

EOG Resources, Inc.

P.O. Box 592929 San Antonio, TX 78259-0196

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May 2, 2024

Texas Commission on Environmental Quality (TCEQ) Air Permits Initial Review Team (APIRT), MC 161

Office of Permitting, Remediation, and Registration Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087

Re: Revision to Permit by Rule Registration No. 118743 30 TAC §106.4, §106.352, and §106.492 EOG Resources, Inc., CN600124333 Hoff G&H Telluride Production Facility, RN107202129 Los Angeles, La Salle County

Attn: APIRT

On behalf of EOG Resources, Inc., I am submitting the enclosed Permit by Rule (PBR) revision for the Hoff G&H Telluride Production Facility in La Salle County, Texas under 30 Texas Administrative Code (TAC) §106.4, §106.352, and §106.492. The Hoff G&H Telluride Production Facility is currently authorized under Permit No. 118743. With this application, EOG is:

- Revising the name of the Facility to Hoff G&H Telluride Production Facility (a TCEQ Core Data Form is being submitted separate of this application),
- Removing service of 4 oil storage tanks and 1 produced water storage tank,
- Converting one oil tank to a water tank,
- Revising the control efficiency of the VRU system and adding a blower as part of the tank vapor capture system,
- Adding one heater treater, which may be added in the future,
- Revising production to reflect current conditions at the Facility,
- Adjusting fugitive component estimates and associated emissions, and
- Using BRE ProMax for process simulation to estimate emission rates from the flares (EPN FL-1) and loading
 operations (EPN LOAD).

The attached PI-7-CERT and administrative documents, including required TCEQ forms and technical documents, are submitted in support of this registration. EOG does not wish to register and certify MSS emissions, which are authorized under 106.359. EOG acknowledges the emission limits of 106.4, and these emission limits will not be exceeded. Records will be retained as required to demonstrate compliance with 106.4, 106.352, 106.359, and 106.492.

If you have any questions, please call me at (210) 409-3488.

Sincerely,

latthew Zider

Matthew Zidek Senior Safety and Environmental Specialist

Attachments

energy opportunity growth



TCEQ Core Data Form

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

SECTION I: General Information

New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)					
e Change					
e Number <i>(if issued)</i>					
Regulated Entity Ownership					
rent and active with the					
us Customer below:					
10. DUNS Number (if applicable)					
I 🔲 Limited					
and Operated?					
ollowing:					
ZIP + 4					
ZIP + 4					
ZIP + 4					
ZIP + 4 (if applicable)					

SECTION III: Regulated Entity Information

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

 □ New Regulated Entity
 ☑ Update to Regulated Entity Name
 □ Update to Regulated Entity Information

 The Regulated Entity
 ☑ New Regulated Entity
 ☑ update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC.)

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

Hoff G&H Telluride Production Facility

23. Street Address of the Regulated Entity:									
(No PO Boxes)	City		State		ZIP			ZIP + 4	
24. County	La Salle								
	Ent	er Physical Lo	ocation Description	on if no str	eet address is	s provided.			
25. Description to FROM LOS ANGELES, TRAVEL 3 MILES WEST ON SH 97 TO THE ENTRA ON THE LEFT. ON THE LEFT.						TRANCE			
26. Nearest City						State		Nea	rest ZIP Code
Los Angeles						Tx		780)14
27. Latitude (N) In Deci	mal:			28	. Longitude (V	V) In Decin	nal:		
Degrees	Minutes		Seconds	Deg	grees	Minute	s		Seconds
29. Primary SIC Code (4 d	ligits) 30.	Secondary SI	Code (4 digits)	31. Prin (5 or 6 dig	nary NAICS Co	ode 3	32. Secor 5 or 6 digits	ndary NAI	CS Code
1311				21112	0				
33. What is the Primary E	Business of t	his entity?	Do not repeat the SIC o	or NAICS des	cription.)				
				PO	Box 592929				
34. Mailing									
Address:	City	San Anton	io State	ТХ	ZIP	78259	9	ZIP + 4	
35. E-Mail Address									
36. Telepho	one Number		37. Extens	ion or Cod	e	38. Fax	Number	(if applica	able)
()	-						()	-	
39. TCEQ Programs and ID orm. See the Core Data Form ir	Numbers Ch Instructions for a	eck all Programs additional guidan	and write in the perr	mits/registra	tion numbers tha	at will be affecte	ed by the ι	updates sub	omitted on this
Dam Safety	Districts		Edwards Aquif	er	Emissions	Inventory Air	🗌 Ir	ndustrial Ha	zardous Waste
						a . – .			
Municipal Solid Waste	New Source Review Air OSSF				Storage Tank		WS		
	Storm Water		Title V Δir					Ised Oil	
Voluntary Cleanup	Waste W	ater	Wastewater Ag	griculture	Water Righ	its		Other:	
				-	0				
			1						

SECTION IV: Preparer Information

40. Name:	Matthew Zi	dek		4	41. Title:	Safety & Environmental Specialist
42. Telephone Number 43. Ext./Code 44. Fax Number 45. E-Mail Address			Address			
(210)409-3488			() -		matthew	_zidek@eogresources.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	EOG Resources, Inc	Job Title:	Safety &	Environmenta	l Specialist
Name(In Print) :	Matthew Zidek			Phone:	(210) 409-3488
Signature:				Date:	



Texas Commission on Environmental Quality

Hoff G&H Telluride Production Facility

PI-7-CERT Update to Registration for PBR §106.4, §106.352, §106.492 Permit No. 118743 Los Angeles, La Salle County Regulated Entity No.: RN107202129 Customer No.: CN600124333

Prepared by Matthew Zidek April 2024

I. Registrant Information						
A Company or Other Legal Custo	mer Name: EC	G Resources Inc				
B Company Official Contact Infor	$\frac{1}{2} \text{Company Official Contact Information } (X Mr \square Mrs \square Ms \square Other)$					
Name: Matthew Zidek				_/		
Title: Senier Sefety and Environmental	Craciolist					
Molling Address: P.O. Box 502020	Specialist					
Mailing Address: P.O. Box 592929	Otatas Taura					
	State: Texas		ZIP Code: 78259			
Phone: 210-409-3488		Fax:				
E-mail Address: matthew_zidek@eog	resources.com					
All PBR registration responses will b	e sent via e-ma	ail				
C. Technical Contact Information	🛛 Mr. 🗌 Mrs	. 🗌 Ms. 🗌 Other		_)		
Name: Matthew Zidek						
Title: Senior Safety and Environmental	Specialist					
Company Name: EOG Resources, Inc						
Mailing Address: P.O. Box 592929						
City: San Antonio	State: Texas		ZIP Code: 78259			
Phone: 210-409-3488		Fax:	· ·			
E-mail: matthew_zidek@eogresources	s.com					
II. Facility and Site Informatio	n					
A. Name and Type of Facility						
Facility Name: Hoff G&H Telluride Pro	duction Facility					
Type of Facility:	⊠ Permanent		Temporary			
For portable units, please provide the	e serial number	of the equipment beir	ng authorized below.			
Serial No:		Serial No:				
B. Facility Location Information						
Street Address:						
If there is no street address, provide county, and ZIP code for the site (att	If there is no street address, provide written driving directions to the site and provide the closest city or town, county, and ZIP code for the site (attach description if additional space is needed).					
FROM LOS ANGELES, TRAVEL 3 MIL	ES WEST ON S	H 97 TO THE ENTRANG	CE ON THE LEFT.			
City: Los Angeles	County: La Sal	le	ZIP Code: 78014			

TCEQ-20182 (APDG 5379v25, revised 07/19) PI-7-CERT This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

II. Facility and Site Information (continued)				
C. TCEQ Core Data Form				
Is the Core Data Form (TCEQ Form Number 10400) atta	ached?	□ YES 🖾 NO		
If "NO," provide customer reference number (CN) and re	egulated entity number (RN) below.			
Customer Reference Number (CN): CN600124333				
Regulated Entity Number (RN): RN107202129				
D. TCEQ Account Identification Number (if known):				
E. Type of Action:				
□ Initial Application ⊠ Change to Registration				
For Change to Registration provide the Registration Nur	nber: 118743			
F. PBR number(s) claimed under 30 TAC Chapter 10)6			
(List all the individual rule number(s) that are being clain	ned.)			
106. 4	106.359			
106. 352	106.			
106. 492	106.			
G. Historical Standard Exemption or PBR				
Are you claiming a historical standard exemption or PBF	₹?			
If "YES," enter rule number(s) and associated effective of	date in the spaces provided below.			
Rule Number(s)	Effective Date			
H. Previous Standard Exemption or PBR Registration	Number			
Is this authorization for a change to an existing facility post standard exemption or PBR?	reviously authorized under a	X YES 🗌 NO		
If "YES," enter previous standard exemption number(s) effective dates in the spaces provided below.	and PBR registration number(s), and	d associated		
Standard Exemption and PBR Registration Number(s) Effective Date				
PBR Registration No. 118743				

II. Facility and Site Information (continued)				
I. Other Facilities at this Site Authorized by Standard Exemption, PBR, or Standard	Permit			
Are there any other facilities at this site that are authorized by an Air Standard Exemption PBR, or Standard Permit?	on, 🗌 YES 🗵 NO			
If "YES," enter standard exemption number(s), PBR registration number(s), and Standa number(s), and associated effective date in the spaces provided below.	ard Permit registration			
Standard Exemption, PBR Registration, and Standard Permit Registration Number(s)	Effective Date			
J. Other Air Preconstruction Permits				
Are there any other air preconstruction permits at this site?	🗌 YES 🖾 NO			
If "YES," enter permit number(s) in the spaces provided below.				
K. Affected Air Preconstruction Permits				
Does the PBR being claimed directly affect any permitted facility?	🗆 YES 🗹 NO			
If "YES," enter the permit number(s) in the spaces provided below.				
L. Federal Operating Permit (FOP) Requirements (30 TAC Chapter 122 Applicability	·)			
1. Is this facility located at a site that is required to obtain an FOP ☐ YES ☑ NO pursuant to 30 TAC Chapter 122?	To Be Determined			
If the site currently has an existing FOP, enter the permit number:				
Check the requirements of 30 TAC Chapter 122 that will be triggered if this certification (check all that apply)	is accepted.			
\Box Initial Application for an FOP \Box Significant Revision for an SOP \Box Minor Re	evision for an SOP			
Operational Flexibility/Off Permit Notification for an SOP Revision	for a GOP			
To be Determined None				
 Identify the type(s) of FOP issued and/or FOP application(s) submitted/pending for (check all that apply) 	or the site.			
SOP GOP GOP application/revision (submitted or under APD review)				
☑ N/A				

III.	Fee Information (See Section VII. for address to send fee or go to <u>www.tceq.</u> online.)	<u>texas</u>	<u>.gov/epay</u> to pay
А.	Fee Requirements		
ls a t	fee required per Title 30 TAC § 106.50?		X YES 🗌 NO
lf "N	O," specify the exception. There are three exceptions to paying a PBR fee.	(che	ck all that apply)
1.	Registration is solely to establish a federally enforceable emission limit.		
2.	Registration is within six months of an initial PBR review, and it is addressing deficiencies, administrative changes, or other allowed changes.		
3.	Registration is for a remediation project (30 TAC § 106.533).		
В.	Fee Amount		
1.	A \$100 fee is required if any of the answers in III.B.1 are "YES."		
This	business has less than 100 employees.		☐ YES ⊠ NO
This	business has less than \$6 million dollars in annual gross receipts.		☐ YES ⊠ NO
This 10,0	registration is submitted by a governmental entity with a population of less than 00.		
This	registration is submitted by a non-profit organization.		☐ YES ⊠ NO
2.	A \$450 fee is required for all other registrations.		
C.	Payment Information		
Che	ck/money order/transaction or voucher number:		
Indiv	idual or company name on check:		
Fee	Amount: \$ 450		
Was	fee paid online?		
IV.	Technical Information Including State And Federal Regulatory Requiren	nents	
Che	ck the appropriate box to indicate what is included in your submittal.		
NOT of the	E: Any technical or essential information needed to confirm that facilities are more PBR must be provided. Not providing key information could result in a deficient	eeting ncy of	the requirements the project.
A.F	^o BR requirements (Checklists are optional; however, your review will go faster if hecklists.)	you p	rovide applicable
Did y	you demonstrate that the general requirements in 30 TAC § 106.4 are met?		X YES 🗌 NO
Did y	you demonstrate that the individual requirements of the specific PBR are met?		🛛 YES 🗌 NO
В.	Confidential Information Included (If confidential information is submitted with the registration, all confidential pages must be properly marked "CONFIDENTIAL.")	nis)	☐ YES ⊠ NO

IV. Technical Information Including State and Fede (continued)	eral Regulatory Requireme	nts
Check the appropriate box to indicate what is include	d in your submittal.	
Note: Any technical or essential information needed to co the PBR must be provided. Not providing key information	onfirm that facilities are meeti could result in a deficiency o	ng the requirements of f the project.
C. Process Flow Diagram		🛛 YES 🗌 NO
D. Process Description		🛛 YES 🗌 NO
E. Maximum Emissions Data and Calculations		🛛 YES 🗌 NO
Note: If the facilities listed in this registration are subject to 30 TAC Chapter 101, Subchapter H, Division 3, the own allowances equivalent to the actual NO _x , emissions from t	o the Mass Emissions Cap a er/operator of these facilities hese facilities.	& Trade program under s must possess NOx
F. Is this certification being submitted to certify the emiss	ions for the entire site?	X YES 🗌 NO
If "NO," include a summary of the specific facilities and em	issions being certified.	
G. Table 1(a) (Form 10153) Emission Point Summary		□ YES 🛛 NO
H. Distances from Property Line and Nearest Off-Prope	rty Structure	
Distance from this facility's emission release point to the n	earest property line: >50	feet
Distance from this facility's emission release point to the n	earest off-property structure	: >1320 feet
I. Project Status		
Has the company implemented the project or waiting on a TCEQ?	response from 🛛 🖾 Ir	nplemented 🗌 Waiting
J. Projected Start of Construction and Projected Start of	of Operation Dates	
Projected Start of Construction (provide date):	·	
Projected Start of Operation (provide date):		
V. Delinquent Fees		
This form will not be processed until all delinquent fees a the Attorney General on behalf of the TCEQ is paid in acc Protocol. For more information regarding Delinquent Fees www.tceq.texas.gov/agency/financial/fees/delin/index.html	and/or penalties owed to the ordance with the Delinquent and Penalties, go to the TC	TCEQ or the Office of Fee and Penalty EQ website at:

VI. Signature For Registration And Certification

The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. I further state that to the best of my knowledge and belief, the project for which this application is made will not in any way violate any provision of the Texas Water Code (TWC), Chapter 7; the Texas Health and Safety Code, Chapter 382, the Texas Clean Air Act (TCAA); the air quality rules of the Texas Commission on Environmental Quality; or any local governmental ordinance or resolution enacted pursuant to the TCAA. I further state that I understand my signature indicates that this application meets all applicable nonattainment, prevention of significant deterioration, or major source of hazardous air pollutant permitting requirements. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.

Name (printed):

Matthew Zidek

Signature (original signature required):

Date:

Save Form

Reset Form

VII. Submitting (/II. Submitting Copies of the Certification and Registration				
Copies must be ser Processing delays	nt as listed below: may occur if copies are not sent as noted.				
Who	Where	What			
Air Permits Initial Review Team (APIRT)	Regular, Certified, Priority Mail MC 161, P.O. Box 13087 Austin, Texas 78711-3087 Hand Delivery, Overnight Mail MC 161, 12100 Park 35 Circle, Building C, Third Floor Austin, Texas 78753	Originals Form PI-7-CERT, Core Data Form, and all attachments. Not required if using ePermits ¹ .			
Revenue Section, TCEQ	Regular, Certified, Priority Mail MC 214, P.O. Box 13088 Austin, Texas 78711-3088 Hand Delivery, Overnight Mail MC 214, 12100 Park 35 Circle, Building A, Third Floor Austin, Texas 78753	Original Money Order or Check, Copy of Form PI-7-CERT, and Core Data Form. Not required if fee was paid using ePay ² .			
Appropriate TCEQ Regional Office	To find your Regional Office address, go to the TCEQ website at <u>www.tceq.texas.gov/agency/directory/region</u> , or call (512) 239-1250.	Copy of Form PI-7-CERT, Core Data Form, and all attachments. Not required if using ePermits			
Appropriate Local Air Pollution Control Program(s)	To Find your local or Regional Air Pollution Control Programs go to the TCEQ, APD website at <u>www.tceq.texas.gov/permitting/air/local_programs.html</u> , or call (512)-239-1250	Copy of Form PI-7-CERT, Core Data Form, and all attachments.			

¹ ePermits located at <u>www3.tceq.texas.gov/steers/</u>

² ePay located at <u>www.tceq.texas.gov/epay</u> TCEQ-20182 (APDG 5379v25, revised 07/19) PI-7-CERT This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

TABLE OF CONTENTS

<u>ATTA</u>	CHMENTS TO THE FORM PI-7-CERT	PAGE NO.
IV.A	PERMIT APPLICABILITY CHECKLISTS	13
IV.C	PROCESS FLOW DIAGRAM	
IV.D	PROCESS DESCRIPTION	26
IV.E	MAXIMUM EMISSIONS DATA AND CALCULATIONS	27

APPENDICES

APPENDIX A – EMISSION CALCULATIONS

APPENDIX B – ANALYTICAL DATA

<u>APPENDIX C – AREA MAP</u>

ATTACHMENT IV.A

PERMIT APPLICABILITY CHECKLISTS

Texas Commission on Environmental Quality Oil and Gas Handling and Production Facilities Air Permits by Rule (PBR) Checklist Title 30 Texas Administrative Code § 106.352(I)

Check the most appropriate answer and include any technical information in the spaces provided. If additional space is needed, please include an extra page that references this checklist. The forms, checklists, and guidance documents are available from the Texas Commission on Environmental Quality (TCEQ), Air Permits Division Web site at: www.tceq.texas.gov/permitting/air/permitbyrule/subchapter-o/oil_and_gas.html. If you have any questions, or need additional assistance, please contact the Air Permits Division at (512) 239-1250.

The facility can register by submitting this application and any supporting documentation. Below is a checklist to ensure you have provided all appropriate documentation. For sites that require registration or if the company chooses to register the site with the TCEQ, a Core Data Form is required with this checklist. For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link: www.TexasEnviroHelp.org.

This ch	hec	klist is for use by the operator to ensure a complete application.				
Have y	Have you included each of the following items in the application?					
	K	Process Description.				
×	<	Plot plan or area map.				
×	<	TCEQ Oil and Gas Emission Calculation Spreadsheet (or equivalent).				
×	<	Detailed summary of maximum emissions estimates with supporting documentation, such as result reports from any emission estimation computer program.				
×	<	Gas and Liquid analyses. If a site specific analysis is not submitted, please provide justification as to why a representative site was used.				
×	<	Technical documents (manufacturer's specification sheet, operational design sheets)				
×	<	State and Federal applicability.				
×	<	Core Data Form (for new sites that have never been registered with the TCEQ).				
1 Is co	s the ons	e project located in one of the Barnett Shale counties and did the start of truction or modification begin on or after April 1, 2011?				
Note: (<i>Hill, Ho</i> countie	Cou ood, es.	inties included in the Barnett Shale area: Cooke, , Dallas, Denton, , Ellis, Erath, Jack, Johnson, Montague, Palo Pinto, Parker, Somervell, Tarrant, and Wise				
For what www.tc	at is ceq.	s considered start of construction see: texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/factsheet-const.pdf				
If " Yes Addition www.tc	," a nal ceq.	lo not complete this checklist. The project is subject to the requirements of §106.352(a)-(k). information for Barnett Shale area projects can be found at: texas.gov/permitting/air/permitbyrule/subchapter-o/oil_and_gas.html.				

Texas Commission on Environmental Quality Oil and Gas Handling and Production Facilities Air Permits by Rule (PBR) Checklist Title 30 Texas Administrative Code § 106.352(I)

Gen	eral Information and Questions/Descriptions (continued)									
2	Are the total site-wide emissions from all facilities claimed under 30 TAC §106.352(I) \boxtimes Yes \square No less than 25 tpy VOC, 250 tpy NOx, 250 tpy CO, and 25 tpy SO ₂ ?									
3.	Are there flares, engines, or turbines at the site?	🕅 Yes 🗌 No								
lf " Y	es," attach supporting documentation to demonstrate compliance with the requirement.	S.								
Add §106 \$106 \$106	itional information and checklists can be found at: 5.492 Flares: 1.tceq.texas.gov/permitting/air/permitbyrule/subchapter-v/flares.html 5.512 Stationary Engines and turbines: 1.tceq.texas.gov/permitting/air/permitbyrule/subchapter-w/stationary_eng_turb.html									
4.	Does any facility at the site handle a stream with more than 24 ppm hydrogen sulfide (H_2S) ?	🛛 Yes 🗌 No								
lf " Y	es," proceed to question (4)(a) and (4)(b) and then proceed to questions 5 and 6 .									
lf " N	o," continue to questions 5 and 6.									
4a.	What is the actual H_2S content of the stream? <u>.25</u>	ppm								
Site	specific H_2S analysis is required.									
4b.	Indicate the actual distance from the nearest emissions point to the nearest offsite receptor:	<u>>1320</u> ft.								
Note solel from	: An offsite receptor includes any recreational area, residence, or other structure not of y by the owner or operator of the facility. A facility handling sour gas must be located at the nearest offsite receptor.	ccupied or used least 1/4 mile								
5.	Indicate the total actual emission rate of sulfur compounds, excluding sulfur oxides, from all vents	<u><0.01</u> lb/hr.								
6.	Does the height of all vents at the site emitting sulfur compounds meet the minimum required height based on the H_2S emission rate in 106.352(I)(4)?	🗙 Yes 🗌 No								
Note	: Truck loading and fugitive sources are not considered vents.									

Recordkeeping: To demonstrate compliance with the requirements of the PBR, sufficient records must be maintained at all times. The records must be made available immediately upon request to the commission or any air pollution control program having jurisdiction. If you have any questions about the recordkeeping requirements, contact the Air Permits Division or the Air Program in the TCEQ Regional Office for the region in which the site is located.



You must submit a PI-7 with required attachments before construction or operation if the gas burned in the flare has a sulfur or chlorine concentration greater than 24 ppmv.

The following checklist is designed to help you confirm that you meet Exemption § 106.492, previously standard exemption 80, requirements. <u>Any "NO" answers indicate that the claim of exemption may not meet all requirements for the use of Exemption § 106.492, previously standard exemption 80.</u> If you do not meet all the requirements, you may alter the project design/operation in such a way that all the requirements of the exemption are met, or obtain a construction permit.

Question/Description	n	Response
Have you included a description of how this exemp general rule for the use of exemptions (§ 106.4 che	X YES NO NA	
Is the flare equipped with a tip designed to provide flame stability and a tip velocity less than 60 ft/sec heating value less than 1,000 BTU/ft ³ , or less than LHV greater than 1,000 BTU/ft ³ ?	🔀 YES 🗌 NO 🗌 NA	
Attach a description including BTU content and tip	o velocity (Table 8 is availab	le).
Is the flare equipped with a continuously burning j ignition system that assures gas ignition whenever flare?	X YES NO NA	
Attach a description of the system.		
If the flare emits more than 4 lb/hr of reduced sulf sulfur oxides, is it equipped with an alarm system appropriate personnel when the ignition system ce	UYES NO XNA	
Attach a description of the system.		
If the flare emits less than 4 lb/hr of reduced sulfu equipped with an alarm system, does the stack heig of condition (d) of §106.352, previously standard e	YES NO NA	
Required Height: 20 feet	Actual Height: >20 feet	
If the flare burns gases containing more than 24 pp compounds containing either element, is it located recreational area, residence, or other structure not the owner or operator of the flare or owner of the p located?	X YES NO NA	
Attach a scaled map.		

Exemption § 106.492 Checklist (Previously Standard Exemption 80) Smokeless Gas Flares

Question/Description	Response
If the flare emits HCI, does the heat release (BRU/hr based on lower heating value) equal or exceed 2.73 x 10E5 x HCI emission rate (lb/hr)?	\Box YES \Box NO \bigotimes NA
Attach calculations.	
If the flare emits SO2, does the heat release (BTU/hr based on lower heating value) equal or exceed 0.53 x 10E5 x SO2 emission rates (lb/hr)?	X YES NO NA
Attach calculations.	
Will you limit the flare to burning only combustible mixtures of gases containing only carbon, hydrogen, nitrogen, oxygen, sulfur, chlorine, or compounds derived from these elements?	🛛 YES 🗌 NO 🗌 NA
Will the gas mixture always have a net or lower heating value of at least 200 BTU/ft3 prior to addition of air?	X YES NO NA
Do you understand and will you ensure that liquids shall never be burned in the flare?	YES NO NA

Save Form

Reset Form

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

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

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

1. 30 TAC § 106.4(a)(1) and (4): Emission Limits	Answer						
List emissions in tpy for each facility (add additional pages or table if needed):							
Are the SO ₂ , PM ₁₀ , VOC, or other air contaminant emissions claimed for each facility in this PBR submittal less than 25 tpy?	🛛 YES 🗌 NO						
Are the NO _x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy?	X YES 🗌 NO						
If the answer to both is "Yes," continue to the question below. If the answer to either question is "No," a PBR cannot be claimed .							
Has any facility at the property had public notice and opportunity for comment under 30 TAC Section 116 for a regular permit or permit renewal? (This does not include public notice for voluntary emission reduction permits, grandfathered existing facility permits, or federal operating permits.)	🗌 YES 🛛 NO						
If "Yes," skip to Section 2. If "No," continue to the questions below.							
If the site has had no public notice, please answer the following:							
Are the SO ₂ , PM ₁₀ , VOC, or other emissions claimed for all facilities in this PBR submittal less than 25 tpy?	X YES 🗌 NO						
Are the NO _x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy? XES NO							
If the answer to both questions is "Yes," continue to Section 2.							
If the answer to either question is "No," a PBR cannot be claimed. A permit will be required und	er Chapter 116.						

2. 30 TAC § 106.4(a)(2): Nonattainment Check	Answer					
Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county?	🗌 YES 🙀 NO					
If "Yes," please indicate which county by checking the appropriate box to the right.						
(Moderate) - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties:	HGB					
(Moderate) - Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties:	DFW					
If "Yes," to any of the above, continue to the next question. If "No," continue to Section 3.						
Does this project trigger a nonattainment review?						
Is the project's potential to emit (PTE) for emissions of VOC or NO_x increasing by 100 tpy or more?	YES NO					
PTE is the maximum capacity of a stationary source to emit any air pollutant under its worst-case operational design unless limited by a permit, rules, or made federally enforceable by a certificati	e physical and on.					
Is the site an existing major nonattainment site and are the emissions of VOC or NO_x increasing by 40 tpy or more?	YES NO					
If needed, attach contemporaneous netting calculations per nonattainment guidance.						
Additional information can be found at: www.tceq.texas.gov/permitting/air/forms/newsourcereview/tables/nsr_table8.html and www.tceq.texas.gov/permitting/air/nav/air_docs_newsource.html						
If "Yes," to any of the above, the project is a major source or a major modification and a PBR ma Nonattainment Permit review must be completed to authorize this project. If "No," continue to Se	y not be used . A ction 3.					
3. 30 TAC § 106.4(a)(3): Prevention of Significant Deterioration (PSD) check						
Does this project trigger a review under PSD rules?						
To determine the answer, review the information below:						
Are emissions of any regulated criteria pollutant increasing by 100 tpy of any criteria pollutant at a named source?	🗌 YES 🔀 NO					
Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutant at an unnamed source?	🗌 YES 🕅 NO					
Are emissions increasing above significance levels at an existing major site?	☐ YES 🛛 NO					
PSD information can be found at: www.tceq.texas.gov/assets/public/permitting/air/Forms/NewSourceReview/Tables/10173tbl.pdf and www.tceq.texas.gov/permitting/air/nav/air_docs_newsource.html						
If "Yes," to any of the above, a PBR may not be used . A PSD Permit review must be completed to authorize the project.						
If "No," continue to Section 4.						

4. 30 TAC § 106.4(a)(6): Federal Requirements	Answer
Will all facilities under this PBR meet applicable requirements of Title 40 Code of Federal Regulations (40 CFR) Part 60, New Source Performance Standards (NSPS)?	🛛 YES 🗌 NO 🗌 NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
0000/a	
Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards?	🗌 YES 🗌 NO 🕅 NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAPs)?	🗌 YES 🗌 NO 🖄 NA
If "Yes," which Subparts are applicable? <i>(answer below.)</i>	
If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applic	able standards.
5. 30 TAC § 106.4(a)(7): PBR prohibition check	
Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs?	🗌 YES 🛛 NO
If "Yes," PBRs may not be used or their use must meet the restrictions of the permit. A new per may be required.	mit or permit amendment
List permit number(s):	
6. 30 TAC § 106.4(a)(8): NO _x Cap and Trade	
Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County?	🗌 YES 🛛 NO
If "Yes," answer the question below.	
If "No," continue to Section 7.	
Will the proposed facility or group of facilities obtain required allowances for NO_x if they are subject to 30 TAC Chapter 101, Subchapter H, Division 3 (relating to the Mass Emissions Cap and Trade Program)?	☐ YES ☐ NO

7. Highly Reactive Volatile Organic Compounds (HRVOC)	7. Highly Reactive Volatile Organic Compounds (HRVOC) check							
is the facility located in Harris County?								
If "Yes," answer the next question. If "No," skip to the box below.	If "Yes," answer the next question. If "No," skip to the box below.							
Will the project be constructed after June 1, 2006?		YES NO						
If "Yes," answer the next question.								
If "No," skip to the box below.								
Will one or more of the following HRVOC be emitted as a part of th	is project?	🗌 YES 🔀 NO						
If "Yes," complete the information below:								
Information	lb/hr	tpy						
► 1,3-butadiene								
 all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene]) 								
 alpha-butylene (ethylethylene) 								
 beta-butylene (dimethylethylene, including both cis- and trans-isomers) 								
▶ ethylene								
▶ propylene								
Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Montgomery, or Waller County?	, Liberty,	🗌 YES 🖾 NO						
If "Yes," answer the next question. If "No," the checklist is complete	Э.							
Will the project be constructed after June 1, 2006?		YES NO						
If "Yes," answer the next question. If "No," the checklist is complete	9.							
Will one or more of the following HRVOC be emitted as a part of th	Will one or more of the following HRVOC be emitted as a part of this project? I YES I NO							
If "Yes," complete the information below:								
Information	lb//hr	tpy						
▶ ethylene								
▶ propylene								



Reset Form

ATTACHMENT IV.C

PROCESS FLOW DIAGRAM





Flare Exhaust Analysis Mass Flow Sum(VOCs) 8.3505 ton/yr 0.34531 ton/yr Mass Flow Sum(HAPs) Flare Exhaust Composition H2S(Mass Flow) 0.01925 ton/yr C1(Mass Flow) 0.33136 ton/yr C3(Mass Flow) 2.102 ton/yr iC4(Mass Flow) 0.8876 ton/yr 2.47 ton/yr nC4(Mass Flow) 2,2-Dimethylpropane(Mass Flow) 0.03671 ton/yr 0.7854 ton/yr iC5(Mass Flow) nC5(Mass Flow) 0.8737 ton/yr 2,2-Dimethylbutane(Mass Flow) 0.007321 ton/yr Cyclopentane(Mass Flow) 2.3-Dimethylbutane(Mass Flow) 0.04444 ton/yr 0.2399 ton/yr 2-Methylpentane(Mass Flow) 3-Methylpentane(Mass Flow) 0.1121 ton/yr n-Hexane(Mass Flow) 0.2733 ton/yr Methylcyclopentane(Mass Flow) 0.05734 ton/yr 0.02688 ton/yr Benzene(Mass Flow) 0.05649 ton/yr Cyclohexane(Mass Flow) 0.03077 ton/yr 2-Methylhexane(Mass Flow) 3-Methylhexane(Mass Flow) 0.03589 ton/yr 2,2,4-Trimethylpentane(Mass Flow) 0.008009 ton/yr C7(Mass Flow) 0.1009 ton/yr Methylcyclohexane(Mass Flow) 0.04803 ton/yr 0.02971 ton/yr Toluene(Mass Flow) Octane(Mass Flow) 0.06952 ton/yr Ethylbenzene(Mass Flow) 0.002952 ton/yr m-Xylene(Mass Flow) 0.004511 ton/yr 0.004476 ton/yr p-Xylene(Mass Flow) o-Xylene(Mass Flow) 0.00344 ton/yr Nonane(Mass Flow) 0.02793 ton/yr Decane(Mass Flow) 0.0113 ton/yr C11Plus(Mass Flow) 9.712e-05 ton/yr SO2(Mass Flow) 1.773 ton/yr

0 ton/yr

FL-1 Combustion Criteria Pollutants

NOx Emissions = 0.439 lb/h

CO Emissions = 1.748 lb/h

FL-1 Heat Release Requirements

Heat Release = 2.926 MMBtu/h

QSO2 = 0.02145 MMBtu/h



ATTACHMENT IV.D

PROCESS DESCRIPTION

The Hoff G&H Telluride Production Facility (the Facility) is a sour oil production facility. The H₂S content of inlet gas is represented at 1000 ppm, although 25 ppm H₂S has been observed in recent analysis. Produced fluids enter the site and flow through production separators and heater treaters to separate the oil, water, and gas. Crude oil is routed to a VRT, where flash gas is captured by a VRU and sent off site for further processing or routed to the flare during periods of downtime. Crude oil is then routed to three 500-bbl crude oil storage tanks and then trucked off site. Water is stored in two 500-bbl produced water tanks and then trucked off site. Emissions from the tank battery are controlled by a TVCS and then sent off site for further processing. The TVCS is designed to isolate and push low pressure tank battery will be controlled by a flare (EPN FL-1). Fugitive emissions from valves, connectors, etc. are represented by EPN FUG.

Under this revision, EOG is:

- Removing service on 4 oil storage tanks and 1 produced water storage tank,
- Converting one oil tank to a water tank,
- Revising the control efficiency of the VRU system and adding a blower as part of the tank vapor capture system,
- Adding one heater treater, which may be added in the future,
- Revising production to reflect current conditions at the Facility,
- Adjusting fugitive component estimates and associated emissions, and
- Using BRE ProMax for process simulation to estimate emission rates from the flares (EPN FL-1) and loading operations (EPN LOAD).

OIL AND GAS FACILITY GENERAL INFORMATION									
Natural Gas Throughput (MMSCF/day):	1.00	H ₂ S Content of Inlet Gas:	25 ppm						
Oil Throughput (bbl/day):	1000	Is the gas sweet or sour?	Sour						
Produced Water Throughput (bbl/day):	1000	Is this site operational/producing?	Yes						
TCEQ Form	PI-7-CERT	Has the site been registered before?	Yes						

EQUIPMENT/PROCESSES AT SITE									
	Compressor Engines:	0	Glycol Dehydrators:	0	VRU:	Yes			
Number of	Separators:	Multiple	Amine units:	0	TVCS:	Yes			
each:	Storage Tanks:	3 Oil / 2 Water	Heater Treaters:	2 (+ 1 Future)	Other:	N/A			
	Truck Loading:	Yes	Flares:	1	Other:	N/A			

ATTACHMENT IV.E

MAXIMUM EMISSIONS DATA AND CALCULATIONS

Flare (EPN FL-1)

There is one flare at the Hoff G&H Telluride Production Facility. The flare controls the vapors from the storage tanks, as well as facility upsets. A 98% destruction efficiency is assumed for the control of volatile organic compounds. Propane is represented at a 99% flare destruction rate. NO_x and CO emission factors are based on the TCEQ Technical Guidance Package for Flares and Vapor Oxidizers, dated October 2000. A scaled map of the Facility is included in *Appendix C*.

Fugitives (EPN FUG)

Fugitive emissions were estimated based on the TCEQ technical guidance document for "Equipment Fugitive Leaks", dated June 2018. The Oil and Gas Production Operations equipment leak emission factors approved by the TCEQ were used in the emissions estimations. Although the actual fugitive component counts may vary from the representation, actual emissions from fugitives will remain below the certified emission rates.

Heaters [EPN HEATER-1, -2, -3 (Future)]

There are two heater treaters at the Hoff G&H Telluride Production Facility, and an additional one is included for a potential future addition. Emissions from the heaters are estimated based factors from AP-42 Chapter 1.4 for natural gas combustion. The fuel is field gas.

Truck Loading (EPN LOAD)

Oil and produced water are trucked off site. Truck loading emissions were calculated using process simulation in BRE ProMax. Oil loading calculations were based on dedicated vapor balance service of a tank truck with a 98.7% overall reduction efficiency. Water loading calculations were based on dedicated vapor balance service loading of a tank truck with a 0% overall reduction efficiency for conservation of emission estimates. The maximum hourly emission rate is based on loading 180 bbls in one hour. The maximum annual emission rate is based on total daily throughputs. The trucks will be leak-tested trucks.

Storage Tanks (EPN FL-1)

Separated crude oil is first sent to a Vapor Recovery Tower (VRT). Flash gas is controlled from the VRT with a Vapor Recovery Unit (VRU), which sends gas to sales/further processing. Flash gas is routed to the flare during periods of downtime. The flash gas emissions were calculated with a VRU runtime of 0% for conservation of emission estimates. From the VRT, crude oil is sent to the storage tanks. There are three 500-bbl crude oil storage tanks (FIN TK-1, TK-2, and TK-3) and two 500-bbl produced water storage tanks (FIN TK-W1 and TK-W2). BRE ProMax with the latest EPA emission factors (12/2019) were used to calculate emissions from the storage tanks. Maximum throughputs of 1000 bbls crude oil per day and 1000 bbls produced water per day were used to calculate the emissions. The storage tank emissions will be controlled by a tank vapor capture system (TVCS), and any remaining emissions or emissions during downtime of the TVCS will be controlled by the flare (EPN FL-1). For conservation of emission estimates, emission calculations used a TVCS capture efficiency of 0%.

The oil and water analyses were obtained from the Naylor Jones 2 Unit Facility. The oil and water analyses from the Naylor Jones 2 are considered representative of the Hoff G&H Telluride Production Facility because the wells are from the same geologic formation, the facilities are in

EOG RESOURCES, INC. HOFF G&H TELLURIDE PRODUCTION FACILITY PI-7-CERT Revision of Registration for Permit by Rule §106.4, §106.352, and §106.492

proximity, and the process conditions (temperature/pressure of separator) are similar. A representative extended gas analysis was obtained from the nearby Hoff Compressor Station inlet, and site-specific gas analyses were also collected. The results of laboratory analyses of the water and crude oil, along with other supporting analytical data, are included in <u>Appendix B</u>.

A summary of emission points and certified emission rates are provided in the table on the following page. Emission calculations are provided in <u>Appendix A</u>.

EMISSIONS SUMMARY

		vo)C	N	Ox	C	:0	P	М	S	D 2	H ₂	₂S	HA	٨P
Source	EPN	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
Fugitives	FUG	1.56	6.84	-							1	0.00	0.01	0.05	0.22
Flares	FL-1	1.91	8.35	0.44	1.92	1.75	7.66	<0.01	<0.01	0.40	1.77	4.4E-03	1.9E-02	0.08	0.35
Horizontal Heater Treater	HEATER-1	3.2E-03	0.01	0.06	0.25	0.05	0.21	4.4E-03	0.02	1.1E-01	4.7E-01			4.3E-05	1.9E-04
Horizontal Heater Treater	HEATER-2	3.2E-03	0.01	0.06	0.25	0.05	0.21	4.4E-03	0.02	1.1E-01	4.7E-01			4.3E-05	1.9E-04
Horizontal Heater Treater (Future)	HEATER-3	3.2E-03	0.01	0.06	0.25	0.05	0.21	4.4E-03	0.02	1.1E-01	4.7E-01			4.3E-05	1.9E-04
Loading	LOAD	0.95	0.97	-							-	1.86E-01	9.5E-03	0.025	0.02
TOTAL		4.43	16.20	0.61	2.68	1.89	8.29	0.01	0.06	0.73	3.19	0.19	0.04	0.15	0.59

APPENDIX A

EMISSION CALCULATIONS

EMISSION ESTIMATE FOR FUGITIVES

EPN:	FUG
Operating schedule (hr/yr):	8760

Fugitive Emission Calculations:

Emission	Source	Source Count	Uncontrolled Emission Factor* (Ib/hr-source)	Control Factor	Hourly Emissions (lb/hr)	Annual Emissions (ton/yr)
Valves:	gas	94	0.00992	0%	0.932	4.08
	water/light oil**	110	0.000216	0%	0.0238	0.10
	light oil	106	0.0055	0%	0.583	2.55
	heavy oil	6	0.0000185	0%	0.000111	0.00
Flanges:	gas	183	0.00086	0%	0.157	0.69
	water/light oil	219	0.000006	0%	0.00131	0.01
	light oil	212	0.000243	0%	0.0515	0.23
	heavy oil	6	0.0000086	0%	0.00000516	0.00
Connectors:	gas	232	0.00044	0%	0.102	0.45
	water/light oil	150	0.000243	0%	0.0365	0.16
	light oil	173	0.000463	0%	0.0801	0.35
	heavy oil	6	0.0000165	0%	0.000099	0.00
Open-ended Lines:	gas	0	0.00441	0%	0	0.00
	water/light oil	0	0.00055	0%	0	0.00
	light oil	0	0.00309	0%	0	0.00
	heavy oil	0	0.000309	0%	0	0.00
Pumps:	light oil	12	0.02866	0%	0.344	1.51
	heavy oil	0	0.00113	0%	0	0.00
Other:	gas	10	0.0194	0%	0.194	0.85
	water/light oil	10	0.0309	0%	0.309	1.35
	light oil	10	0.0165	0%	0.165	0.72
	heavy oil	6	0.0000683	0%	0.00041	0.00

Sample Calculation:

Gas Valve Emissions = (94 valves)(0.00992 lb/hr-source)(1 - 0) = 0.932 lb/hr

Total Annual Emissions = (2.98 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 13.05 tons/yr

* The emission factors are from the TCEQ's 2000 "Equipment Leak Fugitives" for Oil and Gas Production Operations.

** Assuming VOC content 1% of water, water HAP content 5% of VOCs, and H2S content from flash analysis

FUGITIVE EMISSION RATE CALCULATIONS

Gas/Vapor Components

· · ·	Weight Percent	Γ	
Component	Flash Gas Analysis	Total Emissions [lb/hr]	Total Emissions [ton/yr]
Hydrogren Sulfide	0.100	0.001	0.006
Nitrogen	0.344	0.005	0.021
Carbon Dioxide	3.024	0.042	0.183
Methane	53.432	0.740	3.241
Ethane	18.891	0.262	1.146
Propane	13.315	0.184	0.808
Isobutane	2.246	0.031	0.136
n-Butane	5.746	0.080	0.349
2,2 Dimethylpropane	0.000	0.000	0.000
Isopentane	1.004	0.014	0.061
n-Pentane	1.057	0.015	0.064
2,2 Dimethylbutane	0.000	0.000	0.000
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.000	0.000	0.000
2 Methylpentane	0.000	0.000	0.000
3 Methylpentane	0.000	0.000	0.000
n-Hexane	0.771	0.011	0.047
Methylcyclopentane	0.013	0.000	0.001
Benzene	0.023	0.000	0.001
Cyclohexane	0.012	0.000	0.001
2-Methylhexane	0.000	0.000	0.000
3-Methylhexane	0.000	0.000	0.000
2,2,4 Trimethylpentar	0.000	0.000	0.000
Other C7's	0.046	0.001	0.003
n-Heptane	0.042	0.001	0.003
Methylcyclohexane	0.011	0.000	0.001
Toluene	0.009	0.000	0.001
Other C8's	0.001	0.000	0.000
n-Octane	0.004	0.000	0.000
Ethylbenzene	0.000	0.000	0.000
M & P Xylenes	0.001	0.000	0.000
O-Xylene	0.000	0.000	0.000
Other C9's	0.002	0.000	0.000
n-Nonane	0.001	0.000	0.000
Other C10's	0.001	0.000	0.000
n-Decane	0.001	0.000	0.000
Undecanes (11)	0.000	0.000	0.000
TOTAL	100	1.386	6.072
TOTAL VOC	24.306	0.337	1.474
TOTAL HAPs	0.804	0.011	0.049

Speciation from sample dated 12/1/2021 from the Hoff Compressor Station inlet gas

FUGITIVE EMISSION RATE CALCULATIONS

Light/Heavy Liquid Components

	Weight Percent		
Component	Flash Gas Analysis	Total Emissions [lb/hr]	Total Emissions [ton/vr]
Hydrogen Sulfide	0 100	0.001	0.005
Nitrogen	0.100	0.001	0.000
Carbon Dioxide	0.004	0.000	0.000
Methane	0.003	0.000	0.000
Fthane	0.001	0.000	0.002
Propane	0.233	0.003	0.013
Isobutane	0.335	0.012	0.004
n-Butane	1 612	0.000	0.020
2 2 Dimethylpropane	0.034	0.000	0.002
Isopentane	1 171	0.000	0.063
n-Pentane	1 679	0.021	0.000
2 2 Dimethylbutane	0.022	0.000	0.001
Cyclopentane	0.000	0.000	0.000
2.3 Dimethylbutane	0.168	0.002	0.009
2 Methylpentane	1 020	0.002	0.055
3 Methylpentane	0.524	0.006	0.028
n-Hexane	1 591	0.019	0.085
Methylcyclopentane	0.335	0.004	0.018
Benzene	0 157	0.002	0.008
Cvclohexane	0 402	0.002	0.022
2-Methylbexane	0.404	0.005	0.022
3-Methylhexane	0 452	0.006	0.024
2 2 4 Trimethylpentane	0.134	0.002	0.021
Other C-7's	0 408	0.002	0.022
n-Heptane	1 219	0.015	0.065
Methylcyclohexane	0 756	0.009	0.041
Toluene	0.561	0.007	0.030
Other C-8's	2.172	0.027	0.116
n-Octane	1.213	0.015	0.065
E-Benzene	0.159	0.002	0.009
M & P Xylenes	0.519	0.006	0.028
O-Xvlene	0.237	0.003	0.013
Other C-9's	2.958	0.036	0.159
n-Nonane	1.102	0.013	0.059
Other C-10's	3.716	0.045	0.199
n-decane	1.078	0.013	0.058
Undecanes(11)	4.161	0.051	0.223
Dodecanes(12)	3.555	0.044	0.191
Tridecanes(13)	3.817	0.047	0.205
Tetradecanes(14)	3.554	0.044	0.191
Pentadecanes(15)	3.269	0.040	0.175
Hexadecanes(16)	2.870	0.035	0.154
Heptadecanes(17)	2.764	0.034	0.148
Octadecanes(18)	2.740	0.034	0.147
Nonadecanes(19)	2.855	0.035	0.153
Eicosanes(20)	2.462	0.030	0.132
Heneicosanes(21)	2.224	0.027	0.119
Docosanes(22)	2.130	0.026	0.114
Tricosanes(23)	1.941	0.024	0.104
Tetracosanes(24)	1.812	0.022	0.097
Pentacosanes(25)	1.731	0.021	0.093
Hexacosanes(26)	1.641	0.020	0.088
Heptacosanes(27)	1.581	0.019	0.085
Octacosanes(28)	1.489	0.018	0.080
Nonacosanes(29)	1.350	0.017	0.072
Triacontanes(30)	1.262	0.015	0.068
Hentriacontanes Plus(31+)	23.275	0.285	1.248
TOTAL	100	1.225	5.367
TOTAL VOC	99.721	1.221	5.347
TOTAL HAPs	3.223	0.039	0.173

Speciation from sample dated 12/1/2021 from the Naylor Jones 2 Facility

EMISSION ESTIMATE FOR HEATER OPERATIONS

Heater Treaters EPN HEATER-1, -2, and -3 (Future)

Firing Rate:	0.75 MM Btu/hr
Hours of Operation:	8760 hr/yr
Assumptions:	1,305 Btu/scf

			EMISSIONS	
Pollutant	EMISSION FACTORS	EMISSION FACTOR UNITS	(lb/hr)	(tpy)
NOx ¹	100	lb/MMscf	0.0575	0.252
CO ¹	84	lb/MMscf	0.0483	0.211
SO2 ²	188	lb/MMscf	0.1080	0.473
TOC ²	11	lb/MMscf	0.0063	0.028
VOC ²	5.5	lb/MMscf	0.0032	0.014
HAP ³	0.075	lb/MMscf	0.00004	0.0002
PM10 ⁴	7.6	lb/MMscf	0.0044	0.019

¹Factors obtained from Table 1.4-1 of AP-42 dated 7/98 for small, uncontrolled boilers.

²Factors based on Table 1.4-2 of AP-42 dated 7/98.

³Factor for formaldehyde from Table 1.4-3 of AP-42 dated 7/98. ⁴PM10 factor is the summation of the condensable and filterable particulate emission factors given in Table 1.4-2 of AP-42 dated 7/98.

Site-specific sulfur content:

= 626285 grains/MMscf

(100 lb NOx/MM scf gas)(0.75 MMBtu/hr) (1304.75 Btu/scf) = 0.0575 lb NOx/hr

EMISSION ESTIMATE FOR LOADING OIL Loading Parameters From BRE ProMax

Number of Oil Tanks:

3

Crude Oil Tanks		— 🗆 X
Working and Breathing Parameters Floating Roof Fittings	Loading Loss Parameters Results Working and	Breathing Report Loading F 🕢 🕨
Property	Value	Units
Cargo Carrier	Tank Truck or Rail Tank Car 👻	
Land Based Mode of Operation	Submerged Loading: Dedicated Vapor Balance 👻	
Marine Based Mode of Operation	Submerged Loading; Ships 👻	
Overall Reduction Efficiency	0	%
Maximum Hourly Loading Rate	4,320	bbl/d 👻
•		
Edit Source		

EMISSION ESTIMATE FOR LOADING WATER Loading Report From BRE ProMax

2 Number of Water Tanks:

Working and Breathing Parameters	Floating Roof Fittings	Loading Loss Parameters	Results	Working and Bre	athing Report	Loading Rep	ort 🔟
Property		Value			Units		
Cargo Carrier		Tank Truck or Rail Tank (Car	-			
Land Based Mode of Operation		Submerged Loading: Dec	dicated Va	por Balance St 👻			
Marine Based Mode of Operation		Submerged Loading: Shi	DS	-			
Overall Reduction Efficiency				0	%		-
Maximum Hourly Loading Rate				4,320	bbl/d		-

APPENDIX B

ANALYTICAL DATA

January 3, 2022

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

For: EOG Resources, Inc. P. O. Box 592929 San Antonio, Texas 78259

Sample: Naylor Jones Unit 2 Heater Treater Hydrocarbon Liquid Sampled @ 57 psig & 160 °F

Date Sampled: 12/01/2021

Job Number: 213203.002

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2186-M

COMPONENT	MOL %	LIQ VOL %	WT %
Nitrogen	0.026	0.004	0.004
Carbon Dioxide	0.037	0.009	0.009
Methane	0.350	0.084	0.031
Ethane	1.405	0.532	0.235
Propane	4.073	1.588	0.999
Isobutane	1.329	0.616	0.430
n-Butane	4.989	2.226	1.612
2,2 Dimethylpropane	0.085	0.046	0.034
Isopentane	2.920	1.511	1.171
n-Pentane	4.185	2.147	1.679
2,2 Dimethylbutane	0.046	0.027	0.022
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.350	0.203	0.168
2 Methylpentane	2.128	1.250	1.020
3 Methylpentane	1.093	0.632	0.524
n-Hexane	3.320	1.932	1.591
Heptanes Plus	73.663	<u>87.195</u>	90.471
Totals:	100.000	100.000	100.000

=1)
d
:

Characteristics of Total Sample:

0.8064	(Water=1)
43.97	@ 60°F
179.8	
14.23	CF/Gal
6.72	Lbs/Gal
	0.8064 43.97 179.8 14.23 6.72

Base Conditions: 14.650 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Sampled By: (16) R. Elizondo Analyst: JL Processor: ANBdjv Cylinder ID: W-1256

Conan Pierce 361-661-7015

Page 1 of 3

FESCO, Ltd.

TANKS DATA INPUT REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Carbon Dioxide	0.037	0.009	0.009
Nitrogen	0.026	0.004	0.004
Methane	0.350	0.084	0.031
Ethane	1.405	0.532	0.235
Propane	4.073	1.588	0.999
Isobutane	1.329	0.616	0.430
n-Butane	5.074	2.272	1.646
Isopentane	2.920	1.511	1.171
n-Pentane	4.185	2.147	1.679
Other C-6's	3.617	2.112	1.733
Heptanes	6.040	3.667	3.221
Octanes	6.838	4.551	4.141
Nonanes	5.760	4.390	4.060
Decanes Plus	51.809	72.924	77.282
Benzene	0.361	0.143	0.157
Toluene	1.095	0.519	0.561
E-Benzene	0.269	0.147	0.159
Xylenes	1.280	0.699	0.756
n-Hexane	3.320	1.932	1.591
2,2,4 Trimethylpentane	0.211	<u>0.156</u>	<u>0.134</u>
Totals:	100.000	100.000	100.000
Characteristics of Total Sample:		0.0004	

Specific Gravity	0.0004	(vvaler-r)
°API Gravity	43.97	@ 60°F
Molecular Weight	179.8	
Vapor Volume	14.23	CF/Gal
Weight	6.72	Lbs/Gal

Characteristics of Decanes (C10) Plus: Specific Gravity ------

Specific Gravity Molecular Weight	0.8546 268.3	(Water=1)	

Characteristics of Atmospheric Sample:

°API Gravity	42.65	@ 60°F
Reid Vapor Pressure Equivalent (D-6377)	10.60	psi

QUALITY CONTROL CHECK			
	Sampling		
	Conditions	Test S	amples
Cylinder Number		W-1256*	
Pressure, PSIG	57	57	
Skin Temperature, °F	160	160	

* Sample used for analysis

FESCO, Ltd.

TOTAL EXTENDED REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Nitrogen	0.026	0.004	0.004
Carbon Dioxide	0.037	0.009	0.009
Methane	0.350	0.084	0.031
Ethane	1.405	0.532	0.235
Propane	4.073	1.588	0.999
Isobutane	1.329	0.616	0.430
n-Butane	4.989	2.226	1.612
2,2 Dimethylpropane	0.085	0.046	0.034
Isopentane	2.920	1.511	1.171
n-Pentane	4.185	2.147	1.679
2,2 Dimethylbutane	0.046	0.027	0.022
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.350	0.203	0.168
2 Methylpentane	2.128	1.250	1.020
3 Methylpentane	1.093	0.632	0.524
n-Hexane	3.320	1.932	1.591
Methylcyclopentane	0.717	0.359	0.335
Benzene	0.361	0.143	0.157
Cyclohexane	0.859	0.414	0.402
2-Methylhexane	0.726	0.477	0.404
3-Methylhexane	0.811	0.527	0.452
2,2,4 Trimethylpentane	0.211	0.156	0.134
Other C-7's	0.740	0.461	0.408
n-Heptane	2.188	1.428	1.219
Methylcyclohexane	1.384	0.787	0.756
loluene	1.095	0.519	0.561
Other C-8's	3.544	2.379	2.172
	1.910	1.385	1.213
E-Benzene	0.269	0.147	0.159
	0.879	0.482	0.519
O-Aylene Other C 0's	0.402	0.210	0.237
n Nenene	4.214	3.109	2.900
Other C 10's	1.540	3 807	3 716
n decane	4.750	1 19/	1 078
Undecanes(11)	5.000	1.104	1.070
Dodecanes(12)	3 971	3 626	3 555
Tridecanes(12)	3 922	3 840	3 817
Tetradecanes(14)	3 364	3 528	3 554
Pentadecanes(15)	2 853	3 206	3 269
Hexadecanes(16)	2.325	2.791	2.870
Heptadecanes(17)	2.097	2.663	2.764
Octadecanes(18)	1.963	2.624	2.740
Nonadecanes(19)	1 952	2 7 1 9	2 855
Eicosanes(20)	1.610	2.331	2.462
Heneicosanes(21)	1.374	2.093	2.224
Docosanes(22)	1.256	1.993	2.130
Tricosanes(23)	1.098	1.806	1.941
Tetracosanes(24)	0.985	1.679	1.812
Pentacosanes(25)	0.902	1.596	1.731
Hexacosanes(26)	0.822	1.507	1.641
Heptacosanes (27)	0.760	1.445	1.581
Octacosanes(28)	0.690	1.356	1.489
Nonacosanes(29)	0.604	1.225	1.350
Triacontanes(30)	0.546	1.142	1.262
Hentriacontanes Plus(31+)	7.528	20.370	23.275
Total	100.000	100.000	100.000

Page 3 of 3

January 3, 2022

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

For: EOG Resources, Inc. P. O. Box 592929 San Antonio, Texas 78259

Date Sampled: 12/01/21

Date Analyzed: 12/07/21

Sample: Naylor Jones Unit 2

Job Number: J213203

FLASH LIBERATION OF HYDROCARBON LIQUID		
	Heater Treater HC Liquid	Stock Tank
Pressure, psig	57	0
Skin Temperature, °F	160	70
Gas Oil Ratio (1)		18.5
Gas Specific Gravity (2)		1.617
Separator Volume Factor (3)	1.0445	1.000

STOCK TANK FLUID PROPERTIES		
Shrinkage Recovery Factor (4)	0.9574	
Oil API Gravity at 60 °F	42.65	
Reid Vapor Pressure Equivalent (D-6377), psi (5)	10.60	

Quality Control Check			
	Sampling Conditions	Test Sa	amples
Cylinder No.		W-1256*	
Pressure, psig	57	57	
Temperature, °F	160	160	

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

(2) - Air = 1.000

(3) - Separator volume / Stock tank volume

(4) - Fraction of first stage separator liquid

(5) - Absolute pressure at 100 deg F

Analyst: R.E. * Sample used for flash study Base Conditions: 14.65 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Conan Pierce 361-661-7015

January 3, 2022

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

For: EOG Resources, Inc.

P. O. Box 592929 San Antonio, Texas 78259 Date Sampled: 12/01/21

Date Analyzed: 12/11/21 Job Number: J213203

Sample: Naylor Jones Unit 2

FLASH LIBERATION OF SEPARATOR WATER		
Heater Treater Stock Tank		
Pressure, psig	57	0
Skin Temperature	160	70
Gas Water Ratio (1)		0.63
Gas Specific Gravity (2)		0.965

Piston No.: PW-37732

Base Conditions: 14.65 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Conan Pierce 361-661-7015



PRODUCER

EOG

Serial Number::	EOG_NG Ext_1201_003	Station Name::	Hoff Comp Inlet 1
Station Number::	1004001F20	Station Location::	Area 6
Sample Point::	Downstream	Cylinder Number::	SMS-S836
Sampled Date::	12/01/2021	Sampled By::	David Phillips
Sample Contents::	NG Spot	Sample Condtions::	88 psig @ 71 degF

Components (60°F)

Name	Qty (Norm) [Mol %]	Wt Percent	GPM
nitrogen	0.272021	0.344	0.00000
methane	73.708339	53.432	0.00000
carbon dioxide	1.520782	3.024	0.00000
ethane	13.903543	18.891	3.70837
propane	6.682583	13.315	1.83626
i-butane	0.855202	2.246	0.27910
n-butane	2.187701	5.746	0.68791
i-pentane	0.308070	1.004	0.11239
n-pentane	0.324344	1.057	0.11725
n-hexane	0.067773	0.264	0.02780
n-heptane	0.009373	0.042	0.00431
n-octane	0.000824	0.004	0.00042
benzene	0.006592	0.023	0.00184
methylcyclohexane	0.002472	0.011	0.00099
methylcyclopentane	0.003296	0.013	0.00116
cyclohexane	0.003193	0.012	0.00108
toluene	0.002266	0.009	0.00076
ethylbenzene	0.000103	0.000	0.00004
m,p-xylene	0.000206	0.001	0.00008
o-xylene	0.000000	0.000	0.00000
n-nonane	0.000206	0.001	0.00012
n-decane	0.000103	0.001	0.00006
C6	0.130191	0.507	0.05340
C7	0.010094	0.046	0.00464
C8	0.000206	0.001	0.00011
C9	0.000412	0.002	0.00023
C10	0.000103	0.001	0.00006



PRODUCER	EOG		
Name	Qty (Norm) [Mol %]	Wt Percent	GPM
C11+	0.000000	0.000	0.00000
	100.000000	100.000	6.83838

Calculations (14.65)

0.342	Relative Density (Water = 1.0) Total :	22.13	Component MW Total :
1294.547	Heating Value (Dry Ideal) Total BTU:	0.99693	Compressibility (Z) (Dry Gas) :
1271.95727	Heating Value (Sat Ideal) Total BTU:	1294.465	Heating Value (Dry Real) Total BTU:
	:	1271.74160	Heating Value (Sat Real) Total BTU:

Approved: <u>Randy Lunceford</u>

Date:

12/21/2021



Producer:	EOG
Station Name:	Hoff H-G-A-Telluride Fac Check
Station Number:	1457000F06
Sample Date:	08-21-23
Sample Contents:	NG Spot
Sample Pressure:	134 Psig
Sample Temp:	103 degF
H2S:	25
First Flow:	No

Index	Name	Normalized [Mole%]	Wt%	GPM
1	C6+	0.5445	2.2464	0.2342
2	Nitrogen	0.2990	0.3756	0.0000
3	Methane	73.3141	52.7396	0.0000
4	Carbon Dioxide	1.5239	3.0075	0.0000
5	Ethane	14.3566	19.3581	3.8317
6	Propane	6.6608	13.1709	1.8314
7	i-Butane	0.8236	2.1467	0.2690
8	n-Butane	1.6854	4.3927	0.5306
9	i-Pentane	0.3893	1.2596	0.1423
10	n-Pentane	0.4028	1.3031	0.1457
Total		100.0000	100.0000	6.9848

Scott Measurement Services Inc. Gas Lab 19942 FM 2252 Building #1 Garden Ridge, TX 78266 210-599-7600 www.scottmeasurement.com

> Analysis Date: 8/28/2023 5:01:09 PM GC4R_58003 Serial Number: Area: 6 Source: Meter Tube Cylinder Number: SMS-S707 Sampled By: R. Pitts Lab Technician: **Gabriel Gonzales** GPA Method: GPA 2261-19 Resample: No Recieved Date: 08-24-23

Calculated Molecular Weight	22.300	
Relative Density Real Gas	0.77301	
Compressibility Factor	0.99597	
C2+ GPM	6.9848	
C3+ GPM	3.1531	
C5+ GPM	0.5221	

Calculated Gross BTU @ 14.65 psia & 60 degF

Real Gas Dry BTU 1304.75

Water Sat. Gas Base BTU 1282.02

Approved 8/28/2023 Date:

Comments: _

APPENDIX C

AREA MAP

