State of New Mexico

Form C-101 Revised July 18, 2013

1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210

Phone: (575) 748-1283 Fax: (575) 748-9720 District III

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

**Energy Minerals and Natural Resources** 

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

XAMENDED REPORT (Add 2 zones)

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

	North Fork Operating, LP 1000 W. Wilshire Blvd Suite 311							329399			
	North Fork Operating, LP 1000 W. Wilshire Blvd., Suite 311 Nichols Hills, OK 73116 (405) 843-8200							*API Number 30-025-27817			
* Prope 326	Property Code Property Name 326752 Hale State							<sup>6.</sup> Well No. 5			
				<sup>7.</sup> S	urface Location						
UL - Lot G	Section 2	Township 25 S	Range 37 E	Lot Idn	Feet from 1650	N/S Line N	Feet From 2150	E/W Line E	County Lea		
	8. Proposed Bottom Hole Location										
UL - Lot G	UL - Lot Section Township Range Lot Idn Feet from N/S Line Feet From G 2 25 S 37 E 1650 N 2150							E/W Line E	County Lea		

9. Pool Information

Pool Name  Justis; Glorieta & Langlie Mattix; 7 Rvrs-Q-Grayburg	Pool Code 79360 & 37240

11. Work Type A & P	12.	Well Type O	<sup>13.</sup> Cable/Rotary R	<sup>14.</sup> Lease S	е Туре	<sup>15.</sup> Ground Level Elevation 3162'
16. Multiple Y		oposed Depth OO' PBTD	<sup>18.</sup> Formation Paddock	to be det		<sup>20.</sup> Spud Date 5-1-21
Depth to Ground water Dis		Distance from	Distance from nearest fresh water well			rest surface water
73' in CP 00886 POD1		0.43 r	nile S of CP 00886 POD1		≈350°	SW of drainage

A closed-loop system will be used in lieu of lined pits.

21. Proposed Casing and Cement Program

Туре	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5"	13.375"	62	GL - 265'	350	GL (circ 23 sx)
Intermediate	12.25"	8.625"	24 & 32	GL - 3449'	825	GL (circ 25 sx)
Production	7.875"	5.5"	15.5 & 17	GL - 7880'	1000	2800' (temp.)

Casing/Cement Program: Additional Comments

Plug back existing Drinkard perforations (5944'-6163'). Set a CIBP & 35' cement @ 5000'. New perforations will be added in the Paddock (4807' - 4870') and Queen/Penrose (3125' - 3307'). The new perforations will be stimulated as recommended by engineers. Will test zones separately to acquire data for possible DHC application.

22. Proposed Blowout Prevention Program

- 17		Troposed Bioriode Freien	tion i rogium		
	Туре	Working Pressure (psi)	Test Pressure (psi)	Manufacturer	
	double ram 5000# manual	5000	5000	Vista	1

of my knowledge and belief.	n given above is true and complete to the best	OIL CONSERVATION DIVISION			
I further certify that I have compli 19.15.14.9 (B) NMAC □, if applic Signature:	ed with 19.15.14.9 (A) MAG and/or able.	Approved By:  KURT SIMMONS			
Printed name: Brian Wood		Title:	Title: NMOCD, SANTA FE		
Title: Consultant			d Date: 04/28/2021	Expiration Date: 04/28/2023	
E-mail Address: brian@permitswest.com					
Date: 4-23-2021 Phone: 505 466-8120			Conditions of Approval Attached		

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# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

X AMENDED REPORT (plug back & add 37240)

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <sup>2</sup> Pool Code 30-025-27817 37240			LANGLIE MATTIX; 7 RVRS-Q-GRAYBI		
<sup>4</sup> Property Code 322828			roperty Name  E STATE		
<sup>7</sup> OGRID No. 326752			oerator Name KOPERATING, LP	<sup>9</sup> Elevation 3162'	
		10 Sur	face Location		

UL or lot no. Section Township Range Lot Idn North/South line Feet from the Feet from the East/West line County G 2 25 S 37 E 1650 NORTH 2150 **EAST** LEA "Bottom Hole Location If Different From Surface UL or lot no. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County 12 Dedicated Acres <sup>13</sup> Joint or Infill 4 Consolidation Code 15 Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16	$\overline{}$		17 OPERATOR CERTIFICATION
		Œ.	I hereby certify that the information contained herein is true and complete
			to the best of my knowledge and belief, and that this organization either
			owns a working interest or unleased mineral interest in the land including
	1650'		the proposed bottom hole location or has a right to drill this well at this
	1030		location pursuant to a contract with an owner of such a mineral or working
			interest, or to a voluntary pooling agreement or a compulsory pooling
			order heretofore entered by the division.
			19/1/00/
	$\forall$		4-10-21
	<b>○</b> ←21	50'	Signature Date
			BRIAN WOOD
			Printed Name
			brian@permitswest.com
			E-mail Address
			(505) 466-8120
			A STATE OF THE STA
			*SURVEYOR CERTIFICATION
			I hereby certify that the well location shown on this
			plat was plotted from field notes of actual surveys
			made by me or under my supervision, and that the
			same is true and correct to the best of my belief.
			1-11-82
			Date of Survey
			is a second seco
			Signature and Seal of Professional Surveyor:
			Original survey by
			John W. West #676 is
			attached.
			Certificate Number
			Ceruncate Number

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District IV

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X AMENDED REPORT (plug back & add 79360)

LEA

EAST

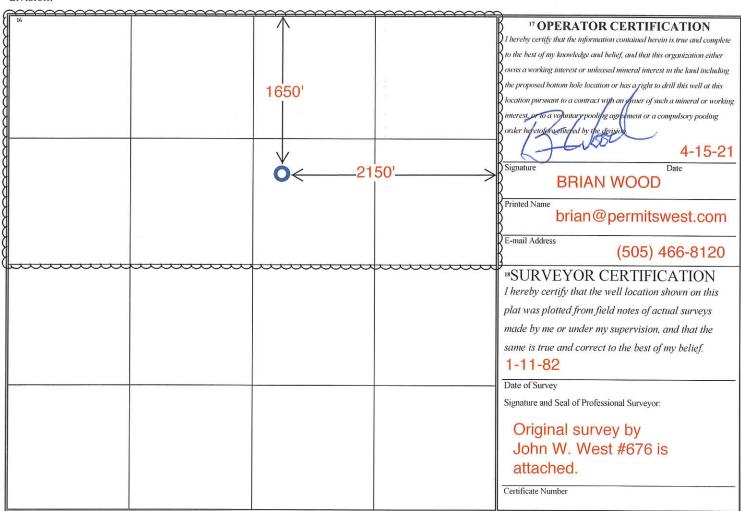
# WELL LOCATION AND ACREAGE DEDICATION PLAT

30-	API Number 025-278			<sup>2</sup> Pool Code <b>79360</b>		JUSTIS; GLORIETA (PRO GAS)				
Property 3228			•	<sup>5</sup> Property Name HALE STATE				•		
<sup>7</sup> OGRID 3267				NORTH		<sup>8</sup> Operator Name ORK OPERATING, LP			<sup>9</sup> Elevation 3162'	
<sup>10</sup> Surface Location										
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	Feet from the North/South line Feet from the East/West line				County

'E 1650 NORTH 2150

			" Bot	tom Hol	e Location If	Different From	Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 320.56	13 Joint o	r Infill	Consolidation C	ode 15 Oro	ler No.				Harris and the second s

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



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# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

# GAS CAPTURE PLAN

Date: 4/15/2021

X Original Operator & OGRID No.: North Fork Operating, LP (329399)

☐ Amended - Reason for Amendment:\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

# Well(s)/Production Facility - Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well	API	SHL (ULSTR)	SHL Footages	Expected MCF/D	Flared or Vented	Comments
Hale State :	30-025- 27817	G-2-24S-37E	1650 FNL & 2150 FEL	50	30 days	Time depends on well clean up

# **Gathering System and Pipeline Notification**

Well will be connected to a production facility after flowback operations are completed. Gas from the pad will be piped west 100' to an existing Energy Transfer Partners, LP (267255) line in SWNE 2-25s-37e. North Fork Operating, LP will provide (periodically) to its Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, North Fork Operating, LP and its Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from the well will be processed at an Energy Transfer Partners, LP Processing Plant located in Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well will be produced to permanent production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the well will be turned to production facilities. Gas sales should start as soon as the well starts flowing through the production facilities, unless there are operational issues on its <u>Gas Transporter</u> system at that time. Based on current information, it is <u>North Fork Operating</u>, <u>LP's</u> belief an existing or new system can take this gas upon completion of the well. Safety requirements during cleanout operations from using underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

## Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - o Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



# WELL BORE DIAGRAM

Date:

4/22/21

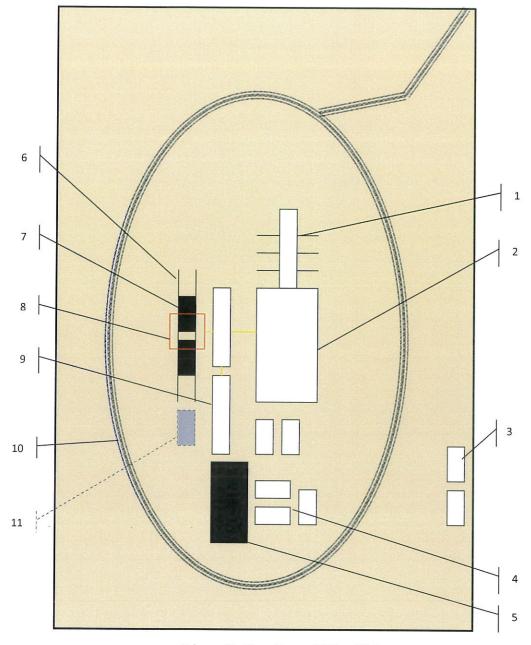
Hale State #005

API#

30-025-26817

Well Spuded 5/22/1982 - Completed 7/21/1982

	8 5/8" 24 & 32# @ 3 850 sx	3450'	
		Formation	Гор
		V-4	2424
		Yates 7Rvrs	2431 2633
2 - 2 / 2		Queen	3098
		Penrose	3206
		Grayburg	3397
		San Andres	3620
		Glorieta	4688
		Paddock	4782
	Proposed perforation	ons: 3,125' - 3,307'	
	Drongered verforeti	4 907! 4 970!	
	Proposed perforatio	ns: 4,807' - 4,870'	
	CIBP @ 5000' + 35' d	of cement	
	Perforations, Blineb	ry 5099-5758'	
		30,000 gals fluid and	53,000# sand -
	Perforations, Drinka Frac w/	rd 5944-6163° 30,000 gals fluid and	53,000# sand -
	Plug Back Depth 680	00'	



Schematic Closed Loop Drilling Rig\*

- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

\*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available





Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)

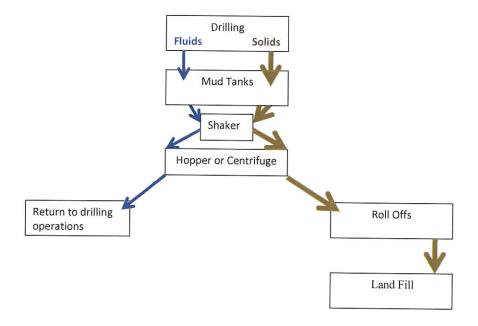
Hopper in air to settle out solids (2)

Water return pipe (3)

Shaker between hopper and mud tanks (4)

Roll offs on skids (5)

# Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service



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CONDITIONS

Action 25416

# **CONDITIONS**

Operator:	OGRID:		
V-F PETROLEUM INC	24010		
P.O. Box 1889	Action Number:		
Midland, TX 79702	25416		
	Action Type:		
	[C-101] Drilling Non-Federal/Indian (APD)		

### CONDITIONS

Created By	Condition	Condition Date
pkautz	Must apply for DHC prior to producing the well commingled.	7/6/2021