1480 BHP (736 - 1104 kWb)

Specifications



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Cylinders: V12
Piston Displacement: 7040 cu. in. (115 L)
Bore & Stroke: 9.375" x 8.5" (238 x 216 mm)
Compression Ratio: 8:1
Jacket Water System Capacity: 100 gal. (379 L)
Lube Oil Capacity: 190 gal. (719 L)
Starting System: 125 - 150 psi air/gas 24V electric
Dry Weight: 21,000 lb. (9525 kg)

Standard Equipment

AIR CLEANER – Two, 3" dry type filter with hinged rain shield and service indicator.

AIR FUEL RATIO CONTROL (AFR) – Integrated ESM® - AFR catalyst rich-burn control, main fuel gas regulator actuators, exhaust O2 sensor(s), and post turbocharger exhaust thermocouple. Factory mounted and tested. AFR maintains emissions through load and speed changes. The ESM AFR meets Canadian Standards Association Class 1, Division 2, Group A, B, C & D (Canada & US) hazardous location requirements. Note: For dual fuel applications, ESM AFR system will control the primary fuel source only.

BARRING DEVICE – Manual.

BATTERY BOX – Ship loose battery box designed to accommodate two Series 31 12 VDC batteries. Includes power disconnect switch and 20 foot (6.1 m) cable for connection to ESM® Power Distribution Box.

BEARINGS – Heavy duty, replaceable, precision type.

BREATHER – Self regulating, closed system.

CONNECTING RODS – Drop forged steel, rifle drilled.

CONTROL SYSTEM – Waukesha Engine System Manager (ESM®) integrates spark timing control, speed governing, detonation detection, start-stop control, diagnostic tools, fault logging and engine safeties. Engine Control Unit (ECU) is central brain of the control system and main customer interface. Interface with ESM is through 25 foot (7.6 m) harness to local panel, through MODBUS RTU slave connection RS-485 multidrop hardware, and through the Electronic Service Program (ESP). Customer connections are only required to the local panel, fuel valve, and 24V DC power supply. Compatible with Woodward load sharing module. ESM meets Canadian Standards Association Class I, Division 2, Group A, B, C & D (Canada & US) hazardous location requirements.

CRANKCASE – Integral crankcase and cylinder frame. Main bearing caps drilled and tapped for temperature sensors. Does not include sensors.

CRANKSHAFT – Counterweighted, forged steel, seven main bearings, and dynamically balanced.

CYLINDERS – Removable wet type bainitic cast iron cylinder liners, chrome plated on outer diameter.

CYLINDER HEADS – Twelve interchangeable. Two hard faced intake and two hard faced exhaust valves per cylinder. Hard faced intake and exhaust valve seat inserts. Roller valve lifters and hydraulic push rods.

ELECTRONIC SERVICE PROGRAM (ESP) – Microsoft® Windows-based program provided on CD-ROM for programming and interface to ESM. Includes E-Help for troubleshooting any ESM faults. Serial harness is provided for connection of a customer supplied laptop to the ECU RS-232 port.

ENGINE MONITORING DEVICES – Factory mounted and wired sensors for lube oil pressure and temperature; intake manifold temperature and pressure; overspeed; and jacket water temperature; all accessible through ESM®. ESM continually monitors combustion performance through accelerometers to provide detonation protection. Dual magnetic pick-ups are used for accurate engine speed monitoring. ESM provides predictive spark plug diagnostics as well as advanced diagnostics of engine and all ESM sensors and logs any faults into non-volatile flash memory. Sensors meet Canadian Standards Association Class 1, Division 2, Group A, B, C, & D (Canada & US) hazardous location requirements.

ENGINE ROTATION – Counterclockwise when facing flywheel.

EXHAUST OUTLET – Single vertical at rear. Flexible stainless steel connection with 8" (203 mm) pipe flange.

FLYWHEEL – Approx. WR^2 = 155000 lb-in^2; with ring gear (208 teeth), machined to accept two drive adapters: 31.88" (810 mm) pilot bore, 30.25" (768 mm) bolt circle, (12) 0.75"–10 tapped holes; or 28.88" (734 mm) pilot bore, 27.25" (692 mm) bolt circle, (12) 0.625"–11 tapped holes and (12) 0.75"–10 tapped holes.

FLYWHEEL HOUSING – No. 00 SAE.

FUEL SYSTEM – Single 3" ANSI flange fuel inlet connection. Two natural gas, 4" (102 mm) updraft carburetors and two mounted Fisher 99, 2" (51 mm) gas regulators, 30 – 60 psi (207 – 414 kPa) fuel inlet pressure required. 10 foot (3 m) harness provided for ESM control of customer supplied fuel shutoff valve.

GOVERNOR – Electric throttle actuator controlled by ESM with throttle position feedback. Governor tuning is performed using ESP. ESM includes option of a load-coming feature to improve engine response to step loads.

IGNITION – Ignition Power Module (IPM) controlled by ESM, with spark timing. Dual voltage energy levels automatically controlled by ESM to maximize spark plug life.

INTERCOOLER – Air–to–water.

LEVELING BOLTS

LIFTING EYES – Requires 9.5 ton Working Load Limit (W.L.L.) anchor shackles.

LUBRICATION – Full pressure, gear type pump. Engine mounted full flow lube oil micro-fiberglass filters with mounted differential pressure gauge. MICROSPIN® bypass filter, engine mounted. Air/gas motor driven prelube pump, requires final piping.

MANIFOLDS – Exhaust, (2) water cooled.

OIL COOLER – Shell and tube type, with thermostatic temperature controller and pressure regulating valve. Factory mounted.

OIL PAN – Deep sump type. 190 gallon (719 L) capacity including filter and cooler.

PAINT – Oilfield orange primer.

PISTONS – Aluminum with floating pin. Oil cooled.

SHIPPING SKID – For domestic truck or rail.

TURBOCHARGERS – Two dry type. Wastegate controlled.

VIBRATION DAMPER – Viscous type. Guard included with remote mounted radiator or no radiator.

WATER CIRCULATING SYSTEM, AUXILIARY CIRCUIT – Belt driven water circulating high capacity pump for intercooler and lube oil cooler. See S6543-36 performance curve for use with standard 10" diameter crankshaft pulley.

WATER CIRCULATING SYSTEM, ENGINE JACKET – Belt driven water circulating pump, cluster type thermostatic temperature regulating valve, full flow bypass type. Flange connections and mating flanges for (2) 4" (102 mm) inlets and (1) 5" (127 mm) outlet.

POWER RATINGS: L7042GSI VHP Series Gas Engines

Model	C.R.	Bore & Stroke in. (mm)	Displ. cu. in. (litres)	Brake Horsepower (kWb Output) 130°F (54°C) I.C. Water Temperature							
				1200 RPM		1000 RPM		900 RPM		800 RPM	
				C	I	C	I	C	I	C	I
L7042GSI	8:1	9.375'' x 8.5'' (238 x 216)	7040 (115)	1480	1834	1233	1528	1110	1376	987	1223
				(1104)	(1368)	(920)	(1139)	(828)	(1026)	(736)	(912)

		1200 rpm		1000 rpm	
		C	I	C	I
	Power bhp (kWb)	1480 (1104)	1834 (1368)	1233 (919)	1528 (1139)
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7696 (10774)	7457 (10550)	7458 (10553)	7225 (10222)
	Fuel Consumption Btu/hr x 1000 (kW)	11390 (3304)	13677 (4009)	9196 (2694)	11040 (3234)
Emissions	NOx g/bhp-hr (mg/nm^3 @ 5% O_2)	13.00 (4815)	13.00 (4815)	13.00 (4815)	13.00 (4815)
	CO g/bhp-hr (mg/nm^3 @ 5% O_2)	9.00 (3333)	9.00 (3333)	9.00 (3333)	9.00 (3333)
	THC g/bhp-hr (mg/nm^3 @ 5% O_2)	2.00 (741)	2.00 (741)	2.00 (741)	2.00 (741)
	NMHC g/bhp-hr (mg/nm^3 @ 5% O_2)	0.30 (111)	0.30 (111)	0.30 (111)	0.30 (111)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	3526 (1033)	4125 (1209)	2908 (852)	3380 (991)
	Heat to Lube Oil Btu/hr x 1000 (kW)	352 (103)	382 (112)	310 (91)	338 (99)
	Heat to Intercooler Btu/hr x 1000 (kW)	228 (67)	403 (118)	118 (35)	212 (62)
	Heat to Radiation Btu/hr x 1000 (kW)	662 (194)	681 (200)	584 (171)	611 (179)
	Total Exhaust Heat Btu/hr x 1000 (kW)	3281 (962)	3705 (1086)	2482 (728)	2880 (844)
Intake/ Exhaust System	Induction Air Flow scfm (Nm^3/hr)	2275 (3496)	2650 (3993)	1836 (2822)	2140 (3224)
	Exhaust Flow lb/hr (kg/hr)	10124 (4592)	12070 (5475)	8173 (3707)	9745 (4421)
	Exhaust Temperature °F (°C)	1126 (608)	1145 (618)	1056 (569)	1096 (591)

Typical heat data is shown, however no guarantee is expressed or implied. Consult your Dresser Waukesha Application Engineering Department for system application assistance.

All natural gas engine ratings are based on a fuel of 900 Btu/ft^3 (35.3 MJ/nm^3) SLHV, with a 91 WKI®. For conditions or fuels other than standard, consult the Dresser Waukesha Application Engineering Department.

Data based on standard conditions of 77°F (25°C) ambient temperature, 29.53 inches Hg (100kPa) barometric pressure, 30% relative humidity (0.3 inches HG / 1 kPa water vapor pressure).

Fuel consumption based on ISO3046/1-1995 with a tolerance of +5% for commercial quality natural gas having a 900 BTU/ft^3 (35.3 MJ/nm^3) SLHV.

Heat data based on fuel consumption +2%.

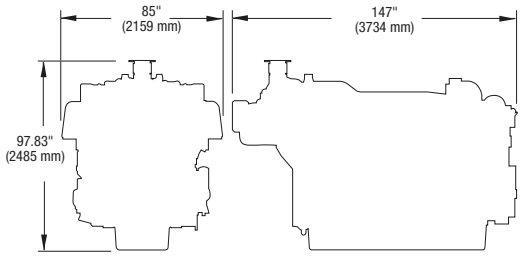
Heat rejection based on cooling exhaust temperature to 77°F (25°C).

Rating Standard: All models - Ratings are based on ISO 3046/1-1986 with mechanical efficiency of 90% and Tcra (clause 10.1) as specified above limited to ± 10° F (5° C). Ratings are also valid for SAE J1349, BS5514, DIN6271 and AP17B-11C standard atmospheric conditions.

C = ISO Standard Power/Continuous Power Rating: The highest load and speed which can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance. It is permissible to operate the engine at up to 10% overload, or a maximum load indicated by the intermittent rating, whichever is lower, for two hours in every 24 hour period.

I = Intermittent Service Rating: The highest load and speed that can be applied in variable speed mechanical system application only. Operation at this rating is limited to a maximum of 3500 hours per year.

Consult your local Waukesha representative for system application assistance. The manufacturer reserves the right to change or modify without notice, the design or equipment specifications as herein set forth without incurring any obligation either with respect to equipment previously sold or in the process of construction except where otherwise specifically guaranteed by the manufacturer.



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DRESSER Waukesha

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JOHNSON MATTHEY

EMISSION CONTROL EQUIPMENT SPECIFICATION
434 Devon Park Drive, Wayne, PA 19087
Tel: 610.971.3100 Fax: 610.971.3116

AGAVE ENERGY Date 9/10/04

Emission Data

Jenifer Knowlton

ENGINE DATA	Rich Burn
Engine Mfg.	Waukesha
Engine Model:	7042GSI
Bhp:	1078
RPM:	900
Load:	100%
Fuel:	Natural Gas
Temp into Catalyst, °F:	1050
Operating Hours, hrs/yr:	8760

ENGINE PREFORMANCE	
Exhaust Flow, acfm:	4600
Exhaust Flow, scfm:	1574
Exhaust Flow, scfh:	94421
Exhaust Flow, lb/hr:	7118
Exhaust MW:	28.6

TYPICAL (Rich Burn)	MW	
Ar, vol %:	39.9	-
N2, vol %:	28.0	79.70
O2, vol %:	32.0	0.30
H2O, vol%:	18.0	10.00
CO2, vol %:	44.0	10.00

EMISSIONS DATA	PRE	POST	% Reduction
NOx as NO2, g/Bhp-hr:	13.00	2.00	84.6%
NOx as NO2, lb/hr:	30.90	4.75	
NOx as NO2, tons/yr:	135.35	20.82	
NOx as NO2, ppmv:	2,700.78	415.50	
NOx as NO2, ppmvd @ 15% O2:	860.86	132.44	
CO, g/Bhp-hr:	9.00	2.00	77.8%
CO, lb/hr:	21.39	4.75	
CO, tons/yr:	93.70	20.82	
CO, ppmv:	3,071.76	682.61	
CO, ppmvd @ 15% O2:	979.11	217.58	
THC as CH4, g/Bhp-hr:	2.00	1.00	50.0%
THC as CH4, lb/hr:	4.75	2.38	
THC as CH4, tons/yr:	20.82	10.41	
THC as CH4, ppmv:	1,194.57	597.29	
THC as CH4, ppmvd @ 15% O2:	380.77	190.38	
NMHC as CH4, g/Bhp-hr:	0.30	0.15	50.0%
NMHC as CH4, lb/hr:	0.71	0.36	
NMHC as CH4, tons/yr:	3.12	1.56	
NMHC as CH4, ppmv:	179.19	89.59	
NMHC as CH4, ppmvd @ 15% O2:	57.11	28.56	

SCOPE OF SUPPLY	QXC48-12
Exhaust Line Size (inches)	12
Attenuation type	Critical
Drawing reference	8201-1
Element(s)	1
Housing	Carbon
Back Pressure: estimated (inches H2O)	7

G. W. K[illegible], Engine Industries Sales Manager 281.353.2500 fax: 281-353-4558 email: [illegible]

Engine exhaust data above is sourced from engine manufacturer data corresponding to catalyst converter settings. A slightly rich to stoichiometric air fuel ratio is required (oxygen content in the exhaust of 0.2% - 0.7%), (oxygen sensor milli-volt signal of 700 - 800, or lambda of 0.97 - 0.99). Maximum service temperature 1350 degree F. Minimum operating temperature 750 degree F. The reduction and efficiency information is the calculated emission values that can be achieved when the engine is operating at the conditions referenced above. And the engine operating according to the engine manufacturer specification for catalytic operation. Warranty 15 months from date of shipment or 12 months from date of start-up. Written notice required.

Johnson Matthey

Table / Engine Rich burn

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION[a]

Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
CO_2[b]	120,000	A
Lead	0.0005	D
N_2O (Uncontrolled)	2.2	E
N_2O (Controlled-low-NO_X burner)	0.64	E
PM (Total)[c]	7.6	D
PM (Condensable)[c]	5.7	D
PM (Filterable)[c]	1.9	B
SO_2[d]	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $lb/10^6$ scf to 1b/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

[b] Based on approximately 100% conversion of fuel carbon to CO_2. $CO_2[lb/10^6 \text{ scf}] = (3.67)(CON)(C)(D)$, where CON = fractional conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2×10^4 $lb/10^6$ scf.

[c] All PM (total, condensible, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM_{10}, $PM_{2.5}$ or PM_1 emissions. Total PM is the sum of the filterable PM and condensible PM. Condensible PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

[d] Based on 100% conversion of fuel sulfur to SO_2. Assumes sulfur content is natural gas of 2,000 grains/10^6 scf. The SO_2 emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO_2 emission factor by the ratio of the site-specific sulfur content (grains/10^6 scf) to 2,000 grains/10^6 scf.

Table 3.2-3. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE RICH-BURN ENGINES[a]
(SCC 2-02-002-53)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Criteria Pollutants and Greenhouse Gases		
NO_x[c] 90 - 105% Load	2.21 E+00	A
NO_x[c] <90% Load	2.27 E+00	C
CO[c] 90 - 105% Load	3.72 E+00	A
CO[c] <90% Load	3.51 E+00	C
CO_2[d]	1.10 E+02	A
SO_2[e]	5.88 E-04	A
TOC[f]	3.58 E-01	C
Methane[g]	2.30 E-01	C
VOC[h]	2.96 E-02	C
PM10 (filterable)[i,j]	9.50 E-03	E
PM2.5 (filterable)[j]	9.50 E-03	E
PM Condensable[k]	9.91 E-03	E
Trace Organic Compounds		
1,1,2,2-Tetrachloroethane[l]	2.53 E-05	C
1,1,2-Trichloroethane[l]	<1.53 E-05	E
1,1-Dichloroethane	<1.13 E-05	E
1,2-Dichloroethane	<1.13 E-05	E
1,2-Dichloropropane	<1.30 E-05	E
1,3-Butadiene[l]	6.63 E-04	D
1,3-Dichloropropene[l]	<1.27 E-05	E
Acetaldehyde[l,m]	2.79 E-03	C
Acrolein[l,m]	2.63 E-03	C
Benzene[l]	1.58 E-03	B
Butyr/isobutyraldehyde	4.86 E-05	D
Carbon Tetrachloride[l]	<1.77 E-05	E

Table 3.2-3. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE RICH-BURN ENGINES (Concluded)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Chlorobenzene[l]	<1.29 E-05	E
Chloroform[l]	<1.37 E-05	E
Ethane[n]	7.04 E-02	C
Ethylbenzene[l]	<2.48 E-05	E
Ethylene Dibromide[l]	<2.13 E-05	E
Formaldehyde[l,m]	2.05 E-02	A
Methanol[l]	3.06 E-03	D
Methylene Chloride[l]	4.12 E-05	C
Naphthalene[l]	<9.71 E-05	E
PAH[l]	1.41 E-04	D
Styrene[l]	<1.19 E-05	E
Toluene[l]	5.58 E-04	A
Vinyl Chloride[l]	<7.18 E-06	E
Xylene[l]	1.95 E-04	A

[a] Reference 7. Factors represent uncontrolled levels. For NO_x, CO, and PM-10, "uncontrolled" means no combustion or add-on controls; however, the factor may include turbocharged units. For all other pollutants, "uncontrolled" means no oxidation control; the data set may include units with control techniques used for NOx control, such as PCC and SCR for lean burn engines, and PSC for rich burn engines. Factors are based on large population of engines. Factors are for engines at all loads, except as indicated. SCC = Source Classification Code. TOC = Total Organic Compounds. PM10 = Particulate Matter $\leq$ 10 microns (μm) aerodynamic diameter. A "<" sign in front of a factor means that the corresponding emission factor is based on one-half of the method detection limit.

[b] Emission factors were calculated in units of (lb/MMBtu) based on procedures in EPA Method 19. To convert from (lb/MMBtu) to (lb/10^6 scf), multiply by the heat content of the fuel. If the heat content is not available, use 1020 Btu/scf. To convert from (lb/MMBtu) to (lb/hp-hr) use the following equation:

$$\text{lb/hp-hr} = (\text{lb/MMBtu})(\text{heat input, MMBtu/hr})(\text{1/operating HP, 1/hp})$$

[c] Emission tests with unreported load conditions were not included in the data set.

[d] Based on 99.5% conversion of the fuel carbon to CO_2. CO_2 [lb/MMBtu] = (3.67)(%CON)(C)(D)(1/h), where %CON = percent conversion of fuel carbon to CO_2,

Federal Environment and Safety Codified Regulations
TITLE 40—Protection of Environment
PART 98—MANDATORY GREENHOUSE GAS REPORTING
SUBPART A—General Provision

Table A-1 to Subpart A of Part 98 —Global Warming Potentials

[100-Year Time Horizon]

Name	CAS No.	Chemical formula	Global warming potential (100 yr.)
Chemical-Specific GWPs			
Carbon dioxide	124-38-9	CO_2	1
Methane	74-82-8	CH_4	[a] 25
Nitrous oxide	10024-97-2	N_2O	[a] 298
Fully Fluorinated GHGs			
Sulfur hexafluoride	2551-62-4	SF_6	[a] 22,800
Trifluoromethyl sulphur pentafluoride	373-80-8	SF_5CF_3	17,700
Nitrogen trifluoride	7783-54-2	NF_3	17,200
PFC-14 (Perfluoromethane)	75-73-0	CF_4	[a] 7,390
PFC-116 (Perfluoroethane)	76-16-4	C_2F_6	[a] 12,200
PFC-218 (Perfluoropropane)	76-19-7	C_3F_8	[a] 8,830
Perfluorocyclopropane	931-91-9	$C\text{-}C_3F_6$	17,340
PFC-3-1-10 (Perfluorobutane)	355-25-9	C_4F_{10}	[a] 8,860
PFC-318 (Perfluorocyclobutane)	115-25-3	$C\text{-}C_4F_8$	[a] 10,300
PFC-4-1-12 (Perfluoropentane)	678-26-2	C_5F_{12}	[a] 9,160
PFC-5-1-14 (Perfluorohexane, FC-72)	355-42-0	C_6F_{14}	[a] 9,300
PFC-6-1-12	335-57-9	C_7F_{16}; $CF_3(CF_2)_5CF_3$	[b] 7,820
PFC-7-1-18	307-34-6	C_8F_{18}; $CF_3(CF_2)_6CF_3$	[b] 7,620
PFC-9-1-18	306-94-5	$C_{10}F_{18}$	7,500
PFPMIE (HT-70)	NA	$CF_3OCF(CF_3)CF_2OCF_2OCF_3$	10,300
Perfluorodecalin (cis)	60433-11-6	$Z\text{-}C_{10}F_{18}$	[b] 7,236
Perfluorodecalin (trans)	60433-12-7	$E\text{-}C_{10}F_{18}$	[b] 6,288
Saturated Hydrofluorocarbons (HFCs) With Two or Fewer Carbon-Hydrogen Bonds			
HFC-23	75-46-7	CHF_3	[a] 14,800
HFC-32	75-10-5	CH_2F_2	[a] 675
HFC-125	354-33-6	C_2HF_5	[a] 3,500
HFC-134	359-35-3	$C_2H_2F_4$	[a] 1,100
HFC-134a	811-97-2	CH_2FCF_3	[a] 1,430
HFC-227ca	2252-84-8	$CF_3CF_2CHF_2$	[b] 2640

HFC-227ea	431-89-0	C_3HF_7	[a] 3,220
HFC-236cb	677-56-5	$CH_2FCF_2CF_3$	1,340
HFC-236ea	431-63-0	CHF_2CHFCF_3	1,370
HFC-236fa	690-39-1	$C_3H_2F_6$	[a] 9,810
HFC-329p	375-17-7	$CHF_2CF_2CF_2CF_3$	[b] 2360
HFC-43-10mee	138495-42-8	$CF_3CFHCFHCF_2CF_3$	[a] 1,640
Saturated Hydrofluorocarbons (HFCs) With Three or More Carbon-Hydrogen Bonds			
HFC-41	593-53-3	CH_3F	[a] 92
HFC-143	430-66-0	$C_2H_3F_3$	[a] 353
HFC-143a	420-46-2	$C_2H_3F_3$	[a] 4,470
HFC-152	624-72-6	CH_2FCH_2F	53
HFC-152a	75-37-6	CH_3CHF_2	[a] 124
HFC-161	353-36-6	CH_3CH_2F	12
HFC-245ca	679-86-7	$C_3H_3F_5$	[a] 693
HFC-245cb	1814-88-6	$CF_3CF_2CH_3$	[b] 4620
HFC-245ea	24270-66-4	$CHF_2CHFCHF_2$	[b] 235
HFC-245eb	431-31-2	$CH_2FCHFCF_3$	[b] 290
HFC-245fa	460-73-1	$CHF_2CH_2CF_3$	1,030
HFC-263fb	421-07-8	$CH_3CH_2CF_3$	[b] 76
HFC-272ca	420-45-1	$CH_3CF_2CH_3$	[b] 144
HFC-365mfc	406-58-6	$CH_3CF_2CH_2CF_3$	794
Saturated Hydrofluoroethers (HFEs) and Hydrochlorofluoroethers (HCFEs) With One Carbon-Hydrogen Bond			
HFE-125	3822-68-2	CHF_2OCF_3	14,900
HFE-227ea	2356-62-9	$CF_3CHFOCF_3$	1,540
HFE-329mcc2	134769-21-4	$CF_3CF_2OCF_2CHF_2$	919
HFE-329me3	428454-68-6	$CF_3CFHCF_2OCF_3$	[b] 4,550
1,1,1,2,2,3,3-Heptafluoro-3-(1,2,2,2-tetrafluoroethoxy)-propane	3330-15-2	$CF_3CF_2CF_2OCHFCF_3$	[b] 6,490
Saturated HFEs and HCFEs With Two Carbon-Hydrogen Bonds			
HFE-134 (HG-00)	1691-17-4	CHF_2OCHF_2	6,320
HFE-236ca	32778-11-3	$CHF_2OCF_2CHF_2$	[b] 4,240
HFE-236ca12 (HG-10)	78522-47-1	$CHF_2OCF_2OCHF_2$	2,800
HFE-236ea2 (Desflurane)	57041-67-5	$CHF_2OCHFCF_3$	989
HFE-236fa	20193-67-3	$CF_3CH_2OCF_3$	487
HFE-338mcf2	156053-88-2	$CF_3CF_2OCH_2CF_3$	552
HFE-338mmz1	26103-08-2	$CHF_2OCH(CF_3)_2$	380
HFE-338pcc13 (HG-01)	188690-78-0	$CHF_2OCF_2CF_2OCHF_2$	1,500
HFE-43-10pccc (H-Galden 1040x, HG-11)	E1730133	$CHF_2OCF_2OC_2F_4OCHF_2$	1,870
HCFE-235ca2 (Enflurane)	13838-16-9	CHF_2OCF_2CHFCl	[b] 583
HCFE-235da2 (Isoflurane)	26675-46-7	$CHF_2OCHClCF_3$	350
HG-02	205367-61-9	$HF_2C\text{-}(OCF_2CF_2)$	[b] 3,825
HG-03	173350-37-3	$HF_2C\text{-}(OCF_2CF_2)$	[b] 3,670

HG-20	249932-25-0	HF_2C-(OCF_2)	[b] 5,300
HG-21	249932-26-1	HF_2C-$OCF_2CF_2OCF_2OCF_2O$-CF_2H	[b] 3,890
HG-30	188690-77-9	HF_2C-(OCF_2)	[b] 7,330
1,1,3,3,4,4,6,6,7,7,9,9,10,10,12,12,13,13,15,15-eicosafluoro-2,5,8,11,14-Pentaoxapentadecane	173350-38-4	$HCF_2O(CF_2CF_2O)_4CF_2H$	[b] 3,630
1,1,2-Trifluoro-2-(trifluoromethoxy)-ethane	84011-06-3	$CHF_2CHFOCF_3$	[b] 1,240
Trifluoro(fluoromethoxy)methane	2261-01-0	CH_2FOCF_3	[b] 751
Saturated HFEs and HCFEs With Three or More Carbon-Hydrogen Bonds			
HFE-143a	421-14-7	CH_3OCF_3	756
HFE-245cb2	22410-44-2	$CH_3OCF_2CF_3$	708
HFE-245fa1	84011-15-4	$CHF_2CH_2OCF_3$	286
HFE-245fa2	1885-48-9	$CHF_2OCH_2CF_3$	659
HFE-254cb2	425-88-7	$CH_3OCF_2CHF_2$	359
HFE-263fb2	460-43-5	$CF_3CH_2OCH_3$	11
HFE-263m1; R-E-143a	690-22-2	$CF_3OCH_2CH_3$	[b] 29
HFE-347mcc3 (HFE-7000)	375-03-1	$CH_3OCF_2CF_2CF_3$	575
HFE-347mcf2	171182-95-9	$CF_3CF_2OCH_2CHF_2$	374
HFE-347mmy1	22052-84-2	$CH_3OCF(CF_3)_2$	343
HFE-347mmz1 (Sevoflurane)	28523-86-6	$(CF_3)_2CHOCH_2F$	[c] 216
HFE-347pcf2	406-78-0	$CHF_2CF_2OCH_2CF_3$	580
HFE-356mec3	382-34-3	$CH_3OCF_2CHFCF_3$	101
HFE-356mff2	333-36-8	$CF_3CH_2OCH_2CF_3$	[b] 17
HFE-356mmz1	13171-18-1	(CF_3)	27
HFE-356pcc3	160620-20-2	$CH_3OCF_2CF_2CHF_2$	110
HFE-356pcf2	50807-77-7	$CHF_2CH_2OCF_2CHF_2$	265
HFE-356pcf3	35042-99-0	CHF_2OCH	502
HFE-365mcf2	22052-81-9	$CF_3CF_2OCH_2CH_3$	[b] 58
HFE-365mcf3	378-16-5	$CF_3CF_2CH_2OCH_3$	11
HFE-374pc2	512-51-6	$CH_3CH_2OCF_2CHF_2$	557
HFE-449s1 (HFE-7100) Chemical blend	163702-07-6	C_4F	297
	163702-08-7	(CF_3)	
HFE-569sf2 (HFE-7200) Chemical blend	163702-05-4	$C_4F_9OC_2H_5$	59
	163702-06-5	$(CF_3)_2CFCF_2OC_2H_5$	
HG'-01	73287-23-7	$CH_3OCF_2CF_2OCH_3$	[b] 222
HG'-02	485399-46-0	$CH_3O(CF_2CF_2O)_2CH_3$	[b] 236
HG'-03	485399-48-2	$CH_3O(CF_2CF_2O)$	[b] 221
Difluoro(methoxy)methane	359-15-9	CH_3OCHF_2	[b] 144
2-Chloro-1,1,2-trifluoro-1-methoxyethane	425-87-6	CH_3OCF_2CHFCl	[b] 122
1-Ethoxy-1,1,2,2,3,3,3-heptafluoropropane	22052-86-4	$CF_3CF_2CF_2OCH_2CH_3$	[b] 61
2-Ethoxy-3,3,4,4,5-pentafluorotetrahydro-2,5-bis[1,2,2,2-tetrafluoro-1-	920979-28-8	$C_{12}H_5F_{19}O_2$	[b] 56

(trifluoromethyl)ethyl]-furan			
1-Ethoxy-1,1,2,3,3,3-hexafluoropropane	380-34-7	CF_3CHFCF	[b] 23
Fluoro(methoxy)methane	460-22-0	CH_3OCH_2F	[b] 13
1,1,2,2-Tetrafluoro-3-methoxy-propane; Methyl 2,2,3,3-tetrafluoropropyl ether	60598-17-6	$CHF_2CF_2CH_2OCH_3$	[b] 0.5
1,1,2,2-Tetrafluoro-1-(fluoromethoxy)ethane	37031-31-5	$CH_2FOCF_2CF_2H$	[b] 871
Difluoro(fluoromethoxy)methane	461-63-2	CH_2FOCHF_2	[b] 617
Fluoro(fluoromethoxy)methane	462-51-1	CH_2FOCH_2F	[b] 130
Fluorinated Formates			
Trifluoromethyl formate	85358-65-2	$HCOOCF_3$	[b] 588
Perfluoroethyl formate	313064-40-3	$HCOOCF_2CF_3$	[b] 580
1,2,2,2-Tetrafluoroethyl formate	481631-19-0	$HCOOCHFCF_3$	[b] 470
Perfluorobutyl formate	197218-56-7	$HCOOCF_2CF_2CF_2CF_3$	[b] 392
Perfluoropropyl formate	271257-42-2	$HCOOCF_2CF_2CF_3$	[b] 376
1,1,1,3,3,3-Hexafluoropropan-2-yl formate	856766-70-6	$HCOOCH(CF_3)$	[b] 333
2,2,2-Trifluoroethyl formate	32042-38-9	$HCOOCH_2CF_3$	[b] 33
3,3,3-Trifluoropropyl formate	1344118-09-7	$HCOOCH_2CH_2CF_3$	[b] 17
Fluorinated Acetates			
Methyl 2,2,2-trifluoroacetate	431-47-0	CF_3COOCH_3	[b] 52
1,1-Difluoroethyl 2,2,2-trifluoroacetate	1344118-13-3	$CF_3COOCF_2CH_3$	[b] 31
Difluoromethyl 2,2,2-trifluoroacetate	2024-86-4	$CF_3COOCHF_2$	[b] 27
2,2,2-Trifluoroethyl 2,2,2-trifluoroacetate	407-38-5	$CF_3COOCH_2CF_3$	[b] 7
Methyl 2,2-difluoroacetate	433-53-4	HCF_2COOCH_3	[b] 3
Perfluoroethyl acetate	343269-97-6	$CH_3COOCF_2CF_3$	[b] 2.1
Trifluoromethyl acetate	74123-20-9	CH_3COOCF_3	[b] 2.0
Perfluoropropyl acetate	1344118-10-0	$CH_3COOCF_2CF_2CF_3$	[b] 1.8
Perfluorobutyl acetate	209597-28-4	$CH_3COOCF_2CF_2CF_2CF_3$	[b] 1.6
Ethyl 2,2,2-trifluoroacetate	383-63-1	$CF_3COOCH_2CH_3$	[b] 1.3
Carbonofluoridates			
Methyl carbonofluoridate	1538-06-3	$FCOOCH_3$	[b] 95
1,1-Difluoroethyl carbonofluoridate	1344118-11-1	$FCOOCF_2CH_3$	[b] 27
Fluorinated Alcohols Other Than Fluorotelomer Alcohols			
Bis(trifluoromethyl)-methanol	920-66-1	$(CF_3)_2CHOH$	195
(Octafluorotetramethy-lene) hydroxymethyl group	NA	$X\text{-}(CF_2)_4CH(OH)\text{-}X$	73
2,2,3,3,3-Pentafluoropropanol	422-05-9	$CF_3CF_2CH_2OH$	42
2,2,3,3,4,4,4-Heptafluorobutan-1-ol	375-01-9	C_3F_7CH2OH	[b] 25
2,2,2-Trifluoroethanol	75-89-8	CF_3CH_2OH	[b] 20
2,2,3,4,4,4-Hexafluoro-1-butanol	382-31-0	$CF_3CHFCF_2CH_2OH$	[b] 17
2,2,3,3-Tetrafluoro-1-propanol	76-37-9	$CHF_2CF_2CH_2OH$	[b] 13
2,2-Difluoroethanol	359-13-7	CHF_2CH2OH	[b] 3
2-Fluoroethanol	371-62-0	CH_2FCH_2OH	[b] 1.1

4,4,4-Trifluorobutan-1-ol	461-18-7	$CF_3(CH_2)$	[b] 0.05
Unsaturated Perfluorocarbons (PFCs)			
PFC-1114; TFE	116-14-3	$CF_2=CF_2$; C_2F_4	[b] 0.004
PFC-1216; Dyneon HFP	116-15-4	C_3F_6; $CF_3CF=CF_2$	[b] 0.05
PFC C-1418	559-40-0	c-C_5F_8	[b] 1.97
Perfluorobut-2-ene	360-89-4	$CF_3CF=CFCF_3$	[b] 1.82
Perfluorobut-1-ene	357-26-6	$CF_3CF_2CF=CF_2$	[b] 0.10
Perfluorobuta-1,3-diene	685-63-2	$CF_2=CFCF=CF_2$	[b] 0.003
Unsaturated Hydrofluorocarbons (HFCs) and Hydrochlorofluorocarbons (HCFCs)			
HFC-1132a; VF2	75-38-7	C_2H	[b] 0.04
HFC-1141; VF	75-02-5	C_2H	[b] 0.02
(E)-HFC-1225ye	5595-10-8	$CF_3CF=CHF$(E)	[b] 0.06
(Z)-HFC-1225ye	5528-43-8	$CF_3CF=CHF$(Z)	[b] 0.22
Solstice 1233zd(E)	102687-65-0	$C_3H_2ClF_3$; $CHCl=CHCF_3$	[b] 1.34
HFC-1234yf; HFO-1234yf	754-12-1	$C_3H_2F_4$; $CF_3CF=CH_2$	[b] 0.31
HFC-1234ze(E)	1645-83-6	$C_3H_2F_4$; trans-$CF_3CH=CHF$	[b] 0.97
HFC-1234ze(Z)	29118-25-0	$C_3H_2F_4$Cis-$CF_3CH=CHF$; $CF_3CH=CHF$	[b] 0.29
HFC-1243zf; TFP	677-21-4	$C_3H_3F_3$, $CF_3CH=CH_2$	[b] 0.12
(Z)-HFC-1336	692-49-9	$CF_3CH=CHCF_3$(Z)	[b] 1.58
HFC-1345zfc	374-27-6	$C_2F_5CH=CH_2$	[b] 0.09
Capstone 42-U	19430-93-4	$C_6H_3F_9$, $CF_3(CF_2)$	[b] 0.16
Capstone 62-U	25291-17-2	$C_8H_3F_{13}$, $CF_3(CF_2)_5CH=CH_2$	[b] 0.11
Capstone 82-U	21652-58-4	$C_{10}H_3F_{17}$, $CF_3(CF_2)_7CH=CH_2$	[b] 0.09
Unsaturated Halogenated Ethers			
PMVE; HFE-216	1187-93-5	$CF_3OCF=CF_2$	[b] 0.17
Fluoroxene	406-90-6	$CF_3CH_2OCH=CH_2$	[b] 0.05
Fluorinated Aldehydes			
3,3,3-Trifluoro-propanal	460-40-2	CF_3CH_2CHO	[b] 0.01
Fluorinated Ketones			
Novec 1230 (perfluoro (2-methyl-3-pentanone))	756-13-8	$CF_3CF_2C(O)CF(CF3)_2$	[b] 0.1
Fluorotelomer Alcohols			
3,3,4,4,5,5,6,6,7,7,7-Undecafluoroheptan-1-ol	185689-57-0	CF	[b] 0.43
3,3,3-Trifluoropropan-1-ol	2240-88-2	$CF_3CH_2CH_2OH$	[b] 0.35
3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-Pentadecafluorononan-1-ol	755-02-2	$CF_3(CF_2)_6CH_2CH_2OH$	[b] 0.33
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-Nonadecafluoroundecan-1-ol	87017-97-8	$CF_3(CF_2)_8CH_2CH_2OH$	[b] 0.19
Fluorinated GHGs With Carbon-Iodine Bond(s)			
Trifluoroiodomethane	2314-97-8	CF_3I	[b] 0.4
Other Fluorinated Compounds			

Dibromodifluoromethane (Halon 1202)	75-61-6	CBR_2F_2	[b] 231
2-Bromo-2-chloro-1,1,1-trifluoroethane (Halon-2311/Halothane)	151-67-7	$CHBrClCF_3$	[b] 41

Fluorinated GHG Group [d]	Global warming potential (100 yr.)
Default GWPs for Compounds for Which Chemical-Specific GWPs Are Not Listed Above	
Fully fluorinated GHGs	10,000
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	3,700
Saturated HFCs with 3 or more carbon-hydrogen bonds	930
Saturated hydrofluoroethers (HFEs) and hydrochlorofluoroethers (HCFEs) with 1 carbon-hydrogen bond	5,700
Saturated HFEs and HCFEs with 2 carbon-hydrogen bonds	2,600
Saturated HFEs and HCFEs with 3 or more carbon-hydrogen bonds	270
Fluorinated formates	350
Fluorinated acetates, carbonofluoridates, and fluorinated alcohols other than fluorotelomer alcohols	30
Unsaturated perfluorocarbons (PFCs), unsaturated HFCs, unsaturated hydrochlorofluorocarbons (HCFCs), unsaturated halogenated ethers, unsaturated halogenated esters, fluorinated aldehydes, and fluorinated ketones	1
Fluorotelomer alcohols	1
Fluorinated GHGs with carbon-iodine bond(s)	1
Other fluorinated GHGs	2,000

[a] The GWP for this compound was updated in the final rule published on November 29, 2013 [78 FR 71904] and effective on January 1, 2014.

[b] This compound was added to Table A-1 in the final rule published on December 11, 2014, and effective on January 1, 2015.

[c] The GWP for this compound was updated in the final rule published on December 11, 2014, and effective on January 1, 2015 .

[d] For electronics manufacturing (as defined in § 98.90), the term "fluorinated GHGs" in the definition of each fluorinated GHG group in § 98.6 shall include fluorinated heat transfer fluids (as defined in § 98.98), whether or not they are also fluorinated GHGs.

[78 FR page 71948, Nov. 29, 2013; 79 FR page 73779, Dec. 11, 2014]

ISSN 2167-8065

Federal Environment and Safety Codified Regulations
TITLE 40—Protection of Environment
PART 98—MANDATORY GREENHOUSE GAS REPORTING
SUBPART C—General Stationary Fuel Combustion Sources

Table C-1 to Subpart C of Part 98 —Default CO_2 Emission Factors and High Heat Values for Various Types of Fuel

Fuel type	Default high heat value	Default CO_2 emission factor
Coal and coke	mmBtu/short ton	kg CO_2 /mmBtu
Anthracite	25.09	103.69
Bituminous	24.93	93.28
Subbituminous	17.25	97.17
Lignite	14.21	97.72
Coal Coke	24.80	113.67
Mixed (Commercial sector)	21.39	94.27
Mixed (Industrial coking)	26.28	93.90
Mixed (Industrial sector)	22.35	94.67
Mixed (Electric Power sector)	19.73	95.52
Natural gas	mmBtu/scf	kg CO_2 /mmBtu
(Weighted U.S. Average)	1.026×10^{-3}	53.06
Petroleum products—liquid	mmBtu/gallon	kg CO_2/mmBtu
Distillate Fuel Oil No. 1	0.139	73.25
Distillate Fuel Oil No. 2	0.138	73.96
Distillate Fuel Oil No. 4	0.146	75.04
Residual Fuel Oil No. 5	0.140	72.93
Residual Fuel Oil No. 6	0.150	75.10
Used Oil	0.138	74.00
Kerosene	0.135	75.20
Liquefied petroleum gases (LPG) [1]	0.092	61.71
Propane [1]	0.091	62.87
Propylene [2]	0.091	67.77
Ethane [1]	0.068	59.60
Ethanol	0.084	68.44
Ethylene [2]	0.058	65.96
Isobutane [1]	0.099	64.94
Isobutylene [1]	0.103	68.86
Butane [1]	0.103	64.77
Butylene [1]	0.105	68.72
Naphtha (<401 deg F)	0.125	68.02
Natural Gasoline	0.110	66.88
Other Oil (>401 deg F)	0.139	76.22

Pentanes Plus	0.110	70.02
Petrochemical Feedstocks	0.125	71.02
Special Naphtha	0.125	72.34
Unfinished Oils	0.139	74.54
Heavy Gas Oils	0.148	74.92
Lubricants	0.144	74.27
Motor Gasoline	0.125	70.22
Aviation Gasoline	0.120	69.25
Kerosene-Type Jet Fuel	0.135	72.22
Asphalt and Road Oil	0.158	75.36
Crude Oil	0.138	74.54
Petroleum products—solid	mmBtu/short ton	kg CO_2/mmBtu
Petroleum Coke	30.00	102.41
Petroleum products—gaseous	mmBtu/scf	kg CO_2/mmBtu
Propane Gas	2.516×10^{-3}	61.46
Other fuels—solid	mmBtu/short ton	kg CO_2 /mmBtu
Municipal Solid Waste	9.95 [3]	90.7
Tires	28.00	85.97
Plastics	38.00	75.00
Other fuels—gaseous	mmBtu/scf	kg CO_2 /mmBtu
Blast Furnace Gas	0.092×10^{-3}	274.32
Coke Oven Gas	0.599×10^{-3}	46.85
Fuel Gas [4]	1.388×10^{-3}	59.00
Biomass fuels—solid	mmBtu/short ton	kg CO_2 /mmBtu
Wood and Wood Residuals (dry basis) [5]	17.48	93.80
Agricultural Byproducts	8.25	118.17
Peat	8.00	111.84
Solid Byproducts	10.39	105.51
Biomass fuels—gaseous	mmBtu/scf	kg CO_2 /mmBtu
Landfill Gas	0.485×10^{-3}	52.07
Other Biomass Gases	0.655×10^{-3}	52.07
Biomass Fuels—Liquid	mmBtu/gallon	kg CO_2 /mmBtu
Ethanol	0.084	68.44
Biodiesel (100%)	0.128	73.84
Rendered Animal Fat	0.125	71.06
Vegetable Oil	0.120	81.55

[1] The HHV for components of LPG determined at 60 °F and saturation pressure with the exception of ethylene.

[2] Ethylene HHV determined at 41 °F (5 °C) and saturation pressure.

[3] Use of this default HHV is allowed only for: (a) Units that combust MSW, do not generate steam, and are allowed to use Tier 1; (b) units that derive no more than 10 percent of their annual heat input from MSW and/or tires; and (c) small batch incinerators that combust no more than 1,000 tons of MSW per year.

[4] Reporters subject to subpart X of this part that are complying with § 98.243(d) or subpart Y of this part may only use the default HHV and the default CO_2 emission factor for fuel gas combustion under the conditions prescribed in § 98.243(d)(2)(i) and (d)(2)(ii) and § 98.252(a)(1) and (a)(2), respectively. Otherwise, reporters subject to subpart X or subpart Y shall use either Tier 3 (Equation C-5) or Tier 4.

Federal Environment and Safety Codified Regulations
TITLE 40—Protection of Environment
PART 98—MANDATORY GREENHOUSE GAS REPORTING
SUBPART C—General Stationary Fuel Combustion Sources

Table C-2 to Subpart C of Part 98 —Default CH_4 and N_2O Emission Factors for Various Types of Fuel

Fuel type	Default CH_4 emission factor (kg CH_4 /mmBtu)	Default N_2O emission factor (kg N_2O/mmBtu)
Coal and Coke (All fuel types in Table C-1)	1.1×10^{-02}	1.6×10^{-03}
Natural Gas	1.0×10^{-03}	1.0×10^{-04}
Petroleum Products (All fuel types in Table C-1)	3.0×10^{-03}	6.0×10^{-04}
Fuel Gas	3.0×10^{-03}	6.0×10^{-04}
Other Fuels—Solid	3.2×10^{-02}	4.2×10^{-03}
Blast Furnace Gas	2.2×10^{-05}	1.0×10^{-04}
Coke Oven Gas	4.8×10^{-04}	1.0×10^{-04}
Biomass Fuels—Solid (All fuel types in Table C-1, except wood and wood residuals)	3.2×10^{-02}	4.2×10^{-03}
Wood and wood residuals	7.2×10^{-03}	3.6×10^{-03}
Biomass Fuels—Gaseous (All fuel types in Table C-1)	3.2×10^{-03}	6.3×10^{-04}
Biomass Fuels—Liquid (All fuel types in Table C-1)	1.1×10^{-03}	1.1×10^{-04}

Note: Those employing this table are assumed to fall under the IPCC definitions of the "Energy Industry" or "Manufacturing Industries and Construction". In all fuels except for coal the values for these two categories are identical. For coal combustion, those who fall within the IPCC "Energy Industry" category may employ a value of 1g of CH_4 /mmBtu.

[75 FR page 79154, Dec. 17, 2010; 78 FR page 71952, Nov. 29, 2013; 81 FR page 89252, Dec. 9, 2016]

ISSN 2167-8065

HOWARD
Athens, TX (903) 677-0700 . Beeville, TX (361) 354-5200 . Midland, TX (432) 704-5351

GAS EXTENDED ANALYSIS REPORT

LAB REPORT NUMBER: 190812-1020-08-081219-02_8_12_2019 4_14_01 PM

PHYSICAL CONSTANTS PER GPA 2145-16

CUSTOMER :	IACX	DATE SAMPLED:	08/08/2019
STATION:	37636	DATE ANALYZED:	08/12/2019
PRODUCER:	IACX	EFFECTIVE DATE:	08/01/2019
LEASE:	RB #3 NRU INLET		

COMPONENT	MOLE %	GPM	WT. %
HELIUM	0.404		0.087
H2S	0.000		0.000
OXYGEN	0.037		0.064
NITROGEN	5.920		8.960
CARBON DIOXIDE	0.029		0.069
METHANE	86.251		74.760
ETHANE	4.280	1.141	6.953
PROPANE	1.669	0.458	3.978
I-BUTANE	0.268	0.087	0.842
N-BUTANE	0.556	0.175	1.746
I-PENTANE	0.165	0.060	0.643
N-PENTANE	0.173	0.062	0.674
HEXANE PLUS	0.248	0.100	1.224
TOTAL	100.000	2.083	100.000

REAL SP. GRAVITY	0.6402	REAL BTU DRY	1040.657
MOL. WT.	18.508	REAL BTU SAT	1022.445
Z FACTOR	0.9977	PRESS BASE	14.650
C2+ GPM	2.083	C4+ GPM	0.484
C3+ GPM	0.942	C5+ GPM	0.222

SAMPLED BY	RA	SAMPLE PRESS:	110
SAMPLE TYPE:	COMPOSITE	SAMPLE TEMP:	100
CYLINDER NO.:	5064	COUNTY / STATE:	0
COMMENT:	COMPOSITE	ANALYST	MIKE HOBGOOD

* SEE NEXT PAGE FOR C6+ COMPOSITIONAL BREAKDOWN

08-14-2019

HOWARD
Athens, TX (903) 677-0700 . Beeville, TX (361) 354-5200 . Midland, TX (432) 704-5351

STATION: 37636 LEASE: RB #3 NRU INLET

C6+ FRACTION COMPOSITION

HEXANE ISOMERS (C6'S)		MOLE %	GPM	WT. %
2,2-Dimethylbutane	P	0.013	0.005	0.059
2,3-Dimethylbutane	PN	0.000	0.000	0.000
2-Methylpentane	P	0.050	0.021	0.232
3-Methylpentane	P	0.030	0.012	0.142
Methylcyclopentane	N	0.015	0.005	0.069
Benzene	A	0.000	0.000	0.000
Cyclohexane	N	0.002	0.001	0.008
n-Hexane	P	0.072	0.029	0.333
HEPTANE ISOMERS (C7'S)				
3,3-Dimethylpentane	P	0.000	0.000	0.000
2,2-Dimethylpentane	P	0.003	0.001	0.016
2,4-Dimethylpentane	P	0.003	0.001	0.014
2 & 3-Methylhexane	P	0.001	0.001	0.006
2,3-Dimethylpentane	P	0.001	0.000	0.005
1,t-3-Dimethylcyclopentane	N	0.000	0.000	0.000
1,c-3-Dimethylcyclopentane	N	0.000	0.000	0.000
3-Ethylpentane	N	0.000	0.000	0.000
1,t-2-Dimethylcyclopentane	N	0.000	0.000	0.000
Toluene	A	0.000	0.000	0.002
Methylcyclohexane	N	0.017	0.007	0.089
Ethylcyclopentane	N	0.000	0.000	0.000
n-Heptane	P	0.017	0.008	0.094
OCTANE ISOMERS (C8'S)				
2,4 & 2,5-Dimethylhexane	P	0.001	0.000	0.003
2,2,4-Trimethylpentane	N	0.000	0.000	0.000
1,t-2,c-4-Trimethylcyclopentane	N	0.000	0.000	0.000
1,t-2,c-3-Trimethylcyclopentane	N	0.000	0.000	0.000
2-Methylheptane	P	0.002	0.001	0.010
1,c-2,t-4-Trimethylcyclopentane	N	0.000	0.000	0.000
3-Methylheptane	P	0.003	0.001	0.018
1,c-3-Dimethylcyclohexane	N	0.000	0.000	0.000
1,t-4-Dimethylcyclohexane	N	0.000	0.000	0.000
methyl-ethylcyclopentanes	N	0.000	0.000	0.000
1,t-3 & 1,c-4 Dimethylcyclohexane	N	0.001	0.000	0.004
1,c-2-Dimethylcyclohexane	N	0.003	0.001	0.000
Ethylcyclohexane	N	0.002	0.001	0.010
Ethylbenzene	A	0.001	0.000	0.006
m & p-Xylene	A	0.001	0.000	0.006
o-Xylene	A	0.001	0.000	0.004
Cyclooctane	P	0.001	0.000	0.003
n-Octane	P	0.004	0.002	0.025

HOWARD
Athens, TX (903) 677-0700 . Beeville, TX (361) 354-5200 . Midland, TX (432) 704-5351

STATION: 37636 **LEASE:** RB #3 NRU INLET

C6+ FRACTION COMPOSITION

NONANE ISOMERS (C9'S)		MOLE %	GPM	WT. %
Trimethylhexanes	P	0.000	0.000	0.000
Dimethylpentanes	P	0.000	0.000	0.000
Isopropylcyclopentane	N	0.000	0.000	0.000
n-Propylcyclopentane	N	0.000	0.000	0.000
3-Methyloctane	P	0.000	0.000	0.000
Trimethylcyclohexanes	N	0.000	0.000	0.000
Isopropylbenzene	A	0.000	0.000	0.003
Isopropylcyclohexane	N	0.000	0.000	0.000
n-Propylcyclohexane	N	0.001	0.000	0.004
n-Propyllbenzene	A	0.001	0.000	0.005
m-Ethyltoluene	A	0.000	0.000	0.000
p-Ethyltoluene	A	0.000	0.000	0.000
1,3,5-Trimethylbenzene	A	0.000	0.000	0.001
4 & 5-Methylnonane	P	0.000	0.000	0.000
o-Ethyltoluene & 3-Methylnonane	AP	0.000	0.000	0.000
1,2,3-Trimethylbenzene	A	0.000	0.000	0.000
n-Nonane	P	0.001	0.001	0.008
DECANE ISOMERS (C10'S)				
2-Methylnonane	P	0.000	0.000	0.000
tert-Butylbenzene	A	0.000	0.000	0.000
1,2,4-Trimethylbenzene	A	0.000	0.000	0.002
Isobutylcyclohexane & tert-Butylcyclohexane		0.000	0.000	0.000
Isobutylbenzene	A	0.000	0.000	0.000
sec-Butylbenzene	A	0.000	0.000	0.002
n-Butylcyclohexane	N	0.000	0.000	0.003
1,3-Diethylbenzene	A	0.000	0.000	0.000
1,2-Diethylbenzene & n-Butylbenzene	A	0.000	0.000	0.000
1,4-Diethylbenzene	A	0.000	0.000	0.000
n-Decane	P	0.003	0.002	0.019
UNDECANE ISOMERS (C11'S)				
n-Undecane	P	0.000	0.000	0.000
DODECANE ISOMERS (C12'S)				
n-Dodecane +	P	0.000	0.000	0.000

x Michael Holzwarth
ANALYST

GRI-GLYCalc VERSION 4.0 - AGGREGATE CALCULATIONS REPORT

Case Name: Red Bluff Semi-Annual v0.1
File Name: P:\1. CLIENTS\IACX\PROJECT\Red Bluff 3 Compressor Station\183201.0210 2018 Semiannual Reports\06 CALCULATIONS\Red_Bluff_GLYCalc.ddf
Date: August 14, 2019

DESCRIPTION:

Description:

Annual Hours of Operation: 8760.0 hours/yr

EMISSIONS REPORTS:

CONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.0150	0.361	0.0658
Ethane	0.0107	0.258	0.0471
Propane	0.0176	0.422	0.0770
Isobutane	0.0060	0.143	0.0261
n-Butane	0.0148	0.355	0.0648
Isopentane	0.0042	0.101	0.0184
n-Pentane	0.0043	0.102	0.0187
n-Hexane	0.0021	0.051	0.0093
Cyclohexane	0.0002	0.005	0.0010
Other Hexanes	0.0031	0.075	0.0137
Heptanes	0.0013	0.030	0.0055
Methylcyclohexane	0.0016	0.039	0.0071
Toluene	0.0002	0.005	0.0008
Ethylbenzene	0.0004	0.010	0.0019
Xylenes	0.0007	0.017	0.0031
C8+ Heavies	<0.0001	0.001	0.0001
Total Emissions	0.0823	1.974	0.3603
Total Hydrocarbon Emissions	0.0823	1.974	0.3603
Total VOC Emissions	0.0565	1.356	0.2474
Total HAP Emissions	0.0034	0.083	0.0151
Total BTEX Emissions	0.0013	0.032	0.0058

UNCONTROLLED REGENERATOR EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	0.1531	3.674	0.6705
Ethane	0.1179	2.830	0.5164
Propane	0.2670	6.408	1.1694
Isobutane	0.1273	3.055	0.5575
n-Butane	0.3864	9.274	1.6926
Isopentane	0.2034	4.881	0.8908
n-Pentane	0.2958	7.098	1.2954
n-Hexane	0.3678	8.828	1.6110
Cyclohexane	0.0528	1.268	0.2314
Other Hexanes	0.3824	9.177	1.6747
Heptanes	0.6774	16.257	2.9669

Methylcyclohexane	0.8132	19.517	3.5618
Toluene	0.1956	4.693	0.8565
Ethylbenzene	0.9326	22.382	4.0847
Xylenes	2.1073	50.575	9.2299
C8+ Heavies	3.7278	89.468	16.3279
Total Emissions	10.8076	259.383	47.3375
Total Hydrocarbon Emissions	10.8076	259.383	47.3375
Total VOC Emissions	10.5366	252.880	46.1505
Total HAP Emissions	3.6032	86.478	15.7821
Total BTEX Emissions	3.2354	77.650	14.1711

FLASH GAS EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	5.6312	135.148	24.6644
Ethane	1.1950	28.681	5.2343
Propane	1.1437	27.448	5.0092
Isobutane	0.3492	8.380	1.5294
n-Butane	0.7931	19.034	3.4737
Isopentane	0.3547	8.512	1.5534
n-Pentane	0.4042	9.700	1.7702
n-Hexane	0.2679	6.430	1.1735
Cyclohexane	0.0101	0.241	0.0440
Other Hexanes	0.3751	9.002	1.6428
Heptanes	0.2332	5.597	1.0214
Methylcyclohexane	0.1169	2.805	0.5119
Toluene	0.0028	0.068	0.0125
Ethylbenzene	0.0075	0.181	0.0330
Xylenes	0.0113	0.272	0.0497
C8+ Heavies	0.1124	2.699	0.4925
Total Emissions	11.0082	264.197	48.2160
Total Hydrocarbon Emissions	11.0082	264.197	48.2160
Total VOC Emissions	4.1820	100.369	18.3173
Total HAP Emissions	0.2896	6.951	1.2686
Total BTEX Emissions	0.0217	0.521	0.0951

FLASH TANK OFF GAS

Component	lbs/hr	lbs/day	tons/yr
Methane	11.2623	270.295	49.3289
Ethane	2.3901	57.362	10.4686
Propane	2.2873	54.896	10.0185
Isobutane	0.6984	16.761	3.0588
n-Butane	1.5862	38.068	6.9474
Isopentane	0.7093	17.024	3.1068
n-Pentane	0.8083	19.400	3.5404
n-Hexane	0.5358	12.860	2.3470
Cyclohexane	0.0201	0.483	0.0881
Other Hexanes	0.7502	18.004	3.2857
Heptanes	0.4664	11.193	2.0428
Methylcyclohexane	0.2338	5.610	1.0238
Toluene	0.0057	0.137	0.0249
Ethylbenzene	0.0151	0.361	0.0659
Xylenes	0.0227	0.544	0.0993

C8+ Heavies	0.2249	5.397	0.9850
Total Emissions	22.0164	528.395	96.4320
Total Hydrocarbon Emissions	22.0164	528.395	96.4320
Total VOC Emissions	8.3640	200.737	36.6345
Total HAP Emissions	0.5793	13.902	2.5372
Total BTEX Emissions	0.0434	1.042	0.1902

COMBINED REGENERATOR VENT/FLASH GAS EMISSIONS

Component	lbs/hr	lbs/day	tons/yr
Methane	5.6462	135.508	24.7302
Ethane	1.2058	28.939	5.2814
Propane	1.1612	27.870	5.0862
Isobutane	0.3551	8.523	1.5555
n-Butane	0.8079	19.389	3.5385
Isopentane	0.3589	8.612	1.5718
n-Pentane	0.4084	9.802	1.7889
n-Hexane	0.2700	6.481	1.1828
Cyclohexane	0.0103	0.247	0.0450
Other Hexanes	0.3782	9.077	1.6565
Heptanes	0.2345	5.627	1.0269
Methylcyclohexane	0.1185	2.844	0.5190
Toluene	0.0030	0.073	0.0133
Ethylbenzene	0.0080	0.191	0.0349
Xylenes	0.0120	0.289	0.0527
C8+ Heavies	0.1125	2.700	0.4927
Total Emissions	11.0905	266.172	48.5763
Total Hydrocarbon Emissions	11.0905	266.172	48.5763
Total VOC Emissions	4.2385	101.724	18.5647
Total HAP Emissions	0.2931	7.034	1.2836
Total BTEX Emissions	0.0230	0.553	0.1009

COMBINED REGENERATOR VENT/FLASH GAS EMISSION CONTROL REPORT:

Component	Uncontrolled tons/yr	Controlled tons/yr	% Reduction
Methane	49.9994	24.7302	50.54
Ethane	10.9851	5.2814	51.92
Propane	11.1879	5.0862	54.54
Isobutane	3.6163	1.5555	56.99
n-Butane	8.6400	3.5385	59.04
Isopentane	3.9976	1.5718	60.68
n-Pentane	4.8359	1.7889	63.01
n-Hexane	3.9580	1.1828	70.12
Cyclohexane	0.3194	0.0450	85.91
Other Hexanes	4.9604	1.6565	66.61
Heptanes	5.0097	1.0269	79.50
Methylcyclohexane	4.5856	0.5190	88.68
Toluene	0.8814	0.0133	98.49
Ethylbenzene	4.1506	0.0349	99.16
Xylenes	9.3292	0.0527	99.43

C8+ Heavies	17.3130	0.4927	97.15
Total Emissions	143.7695	48.5763	66.21
Total Hydrocarbon Emissions	143.7695	48.5763	66.21
Total VOC Emissions	82.7850	18.5647	77.57
Total HAP Emissions	18.3193	1.2836	92.99
Total BTEX Emissions	14.3613	0.1009	99.30

EQUIPMENT REPORTS:

CONDENSER AND COMBUSTION DEVICE

Condenser Outlet Temperature:	80.00	deg. F
Condenser Pressure:	14.70	psia
Condenser Duty:	3.35e-003	MM BTU/hr
Hydrocarbon Recovery:	0.80	bbls/day
Produced Water:	1.91	bbls/day
Ambient Temperature:	80.00	deg. F
Excess Oxygen:	5.00	%
Combustion Efficiency:	90.00	%
Supplemental Fuel Requirement:	3.35e-003	MM BTU/hr

Component	Emitted	Destroyed
Methane	9.81%	90.19%
Ethane	9.11%	90.89%
Propane	6.58%	93.42%
Isobutane	4.69%	95.31%
n-Butane	3.83%	96.17%
Isopentane	2.06%	97.94%
n-Pentane	1.44%	98.56%
n-Hexane	0.58%	99.42%
Cyclohexane	0.41%	99.59%
Other Hexanes	0.82%	99.18%
Heptanes	0.19%	99.81%
Methylcyclohexane	0.20%	99.80%
Toluene	0.10%	99.90%
Ethylbenzene	0.05%	99.95%
Xylenes	0.03%	99.97%
C8+ Heavies	0.00%	100.00%

ABSORBER

Calculated Absorber Stages:	1.38	
Specified Dry Gas Dew Point:	7.00	lbs. H2O/MMSCF
Temperature:	110.0	deg. F
Pressure:	650.0	psig
Dry Gas Flow Rate:	6.5000	MMSCF/day
Glycol Losses with Dry Gas:	0.1028	lb/hr
Wet Gas Water Content:	Saturated	
Calculated Wet Gas Water Content:	109.68	lbs. H2O/MMSCF
Specified Lean Glycol Recirc. Ratio:	3.00	gal/lb H2O

Component	Remaining in Dry Gas	Absorbed in Glycol

Water	6.37%	93.63%
Carbon Dioxide	99.80%	0.20%
Nitrogen	99.98%	0.02%
Methane	99.98%	0.02%
Ethane	99.95%	0.05%
Propane	99.91%	0.09%
Isobutane	99.88%	0.12%
n-Butane	99.84%	0.16%
Isopentane	99.84%	0.16%
n-Pentane	99.80%	0.20%
n-Hexane	99.68%	0.32%
Cyclohexane	98.60%	1.40%
Other Hexanes	99.75%	0.25%
Heptanes	99.41%	0.59%
Methylcyclohexane	98.44%	1.56%
Toluene	84.84%	15.16%
Ethylbenzene	79.30%	20.70%
Xylenes	72.04%	27.96%
C8+ Heavies	97.16%	2.84%

FLASH TANK

Flash Control: Combustion device
Flash Control Efficiency: 50.00 %
Flash Temperature: 110.0 deg. F
Flash Pressure: 60.0 psig

Component	Left in Glycol	Removed in Flash Gas
Water	99.91%	0.09%
Carbon Dioxide	15.41%	84.59%
Nitrogen	1.26%	98.74%
Methane	1.34%	98.66%
Ethane	4.70%	95.30%
Propane	10.45%	89.55%
Isobutane	15.42%	84.58%
n-Butane	19.59%	80.41%
Isopentane	22.51%	77.49%
n-Pentane	27.02%	72.98%
n-Hexane	40.92%	59.08%
Cyclohexane	73.24%	26.76%
Other Hexanes	34.21%	65.79%
Heptanes	59.39%	40.61%
Methylcyclohexane	78.51%	21.49%
Toluene	97.40%	2.60%
Ethylbenzene	98.58%	1.42%
Xylenes	99.07%	0.93%
C8+ Heavies	94.97%	5.03%

REGENERATOR

No Stripping Gas used in regenerator.

Component	Remaining in Glycol	Distilled Overhead
Water	29.61%	70.39%

Carbon Dioxide	0.00%	100.00%
Nitrogen	0.00%	100.00%
Methane	0.00%	100.00%
Ethane	0.00%	100.00%
Propane	0.00%	100.00%
Isobutane	0.00%	100.00%
n-Butane	0.00%	100.00%
Isopentane	1.28%	98.72%
n-Pentane	1.17%	98.83%
n-Hexane	0.90%	99.10%
Cyclohexane	4.04%	95.96%
Other Hexanes	2.00%	98.00%
Heptanes	0.70%	99.30%
Methylcyclohexane	4.75%	95.25%
Toluene	8.06%	91.94%
Ethylbenzene	10.51%	89.49%
Xylenes	13.00%	87.00%
C8+ Heavies	12.21%	87.79%

STREAM REPORTS:

WET GAS STREAM

Temperature: 110.00 deg. F
Pressure: 664.70 psia
Flow Rate: 2.72e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	2.31e-001	2.98e+001
Carbon Dioxide	6.89e-002	2.17e+001
Nitrogen	8.95e+000	1.79e+003
Methane	7.47e+001	8.57e+003
Ethane	6.94e+000	1.49e+003
Propane	3.97e+000	1.25e+003
Isobutane	8.41e-001	3.50e+002
n-Butane	1.74e+000	7.25e+002
Isopentane	6.42e-001	3.32e+002
n-Pentane	6.73e-001	3.48e+002
n-Hexane	3.33e-001	2.05e+002
Cyclohexane	7.99e-003	4.81e+000
Other Hexanes	5.01e-001	3.09e+002
Heptanes	2.26e-001	1.62e+002
Methylcyclohexane	8.89e-002	6.25e+001
Toluene	2.00e-003	1.32e+000
Ethylbenzene	5.99e-003	4.55e+000
Xylenes	9.99e-003	7.59e+000
C8+ Heavies	1.10e-001	1.34e+002
Total Components	100.00	1.58e+004

DRY GAS STREAM

Temperature: 110.00 deg. F
Pressure: 664.70 psia

Flow Rate: 2.71e+005 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	1.47e-002	1.90e+000
Carbon Dioxide	6.89e-002	2.17e+001
Nitrogen	8.97e+000	1.79e+003
Methane	7.48e+001	8.57e+003
Ethane	6.96e+000	1.49e+003
Propane	3.98e+000	1.25e+003
Isobutane	8.42e-001	3.49e+002
n-Butane	1.75e+000	7.24e+002
Isopentane	6.43e-001	3.31e+002
n-Pentane	6.73e-001	3.47e+002
n-Hexane	3.32e-001	2.04e+002
Cyclohexane	7.90e-003	4.74e+000
Other Hexanes	5.01e-001	3.08e+002
Heptanes	2.25e-001	1.61e+002
Methylcyclohexane	8.77e-002	6.15e+001
Toluene	1.70e-003	1.12e+000
Ethylbenzene	4.76e-003	3.61e+000
Xylenes	7.21e-003	5.47e+000
C8+ Heavies	1.07e-001	1.30e+002
Total Components	100.00	1.58e+004

LEAN GLYCOL STREAM

Temperature: 110.00 deg. F
Flow Rate: 1.39e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.84e+001	7.69e+002
Water	1.50e+000	1.17e+001
Carbon Dioxide	5.57e-013	4.35e-012
Nitrogen	4.05e-012	3.16e-011
Methane	6.11e-018	4.77e-017
Ethane	4.62e-008	3.61e-007
Propane	5.68e-009	4.44e-008
Isobutane	1.60e-009	1.25e-008
n-Butane	3.57e-009	2.79e-008
Isopentane	3.38e-004	2.64e-003
n-Pentane	4.49e-004	3.51e-003
n-Hexane	4.27e-004	3.34e-003
Cyclohexane	2.85e-004	2.22e-003
Other Hexanes	9.97e-004	7.80e-003
Heptanes	6.14e-004	4.80e-003
Methylcyclohexane	5.19e-003	4.06e-002
Toluene	2.19e-003	1.71e-002
Ethylbenzene	1.40e-002	1.10e-001
Xylenes	4.03e-002	3.15e-001
C8+ Heavies	6.63e-002	5.19e-001
Total Components	100.00	7.82e+002

RICH GLYCOL AND PUMP GAS STREAM

Temperature: 110.00 deg. F
Pressure: 664.70 psia
Flow Rate: 1.52e+000 gpm
NOTE: Stream has more than one phase.

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.10e+001	7.69e+002
Water	4.69e+000	3.97e+001
Carbon Dioxide	8.15e-003	6.88e-002
Nitrogen	2.85e-001	2.41e+000
Methane	1.35e+000	1.14e+001
Ethane	2.97e-001	2.51e+000
Propane	3.02e-001	2.55e+000
Isobutane	9.77e-002	8.26e-001
n-Butane	2.34e-001	1.97e+000
Isopentane	1.08e-001	9.15e-001
n-Pentane	1.31e-001	1.11e+000
n-Hexane	1.07e-001	9.07e-001
Cyclohexane	8.90e-003	7.52e-002
Other Hexanes	1.35e-001	1.14e+000
Heptanes	1.36e-001	1.15e+000
Methylcyclohexane	1.29e-001	1.09e+000
Toluene	2.59e-002	2.18e-001
Ethylbenzene	1.25e-001	1.06e+000
Xylenes	2.89e-001	2.44e+000
C8+ Heavies	5.29e-001	4.47e+000
Total Components	100.00	8.45e+002

FLASH TANK OFF GAS STREAM

Temperature: 110.00 deg. F
Pressure: 74.70 psia
Flow Rate: 3.82e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	2.02e-001	3.65e-002
Carbon Dioxide	1.32e-001	5.82e-002
Nitrogen	8.44e+000	2.38e+000
Methane	6.98e+001	1.13e+001
Ethane	7.90e+000	2.39e+000
Propane	5.16e+000	2.29e+000
Isobutane	1.19e+000	6.98e-001
n-Butane	2.71e+000	1.59e+000
Isopentane	9.77e-001	7.09e-001
n-Pentane	1.11e+000	8.08e-001
n-Hexane	6.18e-001	5.36e-001
Cyclohexane	2.38e-002	2.01e-002
Other Hexanes	8.65e-001	7.50e-001
Heptanes	4.63e-001	4.66e-001
Methylcyclohexane	2.37e-001	2.34e-001
Toluene	6.14e-003	5.69e-003
Ethylbenzene	1.41e-002	1.51e-002
Xylenes	2.12e-002	2.27e-002
C8+ Heavies	1.31e-001	2.25e-001
Total Components	100.00	2.45e+001

FLASH TANK GLYCOL STREAM

Temperature: 110.00 deg. F
Flow Rate: 1.47e+000 gpm

Component	Conc. (wt%)	Loading (lb/hr)
TEG	9.37e+001	7.69e+002
Water	4.83e+000	3.96e+001
Carbon Dioxide	1.29e-003	1.06e-002
Nitrogen	3.69e-003	3.02e-002
Methane	1.87e-002	1.53e-001
Ethane	1.44e-002	1.18e-001
Propane	3.26e-002	2.67e-001
Isobutane	1.55e-002	1.27e-001
n-Butane	4.71e-002	3.86e-001
Isopentane	2.51e-002	2.06e-001
n-Pentane	3.65e-002	2.99e-001
n-Hexane	4.53e-002	3.71e-001
Cyclohexane	6.71e-003	5.50e-002
Other Hexanes	4.76e-002	3.90e-001
Heptanes	8.32e-002	6.82e-001
Methylcyclohexane	1.04e-001	8.54e-001
Toluene	2.59e-002	2.13e-001
Ethylbenzene	1.27e-001	1.04e+000
Xylenes	2.95e-001	2.42e+000
C8+ Heavies	5.18e-001	4.25e+000
Total Components	100.00	8.20e+002

FLASH GAS EMISSIONS

Flow Rate: 9.27e+002 scfh
Control Method: Combustion Device
Control Efficiency: 50.00

Component	Conc. (vol%)	Loading (lb/hr)
Water	4.82e+001	2.12e+001
Carbon Dioxide	2.95e+001	3.17e+001
Nitrogen	3.48e+000	2.38e+000
Methane	1.44e+001	5.63e+000
Ethane	1.63e+000	1.20e+000
Propane	1.06e+000	1.14e+000
Isobutane	2.46e-001	3.49e-001
n-Butane	5.59e-001	7.93e-001
Isopentane	2.01e-001	3.55e-001
n-Pentane	2.29e-001	4.04e-001
n-Hexane	1.27e-001	2.68e-001
Cyclohexane	4.89e-003	1.01e-002
Other Hexanes	1.78e-001	3.75e-001
Heptanes	9.53e-002	2.33e-001
Methylcyclohexane	4.87e-002	1.17e-001
Toluene	1.26e-003	2.84e-003
Ethylbenzene	2.90e-003	7.53e-003
Xylenes	4.37e-003	1.13e-002
C8+ Heavies	2.70e-002	1.12e-001

Total Components	100.00	6.63e+001

REGENERATOR OVERHEADS STREAM

Temperature: 212.00 deg. F
Pressure: 14.70 psia
Flow Rate: 6.31e+002 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	9.32e+001	2.79e+001
Carbon Dioxide	1.45e-002	1.06e-002
Nitrogen	6.49e-002	3.02e-002
Methane	5.74e-001	1.53e-001
Ethane	2.36e-001	1.18e-001
Propane	3.64e-001	2.67e-001
Isobutane	1.32e-001	1.27e-001
n-Butane	4.00e-001	3.86e-001
Isopentane	1.70e-001	2.03e-001
n-Pentane	2.47e-001	2.96e-001
n-Hexane	2.57e-001	3.68e-001
Cyclohexane	3.78e-002	5.28e-002
Other Hexanes	2.67e-001	3.82e-001
Heptanes	4.07e-001	6.77e-001
Methylcyclohexane	4.98e-001	8.13e-001
Toluene	1.28e-001	1.96e-001
Ethylbenzene	5.28e-001	9.33e-001
Xylenes	1.19e+000	2.11e+000
C8+ Heavies	1.32e+000	3.73e+000
Total Components	100.00	3.87e+001

CONDENSER PRODUCED WATER STREAM

Temperature: 80.00 deg. F
Flow Rate: 5.57e-002 gpm

Component	Conc. (wt%)	Loading (lb/hr)	(ppm)
Water	1.00e+002	2.79e+001	999867.
Carbon Dioxide	1.28e-003	3.57e-004	13.
Nitrogen	7.71e-005	2.15e-005	1.
Methane	8.22e-004	2.29e-004	8.
Ethane	7.62e-004	2.12e-004	8.
Propane	8.67e-004	2.42e-004	9.
Isobutane	1.69e-004	4.70e-005	2.
n-Butane	5.82e-004	1.62e-004	6.
Isopentane	1.24e-004	3.45e-005	1.
n-Pentane	1.39e-004	3.88e-005	1.
n-Hexane	6.24e-005	1.74e-005	1.
Cyclohexane	4.21e-005	1.17e-005	0.
Other Hexanes	7.16e-005	1.99e-005	1.
Heptanes	2.19e-005	6.11e-006	0.
Methylcyclohexane	1.54e-004	4.28e-005	2.
Toluene	1.16e-003	3.24e-004	12.
Ethylbenzene	2.09e-003	5.82e-004	21.
Xylenes	4.92e-003	1.37e-003	49.
C8+ Heavies	2.14e-007	5.97e-008	0.

Total Components	100.00	2.79e+001	1000000.

CONDENSER RECOVERED OIL STREAM

Temperature: 80.00 deg. F
Flow Rate: 2.35e-002 gpm

Component	Conc. (wt%)	Loading (lb/hr)
Water	2.06e-002	2.06e-003
Carbon Dioxide	4.03e-003	4.02e-004
Nitrogen	2.62e-003	2.62e-004
Methane	2.61e-002	2.61e-003
Ethane	1.03e-001	1.02e-002
Propane	9.11e-001	9.09e-002
Isobutane	6.77e-001	6.76e-002
n-Butane	2.39e+000	2.38e-001
Isopentane	1.62e+000	1.61e-001
n-Pentane	2.54e+000	2.53e-001
n-Hexane	3.47e+000	3.47e-001
Cyclohexane	5.07e-001	5.06e-002
Other Hexanes	3.52e+000	3.51e-001
Heptanes	6.66e+000	6.65e-001
Methylcyclohexane	7.98e+000	7.97e-001
Toluene	1.94e+000	1.93e-001
Ethylbenzene	9.29e+000	9.28e-001
Xylenes	2.10e+001	2.10e+000
C8+ Heavies	3.73e+001	3.73e+000
Total Components	100.00	9.98e+000

CONDENSER VENT STREAM

Temperature: 80.00 deg. F
Pressure: 14.70 psia
Flow Rate: 9.44e+000 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Water	3.50e+000	1.57e-002
Carbon Dioxide	8.99e-001	9.85e-003
Nitrogen	4.30e+000	2.99e-002
Methane	3.76e+001	1.50e-001
Ethane	1.44e+001	1.07e-001
Propane	1.60e+001	1.76e-001
Isobutane	4.12e+000	5.97e-002
n-Butane	1.02e+001	1.48e-001
Isopentane	2.33e+000	4.19e-002
n-Pentane	2.37e+000	4.26e-002
n-Hexane	9.86e-001	2.12e-002
Cyclohexane	1.05e-001	2.19e-003
Other Hexanes	1.45e+000	3.12e-002
Heptanes	5.08e-001	1.27e-002
Methylcyclohexane	6.60e-001	1.61e-002
Toluene	8.45e-002	1.94e-003
Ethylbenzene	1.64e-001	4.33e-003
Xylenes	2.64e-001	6.99e-003

C8+ Heavies	7.68e-003	3.26e-004
Total Components	100.00	8.78e-001

COMBUSTION DEVICE OFF GAS STREAM

Temperature: 1000.00 deg. F
Pressure: 14.70 psia
Flow Rate: 8.62e-001 scfh

Component	Conc. (vol%)	Loading (lb/hr)
Methane	4.12e+001	1.50e-002
Ethane	1.57e+001	1.07e-002
Propane	1.75e+001	1.76e-002
Isobutane	4.52e+000	5.97e-003
n-Butane	1.12e+001	1.48e-002
Isopentane	2.56e+000	4.19e-003
n-Pentane	2.60e+000	4.26e-003
n-Hexane	1.08e+000	2.12e-003
Cyclohexane	1.15e-001	2.19e-004
Other Hexanes	1.59e+000	3.12e-003
Heptanes	5.56e-001	1.27e-003
Methylcyclohexane	7.23e-001	1.61e-003
Toluene	9.26e-002	1.94e-004
Ethylbenzene	1.79e-001	4.33e-004
Xylenes	2.90e-001	6.99e-004
C8+ Heavies	8.41e-003	3.26e-005
Total Components	100.00	8.23e-002

HOWARD
Athens, TX (903) 677-0700 . Beeville, TX (361) 354-5200 . Midland, TX (432) 704-5351

LIQUID EXTENDED ANALYSIS REPORT

LABORATORY REPORT NUMBER 190107-1020-12-010719-02

PHYSICAL CONSTANTS PER GPA 2145-09 & TP-17 (1998)

CUSTOMER :	IACX	DATE SAMPLED:	12/27/2018
STATION:	20126	DATE ANALYZED:	01/07/2019
PRODUCER:	IACX	EFFECTIVE DATE:	12/01/2018
LEASE:	BITTER LAKES		

COMPONENT	MOLE %	LIQUID VOL %	WT. %
H2S	0.000	0.000	0.000
OXYGEN	0.000	0.000	0.000
NITROGEN	0.031	0.009	0.011
CARBON DIOXIDE	0.000	0.000	0.000
METHANE	0.056	0.024	0.011
ETHANE	2.243	1.536	0.817
PROPANE	2.873	2.028	1.530
I-BUTANE	1.862	1.560	1.310
N-BUTANE	7.966	6.430	5.606
I-PENTANE	10.254	9.602	8.958
N-PENTANE	13.205	12.256	11.536
HEXANE PLUS	61.510	66.555	70.221
TOTAL	100.000	100.000	100.000

IDEAL SP. GRAVITY	0.6703	BTU / GAL	116007.20
MOL. WT.	82.588	VAPOR PRESS.	39.30
CUBIC FT / GAL	25.678	LBS / GAL	5.59
C1/C2 LV % RATIO	1.563	API GRAVITY	79.60
CO2/C2 LV % RATIO	0.000	SP GRAV AS VAPOR	2.85

SAMPLED BY	DT	SAMPLE PRESS:	
SAMPLE TYPE:	SPOT	SAMPLE TEMP:	
CYLINDER NO.:	5152	COUNTY / STATE:	0
COMMENT:	SPOT	ANALYST	MIKE HOBGOOD

* SEE NEXT PAGE FOR C6+ COMPOSITIONAL BREAKDOWN

05-27-2016

HOWARD
Athens, TX (903) 677-0700 . Beeville, TX (361) 354-5200 . Edmond, OK (405) 525-0579

STATION: 20126 LEASE: BITTER LAKES

C6+ FRACTION COMPOSITION

HEXANE ISOMERS (C6'S)		MOLE %	LIQ VOL %	WT. %
2,2-Dimethylbutane	P	0.963	1.029	1.005
2,3-Dimethylbutane	PN	0.000	0.000	0.000
2-Methylpentane	P	7.511	7.975	7.837
3-Methylpentane	P	4.516	4.716	4.712
Methylcyclopentane	N	0.000	0.000	0.000
Benzene	A	1.287	0.922	1.218
Cyclohexane	N	5.380	4.686	5.483
n-Hexane	P	12.773	13.448	13.328
C6 TOTALS		**32.430**		
HEPTANE ISOMERS (C7'S)				
3,3-Dimethylpentane	P	0.170	0.198	0.206
2,3-Dimethylpentane	P	0.000	0.000	0.000
2,2-Dimethylpentane	P	0.422	0.506	0.513
2,4-Dimethylpentane	P	1.224	1.468	1.485
2 & 3-Methylhexane	P	0.429	0.504	0.521
1,t-3-Dimethylcyclopentane	N	0.000	0.000	0.000
1,c-3-Dimethylcyclopentane	N	0.000	0.000	0.000
1,t-2-Dimethylcyclopentane	N	0.000	0.000	0.000
3-Ethylpentane	N	0.000	0.000	0.000
Toluene	A	1.026	0.879	1.145
Methylcyclohexane	N	7.920	8.147	9.416
Ethylcyclopentane	N	0.000	0.000	0.000
n-Heptane	P	8.547	10.097	10.370
C7 TOTALS		**19.738**		
OCTANE ISOMERS (C8'S)				
2,4 & 2,5-Dimethylhexane	P	0.627	0.833	0.868
1,t-2,c-4-Trimethylcyclopentane	N	0.000	0.000	0.000
1,t-2,c-3-Trimethylcyclopentane	N	0.000	0.000	0.000
2-Methylheptane	P	2.470	3.258	3.416
1,c-2,t-4-Trimethylcyclopentane	N	0.000	0.000	0.000
3-Methylheptane	P	0.763	0.995	1.055
1,c-3-Dimethylcyclohexane	N	0.088	0.103	0.119
1,t-4-Dimethylcyclohexane	N	0.000	0.000	0.000
methyl-ethylcyclopentanes	N	0.000	0.000	0.000
1,t-3 & 1,c-4 Dimethylcyclohexane	N	0.400	0.461	0.543
1,c-2-Dimethylcyclohexane	N	0.243	0.276	0.330
Ethylcyclohexane	N	0.787	0.904	1.070
Ethylbenzene	A	0.025	0.025	0.032
m & p-Xylene	A	0.093	0.092	0.119
o-Xylene	A	0.090	0.087	0.115
Cyclooctane	P	0.029	0.031	0.039
n-Octane	P	3.257	4.272	4.505
C8 TOTALS		**8.871**		

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STATION: 20126 **LEASE:** BITTER LAKES

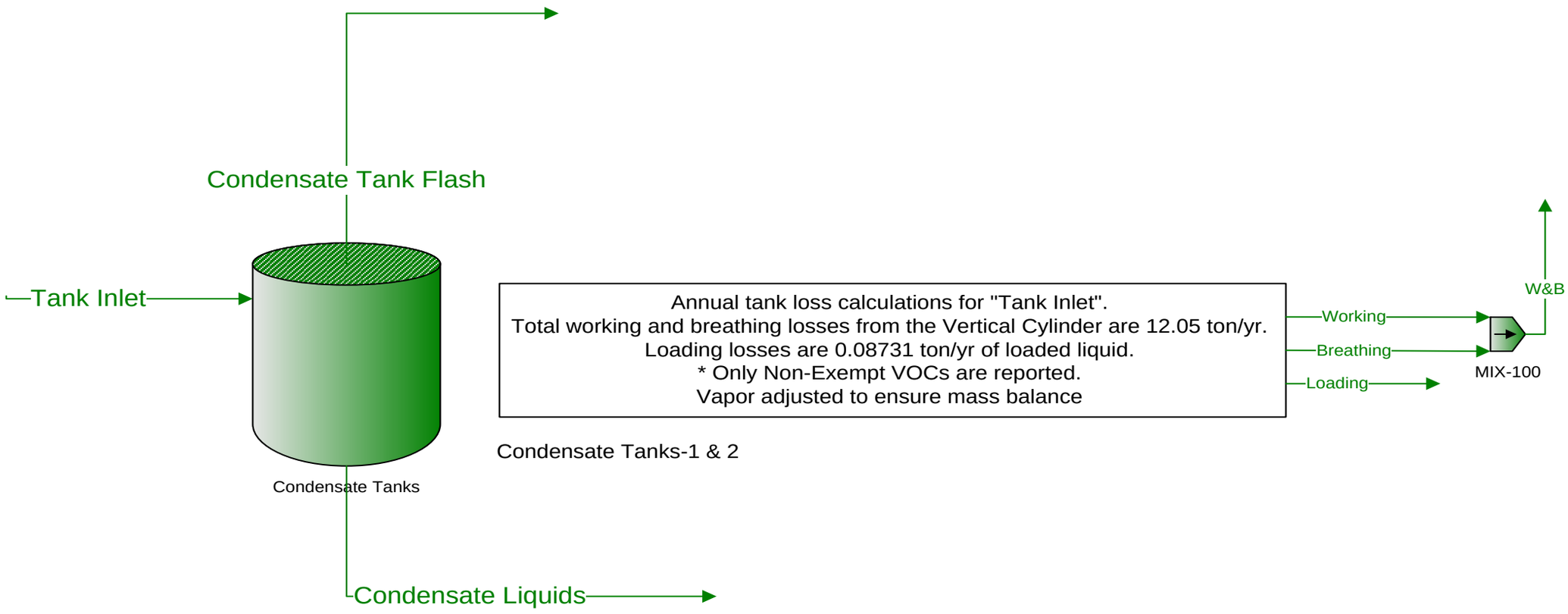
C6+ FRACTION COMPOSITION

NONANE ISOMERS (C9'S)		MOLE %	LIQ VOL %	WT. %
Trimethylhexanes	P	0.000	0.000	0.000
Dimethylpentanes	P	0.000	0.000	0.000
Isopropylcyclopentane	N	0.000	0.000	0.000
n-Propylcyclopentane	N	0.000	0.000	0.000
3-Methyloctane	P	0.000	0.000	0.000
Trimethylcyclohexanes	N	0.000	0.000	0.000
Isopropylbenzene	A	0.029	0.032	0.042
Isopropylcyclohexane	N	0.000	0.000	0.000
n-Propylcyclohexane	N	0.022	0.028	0.033
n-Propyllbenzene	A	0.033	0.037	0.048
m-Ethyltoluene	A	0.000	0.000	0.000
p-Ethyltoluene	A	0.000	0.000	0.000
1,3,5-Trimethylbenzene	A	0.004	0.004	0.006
4 & 5-Methylnonane	P	0.000	0.000	0.000
o-Ethyltoluene & 3-Methylnonane	AP	0.000	0.000	0.000
1,2,3-Trimethylbenzene	A	0.000	0.000	0.000
n-Nonane	P	0.024	0.034	0.037
C9 TOTALS		**0.111**		
DECANE ISOMERS (C10'S)				
2-Methylnonane	P	0.000	0.000	0.000
tert-Butylbenzene	A	0.013	0.016	0.020
1,2,4-Trimethylbenzene	A	0.029	0.032	0.042
Isobutylcyclohexane & tert-Butylcyclohexane		0.192	0.267	0.326
Isobutylbenzene	A	0.000	0.000	0.000
sec-Butylbenzene	A	0.005	0.007	0.009
n-Butylcyclohexane	N	0.015	0.022	0.026
1,3-Diethylbenzene	A	0.000	0.000	0.000
1,2-Diethylbenzene & n-Butylbenzene	A	0.010	0.013	0.016
1,4-Diethylbenzene	A	0.000	0.000	0.000
n-Decane	P	0.096	0.151	0.166
C10 TOTALS		**0.359**		
UNDECANE ISOMERS (C11'S)				
n-Undecane	P	0.000	0.000	0.000
DODECANE ISOMERS (C12'S)				
n-Dodecane +	P	0.000	0.000	0.000

x Michael Holsomb

ANALYST

"Condensate Tank Flash" C3+ Mass Flow =1.399 ton/yr



13.2.2 Unpaved Roads

13.2.2.1 General

When a vehicle travels an unpaved road, the force of the wheels on the road surface causes pulverization of surface material. Particles are lifted and dropped from the rolling wheels, and the road surface is exposed to strong air currents in turbulent shear with the surface. The turbulent wake behind the vehicle continues to act on the road surface after the vehicle has passed.

The particulate emission factors presented in the previous draft version of this section of AP-42, dated October 2001, implicitly included the emissions from vehicles in the form of exhaust, brake wear, and tire wear as well as resuspended road surface material[25]. EPA included these sources in the emission factor equation for unpaved public roads (equation 1b in this section) since the field testing data used to develop the equation included both the direct emissions from vehicles and emissions from resuspension of road dust.

This version of the unpaved public road emission factor equation only estimates particulate emissions from resuspended road surface material [23, 26]. The particulate emissions from vehicle exhaust, brake wear, and tire wear are now estimated separately using EPA's MOBILE6.2 [24]. This approach eliminates the possibility of double counting emissions. Double counting results when employing the previous version of the emission factor equation in this section and MOBILE6.2 to estimate particulate emissions from vehicle traffic on unpaved public roads. It also incorporates the decrease in exhaust emissions that has occurred since the unpaved public road emission factor equation was developed. The previous version of the unpaved public road emission factor equation includes estimates of emissions from exhaust, brake wear, and tire wear based on emission rates for vehicles in the 1980 calendar year fleet. The amount of PM released from vehicle exhaust has decreased since 1980 due to lower new vehicle emission standards and changes in fuel characteristics.

13.2.2.2 Emissions Calculation And Correction Parameters[1-6]

The quantity of dust emissions from a given segment of unpaved road varies linearly with the volume of traffic. Field investigations also have shown that emissions depend on source parameters that characterize the condition of a particular road and the associated vehicle traffic. Characterization of these source parameters allow for "correction" of emission estimates to specific road and traffic conditions present on public and industrial roadways.

Dust emissions from unpaved roads have been found to vary directly with the fraction of silt (particles smaller than 75 micrometers [μm] in diameter) in the road surface materials.[1] The silt fraction is determined by measuring the proportion of loose dry surface dust that passes a 200-mesh screen, using the ASTM-C-136 method. A summary of this method is contained in Appendix C of AP-42. Table 13.2.2-1 summarizes measured silt values for industrial unpaved roads. Table 13.2.2-2 summarizes measured silt values for public unpaved roads. It should be noted that the ranges of silt content vary over two orders of magnitude. Therefore, the use of data from this table can potentially introduce considerable error. Use of this data is strongly discouraged when it is feasible to obtain locally gathered data.

Since the silt content of a rural dirt road will vary with geographic location, it should be measured for use in projecting emissions. As a conservative approximation, the silt content of the parent soil in the area can be used. Tests, however, show that road silt content is normally lower than in the surrounding parent soil, because the fines are continually removed by the vehicle traffic, leaving a higher percentage of coarse particles.

Other variables are important in addition to the silt content of the road surface material. For example, at industrial sites, where haul trucks and other heavy equipment are common, emissions are highly correlated with vehicle weight. On the other hand, there is far less variability in the weights of cars and pickup trucks that commonly travel publicly accessible unpaved roads throughout the United States. For those roads, the moisture content of the road surface material may be more dominant in determining differences in emission levels between, for example a hot, desert environment and a cool, moist location.

The PM-10 and TSP emission factors presented below are the outcomes from stepwise linear regressions of field emission test results of vehicles traveling over unpaved surfaces. Due to a limited amount of information available for PM-2.5, the expression for that particle size range has been scaled against the result for PM-10. Consequently, the quality rating for the PM-2.5 factor is lower than that for the PM-10 expression.

Table 13.2.2-1. TYPICAL SILT CONTENT VALUES OF SURFACE MATERIAL ON INDUSTRIAL UNPAVED ROADS[a]

Industry	Road Use Or Surface Material	Plant Sites	No. Of Samples	Silt Content (%)	
				Range	Mean
Copper smelting	Plant road	1	3	16 - 19	17
Iron and steel production	Plant road	19	135	0.2 - 19	6.0
Sand and gravel processing	Plant road	1	3	4.1 - 6.0	4.8
	Material storage area	1	1	-	7.1
Stone quarrying and processing	Plant road	2	10	2.4 - 16	10
	Haul road to/from pit	4	20	5.0-15	8.3
Taconite mining and processing	Service road	1	8	2.4 - 7.1	4.3
	Haul road to/from pit	1	12	3.9 - 9.7	5.8
Western surface coal mining	Haul road to/from pit	3	21	2.8 - 18	8.4
	Plant road	2	2	4.9 - 5.3	5.1
	Scraper route	3	10	7.2 - 25	17
	Haul road (freshly graded)	2	5	18 - 29	24
Construction sites	Scraper routes	7	20	0.56-23	8.5
Lumber sawmills	Log yards	2	2	4.8-12	8.4
Municipal solid waste landfills	Disposal routes	4	20	2.2 - 21	6.4

[a]References 1,5-15.

The following empirical expressions may be used to estimate the quantity in pounds (lb) of size-specific particulate emissions from an unpaved road, per vehicle mile traveled (VMT):

For vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

$$E = k\,(s/12)^a (W/3)^b \quad (1a)$$

and, for vehicles traveling on publicly accessible roads, dominated by light duty vehicles, emissions may be estimated from the following:

$$E = \frac{k\,(s/12)^a (S/30)^d}{(M/0.5)^c} - C \quad (1b)$$

where k, a, b, c and d are empirical constants (Reference 6) given below and

E = size-specific emission factor (lb/VMT)
s = surface material silt content (%)
W = mean vehicle weight (tons)
M = surface material moisture content (%)
S = mean vehicle speed (mph)
C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

The source characteristics s, W and M are referred to as correction parameters for adjusting the emission estimates to local conditions. The metric conversion from lb/VMT to grams (g) per vehicle kilometer traveled (VKT) is as follows:

1 lb/VMT = 281.9 g/VKT

The constants for Equations 1a and 1b based on the stated aerodynamic particle sizes are shown in Tables 13.2.2-2 and 13.2.2-4. The PM-2.5 particle size multipliers (k-factors) are taken from Reference 27.

Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

Constant	Industrial Roads (Equation 1a)			Public Roads (Equation 1b)		
	PM-2.5	PM-10	PM-30*	PM-2.5	PM-10	PM-30*
k (lb/VMT)	0.15	1.5	4.9	0.18	1.8	6.0
a	0.9	0.9	0.7	1	1	1
b	0.45	0.45	0.45	-	-	-
c	-	-	-	0.2	0.2	0.3
d	-	-	-	0.5	0.5	0.3
Quality Rating	B	B	B	B	B	B

*Assumed equivalent to total suspended particulate matter (TSP)
"-" = not used in the emission factor equation

Table 13.2.2-2 also contains the quality ratings for the various size-specific versions of Equation 1a and 1b. The equation retains the assigned quality rating, if applied within the ranges of source conditions, shown in Table 13.2.2-3, that were tested in developing the equation:

Table 13.2.2-3. RANGE OF SOURCE CONDITIONS USED IN DEVELOPING EQUATION 1a AND 1b

Emission Factor	Surface Silt Content, %	Mean Vehicle Weight		Mean Vehicle Speed		Mean No. of Wheels	Surface Moisture Content, %
		Mg	ton	km/hr	mph		
Industrial Roads (Equation 1a)	1.8-25.2	1.8-260	2-290	8-69	5-43	4-17[a]	0.03-13
Public Roads (Equation 1b)	1.8-35	1.4-2.7	1.5-3	16-88	10-55	4-4.8	0.03-13

[a] See discussion in text.

As noted earlier, the models presented as Equations 1a and 1b were developed from tests of traffic on unpaved surfaces. Unpaved roads have a hard, generally nonporous surface that usually dries quickly after a rainfall or watering, because of traffic-enhanced natural evaporation. (Factors influencing how fast a road dries are discussed in Section 13.2.2.3, below.) The quality ratings given above pertain to the mid-range of the measured source conditions for the equation. A higher mean vehicle weight and a higher than normal traffic rate may be justified when performing a worst-case analysis of emissions from unpaved roads.

The emission factors for the exhaust, brake wear and tire wear of a 1980's vehicle fleet (*C*) was obtained from EPA's MOBILE6.2 model [23]. The emission factor also varies with aerodynamic size range

as shown in Table 13.2.2-4

Table 13.2.2-4. EMISSION FACTOR FOR 1980'S VEHICLE FLEET EXHAUST, BRAKE WEAR AND TIRE WEAR

Particle Size Range[a]	*C*, Emission Factor for Exhaust, Brake Wear and Tire Wear[b] lb/VMT
$PM_{2.5}$	0.00036
PM_{10}	0.00047
PM_{30}[c]	0.00047

[a] Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.
[b] Units shown are pounds per vehicle mile traveled (lb/VMT).
[c] PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

It is important to note that the vehicle-related source conditions refer to the average weight, speed, and number of wheels for all vehicles traveling the road. For example, if 98 percent of traffic on the road are 2-ton cars and trucks while the remaining 2 percent consists of 20-ton trucks, then the mean weight is 2.4 tons. More specifically, Equations 1a and 1b are *not* intended to be used to calculate a separate emission factor for each vehicle class within a mix of traffic on a given unpaved road. That is, in the example, one should *not* determine one factor for the 2-ton vehicles and a second factor for the 20-ton trucks. Instead, only one emission factor should be calculated that represents the "fleet" average of 2.4 tons for all vehicles traveling the road.

Moreover, to retain the quality ratings when addressing a group of unpaved roads, it is necessary that reliable correction parameter values be determined for the road in question. The field and laboratory procedures for determining road surface silt and moisture contents are given in AP-42 Appendices C.1 and C.2. Vehicle-related parameters should be developed by recording visual observations of traffic. In some cases, vehicle parameters for industrial unpaved roads can be determined by reviewing maintenance records or other information sources at the facility.

In the event that site-specific values for correction parameters cannot be obtained, then default values may be used.In the absence of site-specific silt content information, an appropriate mean value from Table 13.2.2-1 may be used as a default value, but the quality rating of the equation is reduced by two letters. Because of significant differences found between different types of road surfaces and between different areas of the country, use of the default moisture content value of 0.5 percent in Equation 1b is discouraged. The quality rating should be downgraded two letters when the default moisture content value is used. (It is assumed that readers addressing industrial roads have access to the information needed to develop average vehicle information in Equation 1a for their facility.)

The effect of routine watering to control emissions from unpaved roads is discussed below in Section 13.2.2.3, “Controls”. However, all roads are subject to some natural mitigation because of rainfall and other precipitation. The Equation 1a and 1b emission factors can be extrapolated to annual

average uncontrolled conditions (but including natural mitigation) under the simplifying assumption that annual average emissions are inversely proportional to the number of days with measurable (more than 0.254 mm [0.01 inch]) precipitation:

$$E_{ext} = E\ [(365 - P)/365] \quad (2)$$

where:

E_{ext} = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT

E = emission factor from Equation 1a or 1b

P = number of days in a year with at least 0.254 mm (0.01 in) of precipitation (see below)

Figure 13.2.2-1 gives the geographical distribution for the mean annual number of "wet" days for the United States.

Equation 2 provides an estimate that accounts for precipitation on an annual average basis for the purpose of inventorying emissions. It should be noted that Equation 2 does not account for differences in the temporal distributions of the rain events, the quantity of rain during any event, or the potential for the rain to evaporate from the road surface. In the event that a finer temporal and spatial resolution is desired for inventories of public unpaved roads, estimates can be based on a more complex set of assumptions. These assumptions include:

1. The moisture content of the road surface material is increased in proportion to the quantity of water added;
2. The moisture content of the road surface material is reduced in proportion to the Class A pan evaporation rate;
3. The moisture content of the road surface material is reduced in proportion to the traffic volume; and
4. The moisture content of the road surface material varies between the extremes observed in the area. The CHIEF Web site (http://www.epa.gov/ttn/chief/ap42/ch13/related/c13s02-2.html) has a file which contains a spreadsheet program for calculating emission factors which are temporally and spatially resolved. Information required for use of the spreadsheet program includes monthly Class A pan evaporation values, hourly meteorological data for precipitation, humidity and snow cover, vehicle traffic information, and road surface material information.

It is emphasized that the simple assumption underlying Equation 2 and the more complex set of assumptions underlying the use of the procedure which produces a finer temporal and spatial resolution have not been verified in any rigorous manner. For this reason, the quality ratings for either approach should be downgraded one letter from the rating that would be applied to Equation 1.

13.2.2.3 Controls[18-22]

A wide variety of options exist to control emissions from unpaved roads. Options fall into the following three groupings:

1. Vehicle restrictions that limit the speed, weight or number of vehicles on the road;

2. Surface improvement, by measures such as (a) paving or (b) adding gravel or slag to a dirt road; and
3. Surface treatment, such as watering or treatment with chemical dust suppressants.

Available control options span broad ranges in terms of cost, efficiency, and applicability. For example, traffic controls provide moderate emission reductions (often at little cost) but are difficult to enforce. Although paving is highly effective, its high initial cost is often prohibitive. Furthermore, paving is not feasible for industrial roads subject to very heavy vehicles and/or spillage of material in transport. Watering and chemical suppressants, on the other hand, are potentially applicable to most industrial roads at moderate to low costs. However, these require frequent reapplication to maintain an acceptable level of control. Chemical suppressants are generally more cost-effective than water but not in cases of temporary roads (which are common at mines, landfills, and construction sites). In summary, then, one needs to consider not only the type and volume of traffic on the road but also how long the road will be in service when developing control plans.

Vehicle restrictions. These measures seek to limit the amount and type of traffic present on the road or to lower the mean vehicle speed. For example, many industrial plants have restricted employees from driving on plant property and have instead instituted bussing programs. This eliminates emissions due to employees traveling to/from their worksites. Although the heavier average vehicle weight of the busses increases the base emission factor, the decrease in vehicle-miles-traveled results in a lower overall emission rate.

United States Environmental Protection Agency
Office of Air Quality Planning and Standards Research Triangle Park NC 27711
EPA-453/R-95-017 November 1995
Air

EPA

Protocol for Equipment Leak Emission Estimates

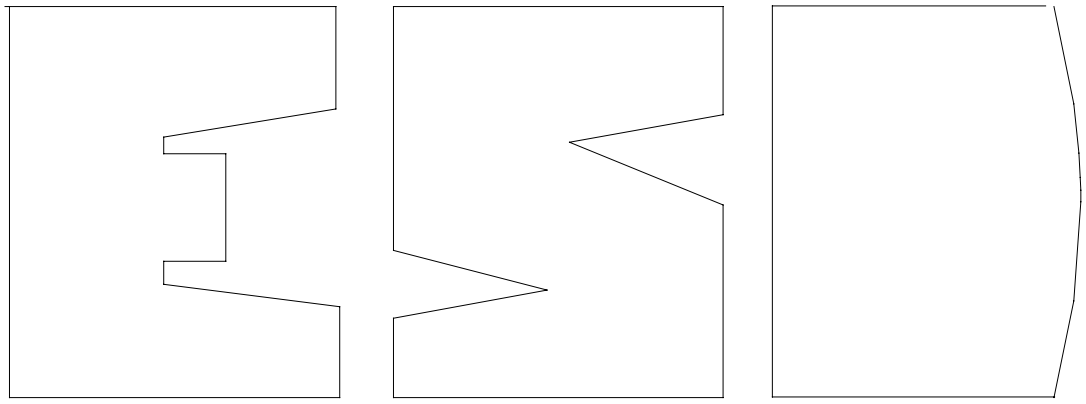


TABLE 2-4. OIL AND GAS PRODUCTION OPERATIONS AVERAGE EMISSION FACTORS (kg/hr/source)

Equipment Type	Service[a]	Emission Factor (kg/hr/source)[b]
Valves	Gas	4.5E-03
	Heavy Oil	8.4E-06
	Light Oil	2.5E-03
	Water/Oil	9.8E-05
Pump seals	Gas	2.4E-03
	Heavy Oil	NA
	Light Oil	1.3E-02
	Water/Oil	2.4E-05
Others[c]	Gas	8.8E-03
	Heavy Oil	3.2E-05
	Light Oil	7.5E-03
	Water/Oil	1.4E-02
Connectors	Gas	2.0E-04
	Heavy Oil	7.5E-06
	Light Oil	2.1E-04
	Water/Oil	1.1E-04
Flanges	Gas	3.9E-04
	Heavy Oil	3.9E-07
	Light Oil	1.1E-04
	Water/Oil	2.9E-06
Open-ended lines	Gas	2.0E-03
	Heavy Oil	1.4E-04
	Light Oil	1.4E-03
	Water/Oil	2.5E-04

[a]Water/Oil emission factors apply to water streams in oil service with a water content greater than 50%, from the point of origin to the point where the water content reaches 99%. For water streams with a water content greater than 99%, the emission rate is considered negligible.

[b]These factors are for total organic compound emission rates (including non-VOC's such as methane and ethane) and apply to light crude, heavy crude, gas plant, gas production, and off shore facilities. "NA" indicates that not enough data were available to develop the indicated emission factor.

[c]The "other" equipment type was derived from compressors, diaphrams, drains, dump arms, hatches, instruments, meters, pressure relief valves, polished rods, relief valves, and vents. This "other" equipment type should be applied for any equipment type other than connectors, flanges, open-ended lines, pumps, or valves.

Section 8

Map(s)

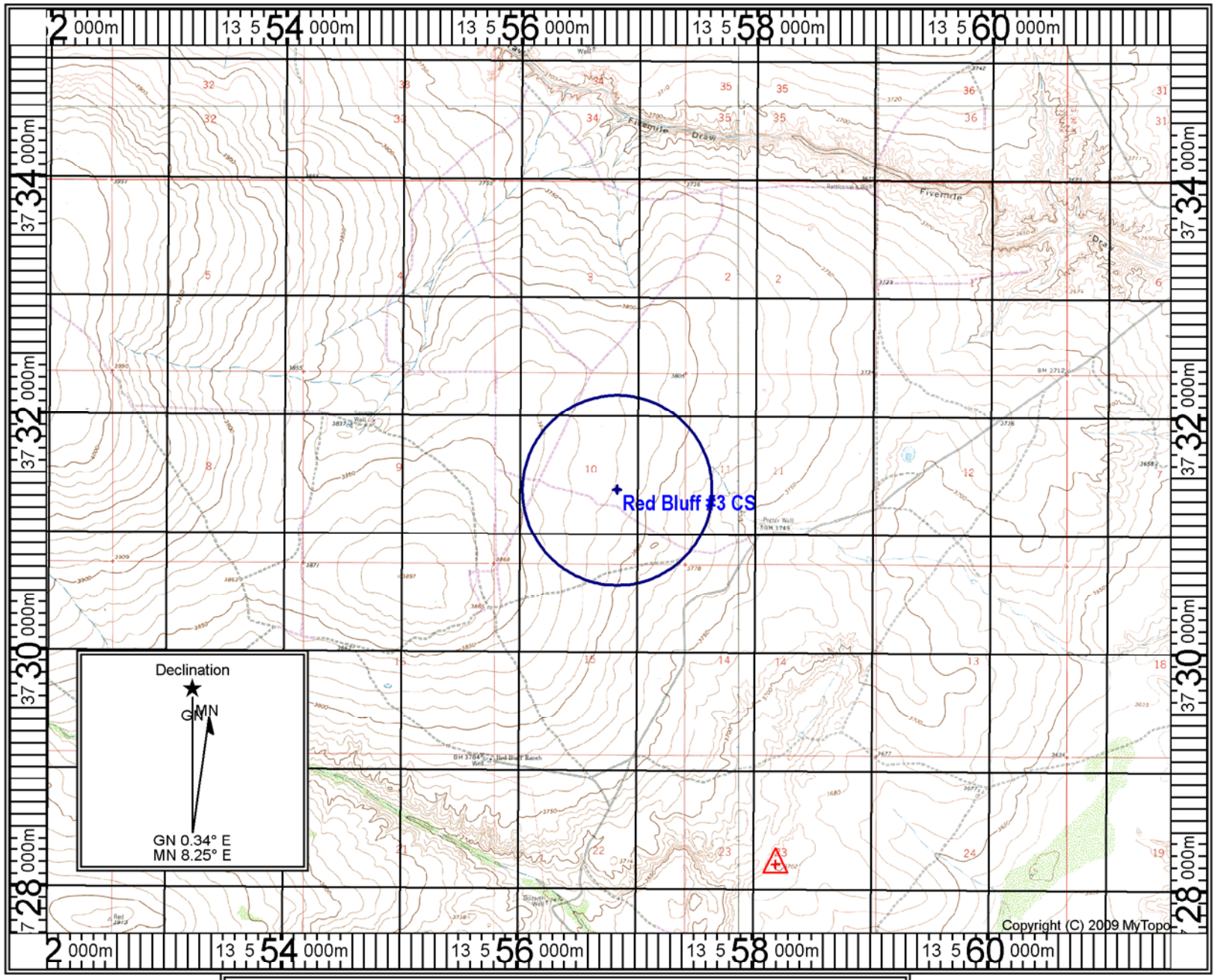
A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

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

A map is attached.

Map Name: COYOTE DRAW (NM)
Print Date: 02/25/20
Scale: 1 inch = 4,000 ft.

Map Center: 13 0556750 E 3731381 N
Horizontal Datum: WGS84



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Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)
(This proof is required by: 20.2.72.203.A.14 NMAC "Documentary Proof of applicant's public notice")

☑ **I have read the AQB "Guidelines for Public Notification for Air Quality Permit Applications"**
This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

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

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

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

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

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

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Restricted Delivery Fee (Endorsement Required)	$0.00
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	$4.10

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ALBUQUERQUE, NM 87109
02/25/2020

Sent To: Chaves County Manager
Street & Apt. No., or PO Box No.: #1 St. Mary's Place
City, State, ZIP+4: Roswell, NM 88203

PS Form 3800, July 2014 — See Reverse for Instructions

February 25, 2020

CERTIFIED MAIL 7014 2870 0001 4718 6367

To whom it may concern,

IACX Roswell LLC announces its application submittal to the New Mexico Environment Department for an air quality permit for the revision of its compressor station facility. The expected date of application submittal to the Air Quality Bureau is **February 28, 2020.**

The exact location of the facility known as Red Bluff No. 3 Compressor Station is at latitude 33 deg, 43 min, 15 sec and longitude -104 deg, 23 min, 13 sec. To reach the facility from Roswell, go north out of Roswell, N.M. on U.S. Highway 285 approximately 17.5 miles past the Roswell city limits sign to Red Bluff Road (just before Mile Marker 132). Turn right (East) on Red Bluff Road and go 0.5 miles to "Y" in road (just before road with cattle guard that goes to El Paso Natural Gas Co.). Turn left at "Y" in the road and go 10.3 miles on main traveled road to cross road. Turn left at cross road and go 0.7 miles. Turn right and go 0.4 miles. Turn left and go 100 yards to station site.
The approximate location of this facility is 23 miles north-northeast of Roswell in Chaves County.

The proposed revision consists of updates to emission source calculations.

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

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	1 pph	2 tpy
PM 10	1 pph	2 tpy
PM 2.5	1 pph	2 tpy
Sulfur Dioxide (SO2)	1 pph	3 tpy
Nitrogen Oxides (NOx)	31 pph	138 tpy
Carbon Monoxide (CO)	27 pph	117 tpy
Volatile Organic Compounds (VOC)	33 pph	92 tpy
Total sum of all Hazardous Air Pollutants (HAPs)	6 pph	19 tpy
Toxic Air Pollutant (TAP)	n/a	n/a
Green House Gas Emissions as Total CO2e	n/a	139,097 tpy

The standard and maximum operating schedules of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

The owner and/or operator of the Facility is: **IACX Roswell, LLC; 5001 LBJ Freeway, Suite 300, Dallas, TX 75244**

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

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

Attención

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

Sincerely,

IACX Roswell LLC
5001 LBJ Freeway, Suite 300,
Dallas, TX 75244

Notice of Non-Discrimination

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

February 25, 2020

CERTIFIED MAIL 7014 2870 0001 4718 6350

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IACX Roswell LLC announces its application submittal to the New Mexico Environment Department for an air quality permit for the revision of its compressor station facility. The expected date of application submittal to the Air Quality Bureau is **February 28, 2020.**

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Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	1 pph	2 tpy
PM 10	1 pph	2 tpy
PM 2.5	1 pph	2 tpy
Sulfur Dioxide (SO2)	1 pph	3 tpy
Nitrogen Oxides (NOx)	31 pph	138 tpy
Carbon Monoxide (CO)	27 pph	117 tpy
Volatile Organic Compounds (VOC)	33 pph	92 tpy
Total sum of all Hazardous Air Pollutants (HAPs)	6 pph	19 tpy
Toxic Air Pollutant (TAP)	n/a	n/a
Green House Gas Emissions as Total CO2e	n/a	139,097 tpy

The standard and maximum operating schedules of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year.

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Sincerely,

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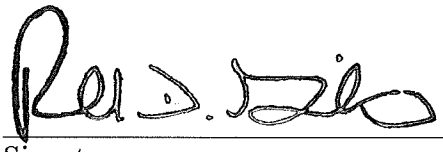
General Posting of Notices – Certification

I, Russell Gibbs, the undersigned, certify that on **2/24/2020,** posted a true and correct copy of the attached Public Notice in the following publicly accessible and conspicuous places in **Roswell** of **Chaves** County, State of New Mexico on the following dates:

1. Facility entrance 2/24/2020
2. Roswell Post Office 2/24/2020
3. Roswell Community Center & Adult Recreation 2/24/2020
4. Roswell Public Library 2/24/2020

Signed this 24th day of February, 2020,



Signature

2/24/20
Date

Russell Gibbs
Printed Name

Area Manager, IACX-Roswell
Title {APPLICANT OR RELATIONSHIP TO APPLICANT}

NOTICE

IACX Roswell LLC announces its application to the New Mexico Environment Department for an air quality permit for the **revision** of its **compressor station** facility. The expected date of application submittal to the Air Quality Bureau is **February 28, 2020.**

The exact location for the proposed facility known as, **Red Bluff No. 3 Compressor Station** is at latitude 33 deg, 43 min, 15 sec and longitude -104 deg, 23 min, 13 sec. The approximate location of this facility is **23** miles **northeast** of **Roswell** in **Chaves** county.

The proposed **revision** consists of updates to emission source calculations.

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

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	1 pph	2 tpy
PM_{10}	1 pph	2 tpy
$PM_{2.5}$	1 pph	2 tpy
Sulfur Dioxide (SO_2)	1 pph	3 tpy
Nitrogen Oxides (NO_x)	31 pph	138 tpy
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If you have any comments about the construction or operation of this facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to this address: Permit Programs Manager; New Mexico Environment Department; Air Quality Bureau; 525 Camino de los Marquez, Suite 1; Santa Fe, New Mexico; 87505-1816; (505) 476-4300; 1 800 224-7009; https://www.env.nm.gov/aqb/permit/aqb_draft_permits.html. Other comments and questions may be submitted verbally.

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

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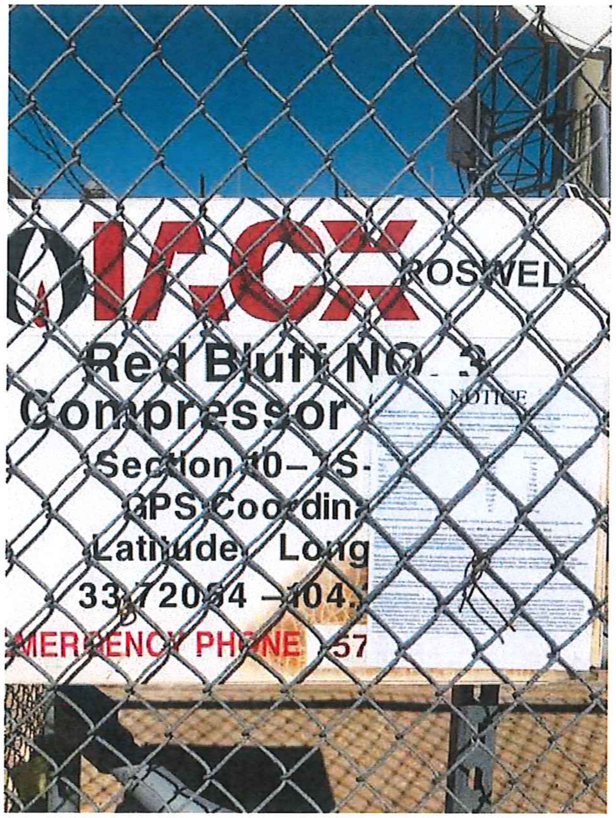
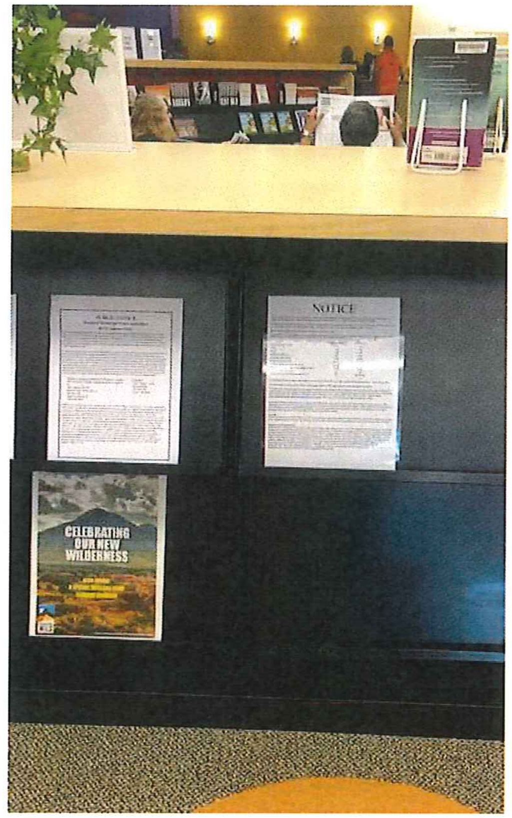
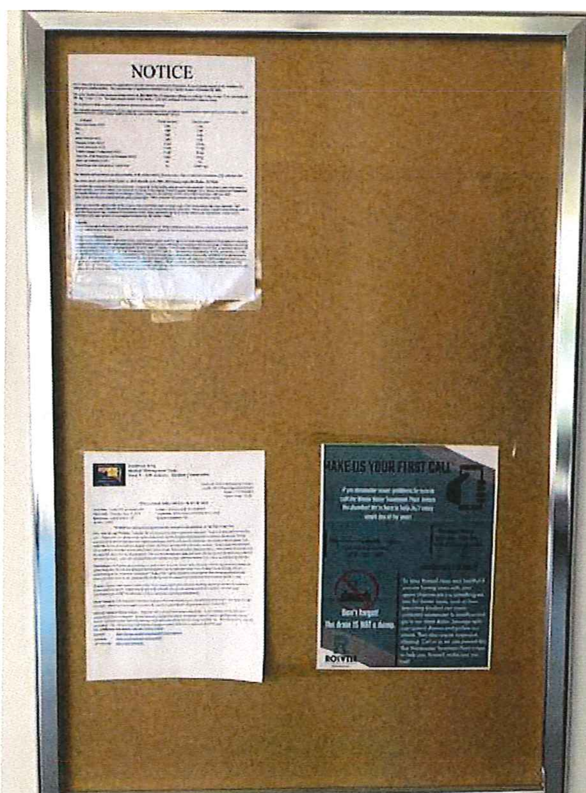

IACX
ROSWELL
Red Bluff NO. 3
Compressor
Section 10–
GPS Coordina
Latitude Long
33.72064 –104.
MERGENCY PHONE 57
NOTICE


NOTICE
CELEBRATING OUR NEW WILDERNESS


NOTICE
MAKE US YOUR FIRST CALL
Don't forget!
The drain IS NOT a dump.


Active Life
ADRC
NOTICE
IMAGINATION

Account: R042123 * Tax Rate does not include the Pecos Valley Artesian Conservancy District

Location

Parcel Number 4-141-040-276-532-000000

Tax Area 11N_8_10 - 11N-FC-CSW

Situs Address

Legal Summary S: 3 T: 7S R: 25E ALL S: 4 T: 7S R: 25E ALL S: 5 T: 7S R: 25E E2 S: 9 T: 7S R: 25E SE4-S2SW4 S: 10 T: 7S R: 25E ALL S: 15 T: 7S R: 25E ALL S: 19 T: 7S R: 25E ALL S: 20 T: 7S R: 25E ALL S: 21 T: 7S R: 25E W2 S: 22 T: 7S R: 25E N2-W2SW4-NW4SE4 S: 25 T: 7S R: 25E E2-NW4 S: 26 T: 7S R: 25E N2 S: 27 T: 7S R: 25E SW4-S2N2-W2SE4-NW4NW4 S: 28 T: 7S R: 25E ALL S: 29 T: 7S R: 25E ALL S: 30 T: 7S R: 25E ALL S: 31 T: 7S R: 25E ALL S: 33 T: 7S R: 25E ALL S: 34 T: 7S R: 25E ALL S: 35 T: 7S R: 25E S2-NE4 S: 24 T: 7S R: 25E E2SE4

Owner Information

Owner Name UNITED STATES OF AMERICA

In Care Of Name BUREAU OF LAND MANAGEMENT-ROSWELL FIELD OFFICE

Owner Address 2809 W 2ND ST
ROSWELL, NM 88201-2019
UNITED STATES OF AMERICA

Assessment History

Actual Value (2019)	$33,945
Primary Taxable	$11,315
Exempt	($11,315)
Adjusted Taxable Total	$0

Tax Area: 11N_8_10 **Tax Rate**: 0.023342

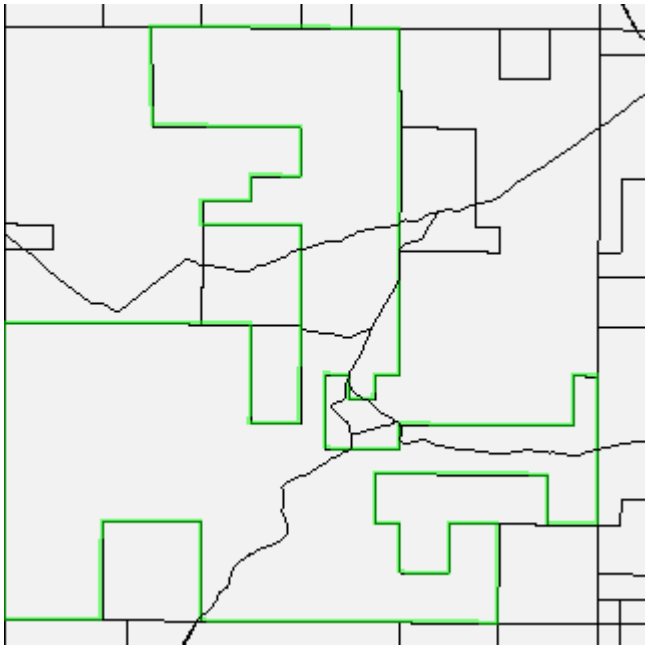
Type	Actual	Assessed	Acres	SQFT
Exempt Land	$33,945	$11,315	10776.200	0.000

Tax Year	Taxes
*2020	$0.00
2019	$0.00

* Estimated

Images

- GIS



Letters to Owners, Counties, Municipalities, and Indian Tribes

Recipient	Address
Chaves County Manager	#1 St. Mary's Place, Roswell, NM 88203
BLM - Roswell Office	2809 W 2n St., Roswell, NM 88201-2019

Note: There are no municipalities or Indian tribes within 10 miles of the facility.

MacKenzie Russell

From: MacKenzie Russell
Sent: Monday, February 24, 2020 5:38 PM
To: kenwfm@enmu.edu
Subject: Radio PSA for IACX Roswell LLC

Dear KENW/KMTH-FM

As part of the air quality permit process, New Mexico requires applicants to submit a public service announcement identifying the proposed permitting action and providing information as to how the public can comment on this action. Below is such an announcement. Would you air it as a PSA?

Radio Public Service Announcement
NOTICE

IACX Roswell LLC announces its application submittal to the New Mexico Environment Department for an air quality permit for the revision of its compressor station facility. The expected date of submittal to the Air Quality Bureau is February 28, 2020. The proposed revision consists of updating emissions associated with facility operations.

The exact location of the facility, known as Red Bluff No. 3 Compressor Station, is at latitude 33 deg, 43 min, 15 sec and longitude 104 deg, 23 min, 13 sec. The approximate location of the facility is 23 miles northeast of Roswell, NM in Chaves County.

The owner and operator of the facility is IACX Roswell LLC who can be reached at 5001 LBJ Freeway, Suite 300, Dallas, TX 75244.

Public Notice of this application is posted at the facility entrance, Roswell Post Office, Roswell Community Center & Adult Recreation, and Roswell Public Library.

If you have any comments about the construction process or operation of this facility, and you want your comments to be made as part of the permit review process, contact the New Mexico Environment Department Air Quality Bureau at (505) 476-4300.

.....
MacKenzie Russell
Consultant

Trinity Consultants
9400 Holly Avenue | Bldg 3 Suite 300 | Albuquerque, NM 87122

Office: **505-266-6611**
Email: MRussell@TrinityConsultants.com | Website: www.TrinityConsultants.com

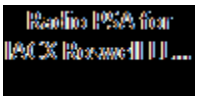
MacKenzie Russell

From: Microsoft Outlook
To: kenwfm@enmu.edu
Sent: Monday, February 24, 2020 5:38 PM
Subject: Relayed: Radio PSA for IACX Roswell LLC

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

kenwfm@enmu.edu (kenwfm@enmu.edu)

Subject: Radio PSA for IACX Roswell LLC



Submittal of Public Service Announcement – Certification

I, MacKenzie Russell, the undersigned, certify that on **2/24/2020**, submitted a public service announcement to **KENW Radio** that serves the Town of **Roswell, Lea** County, New Mexico, in which the source is or is proposed to be located and that **KENW DID NOT RESPOND THAT IT WOULD NOT AIR THE ANNOUNCEMENT.**

Signed this 24 day of February, 2020,

_____ 2/24/2020

Signature Date

MacKenzie Russell
Printed Name

Consultant
Title {APPLICANT OR RELATIONSHIP TO APPLICANT}

Roswell Seven-day forecast

AccuWeather DOWNLOAD THE FREE APP

Today	Tonight	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Plenty of sunshine	Mainly clear and cold	Plenty of sunshine	Times of clouds and sun	Mostly sunny and pleasant	Clearing	Turning cloudy	Times of clouds and sun
High 48°	**Low 26°**	**67°/30°**	**64°/34°**	**73°/44°**	**75°/43°**	**65°/39°**	**61°/35°**
SSW at 4-8 mph	SSW at 4-8 mph	NNW at 6-12 mph	WSW at 4-8 mph	SSE at 7-14 mph	WSW at 8-16 mph	SW at 10-20 mph	WNW at 10-20 mph
POP: 0%	**POP:** 0%	**POP:** 0%	**POP:** 0%	**POP:** 0%	**POP:** 0%	**POP:** 5%	**POP:** 5%

POP: Probability of Precipitation

Almanac

Roswell through 8 p.m. Tuesday

Temperatures

High/low	47°/32°
Normal high/low	63°/33°
Record high	85° in 1989
Record low	-1° in 1960
Humidity at noon	43%

Precipitation

24 hours ending 8 p.m. Tue.	trace
Month to date	0.57"
Normal month to date	0.37"
Year to date	1.01"
Normal year to date	0.75"

Air Quality Index

Today's Forecast: Good

Yesterday's A.Q.I. Reading: 45

0-50	51-100	101-150	151+
Good	Moderate	Unhealthy sensitive	Unhealthy

Source: Texas Commission on Environmental Quality

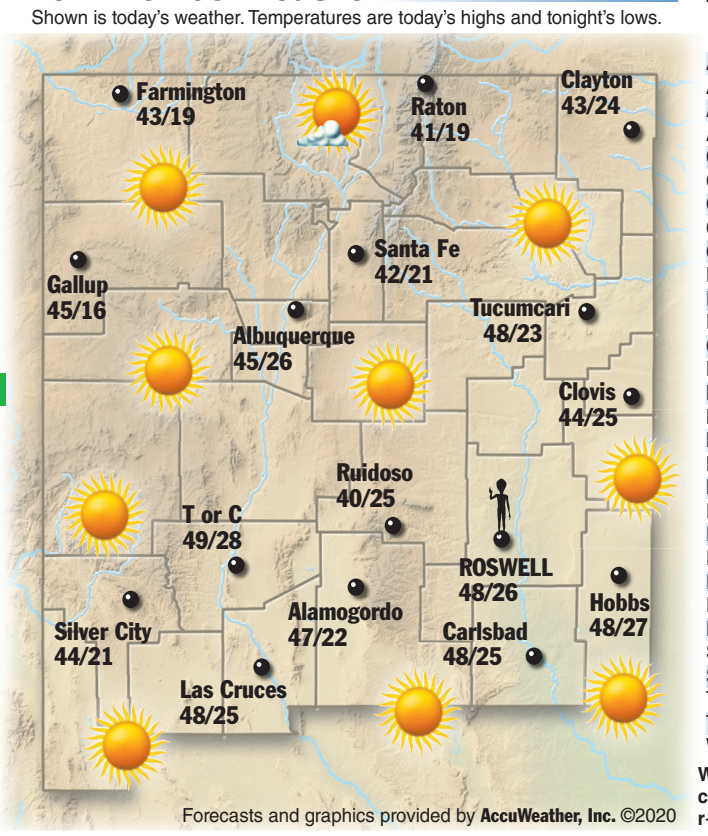
Sun and Moon

The Sun	Rise	Set
Today	6:31 a.m.	5:52 p.m.
Thu.	6:29 a.m.	5:53 p.m.
The Moon	**Rise**	**Set**
Today	8:22 a.m.	8:45 p.m.
Thu.	8:49 a.m.	9:38 p.m.

First	Full	Last	New
Mar 2	Mar 9	Mar 16	Mar 24

New Mexico Weather

Shown is today's weather. Temperatures are today's highs and tonight's lows.



Forecasts and graphics provided by **AccuWeather, Inc.** ©2020

Regional Cities

	Today Hi/Lo/W	Thu. Hi/Lo/W
Alamogordo	47/22/pc	59/29/pc
Albuquerque	45/26/s	56/30/s
Angel Fire	32/11/s	41/17/s
Artesia	47/27/s	65/33/s
Carlsbad	48/25/s	66/32/s
Chama	33/10/s	40/15/s
Clayton	43/24/s	53/25/s
Cloudcroft	33/16/pc	45/22/pc
Clovis	44/25/s	59/26/s
Deming	48/22/s	60/29/s
Espanola	43/23/s	52/25/s
Farmington	43/19/s	53/20/s
Gallup	45/16/s	53/19/s
Hobbs	48/27/s	64/30/s
Las Cruces	48/25/s	61/33/pc
Las Vegas	42/20/s	53/21/s
Los Alamos	37/21/s	46/24/s
Los Lunas	47/23/s	58/28/s
Lovington	48/26/s	63/31/s
Portales	45/26/s	59/25/s
Prewitt	42/17/s	50/17/s
Raton	41/19/s	52/19/s
Red River	32/12/s	39/15/s
Roswell	48/26/s	67/30/s
Ruidoso	40/25/s	52/27/pc
Santa Fe	42/21/s	51/25/s
Silver City	44/21/s	58/28/s
T or C	49/28/s	62/35/pc
Tucumcari	48/23/s	60/22/s
White Rock	40/22/s	49/24/s

W-weather, **s**-sunny, **pc**-partly cloudy, **c**-cloudy, **sh**-showers, **t**-thunderstorms, **r**-rain, **sf**-snow flurries, **sn**-snow, **i**-ice

National Cities

	Today Hi/Lo/W	Thu. Hi/Lo/W
Anchorage	26/11/c	21/5/sn
Atlanta	57/31/sh	48/32/s
Baltimore	56/39/r	45/27/pc
Boston	47/41/sh	53/30/r
Charlotte	68/35/pc	51/29/s
Chicago	33/20/sn	31/18/c
Cleveland	38/24/sn	28/20/sf
Dallas	48/31/s	59/37/s
Denver	39/23/s	43/25/pc
Detroit	34/21/sn	29/16/sf
El Paso	49/28/s	61/36/pc
Honolulu	82/69/s	81/68/sh
Houston	56/31/s	59/37/s
Indianapolis	34/19/sn	31/22/s
Kansas City	39/23/pc	49/29/pc
Las Vegas	62/44/s	71/47/pc
Los Angeles	82/55/s	86/59/pc
Lubbock	48/25/s	64/29/s

	Today Hi/Lo/W	Thu. Hi/Lo/W
Miami	86/64/sh	72/50/c
Midland	50/29/s	64/31/s
Minneapolis	26/14/c	26/15/pc
New Orleans	62/41/pc	56/39/s
New York	49/42/sh	45/27/pc
Omaha	36/22/pc	44/28/c
Orlando	82/53/t	64/41/s
Philadelphia	56/41/sh	44/27/pc
Phoenix	68/44/s	76/50/pc
Pittsburgh	48/23/r	29/20/sf
Portland, OR	58/36/c	61/37/s
Raleigh	69/39/pc	50/30/s
St. Louis	36/23/sf	44/29/s
Salt Lake City	47/30/pc	51/30/pc
San Diego	76/53/s	80/58/pc
Seattle	52/41/sh	57/38/pc
Tucson	63/38/s	74/46/pc
Washington, DC	59/39/r	48/30/s

U.S. Extremes

(For the 48 contiguous states)

High: 92° ..... Falfurrias, Texas

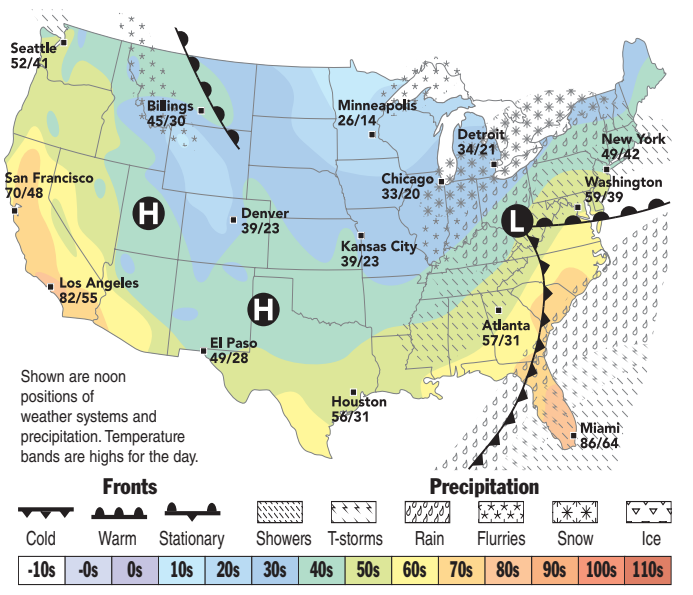
Low: -20° .. West Yellowstone, Mont.

State Extremes

High: 54° ..... Deming

Low: 2° ..... Angel Fire

National Cities



Disney CEO Bob Iger steps down in surprise announcement

By Mae Anderson and Tali Arbel
AP Business Writers

NEW YORK — Disney CEO Bob Iger, who steered the company's absorption of Star Wars, Pixar, Marvel and Fox's entertainment businesses and the launch of a Netflix challenger, is stepping down immediately, the company said in a surprise announcement Tuesday.

The Walt Disney Co. named as his replacement Bob Chapek, most recently chairman of Disney's parks, experiences and products business.

"Did not see this coming -- Wowza," tweeted LightShed media analyst Rich Greenfield.

Iger will remain executive chairman through the end of his contract on Dec. 31, 2021. Besides leading the board, Iger said he will spend more time on Disney's creative endeavors, including the ESPN sports network, the newly acquired Fox studios and the Hulu and Disney Plus streaming services. He said he could not do that while running Disney on a day-to-day basis.

"It was not accelerated for any particular reason other than I felt the need was now to make this change," Iger said on a conference call with reporters and analysts.

Iger steered Disney through the successful purchases of Lucasfilms, Marvel, Pixar and other brands that became big moneymakers for Disney. Last year, the top five movies in U.S. and Canada theaters were all Disney movies, including two from Marvel and one from Pixar. With the Dec. 20 release of the latest "Star Wars" movie, Disney had seven movies that each sold at least $1 billion in tickets worldwide last year.

Iger's most recent coup was orchestrating a $71 billion purchase of Fox's entertainment business in March and launching the Disney Plus streaming service in November. That service got nearly 29 million paid subscribers in less than three months. In a statement, Iger said it was the "optimal time" for a transition.

Pivotal Research Group analyst Jeffrey Wlodarczak said Iger had implied he would stay until his contract ended in 2021.

"On the other hand, they just successfully closed the Fox deal and had an unquestionably successful launch of Disney Plus so maybe he felt earlier was better to hand off the reins," he said.

Colin Gillis, director of research at Chatham Road Partners, said the choice of Chapek seems solid because his parks division has had success.

Chapek said that while he has not led television networks or streaming services, his background in consumer-oriented businesses should help. Chapek and Iger both stressed that Disney would continue on the direction it had already been taking.

Disney is facing challenges to its traditional media business as cord-cutting picks up, meaning less fees from cable and satellite companies to carry Disney networks such as ABC, ESPN and Freeform. Disney's own streaming services require the company to forgo money in licensing revenue, although the company is betting that money from subscriptions will eventually make up for that.

In the short term, Disney parks in Hong Kong and Shanghai, China, remain closed because of the coronavirus outbreak. In a CNBC interview, Chapek said the outbreak may be a "bump in the road," but he said the company could weather it given "affinity for the brand."

Iger told CNBC he had no plans to stay with Disney beyond next year.

Iger's appointment as CEO in 2005 had been accompanied by controversy and protest from dissident shareholders Roy E. Disney and Stanley Gold. But he has come to be seen as a golden-boy top executive, and even someone who could run for president.

Iger told Vogue in 2018 that he had started seriously exploring a run for president because he is "horrified at the state of politics in America today," but the Fox deal stopped his plans. Oprah Winfrey told Vogue that she "really, really pushed him to run."

Iger, a former weatherman, joined ABC in 1974, 22 years before Disney bought the network.

At ABC, Iger developed such successful programs as "Home Improvement," "The Drew Carey Show," and "America's Funniest Home Videos" and was instrumental in launching the quiz show "Who Wants to Be a Millionaire." He was also criticized for cancelling well-regarded but expensive shows such as "Twin Peaks" and "thirtysomething."

Since Iger became CEO, Disney's stock price has risen fivefold. Its stock fell more than 2% in extended trading following the announcement, on top of a broader market selloff on virus fears during regular trading.

Iger, 69, was the second-highest paid CEO in 2018, as calculated by The Associated Press and Equilar, an executive data firm. He earned $65.6 million. The top earner was Discovery's David Zaslav who earned $129.5 million.

Susan Arnold, the independent lead director of the Disney board, said succession planning had been ongoing for several years.

Chapek, 60, is only the seventh CEO in Disney history. Chapek was head of the parks, experiences and products division since it was created in 2018. He was previously head of parks and resorts and before that president of consumer products.

Hot Pockets heir gets 5 months in prison for college scam

By Alanna Durkin Richer
The Associated Press

BOSTON — An heir to the Hot Pockets fortune was sentenced to five months in prison Tuesday for trying to cheat and bribe her daughters' way into school as part of a nationwide college admissions scam.

Michelle Janavs, whose father and uncle invented the microwaveable Hot Pockets turnovers before selling their company, showed no emotion as the judge delivered his sentence after she apologized for abandoning her moral compass and hurting her family and friends.

"I am so very sorry that I tried to create an unfair advantage for my children," she said.

The judge told Janavs that prison time was needed to deter others who might have the gall to use their wealth to break the law and dismissed her argument that her actions were motivated by a love for her children.

The "vast majority of parents do not brazenly try to push their kids in the side door" of universities through bribery, U.S. District Judge Nathaniel Gorton said. "They don't love their children any less than you do. They just play by the rules of common decency and fair play."

Janavs, of Newport Coast, California, is among nearly two dozen prominent parents who have admitted to participating in the scheme by paying huge sums to people willing to cheat on entrance exams for their children or pretend their kids were star athletes for sports they didn't play.

Janavs admitted to paying the consultant at the center of the scheme, Rick Singer, $100,000 to have a proctor correct hertwo daughters' ACT exam answers. She also agreed to pay $200,000 to have one of her daughters labeled as a fake beach volleyball recruit at the University of Southern California but was arrested before the girl was formally admitted, prosecutors said.

Assistant U.S. Attorney Kristen Kearney asked for 21 months behind bars, telling the judge that Janavs showed a "flagrant disrespect for right and wrong and an attitude that she is untouchable."

"She believed she and her children were deserving of an illicit edge over other students and no one could stop her," Kearney said.

Janavs' lawyers portrayed her in court documents as a dedicated mother and philanthropist who fell for Singer's "manipulative sales tactics" because of the love for her children and stress of the hypercompetitive college admissions process.

They argued that the actions were out of character for Janavs, who after working for her father's company dedicated her life to volunteer work and charities to help underprivileged children.

"She is a truly good human being. She did an extremely wrong thing here," Thomas H. Bienert, Jr. told the judge.

Her family's company, Chef America, was sold to Nestle in 2002 for more than $2 billion.

NOTICE OF AIR QUALITY PERMIT APPLICATION

IACX Roswell LLC announces its application submittal to the New Mexico Environment Department for an air quality permit for the revision of its compressor station facility. The expected date of application submittal to the Air Quality Bureau is February 28, 2020.

The exact location of the facility known as Red Bluff No. 3 Compressor Station is at latitude 33 deg, 43 min, 15 sec and longitude -104 deg, 23 min, 13 sec. To reach the facility from Roswell, go north out of Roswell, N.M. on U.S. Highway 285 approximately 17.5 miles past the Roswell city limits sign to Red Bluff Road (just before Mile Marker 132). Turn right (East) on Red Bluff Road and go 0.5 miles to "Y" in road (just before road with cattle guard that goes to El Paso Natural Gas Co.). Turn left at "Y" in the road and go 10.3 miles on main traveled road to cross road. Turn left at cross road and go 0.7 miles. Turn right and go 0.4 miles. Turn left and go 100 yards to station site.

The approximate location of this facility is 23 miles north-northeast of Roswell in Chaves County.

The proposed revision consists of updates to emission source calculations.
The estimated maximum quantities of any regulated air contaminant will be as follows in pound per hour (pph) and tons per year (tpy) and could change slightly during the course of the Department's review:

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	1 pph	2 tpy
PM 10	1 pph	2 tpy
PM 2.5	1 pph	2 tpy
Sulfur Dioxide (SO2)	1 pph	3 tpy
Nitrogen Oxides (NOx)	31 pph	138 tpy
Carbon Monoxide (CO)	27 pph	117 tpy
Volatile Organic Compounds (VOC)	33 pph	92 tpy
Total sum of all Hazardous Air Pollutants (HAPs)	6 pph	19 tpy
Toxic Air Pollutant (TAP)	n/a	n/a
Green House Gas Emissions as Total CO2e	n/a	139,097 tpy

The standard and maximum operating schedules of the facility will be 24 hours a day, 7 days a week and a maximum of 52 weeks per year

The owner and/or operator of the Facility is: IACX Roswell, LLC; 5001 LBJ Freeway, Suite 300, Dallas, TX 75244

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

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

General information about air quality and the permitting process can be found at the Air Quality Bureau's web site. The regulation dealing with public participation in the permit review process is 20.2.72.206 NMAC. This regulation can be found in the "Permits" section of this web site.

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

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

LEGALS

Notice of Suit...

Publish February 26, March 4, 11, 2020

STATE OF NEW MEXICO
COUNTY OF CHAVES
FIFTH JUDICIAL DISTRICT COURT

No. D-504-CV-2019-00839

FINANCE OF AMERICA REVERSE LLC,

Plaintiff,

vs.

LUANNE HODSON, JAMES HODSON, AND SECRETARY OF HOUSING AND URBAN DEVELOPMENT,

Defendants.

NOTICE OF SUIT

TO: James Hodson

You are hereby notified that a civil action has been filed against you in the District Court of Chaves County, New Mexico, by Plaintiff, Finance of America Reverse LLC, in which Plaintiff prays for the foreclosure of its Note and Mortgage encumbering the real estate and improvements located at 1003 Bel Aire Drive Roswell, New Mexico, 88201, in Chaves County, New Mexico, and more particularly described as follows:

The South 100 feet of TRACT D in BLOCK EIGHT (8) of BEL-AIRE ESTATES NO. 1, a REDIVISION, in the City of Roswell, County of Chaves and State of New Mexico, as shown on the Official Plat filed in the Chaves County Clerk's Office on May 24, 1962 and recorded in Book D of Plat Records, Chaves County, New Mexico, at Page 15.

AND

A part of LOT EIGHT (8) in BLOCK 21 (TWENTY-ONE) of BERRENDO IRRIDATED FARMS, a SUBDIVISION, in the City of Roswell, County of Chaves and State of New Mexico, as shown on the Official Plat filed in the Chaves County Clerk's Office on October 17, 1910, of Plat Records, Chaves County, New Mexico and said part of Lot 8 being described as follows:

Beginning at a point of intersection of the North Right-of-way line of Bel-Aire Drive and the West line of Lot 8 in Block 21 of Berrendo Irrigated Farms, being the East line of Bel-Aire Estates No. 1, from which the Southwest corner of Lot 8 bears South 0° 18' West, a distance of 325 feet to the Southeast corner of Tract D of Bel-Aire Estates No. 1 and the true point of beginning; THENCE Northerly along the East line of said Tract D of Bel-Aire Estates No. 1, a distance of 100 feet; THENCE Easterly parallel to Bel-Aire Drive, extended a distance of 24 feet; THENCE Southerly parallel to the West line of Tract D of Bel-Aire Estates No. 1, a distance 80 feet; THENCE Southwesterly on a curve to the right with a radius of 20 feet to the intersection of the North Right-of-Way line of Bel-Aire Drive extended; THENCE Westerly along the North line of Bel-Aire Drive extended, a distance of 3.6 feet to the point of beginning,

including any improvements, fixtures, and attachments, such as, but not limited to, mobile homes. If there is a conflict between the legal description and the street address, the legal description shall control.

You are further notified that Plaintiff prays that the aforementioned real property be sold according to the law and practice of this Court to pay the mortgage lien held by Plaintiff, and that the interests of each Defendant, and all persons claiming under or through them, and all other persons bound by these proceedings, be barred and foreclosed of all rights, interests, and claims to the aforementioned real property, and for such other and further relief as the Court may deem just and proper.

You are further notified that unless you enter or cause to be entered your appearance or file responsive pleadings or motions in said cause within thirty (30) days of the third consecutive publication of this Notice of Suit, judgment will be rendered against each Defendant by default, and the relief prayed for by Plaintiff will be granted.

The name of the counsel for Plaintiff, Finance of America Reverse LLC, is Rose L. Brand & Associates, P.C., 7430 Washington Street, NE, Albuquerque, New Mexico 87109, Telephone:
5969-138-F 7353935.docx khr 3
(505) 833-3036.

BY ORDER OF The Honorable Thomas E. Lilley, District Judge of the Fifth Judicial District Court of the State of New Mexico, and the Seal of the District Court of Chaves County, entered on February 12, 2020.

Date: 2/14/2020 By: */s/ Janet Bloomer*
CLERK OF THE COURT

[SEAL]

Legal Notice...

Publish February 26, 2020

LEGAL NOTICE

Certificate of Results of Regular Local Election Held on November 5, 2019
In the Hagerman Municipal School District No. 6

General Obligation School Bond Question in an amount not to exceed $800,000

For: 78

Against: 19

This publication made in accordance with NMSA 1978, Section 22-18-10 and with the Certificate of Results on file with the County Clerk of Chaves County, New Mexico.

/s/ Ricky Williams
Superintendent of Schools
Hagerman Municipal School District No. 6

DWI Planning Council Meeting...

Publish February 26, 2020

The DWI Planning Council will be having a meeting on Thursday, March 5, 2020. The meeting will be held at 11:30 am in the Chaves County Sheriffs Training Room, located at the Chaves County Administrative Building at #1 St. Mary's Place in Roswell. The meeting is open to the public. For any additional information please call 575-624-6637.If you are an individual with a disability who is need of a reader, qualified sign language interpreter, or any form of auxiliary aid or service to attend or participate in the hearing of a meeting, please contact the DWI Coordinator at 575-624-6637or by email (lserrano@co.chaves.nm.us).

LEGALS

Air Quality Permit...

Publish February 26, 2020

NOTICE OF AIR QUALITY PERMIT APPLICATION

IACX Roswell LLC announces its application submittal to the New Mexico Environment Department for an air quality permit for the **revision** of its **compressor station** facility. The expected date of application submittal to the Air Quality Bureau is **February 28, 2020**.

The exact location of the facility known as Red Bluff No. 3 Compressor Station is at latitude 33 deg, 43 min, 15 sec and longitude -104 deg, 23 min, 13 sec. To reach the facility from Roswell, go north out of Roswell, N.M. on U.S. Highway 285 approximately 17.5 miles past the Roswell city limits sign to Red Bluff Road (just before Mile Marker 132). Turn right (East) on Red Bluff Road and go 0.5 miles to "Y" in road (just before road with cattle guard that goes to El Paso Natural Gas Co.). Turn left at "Y" in the road and go 10.3 miles on main traveled road to cross road. Turn left at cross road and go 0.7 miles. Turn right and go 0.4 miles. Turn left and go 100 yards to station site.

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LEGALS

Notice to Creditors...

Publish February 19, 26, March 4, 2020

STATE OF NEW MEXICO IN THE PROBATE COURT CHAVES COUNTY

IN THE MATTER OF THE ESTATE OF Donald Wayne Gray, DECEASED.

No. PB 2020 021

NOTICE TO CREDITORS

NOTICE IS HEREBY GIVEN that the undersigned has been appointed personal representative of the estate of the decedent. All persons having claims against the estate of the decedent are required to present their claims within four (4) months after the date of the first publication of any published notice to creditors or sixty (60) days after the date of mailing or other delivery of this notice, whichever is later, or the claims will be forever barred. Claims must be presented either to the undersigned personal representative at the address listed below, or filed with the Probate Court of Chaves County, New Mexico, located at the following address:
#1 St. Mary's Place, Ste #110, Roswell, NM 88203.
Dated: Feb. 13, 2020.

/s/ Dustin D. Devenport
503 West Hervey Dr.
(575) 420-3934
dustin.devenport@fbfs.com

LEGALS

Change of Name...

Publish February 26, March 4, 2020

STATE OF NEW MEXICO COUNTY OF CHAVES FIFTH JUDICIAL DISTRICT COURT

IN THE MATTER OF THE PETITION FOR NAME CHANGE OF Antelma Ceballos, Petitioner

Case#D-504-CV-2020-196

NOTICE OF CHANGE OF NAME

NOTICE IS GIVEN as required by NMSA 1978, §40-8-1 to §40-8-3 that the Petition for Name Change of the Petitioner Antelma Esparza shall come before the Honorable Dustin K. Hunter, District Judge of the Fifth Judicial District, Chaves County, New Mexico at the Chaves County Courthouse, 400 North Virginia Avenue, Roswell, New Mexico 88201 at 9:00 a.m. on the 7th day of April, 2020, where the Petitioner will request entry of an Order Changing Name changing the Petitioner's name from Antelma Esparza to Antelma Ceballos.

KATIE ESPINOZA
CLERK OF THE DISTRICT COURT

/s/ Katy Jessup
Clerk

Submitted By:
/s/ Antelma Esparza
410 S. Sycamore
Roswell, NM 88203
(575) 317-4397

LEGALS

Change of Name...

Publish February 26, March 4, 2020

STATE OF NEW MEXICO COUNTY OF CHAVES FIFTH JUDICIAL DISTRICT COURT

IN THE MATTER OF THE PETITION FOR NAME CHANGE OF Miguel Angel Perez, Petitioner

Case#D-504-CV-2020-202

NOTICE OF CHANGE OF NAME

NOTICE IS GIVEN as required by NMSA 1978, §40-8-1 to §40-8-3 that the Petition for Name Change of the Petitioner Miguel Angel Perez shall come before the Honorable Thomas E. Lilley, District Judge of the Fifth Judicial District, Chaves County, New Mexico at the Chaves County Courthouse, 400 North Virginia Avenue, Roswell, New Mexico 88201 at 9:00 a.m. on the 6th day of April, 2020, where the Petitioner will request entry of an Order Changing Name changing the Petitioner's name from Miguel Angel Perez to Tobias Angel Reed.

KATIE ESPINOZA
CLERK OF THE DISTRICT COURT

/s/ Diane Hernandez
Clerk

Submitted By:
/s/ Miguel Angel Perez
703 S. Sycamore
Roswell, NM 88203
(575) 520-3691

GARAGE SALES

005 South

5010 S. Main,1-5pm daily, open Sun, 75% off, Men Jeans, Storewide Sale 50%

007 West

MOVING YARD Sale! 1408 W Tilden St, Wed-Sun, 8-5. Tools, King Beds, knives, wheelchair, dinning table, china cabinet, misc.

025 Lost and Found

FOUND ON 2000 block of West Mescalero Road. Male terrier mix, blue collar, **his name is "JACK".** PLEASE CALL 575-840-8065

EMPLOYMENT OPPORTUNITIES

045 Employment Opportunities

CNA'S & CAREGIVERS Personal Care by Design is now accepting applications & resumes for full and part time positions. Must pass drug screen and background check. Must have phone and dependable transportation. Pick up applications at 217 N. Main Street or call 627-1112.

HVAC TECHNICIAN/ helper needed. Willing to learn, must pass drug screen, reliable. 626-1234

NONPROFIT LOOKING for a Co-Instructor to assist in exciting life skills program for middle school youth offered three days a week on-site at each if the four middle schools. Average group size approximately 22 or less. Both on-site and formal training provided in this evidenced-based program's methodology. Previous experience working with youth or a BSW preferred. Send resume to Wings for L.I.F.E., PO Box 640, Roswell, NM 88202

ALBUQUERQUE JOB CORPS is seeking a career transition specialist located in Roswell NM who provides career follow up for students. Requirements bachelors degree. To apply https//:abqhiring.com or call 505-222-4248 EOE

VACANCY: SALES Representative Tm-B Basic Function: Develops existing accounts by securing displays, selling authorized promotions, and setting up temporary promotional displays. Sells account sufficient product, and increase shelf facings for all products. Travels throughout the assigned territory to maintain relationships with purchasing contacts. Supervisory responsibilities include coordinating with drivers and merchandisers in area of responsibility. Minimum Requirements:
• A minimum of 2 YEARS related field or progressive sales/delivery experience.
• Effective written and verbal communication skills are required.
• Have the ability to work under minimal supervision.
• Performs other related duties as assigned.

LOCAL PEST Control Company Accepting Applications for a Full Time Pest Control Technician Position Apply In Person At 1206 W. Hobbs

045 Employment Opportunities

CARRIER NEEDED in the city of Roswell, please contact Roswell Daily Record, Ashley Hudson 575-622-7730

LOOKING FOR self-motivated service; home, commercial, & janitorial cleaning representatives. Must be honest, reliable, & punctual. 575-420-5388 or 575-910-9140

IS NOW HIRING all postions
Apply in person between the hours of 2-4pm. 1113 N. Main St. in Roswell, NM

IS NOW HIRING for all positions. Apply in person between the hours of 2-4pm.1315 N. Main St. in Roswell, NM

IS NOW HIRING ALL POSITIONS
Apply in person between the hours of 2-4pm. 1208 N. Main St. in Roswell, NM

ALUTIIQ MANAGEMENT Services, LLC at Roswell Job Corps Center is currently hiring for the following positions:

TEAP Specialist, full time, benefits. Must have active, unrestricted substance abuse license or certification that meets the minimum state licensing or certification requirements to practice in the state of NM.
Career Preparation Specialist (CP Specialist) full time, benefits. Bachelor degree, preferably in social science and 2 years' experience in related field.
Substitute Academic Instructor – full time, benefits. High School Diploma with college credits. Will facilitate academic instruction to students in the absence of the instructor in a one-to-one setting.
Human Resources Manager, full time, benefits. Bachelor's Degree in related field and 4 years of relevant experience.
Manager of Security and Safety, full time, benefits. 3 years of safety and security work related experience in addition to supervisory experience.
Security Supervisor, full time, benefits. 2 years of related experience.
Part-Time Recreation Specialist, Associates of Arts degree or 1 year of related experience working with youth.
Driver, full time, benefits, must have a CDL with passenger endorsement.
Custodian/Grounds Keeper, full time, benefits.
HSD/HSE required, 2 years of related experience preferred.
Maintenance Technician, full time, benefits.
HSD/HSE, Minimum 2 years' experience in the field of facilities/building maintenance.
Residential Advisor, full time, benefits. Assists in the supervision of the dormitory areas and assists students in their daily living needs.

Candidates may apply at: www.Roswellhiring.com
Contact information: Roswell Human Resources Department, 575-347-7437.
Alutiiq Management Services, LLC is an Equal Opportunity Employer

HOCKER & SON's is looking for a Heavy Equipment Diesel Mechanic. This position is a full time position with great pay and benefits!! Must have 5 years' experience to apply. Email: adia@hockerandsons.com or call Rocky at 970-749-0391

PART TIME dishwasher and part time cook, see Sergio 9 to 11am, Elks Lodge 1720 N. Montana, No Phone Calls

FULL TIME responsible & mature person for office, duties include dispatch, bookkeeping, knowledge of computers, apply in person at 708 S. Lea, Roswell, NM 88203, Monday to Friday, 8am-12pm to 1pm-5pm,

THE DISTRICT Attorney's Office in Roswell has an opening for an experienced receptionist who has excellent computer skills. Employment record must reflect excellent attendance, good interpersonal and organizational skills. Starting salary $14.25/hour. Position will remain open until filled. Please send resume to khernandez@da.state.nm.us or mail to: Kristine Hernandez at 400 N. Virginia Ave., Ste. G-2, Roswell, NM 88201.

140 Cleaning

JD CLEANING Service, Licensed and bonded. References 623-4252

PRO CLEANERS, LLC Quality Cleaning Service Lic., Bonded & Insured 575-914-0357

CLEANING ANGELS Pricilla & Ernie 575-910-9140, 420-5388 Free Estimates *Commercial and Residential cleaning. 16 years experience. Insured and Bonded!

185 Electrical

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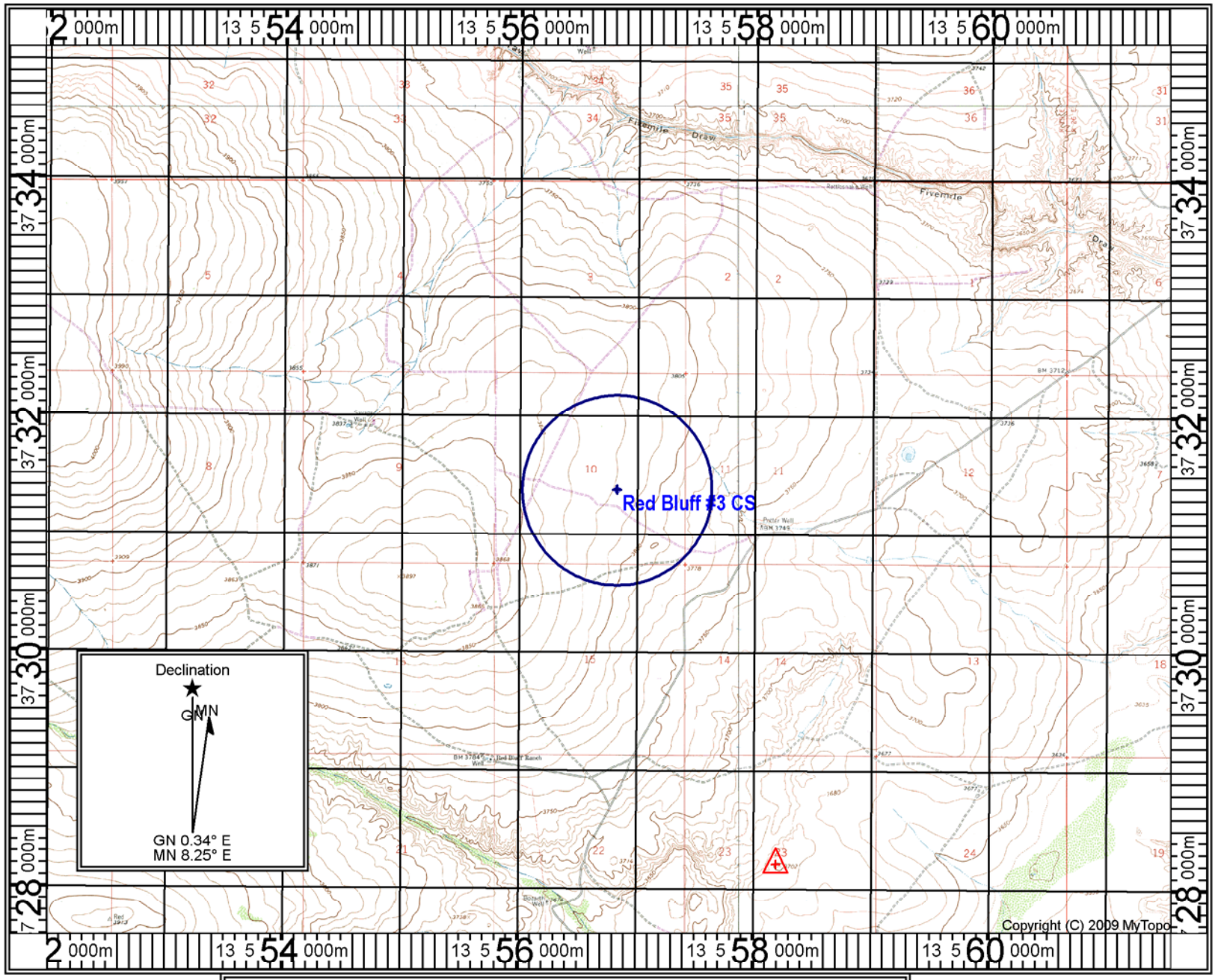

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Section 10

Written Description of the Routine Operations of the Facility

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

The Red Bluff No. 3 natural gas compressor station is part of a localized gas gathering system that gathers sweet field gas from multiple wells in the area. The SIC code for the facility is 4922. The facility is located in Section 10, Township 7 South, Range 25 East in Chaves County. The proposed revision seeks to include the provisions listed in Condition A112 of the TV Permit P073-R3M2 along with e-mail correspondence from Dr. James E. Nellessen received on October 3, 2019.

Equipment currently authorized at the site includes Units C-865 and C-880, Caterpillar G3516 compressor engines; Units C-867 and C-868, Waukesha L7042GSI compressor engines; Unit C-878, a Superior 8GTLA compressor engine; Unit C-320, rinse compressor engine; and two Capstone C65 microturbines (units CAP-1 and CAP-2). A 1.0 MMBtu/hr glycol dehydration unit reboiler (unit Rebl-1), and one glycol dehydration contactor (unit Dehy-1); a nitrogen rejection unit; and related ancillary equipment typically located at compressor stations. The five nitrogen rejection units were added to the facility via an exemption form in September 2017. The nitrogen rejection units will feed to the helium recovery unit, unit HRU. The helium recovery unit will recover 97% of the helium and 3% of the N_2 in the gas stream.

Each compressor engine at the site is authorized to operate continuously at the design maximum capacity horsepower listed in the application. These engines will provide a maximum production capacity that is dependent upon the suction and discharge pressures at the facility, the number of wells connected to the facility, and the gas deliverability that each well provides the site. The Waukesha engines and the Caterpillar CG137-12 engine are equipped with catalytic converters. All of the compressor engines are turbocharged and are not derated per current NMED policy.

The facility is authorized to operate continuously (8,760 hr/yr) at design maximum capacity processing rates. IACX will minimize startup and shutdown activities at the facility in accordance with good operating principles and business objectives. This practice will serve to minimize total annual excess emissions from the facility due to startup, shutdown, and maintenance activities.

Section 11
Source Determination

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

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

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

A. Identify the emission sources evaluated in this section (list and describe)**:**
Please see Section 2.

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

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

☑ **Yes** ☐ **No**

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

☑ **Yes** ☐ **No**

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

☑ **Yes** ☐ **No**

C. Make a determination:

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

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

Section 12

Section 12.A
PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

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

A. This facility is:

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

B. **This facility [is or is not] one of the listed 20.2.74.501 Table I – PSD Source Categories. The "project" emissions** for this modification are **[significant or not significant]. [Discuss why.] The "project" emissions listed below [do or do not] only result from changes described in this permit application, thus no emissions from other [revisions or modifications, past or future] to this facility. Also, specifically discuss whether this project results in "de-bottlenecking", or other associated emissions resulting in higher emissions. The project emissions (before netting) for this project are as follows [see Table 2 in 20.2.74.502 NMAC for a complete list of significance levels]:**

a. **NOx: XX.X TPY**
b. **CO: XX.X TPY**
c. **VOC: XX.X TPY**
d. **SOx: XX.X TPY**
e. **PM: XX.X TPY**
f. **PM10: XX.X TPY**
g. **PM2.5: XX.X TPY**
h. **Fluorides: XX.X TPY**
i. **Lead: XX.X TPY**
j. **Sulfur compounds (listed in Table 2): XX.X TPY**
k. **GHG: XX.X TPY**

N/A – Currently, the facility is considered a PSD minor source. With this permit application, the facility will remain a PSD minor source.

Section 13

Determination of State & Federal Air Quality Regulations

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

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

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

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

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

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

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

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

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

Table for STATE REGULATIONS:

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.1 NMAC	General Provisions	Yes	Facility	Red Bluff No. 3 operates under NSR Permit 0412-M3-R10 and therefore this regulation applies.
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	Yes	Facility	20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. The facility meets maximum allowable concentrations of the TSP, SO_2, H_2S, NO_x, and CO under this regulation.
20.2.7 NMAC	Excess Emissions	Yes	Facility	This regulation establishes requirements for the facility if operations at the facility result in any excess emissions. The owner or operator will operate the source at the facility having an excess emission, to the extent practicable, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. The facility will also notify the NMED of any excess emission per 20.2.7.110 NMAC.
20.2.33 NMAC	Gas Burning Equipment - Nitrogen Dioxide	No	N/A	This facility does not have existing gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. The facility is not subject to this regulation and does not have emission sources that meet the applicability requirements under 20.2.33.108 NMAC.
20.2.34 NMAC	Oil Burning Equipment: NO_2	No	N/A	This facility does not have oil burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. The facility is not subject to this regulation and does not have emission sources that meet the applicability requirements under 20.2.34.108 NMAC.
20.2.35 NMAC	Natural Gas Processing Plant – Sulfur	No	N/A	This facility is not a natural gas processing plant, as defined in the regulation [20.2.35.7 NMAC]. This regulation is to establish sulfur emissions standards for natural gas processing plants [20.2.35.6 NMAC]. As this facility is not defined as a natural gas processing plant under this regulation, the facility is not subject to this regulation.
20.2.37 and 20.2.36 NMAC	Petroleum Processing Facilities and Petroleum Refineries	No	N/A	This facility not a natural gas or petroleum processing facility, as defined in the regulation [20.2.37.7 NMAC]. This regulation is to minimize emissions from petroleum or natural gas processing facilities [20.2.37.6 NMAC]. As this facility is not defined as a natural gas or petroleum processing facility, the facility is not subject to this regulation.
20.2.38 NMAC	Hydrocarbon Storage Facility	No	N/A	There are no tanks or tank batteries that meet the storage capacity and weekly throughput requirements that would trigger this requirement. The throughput for this facility is less than the 10,000 barrel per year threshold. There are also no tank batteries having a capacity greater than 50,000 barrels or new tank batteries with a capacity greater than 65,000 gallons. [20.2.38.109 NMAC][20.2.38.110 NMAC] [20.2.38.111 NMAC] [20.2.38.112 NMAC].
20.2.39 NMAC	Sulfur Recovery Plant - Sulfur	No	N/A	This regulation establishes sulfur emission standards for sulfur recovery plants which are not part of petroleum or natural gas processing facilities. This regulation does not apply to this facility because it does not have elements of a sulfur recovery plant present.
20.2.61.109 NMAC	Smoke & Visible Emissions	Yes	C-865, C-867, C-868, C-878, C-880, C-320, FUG, CAP-1, CAP-2	This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC). **If equipment at your facility was subject to the repealed regulation 20.2.37 NMAC it is now subject to 20.2.61 NMAC.** This facility has engines and turbines, which meet the definition of stationary combustion equipment as defined in 20.2.61.7.D and are therefore subject to this regulation.
20.2.70 NMAC	Operating Permits	Yes	Facility	Red Bluff No. 3 operates under TV P073-R2M3 and is a major source for NO_X and CO. Therefore, the facility is subject to this regulation and 20.2.71 NMAC.
20.2.71 NMAC	Operating Permit Fees	Yes	Facility	Red Bluff No. 3 is subject to 20.2.70 NMAC, therefore it is subject to 20.2.71 NMAC.

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.72 NMAC	Construction Permits	Yes	Facility	This regulation establishes the requirements for obtaining a construction permit. The facility is a stationary source that has potential emission rates great than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Air Quality Standard. The facility has a construction permit (NSR Permit) 0412-M3-R10 to meet the requirements of this regulation.
20.2.73 NMAC	NOI & Emissions Inventory Requirements	Yes	Facility	This regulation establishes emission inventory requirements. The facility meets the applicability requirements of 20.2.73.300 NMAC. The facility will meet all applicable reporting requirements under 20.2.73.300.B.1 NMAC.
20.2.74 NMAC	Permits – Prevention of Significant Deterioration (PSD)	No	N/A	This regulation establishes requirements for obtaining a prevention of significant deterioration permit. Facility-wide emission rates are below PSD-major thresholds. This regulation does not apply.
20.2.75 NMAC	Construction Permit Fees	Yes	Facility	This regulation establishes the guidelines and requirements for construction permitting fees. This facility is subject to this regulation as 20.2.72 NMAC also applies.
20.2.77 NMAC	New Source Performance	Yes	C-320	This regulation establishes state authority to implement NSPS for stationary sources subject to 40 CFR 60. Unit C-320 is subject to NSPS JJJJ and Subpart A.
20.2.78 NMAC	Emission Standards for HAPS	No	N/A	This regulation establishes state authority to implement emission standards for hazardous air pollutants subject to 40 CFR Part 61, as amended through December 31, 2010. This facility does not emit hazardous air pollutants which are subject to the requirements of 40 CFR Part 61 and is therefore not subject to this regulation.
20.2.79 NMAC	Permits – Nonattainment Areas	No	N/A	This regulation establishes the requirements for obtaining a nonattainment area permit. The facility is not located in a non-attainment area and therefore is not subject to this regulation.
20.2.80 NMAC	Stack Heights	No	N/A	This regulation establishes requirements for the evaluation of stack heights and other dispersion techniques. This regulation does not apply as all stacks at the facility follow good engineering practice.
20.2.82 NMAC	MACT Standards for source categories of HAPS	Yes	C-865, C-867, C-868, C-878, C-880, C-320, Dehy-1	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63. Units C-865, C-867, C-868, C-878, C-880 are subject to MACT ZZZZ. Unit C-320 is in compliance with MACT ZZZZ by being subject to NSPS JJJJ requirements. The dehydrator still vent/flash tank is subject to MACT HH.

Table for Applicable FEDERAL REGULATIONS:

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 50	NAAQS	Yes	Facility	This regulation defines national ambient air quality standards. The facility meets all applicable national ambient air quality standards for NO_x, CO, SO_2, H_2S, PM_{10}, and $PM_{2.5}$ under this regulation.
NSPS 40 CFR 60, Subpart A	General Provisions	Yes	C-320	This regulation defines general provisions for relevant standards that have been set under this part. NSPS 40 CFR 60, Subpart A applies to Unit C-320 because the engine is subject to NSPS JJJJ requirements.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR60.40a, Subpart Da	Subpart Da, Performance Standards for **Electric Utility Steam Generating Units**	No	N/A	This regulation establishes standards of performance for electric utility steam generating units. This regulation does not apply because the facility does not operate any electric utility steam generating units.
NSPS 40 CFR60.40b Subpart Db	**Electric Utility Steam Generating Units**	No	N/A	This regulation establishes standards of performance for industrial-commercial-institutional steam generating units. There are no steam generating units that commenced construction, modification, or reconstruction after June 19, 1984, and that have a heat input capacity greater than 100 MMBtu/hr at the facility.
40 CFR 60.40c, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	No	N/A	This regulation establishes standards of performance for small industrial-commercial-institutional steam generating units. This facility does not have steam-generating units and therefore this subpart does not apply.
NSPS 40 CFR 60, Subpart Ka	Standards of Performance for **Storage Vessels for Petroleum Liquids** for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and **Prior** to July 23, 1984	No	N/A	This regulation establishes performance standards for storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978, and prior to July 23, 1984. There are no regulated tanks at the facility; therefore, this subpart does not apply.
NSPS 40 CFR 60, Subpart Kb	Standards of Performance for **Volatile Organic Liquid Storage Vessels** (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced **After** July 23, 1984	No	N/A	This facility does not have storage vessels with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. Therefore, this subpart does not apply.
NSPS 40 CFR 60.330 Subpart GG	**Stationary Gas Turbines**	No	N/A	This regulation establishes standards of performance for certain stationary gas turbines. The Capstone C65 microturbines have a calculated heat input of 0.84 MMBtu/hr which is less than the 10 MMBtu/hour threshold. This regulation does not apply.
NSPS 40 CFR 60, Subpart KKK	Leaks of VOC from **Onshore Gas Plants**	No	N/A	This regulation establishes standards of performance for equipment leaks of VOC from onshore natural gas processing plants for which construction, reconstruction, or modification commenced after January 20, 1984, and on or before august 23, 2011. The facility is not a natural gas processing plant as defined in this regulation [40 CFR Part 60.631]. This regulation does not apply because this facility does not meet the definition of a natural gas processing plant as stated in the regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR Part 60 Subpart LLL	Standards of Performance for **Onshore Natural Gas Processing**: SO_2 Emissions	No	N/A	This regulation does not apply because this facility does not meet the definition of a natural gas processing plant as stated in the regulation.
NSPS 40 CFR Part 60 Subpart OOOO	Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which construction, modification or reconstruction commenced after August 23, 2011 and before September 18, 2015	No	N/A	This regulation establishes standards of performance for crude oil and natural gas production, transmission and distribution. The facility does not have any affected units that have been modified or reconstructed on or after August 23, 2011 and before September 18, 2015. [40 CFR 60.5360 (Subpart OOOO)]
NSPS 40 CFR Part 60 Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	No	N/A	This regulation establishes standards of performance for crude oil and natural gas production, transmission and distribution. The facility does not have any affected units that have been modified or reconstructed on or after September 18, 2015. [40 CFR 60.5360 (Subpart OOOO)]
NSPS 40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Yes	C-320	This regulation establishes standards of performance for stationary spark ignition combustion engines. Unit C-320, present at this facility commenced construction after June 12, 2006, therefore this regulation applies.
NESHAP 40 CFR 61 Subpart A	General Provisions	No	N/A	NESHAP 40 CFR 61 does not apply to the facility because the facility does not emit or have the triggering substances on site and/or the facility is not involved in the triggering activity. The facility is not subject to this regulation. None of the subparts of Part 61 apply to the facility.
NESHAP 40 CFR 61 Subpart E	National Emission Standards for **Mercury**	No	N/A	This regulation establishes a national emission standard for mercury. The facility does not have stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge [40 CFR Part 61.50]. The facility is not subject to this regulation.
NESHAP 40 CFR 61 Subpart V	National Emission Standards for **Equipment Leaks** (Fugitive Emission Sources)	No	N/A	This regulation establishes national emission standards for equipment leaks (fugitive emission sources). The facility does not have equipment that operates in volatile hazardous air pollutant (VHAP) service [40 CFR Part 61.240]. The regulated activities subject to this regulation do not take place at this facility. The facility is not subject to this regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
MACT 40 CFR 63, Subpart A	General Provisions	Yes	C-865, C-867, C-868, C-878, C-880, C-320, Dehy-1	This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63. Units C-865, C-867, C-868, C-878, C-880 are subject to MACT ZZZZ. Unit C-320 is in compliance with MACT ZZZZ by being subject to NSPS JJJJ requirements. The dehydrator still vent/flash tank is subject to MACT HH.
MACT 40 CFR 63.760 Subpart HH	**Oil and Natural Gas Production Facilities**	Yes	Dehy-1	This subpart applies to owners and operators of emissions points including glycol dehydration units, and storage vessels with the potential for flash emissions This facility is subject to the requirements of 40 CFR 63 Subpart HH, which includes requirements applicable to area sources with TEG Dehydrators. The site is not a major source of hazardous air pollutants (HAPs) but an area source of HAPs and therefore subject to this subpart.
MACT 40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (**RICE MACT**)	Yes	C-865, C-867, C-868, C-878, C-880, C-320	This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. There are six internal combustion engines at this facility; therefore, this subpart applies.
40 CFR 64	**Compliance Assurance Monitoring**	Yes	C-867, C-868	Red Bluff No. 3 is a major source for NO_X and CO and therefore this regulation applies. Both units are installed with a catalytic converter.
40 CFR 68	**Chemical Accident Prevention**	No	N/A	The facility is not an affected facility because it does not have quantities of materials regulated by 40 CFR Part 68 that are in excess of the triggering threshold.
Title IV – Acid Rain 40 CFR 72	**Acid Rain**	No	N/A	This part establishes the acid rain program. This part does not apply because the facility is not covered by this regulation [40 CFR Part 72.6].
Title IV – Acid Rain 40 CFR 73	**Sulfur Dioxide** Allowance Emissions	No	N/A	This part establishes the acid rain program. This part does not apply because the facility is not covered by this regulation.
Title IV – Acid Rain 40 CFR 76	**Acid Rain** Nitrogen Oxides **Emission Reduction Program**	No	N/A	This part establishes the acid rain program. This part does not apply because the facility is not covered by this regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
Title VI – 40 CFR 82	Protection of **Stratospheric Ozone**	No	N/A	The facility does not “service”, “maintain” or “repair” class I or class II appliances nor “disposes” of the appliances. Note: Disposal definition in 82.152: Disposal means the process leading to and including: (1) The discharge, deposit, dumping or placing of any discarded appliance into or on any land or water; (2) The disassembly of any appliance for discharge, deposit, dumping or placing of its discarded component parts into or on any land or water; or (3) The disassembly of any appliance for reuse of its component parts. “Major maintenance, service, or repair means” any maintenance, service, or repair that involves the removal of any or all of the following appliance components: compressor, condenser, evaporator, or auxiliary heat exchange coil; or any maintenance, service, or repair that involves uncovering an opening of more than four (4) square inches of “flow area” for more than 15 minutes.

Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

☐ **Title V Sources** (20.2.70 NMAC)**:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☑ **NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☑ **Title V** (20.2.70 NMAC)**, NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.

Startup and shutdown procedures are either based on manufacturer's recommendations or based on IACX's experience with specific equipment. These procedures are designed to proactively address the potential for malfunction to the greatest extent possible. These procedures dictate a sequence of operations that are designed to minimize emissions from the facility during events that result in shutdown and subsequent startup.

Equipment located at this facility is equipped with various safety devices and features that aid in the prevention of excess emissions in the event of an operational emergency. If an operational emergency does occur and excess emissions occur IACX will submit the required Excess Emissions Report per 20.2.7 NMAC if any emissions occur beyond the requested total SSM emission limit. Corrective action to eliminate the excess emissions and prevent recurrence in the future will be undertaken as quickly as safety allows.

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

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

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

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

N/A – There are no alternative operating scenarios for this facility.

Section 16

Air Dispersion Modeling

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

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

Check each box that applies:

☐ See attached, approved modeling **waiver for all** pollutants from the facility.

☐ See attached, approved modeling **waiver for some** pollutants from the facility.

☐ Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.

☐ Attached in UA4 is a **modeling report for some** pollutants from the facility.

☑ No modeling is required.

Emissions are only increasing for VOCs from NSR 0412-M3R10 and stack parameters will remain unchanged. Therefore, modeling is not required.

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Compliance Test History Table

Unit No.	Test Description	Test Date
C-867	Tested in accordance with EPA test methods for NOx and CO as required by NSR permit 0412-M3-R10.	12/16/2019, 10/8/2019, 5/28/2019, 2/4/2019, 8/14/2018, 5/17/2018, 3/21/2018
C-868	Tested in accordance with EPA test methods for NOx and CO as required by NSR permit 0412-M3-R10.	10/10/2019, 5/28/2019, 6/22/2018, 3/21/2018
C-880	Tested in accordance with EPA test methods for NOx and CO as required by NSR permit 0412-M3-R10.	2/5/2019
C-865	Tested in accordance with EPA test methods for NOx and CO as required by NSR permit 0412-M3-R10.	10/24/2018
C-878	Tested in accordance with EPA test methods for NOx and CO as required by NSR permit 0412-M3-R10.	10/25/2018

Section 20

Other Relevant Information

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

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

No other relevant information is being submitted with this application.

Section 22: Certification

Company Name: IACX Roswell LLC

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

Signed this 22 day of February, 2020, upon my oath or affirmation, before a notary of the State of Texas.

*Signature

22/02/20
Date

Tony Hines
Printed Name

Sr. V.P. of Operations
Title

Scribed and sworn before me on this 27th day of February, 2020.

My authorization as a notary of the State of Texas expires on the 28th day of February, 2020.

Notary's Signature

1-28-2024
Date

Kimberly Capler
Notary's Printed Name

KIMBERLY ELAINE CAPLES
Notary Public, State of Texas
Comm. Expires 01-28-2024
Notary ID 1981653

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