STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION OF MANZANO LLC FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT AND AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO.

Case No.	
Cuse 1 10.	

APPLICATION

In accordance with NMAC 19.15.27.8, Manzano LLC ("Applicant") (OGRID No. 231429) files this application with the Oil Conservation Division for an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the San Andres formation in a project area ("Project Area") comprised of the SE/4 and E/2NE/4 of Section 30, and the E/2SE/4 of Section 19, Township 9 South, Range 35 East, NMPM, Lea County, New Mexico; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producing well to an injector. In support of its application, Applicant states:

- 1. Applicant operates the following described wells within or near the Project Area:
 - the **Sodbuster 21 Fee** #**4H** (API 30-025-43704) with a surface hole location at 200 FSL, 1650 FWL of Section 21 and a bottom hole location at 330 FNL, 1650 FWL of Section 21;
 - the **Rag Mama 30-19 Fee #1** (API 30-025-44067) with a surface hole location at 25 FSL, 528 FEL of Section 30 and a bottom hole location at 2303 FSL, 394 FEL of Section 19; and
 - The Vince BGH No. 1H (API No. 30-025-37104) located at 1980 FSL, 1750
 FEL (Unit J) of Section 30.
- 2. The wells are currently producing from the Jenkins San Andres Pool (Pool No. 33950).

- 3. Applicant proposes to convert its Vince BGH No. 1H well from a producer into an injection well for pressure maintenance operations. Applicant plans to inject produced gas from the Sodbuster 21 Fee #4 and Rag Mama 30-19 Fee #1 into the San Andres formation through a closed system using the Vince BGH No. 1H. Applicant does not anticipate compatibility issues.
 - 4. The injection interval of the Vince BGH No. 1H is 4840 feet to 4850 feet.
- 5. Injection will provide pressure maintenance support for the Rag Mama 30 19 Fee #1 well and will also reduce flaring.
- 6. The expected average injection rate of produced gas into the Vince BGH No. 1H is 150 MCFGPD. The expected maximum injection rate is 1,000 MCFGPD to provide Manzano the option to inject more gas as the GOR increases or if Manzano drills additional wells in the Jenkins San Andres Pool.
- 7. The expected average injection pressure of produced gas into the Vince BGH No. 1H is 500 psi and the proposed maximum injection pressure is 950 psi.
- 8. Applicant's proposed pressure maintenance project can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.
- 9. Approval of this application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.
 - 10. A copy of the applicable C-108 is attached as Exhibit A.

WHEREFORE, Applicant requests this application be set for hearing on January 6, 2022, and after notice and hearing, the Division enter an order: (1) approving a pressure maintenance project for the injection of produced gas through the Vince BGH #1 well into the San Andres formation in the Project Area; and (2) authorizing Manzano to convert the Vince BGH #1 well from a producer to an injector.

Respectfully submitted,

HINKLE SHANOR LLP

/s/ Dana S. Hardy

Dana S. Hardy Michael Rodriguez P.O. Box 2068 Santa Fe, NM 87504-2068 Phone: (505) 982-4554

Facsimile: (505) 982-8623 dhardy@hinklelawfirm.com mrodriguez@hinklelawfirm.com Counsel for Manzano LLC

Released to Imaging: 12/8/2021 11:11:00 AM

6	
_	Š
6	5
R	
9	١
C	١
	ì
0	Q
10	
٦,	١
	ŀ
ď	
7	١
C	à
\sim	
9	2
5	d
٩.	į
М	2
۹,	
-	ì
٠.	
7	١
	ŀ
c	۹
ŗ	١
S	9
	1
7	
-	S
- 5	
×	Ę
70	J
8	ï
	Ľ
-	Š
9	
- 2	۱
2	
è	Ĺ
R	i

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
	NEW MEYICA	ABOVETHIS TABLE FOR OCD DIVIS		OF HEW &
		O OIL CONSERVA		
	CPS-LAA SSECTION AND ADDRESS A	al & Engineering		•
	1220 SOUTH ST. Fro	ancis Drive, Santa	Fe, NM 8/505	R COMMANDE OF STREET
THIS C	ADMINISTRA HECKLIST IS MANDATORY FOR ALL	ATIVE APPLICATIO		AUCION DILLEG AND
11113 C	REGULATIONS WHICH REG	QUIRE PROCESSING AT THE D	IVISION LEVEL IN SANTA FE	AISION RULES AND
pplicant: Manzan			OGRID N	Number: 231429
ell Name: VINC			API: 30-02	
ool: JENKINS SAN	ANDRES		Pool Co	de: 319660
SUBMIT ACCURA	TE AND COMPLETE INFO	ORMATION REQUIR INDICATED BELOV		TYPE OF APPLICATION
	CATION: Check those v - Spacing Unit – Simulto SL NSP _{(PRO}	aneous Dedication	PRORATION UNIT)	
[] Comr 	ne only for [1] or [11] ningling – Storage – Me DHC □CTB □PLo ion – Disposal – Pressur WFX ■PMX □SW	C □PC □OL. e Increase – Enhar	nced Oil Recovery	EOR OCD ONLY
A. Offset of B. Royalty C. Applice D. Notifice E. Surface G. For all of	REQUIRED TO: Check the operators or lease hold of overriding royalty own ation requires published ation and/or concurrent of the above, proof of tice required	ers ners, revenue own d notice nt approval by SLO nt approval by BLM		POR OCD ONLY Notice Complete Application Content Complete , and/or,
administrative of understand the	: I hereby certify that the approval is accurate as it no action will be taken as submitted to the Divis	nd complete to the en on this applicati	e best of my knowle	edae. I also
Not	e: Statement must be complete	d by an individual with m	anagerial and/or supervis	ory capacity.
			9/28/2021	
OHN WORRALL			Date	
502 (80)			8	
rint or Type Name			575-622 1004 EVT	202
ald.			575-623-1996 EXT. Phone Number	302
gnature			JWORRALL@MA e-mail Address	NZANOENERGY.C





September 28, 2021

New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

New Mexico Oil Conservation Division 1625 N. French Drive Hobbs, NM 88240

RE: Gas Injection Application Manzano, LLC Vince BGH #1

Manzano, LLC hereby submits an application to convert the Vince BGH #1 to a gas injection well. Accordingly, please find enclosed an original and one copy of our application Form C-108 with attachments. A third copy has been sent to the Division Office in Hobbs. A Legal Notice of our application has been filed with the Hobbs Sun newspaper.

Should you have any questions regarding our application, I can be reached at 575-623-1996 ext. 302 or 575-420-5853 cell. Thank you for your assistance in handling our application.

Sincerely,

On behalf of Manzano, LLC

Released to Imaging: 12/8/2021 11:11:00 AM

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108 Revised June 10, 2003

Released to Imaging: 12/8/2021 11:11:00 AM

APPLICATION FOR AUTHORIZATION TO INJECT

	THE STATE OF THE S
I.	PURPOSE: Secondary Recovery X Pressure Maintenance Disposal Storage Application qualifies for administrative approval? X Yes No
II.	OPERATOR: MANZANO, LLC
	ADDRESS: P.O. BOX 1737, ROSWELL, NM 88202-1737
	CONTACT PARTY: JOHN WORRALL PHONE: 575-623-1996
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted)
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: JOHN WORRALL TITLE: MANAGER
	SIGNATURE:DATE:DATE:DATE:
*	E-MAIL ADDRESS: JWORRALL@MANZANOENERGY.COM If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

Side 2

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

Released to Imaging: 12/8/2021 11:11:00 AM

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Answers to FORM C-108. Application of Manzano, LLC to inject gas into the VINCE BGH #1.

- III. The well data for the proposed injection well is attached along with the current and proposed wellbore diagram.
- V. Attached is the Area of Review map identifying six total wells within the ½ mile radius of the Injection well including the injection well, one producing oil well, and four plugged and abandoned wells.
- VI. The table of well data shows casing and cement information, the perforated intervals, and the plugging and abandonment information. Wellbore diagrams are attached for the five wells within the Area of Review.
- VIII. 1. Manzano, LLC proposes to inject an average of 150 MCFGPD into the well. The maximum daily rate requested is 1000 MCFGPD to give Manzano the option to inject more gas as the GOR increases or if Manzano drills additional wells in the Jenkins San Andres pool.
- 2. The system is closed. There are two source wells and one injection well, all in the same reservoir, the San Andres P-1 dolomite.
- 3. The proposed average injection pressure is 500 psi, the proposed maximum injection pressure is 950 psi.
- 4. Source Wells: The gas to be injected is produced in the only two active wells in the Jenkins San Andres pool. It will be injected into the same zone in the injection well. There should no compatibility issues. These two source wells currently produce 59 BOPD, 129 MCFGPD, and 1068 BWPD.
- a. Manzano, LLC Rag Mama 30 19 Fee #1 (API 30-025-37104) located at 25 FSL, 528 FEL Sec. 30-T9S-R35E.
- b. Manzano, LLC Sodbuster 21 Fee #4H (API 30-025-43704) located at 200 FSL, 1650 FWL Sec. 21-T9S-R35E.
- 5. Gas analyses from the two source wells are attached.
- VIII. Geologic Information of the Injection zone: See the attached log section cross section. The gas will be injected into the San Andres P-1 dolomite in existing perforations at 4840 to 4850 feet in the Vince BGH #1. This well will be converted from an existing oil producer to a gas injector for the purpose of maintaining reservoir pressure, to allow for more oil to be produced from the reservoir. The well currently produces 2 BOPD and 31 BWPD and is uneconomic. Reservoir: The San Andres formation is present from 4000 to 5460 feet in this well. The interval from 4810 to 4900 is known as the P-1 dolomite, which is a fine crystalline dolomite with 4% to 12% porosity, and 20 to 100 ohm-m of resistivity. The interval has up to 100 feet of porosity greater than 6% (See attached isopach map). Oil and gas is stratigraphically trapped where this

reservoir pinches out northward into anhydrite. The zone is also overlain by anhydrite, and underlain by a tight limestone.

Water Aquifer: The water aquifer in the area are the Ogalalla red beds. Attached is a map ("Figure 4") from Atkins Engineering of Roswell showing the top of the aquifer is present at 4025 feet above sea level. The Vince BGH #1 well has a drill floor elevation of 4183 feet, which means water is found in the red beds at 158 feet. Atkins Engineering indicates there is approximately 25 feet of water in this area

IX. No additional stimulation is planned. The zone has already been acidized with 41,000 gallons of 15% NEFE acid.

X. Logs of this well are attached.

XI. There are no water wells within one mile of the proposed injection well. Attached is a map from Atkins Engineering ("Figure 3") which identifies the nearest water wells, all of which are located 2.5 to 3 miles from the injection well.

XIII. An Affidavit is attached.

XIV. Attached is a Land Map showing that there are no other operators within the ½ mile Area of Review radius. A copy of the application has been sent by certified mail to the surface owner, C J. Kinsolving. A receipt is attached.

Attached is the Legal Notice filed with the Hobbs News Sun.

Other Attachments to this application:

Injection Well Data Sheet

Injection Well Current Wellbore Diagram

Injection Well Proposed Wellbore Diagram

Area of Review Map

Table of Well Data

Wellbore Diagrams of other five wells within the Area of review

Gas Analysis - Manzano, LLC Rag Mama 30 19 Fee #1H

Gas Analysis – Manzano, LLC Sodbuster 21 Fee #4H

Log Cross Section of the P-1 Dolomite

Net Porosity Isopach Map of the P-1 Dolomite

Map of Top of Water in the Ogallala Red Beds from Atkins Engineering

Location Map of Fresh Water Wells from Atkins Engineering

Land Map

Affidavit

Received by OCD: 12/7/2021 3:52:20 PM

Legal Notice in the Hobbs News Sun

Proof of Notice to the Surface Owner Charles Kinsolving

Proof of Notice to the Bureau of Land Management Carlsbad Office

Statement on Seismicity Analysis



- VIII. 1. Manzano proposes to inject an average of 150 Mcfgpd into the Vince BGH #1. The maximum proposed rate is 1000 MCFGPD.
- 2. The system is closed.
- 3. The average proposed injection pressure is 500 psi. The maximum proposed pressure is 950 psi. A 10 day shut in test on the Vince, revealed the current bottomhole pressure is 378 psi. The original bottomhole pressure is calculated as 1697 psi.
- 4. Gas will be sourced by the Sodbuster 21 #4H and the Rag Mama 30 19 Fee #1H wells. These wells currently produce 59 BOPD, 129 MCFGPD and 1068 BWPD.

Side 1

OPERATOR: MANZANO, LLC				
WELL NAME & NUMBER: VINCE BGH #1			4	
WELL LOCATION: 1980 FSL, 1750 FEL	ř	30	T9S	R35E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
<u>WELLBORE SCHEMATIC</u> (SEE ATTACHED)		WELL CONSTR Surface Casing	VELL CONSTRUCTION DATA Surface Casing	펀

INJECTION WELL DATA SHEET

		H ³	ri	
	2/8"	2500	ed: CIRC	
hd	Casing Size: 9 5/8"	2	Method Determined:CIRC.	
itermediate Casing	Casin	or	Metho	Production Casing
rmedia	ĺ	SX.		ductio
<u>inte</u>	12 1/4"	1103	SURFACE	Pro
	Hole Size:	Cemented with: _	Top of Cement:	
			-	

 \mathbb{H}^3

975

Or

SX.

426

Cemented with:

13 3/8"

Casing Size:_

17 1/2"

Hole Size:

CIRC.

Method Determined:

SURFACE

Top of Cement:

Ħ3 CALC. 5 1/2" Method Determined: 3200 Casing Size: or SX. 3645 1420 8 3/4" 12650 Cemented with: Top of Cement: Total Depth: Hole Size:

Injection Interval

4840 feet to 4850 (PERFS)

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tub	Tubing Size:	2 7/8"	Lining Material:
Ty_1	Type of Packer: ARRO	ARROWSET 1-X	
Pac	Packer Setting Depth:	4750	
Oth	ner Type of Tubing/	Other Type of Tubing/Casing Seal (if applicable):	Je):
		<u>Ac</u>	<u>Additional Data</u>
1.	Is this a new well	Is this a new well drilled for injection?	Yes X No
	If no, for what pu	If no, for what purpose was the well originally drilled?	nally drilled?
	DEVONIAN OIL WELL	OIL WELL	
5.	Name of the Injection Formation:		SAN ANDRES
3.	Name of Field or	Pool (if applicable):	Name of Field or Pool (if applicable):
4.	Has the well ever intervals and give SET CIBP AT 126	been perforated in any plugging detail, i.e. sac 20. 20 CMT ON TOP 2. 3 11607-11621, 11655-11	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 1. DEVONIAN UPHOLE SET CIBP AT 12620. 20 CMT ON TOP 2. WOODFORD 12534-12592 SET CIBP AT 12500 30' CMT. 3. ATOKA PERFS 11607-11621, 11655-11664. SQUEEZED. 4. SAN ANDRES 4840-50.
5.	Give the name and injection zone in t	d depths of any oil or gans area: SAN ANDR	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: SAN ANDRES IS PRODUCTIVE. TOP IS 4000. BOUGH C
	FORMERLY PR	ODUCED, NOW INA	FORMERLY PRODUCED, NOW INACTIVE IN AREA, TOP IS 9738, DEVONIAN(TOP OF
	12650) PRODUC	12650) PRODUCES IN SECTION 20.	

CURRENT WELLBORE DIAGRAM PROPOSED INJECTION WELL

Well Name:	`` ∵Vince BGI	HNo.1	Field:_	Wildcat	5/
Location:	1980' ESL-&.	1750' FEL Sec. 30-			
GL: 4165!	_ Zero:	AGL: .		KB:	4183'
Spud Date:	. 4/25/05	Corr	pletion I	Date:	
Comments:					
•					

Casing Progr	am
Size/Wt/Grade/Conn	Depth Set
13 3/8" 48# H40	426'
9 5/8" 36& 40 # J55	4149'
7" 26# J55, L80, HCP110	12650'

San

13 3/8" csg @ 426'. Cmtd w/ 440 sx. Cmt circ.

TOC 3645' by calc.

9 5/8" csg @ 4149'. Cmtd w/ 1303 sx. Cmt circ.

San Andres perfs 4840'-50'

RBP at 4921

Atoka perís 11607-21' & 11655-64' SQUEEZED

Woodford Sand perfs 12534-12592'

7" csg @ 12650'. Cmtd 1st stg w/ 165 sx. Cmtd 2nd stg w/ 2090 sx.

Devonian open hole.

SKETCH NOT TO SCALE

DATE: 09/20/2021...

eceived by OCD: 12/7/2021 3:

CIBP@12500'+35'cin)

CIBP@12620'+20'cmt

TD 12660

CIBP@12500'+35'cm

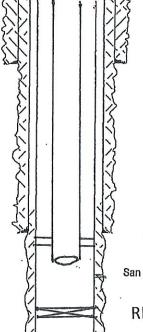
CIBP@12620'+20'cm

TD 12660

PROPOSED WELLBORE DIAGRAM PROPOSED INJECTION WELL

Well Name:	Vince BGH No.	1 Fie	ld:_wildcat		_
Location:	_1980' FSL & 1750'	FEL Sec. 30-9S-35	iE_Lea_Co_NM		_
GL: 4165	Zero:	AGL:	KB:	4183'	_
Spud Date:	4/25/05	Complet	tion Date:		_
Comments:	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-				_

Casing Progr	am
Size/Wt/Grade/Conn	Depth Se
13 3/8" 48# H40	426'
9 5/8" 36& 40 # J55	4149'
7" 26# J55, L80, HCP110	12650'
, , , , , , , , , , , , , , , , , , , 	



13 3/8" csg @ 426'. Cmtd w/ 440 sx. Cmt circ.

TOC 3645' by calc.

9 5/8" csg @ 4149', Cmtd w/ 1303 sx. Cmt circ.

San Andres perfs 4840'-50'

PROPOSED INJECTION

RBP at 4921

Use Existing Perfs at 4840 to 4850 feet Set Arrowset 1-X packer at 4750 feet. 27/8" tubing to 4800 feet.

Atoka perfs 11607-21' & 11655-64' SQUEEZED

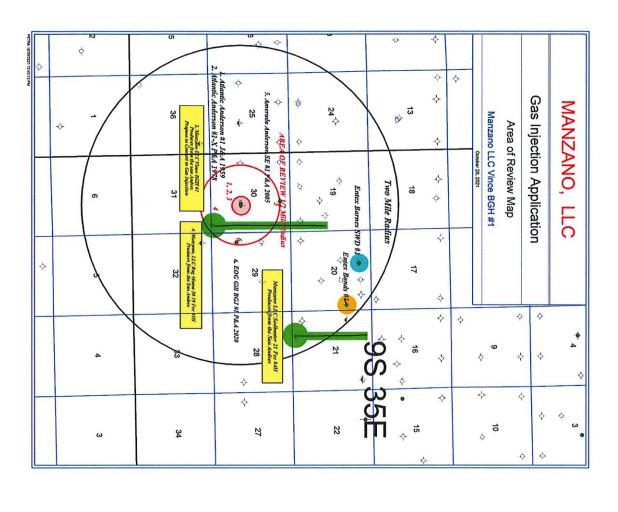
Woodford Sand perfs 12534-12592'

7" csg @ 12650', Cmtd 1st stg w/ 165 sx. Cmtd 2nd stg w/ 2090 sx.

Devonian open hole.

SKETCH NOT TO SCALE

Released to Imaging: 12/8/2021 11:11:00 AM



Manzano is applying to inject gas produced from the Manzano Sodbuster 21 Fee #4H and Manzano Rag Mama 30 19 Fee #1H wells into the Vince BGH #1 well. All three wells are currently perforated in the same P-1 dolomite reservoir. The two source wells currently produce a total of 59 BOPD, 129 MCFGPD and 1068 BWPD. Produced water is disposed in the Entex Barnes SWD #1 well. Gas is currently flared due to a lack of a pipeline. The proposed injection well, currently produces 2 BOPD and 31 BWPD and is deemed uneconomic. The new flare rule, while preventing waste, and recovering more oil from the reservoir by increasing the reservoir pressure.

TABLE OF WELL DATA

	P&A DATE			PRIOR COMPLETION DEPTHS P&A INFORMATION	PRIOR COMPLETION DEPTHS	CURRENT COMPLETION, TVD	CURRENT COMPLETION, MD	HOW MEASURED	CMT TO	SET AT	CASING SIZE	3RD STRING HOLE SIZE	HOW MEASURED	CMT TO	SX CMT	SET AT	CASING SIZE	2ND STRING HOLE SIZE	HOW MEASURED	CMT TO	SEI AI	CASING SIZE	Ist STRING HOLE SIZE	MEASURED DEPTH	TRUE VERTICAL DEPTH	SPUD DATE	BANGE	TOWNISHIB	SURFICUNIT	FOOTAGES	STATUS	WELL TYPE	WELL#	LEASE NAME	OPERATOR	WELL ID#	
	3/5/1959	CUT OFF WELLHEAD WELD PLATE ON TOP	PARTED CASING AT 4245 5 SXS ON RETAINER	SET RETAINER AT 4151	NONE	JUNKED &ABANDONED	NONE	NONE	NONE	NONE	NONE	NONE	TEMP. SURVEY	1475	1600	4350	95/8"	12 1/4"	CIRCULATED	SURFACE	43b 375	133/8"	17 1/2"	4752	4752	2/1/1959	375	8 6	30 L	1980 FSL, 1980 FEL	P&A	DRY HOLE	Ľ	ANDERSON	ATLANTIC REFINING CO	1	
	CUT OFF WEILHEAD WELD PLATE ON TOP 12/05/1973 Ist time 8/7/1978	35s sxs CMT 646 to 608 5 sxs CMT, TOC at 485 50 sxs cmt TOC at 385 50 sxs CMT TOC at 340	30 sxs cmt 5200 to 5050 30 sxs cmt plug 4620 to 4880 shot off 9 5/8" csg at 630 feet	250 sxs CMT 10025 to 9347	4846 to 4866 (San Andres)	NONE	NONE	NONE	NONE	5050	5 1/2"	7 7/8"	TEMP. SURVEY	1350	1500	4333	95/8"	12 1/4"	CIRCULATED	SURFACE	375	13 3/8	17 1/2"	10025	10025	3/1/1959	35E	9 0	30	1980 FSL, 1880 FEL	P&A	OIL	1-X	ANDERSON	ATLANTIC REFINING CO	2	
	ACTIVE WELL		DIAGRAM ATTACHED		12534 TO 12592 11607 TO 11664	4840 TO 4850	4840 TO 4850	CALCULATED	3645	12650	5 1/2"	83/4"	CIRCULATED	SURFACE	1103	4145	95/8"	12 1/4"	CIRCULATED	SURFACE	240	13 3/8	17 1/2"	12,655	12,655	4/25/2005	35E	95	30 -	1980 FSL, 1750 FEL	ACTIVE	OIL	щ	VINCE BGH	MANZANO, LLC	3	
	ACTIVE WELL				NONE	4847 TO 4804	5250 TO 12123	NONE	NONE	NONE	NONE	NONE	CIRCULATED	SURFACE	2100	12160	5.5"	7 7/8"	CIRCULATED	SURFACE	950	2268	12 1/4"	12,160	4847	11/30/2017	35E	S6	₩ T	25 FSL, 528 FEL	ACTIVE	OIL	H	RAG MAMA 30-19 FEE	MANZANO, LLC	4	
E.	6/16/2005	50 SXS CMT 4200 TO 4090 60 SXS CMT 2260 TO 2058 60 SXS CMT 525 TO 378 45 SXS CMT 60 TO SURF	Perf at 4300 and 4985, Sqzd 120 sys 4300-4985	12634 TO 12655 CIBP set at 12,584	4771 to 4901 9737 TO 9755	NONE	NONE	TEMP. SURVEY	7833	8000	7" 0 TO 9952	7 7/8"	TEMP. SURVEY	2417	1400	4315	85/8"	11"	CIRCULATED	SURFACE	500	400	1/1/2"	12,690	12,690	1/15/1963	35E	98	30	660 FNL, 1980 FEL	P&A	OIL WELL	1	ANDERSON SE	AMERADA PETROLEUM	50 035 30489	
	25 SXS CMT 523 TO 270 40 SXS CMT 270 TO SURF CUT OFF WELLHEAD 4/16/2020	30 SXS CMT 7786 TO 7542 25 SXS CMT 5521 TO 5268 40 SXS CMT 4282 TO 3877 25 SXS CMT 2887 TO 2634	55 SXS CMT 11934 TO 11487 25 SXS CMT 10056 TO 9853	SET CIBP AT 12615	11603 TO 11877	NONE	NONE	CALCULATED	3670	3400	5 1/2"	83/4"	CIRCULATED	SURFACE	1575	4170	9 5/8"	12 1/4"	CIRCULATED	SURFACE	440	420	13 3/9"	12,670	12,670	8/1/2005	35E	98	29	1650 FSL, 660 FWL	P&A	OIL WELL	,	GILL BGJ	EOG RESOURCES	6 30-025-37103	

		Con	anany	500 PF	COLUBER						
					SOURCES					Prospect:	
_				GILL BG	iJ #1					TD (MD/TVD):	
era			ounty:							Elevation:	
General		4 DI NI		NEW M						atitude & longitude:	
٥		APINU	ımber:	30-025-3	37103				Section	on-Township-Range	
										Surface Location:	
	L								Bo	ttom Hole Location:	Same
DIRECT	TIONS:										
FORM	ATION	PE	RFS		Casing Profile		Hole	Cas	ing Specificaltons		DO A INFORMATION
							Size			P&A 4/16/2020. Cut	P&A INFORMATION off Wellhead
				Ш						40 sxs 270 to surface 25 sxs 523 to 270	e
				Н			17 1/2"	13 3/8"	set at 420	23 585 323 to 270	
										25 sxs 2887 to 2634	
										40 sxs 4282 to 3877	
						l l		1-11		40 585 4282 10 3877	
									et at 4170. n 1575 sxs to surf.		*0
					1 1	{	T				
		-								25 sxs 5521 to 5268	
											9
										30 sxs 7786 to 7542	
										*	
										25 sxs 10056 to 9853	3
Ato	ka	11603	11877							55 sxs 11934 to 1148	36
					T		ļ			7	
							8 3/4"		o 12660. n 3400 sxs		
							TD 426	TOC 36	70 calculated.	30 sxs 12377 to 1261	15
Devoni	an (OH)	12660	12670				TD 1267	'U		CIBP at 12615	15
	Thic w	ell prod	uced 16	n 828 BC	1 968 MCEG	and 8	กยว 277	BW fre	om the Devonian.		
ಭ	It prod	uced 16	511 BO,	136,796	MCFG and 18	0 BW fr	rom Atol	ka perf	orations.		
Comments	It was _I	olugged	d and al	andoned	l in 2020.						
om.					4000						*
						-					
									-		

ONS:	Well C	Name: ounty: State:	ANDERSO	(ICO	Hole	2 Ca. 2 13 3/8"	Secti Bo sing Specificaitons	Prospect: TD (MD/TVD): Elevation: atitude & longitude: on-Township-Range Surface Location: ttom Hole Location: P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	12690 4187 (KB) 30-T9S-R35E 660 Fnl, 1980 Fel Same P&A INFORMATION off Wellhead
ONS:	PE	State: mber:	LEA NEW MEX 30-025-204	(ICO 488	17 1/	2 Ca. 2 13 3/8"	Secti Bo sing Specificaitons	Elevation: atitude & longitude: on-Township-Range Surface Location: ttom Hole Location: P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 525 to 378	30-T9S-R35E 660 Fnl, 1980 Fel Same P&A INFORMATION off Wellhead
ONS:	PEI	State: mber:	NEW MEX 30-025-204	488	17 1/	2 Ca. 2 13 3/8"	Secti Bo sing Specificaitons	P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 2260 to 2058	30-T9S-R35E 660 Fnl, 1980 Fel Same P&A INFORMATION off Wellhead
ONS:	PE	RFS	30-025-204	488	17 1/	2 Ca. 2 13 3/8"	Secti Bo sing Specificaitons	on-Township-Range Surface Location: ttom Hole Location: P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	30-T9S-R35E 660 Fnl, 1980 Fel Same P&A INFORMATION off Wellhead
ONS:	PE	RFS			17 1/	2 Ca. 2 13 3/8"	Bo sing Specificaitons set at 400	P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 2260 to 2058	660 Fnl, 1980 Fel Same P&A INFORMATION off Wellhead
TION			Cas	sing Profile	17 1/	2 Ca. 2 13 3/8"	sing Specificaitons set at 400	P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 525 to 378	P&A INFORMATION off Wellhead
TION			Cas	sing Profile	17 1/	2 Ca. 2 13 3/8"	sing Specificaitons set at 400	P&A 6/16/2005. Cut 45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	P&A INFORMATION off Wellhead
TION			Cas	sing Profile	17 1/	2 Ca. 2 13 3/8"	set at 400	45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	off Wellhead
			Ca	sing Profile	17 1/	2 Ca. 2 13 3/8"	set at 400	45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	off Wellhead
dres	4771	4901			171/	2" 13 3/8"		45 sxs 60 to surface 60 sxs 525 to 378 60 sxs 2260 to 2058	off Wellhead
dres	4771	4901			11"		anh at 4215	50 sxs 4200 to 4090	
dres	4771	4901					0 sxs TOC at 2417		
						498 120	2 Perf 4300 and 5 and pump sxs cement eeze behind 7".		
0	9737	9755						Retainer set at 8175	ft
					7 7/8	5 1/2" 9: Cmt wit	922 to TD h 800 sxs	CIBP at 12504	
ian	12634	12655				100 78	33 calculated.	ren	
t produ	<i>iced 66</i> produc	1,189B0 ed 459	<i>O, 1,016,58.</i> BO from the	22 MCFG and 45					
t	his we produ	his well produ produced 66 ast, it produc	his well produced 10, produced 661,189B0 ast, it produced 459 B	his well produced 10,189 BO, 4,2 produced 661,189BO, 1,016,58 ast, it produced 459 BO from the	his well produced 10,189 BO, 4,1728 MCFG an	his well produced 10,189 BO, 4,1728 MCFG and 583,704 produced 661,189BO, 1,016,582 MCFG and 451,416 BV ast, it produced 459 BO from the San Andres.	5 1/2" 9 Cnt wit TOC 78 his well produced 10,189 BO, 4,1728 MCFG and 583,704 BW from Citast, it produced 459 BO from the San Andres.	his well produced 10,189 BO, 4,1728 MCFG and 583,704 BW from the Devonian. produced 661,189BO, 1,016,582 MCFG and 451,416 BW from Cisco perforations. ast, it produced 459 BO from the San Andres.	S 1/2" 9922 to TD Cmt with 800 sxs TOC 7833 calculated. Perf his well produced 10,189 BO, 4,1728 MCFG and 583,704 BW from the Devonian. produced 661,189BO, 1,016,582 MCFG and 451,416 BW from Cisco perforations. ast, it produced 459 BO from the San Andres.

		Con	npany:	Atlantic Refining				Prospect:	Jenkins
		Well	Name:	Anderson #1				TD (MD/TVD):	4752
<u>ra</u>		С	ounty:	Lea				Elevation:	4175 (DF)
General			State:	New Mexico			Lat	titude & longitude:	
Ge				30-025-02666			Sectio	30-T9S-R35E	
								Surface Location:	1980 FSL, 1980 FEL
							Bot	tom Hole Location:	1980 FSL, 1980 FEL
	nation	MD	pth TVD	Casing Profile T	12 1/4 Surv. 7 7/8"	Set 13 : Cement Set 9 5/ Cement TOC at :	Sing Specifications 3/8 at 426 feet. with 426 sxs 48" at 4350 feet. with 1500 sxs 1475 by Temp. 752 ft TD	Junked and abando	
Comments									

																			_					
		Con	npany:	Atlar	ntic F	efining	7										Pro	ospect	: Jenk	ins				
		Well	Name:	Ande	rson	#1-X										T	D (MD	/TVD)	: 10,0	25				
<u>a</u>		C	ounty:	Lea													Ele	vation	: 4175	5 (DF)				
General			State:	New	Мех	ico									La	titude	& lon	gitude	2:					
l e			ımber:																	9S-R35	E			
) FSL, 1		L		
															Bot) FSL, 1				
DIRECT	IONS:														Dot		ore no	cation	. 1200	7 7 52, 1	00072	-		
										_	Hole													
ZON	IE of	De	pth			Casin	g Profile	!			Size	Ca	sing Spe	cificaito	ons				P&A	Info				
PE	RFS															50 sxs	3/7/19 5 TOC a 5 TOC a	at 385	off we	ll hellh	ead			
											17 1/2		3/8 at 40			Cut 9	5/8 at	630 fe	et. 35	sxs 646	5 to 60	В.		
													t with 37 ment to											
										1		ĺ				1								
		L					1																	
		-									12 1/4		/8" at 43			-								
					8			1					t with 15 1350 by		ırv.									
					8			. 1								30s sx	s 4620) to 48	30					
San A	Andres	4846	4866			-	=	- 1				Set 50 s	xs at 505	0 to 520	0 ft			, , , ,						
												Ran 5/1 to 5050	2" casing	liner 42	72									
									y.				with 325	sxs										
					-																			
					1																			
																0								
																				•				
-										Į														
								978																-
-												250	الم	10025	L 034	7								
											77/011		s plug : ,025 Di											-
उ	Well pr	oduced	11.357	BO 7	454 A	ACEG a	nd 2276	9 RM	/ fom	-	-			-	an hih	T		Т—	Т—	Т—				1
							12/05				mure	3 4040	10 4000	<i>"</i>		 			1	+-	+		+	+
	It was i	reenter	ed in 19	73 bu	t ope	rator co	ould not	tie o	nto 9	5/8	" casin	g stub (and wa	s replu	gged 8	/7/197	8 as sh	nown.						
				1		1.		1	\square	\sqcup													-	
				+	\vdash	++	+	+	H	+		-				-	-	-	-	+	+	-	+	+
				\perp	Щ	\perp	\perp			\perp														

	We	II Name: County: State:	Manzano, LLC Rag Mama 30-19 Fee s Lea New Mexico 30-025-44067	#1H			Prospect: Jenkins TD (MD/TVD): 12160'MD/4850'TVD Elevation: 4159' GL & 4180' KB (21'KB)	
RECTIO		County: State:	Lea New Mexico			la	Elevation: 4159' GL & 4180' KB (21'KB)	
RECTIO		State:	New Mexico			La	titudo 9 langitudos 102 202204/22 409020	
RECTIO	API					La	titude & longitude: 103.393294/33.498036	
						Sectio	n-Township-Range 30-9S-35E	
							Surface Location: 25' FSL & 528' FEL-Sec 30-9s-35e	?
							tom Hole Location: 2310' FSL & 400' FEL-Sec 19-9s-3	
m souti	h onto lea	se road, G			les thru	@ Crossroads turn west or cattleguard the follow roa	nto CR170/Carrol Road, Go west on CR170 for 3 miles d 0.2 miles to location	&
Formati	ion ME	Depth TVD	Casing Profile		Hole Size	Casing Specifications	Mud Program	
Top Rusti	****	15000000			12 1/4"	12 1/4"Ulterra U616S 8 5/8" 32#/ft J-55 LTC to 2275'	0'-3500': MW 8.4-10+, Vis 30-32, WL 15 Cement w/750sx 35:65:6 (12.9ppg/1.87cfs/10.11; 200sx "C" (14.8ppg/1.33cfs/6.33gps)	gps) +
8 5/8" Yates	"Casing @ 2							
Queen San Andr					77/8"	7 7/8" Ulterra U616M	Cement 5 1/2" w/1100sx 50:50:10 C (11.00ppg/2.8 1000sx 50:50:2 C (14.5ppg/1.22cfs) KOP- EOL @: MW 10+, Vis 30-32, WL n/c	1cfs)
KOP	4265	5 4265		CURVE	7 7/8"	7 7/8" Ulterra U616M 5.5" 20.0# L80 BTC to	Curve: 4265'-5170' (905')	
Pi Marke						Surface		
CO. 1080 C. 1080								
Top Pay Zo	one 4880	9 4770						
		_						
End of Cui	rve 5170	4840						
End of late	eral 1216	0 4805		اپ		7 7/8" Ulterra U616M	TD Lateral @ 12160'MD/4805'TVD	
				LATERAL	7 7/8"	5.5" 20.0# L80 BTC to Surface	Lateral: 5180' - 12180'MD (6990')	



Certificate of Analysis

Number: 6030-21070001-001A

Artesia Laboratory 200 E Main St. Artesia, NM 88210 Phone 575-746-3481

July 01, 2021

Manzano Energy Manzano Energy 300 W 2nd St Roswell, NM 88201

Station Name: Rag Mamma Heater Station Number: Heater treater Station Location: Manzano

Instrument:

Sample Point: Heater Ball Valve 6030_GC6 (Inficon GC-3000 Micro)

Analyzed:

Last Inst. Cal.: 06/28/2021 0:00 AM

07/01/2021 10:35:01 by EJR

Sampled By: Sample Of:

Cameron Rivera Gas Spot

Sample Date:

06/30/2021 09:30

Sample Conditions: 20 psig Ambient: 70 °F Effective Date:

06/30/2021 09:30 GPA-2261M

Method: Cylinder No:

5030-00488

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.000	2.10000	2.716		GPM TOTAL C2+	5.858
Nitrogen	4.465	4.45505	4.735		GPM TOTAL C3+	3.496
Methane	60.630	60.49464	36.823		GPM TOTAL iC5+	1.054
Carbon Dioxide	13.129	13.09975	21.874			
Ethane	8.833	8.81352	10.055	2.362		
Propane	5.586	5.57395	9.326	1.539		
Iso-butane	0.829	0.82725	1.824	0.271		
n-Butane	2.005	2.00043	4.412	0.632		
Iso-pentane	0.693	0.69106	1.892	0.253		
n-Pentane	0.667	0.66571	1.822	0.242		
Hexanes Plus	1.282	1.27864	4.521	0.559		
	98.119	100.00000	100.000	5.858		
Calculated Physica	l Properties	Total		C6+		
Relative Density Rea	al Gas	0.9138		3.2176		
Calculated Molecular	r Weight	26.36		93.19		
Compressibility Factor	or	0.9955		,		
GPA 2172 Calculati	on:					
Calculated Gross B	TU per ft3 @ 14.696 p	sia & 60°F				
Real Gas Dry BTU		1138		5129		
Water Sat. Gas Base	e BTU	1118		5040		
Ideal, Gross HV - Dr		1132.7		5129.2		
Ideal, Gross HV - We	et	1112.7		5039.7		
Comments: H2S F	ield Content 2.1 %					

Data reviewed by: Eric Ramirez, Analyst

Quality Assurance:

Received by OCD: 12/7/2021 3:52:20 PM

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



Certificate of Analysis

Number: 6030-21070001-003A

Artesia Laboratory 200 E Main St. Artesia, NM 88210 Phone 575-746-3481

July 01, 2021

Manzano Energy Manzano Energy 300 W 2nd St Roswell, NM 88201

Station Name: Sodbuster Heater Station Number: Heater Treater Station Location: Manzano

Instrument:

Sample Point: Heater Ball Valve

6030_GC6 (Inficon GC-3000 Micro) Last Inst. Cal.: 06/28/2021 0:00 AM

Analyzed:

07/01/2021 11:34:42 by EJR

Sampled By: Sample Of: Sample Date: Cameron Rivera Gas

Spot 06/30/2021 09:15

Effective Date:

Sample Conditions: 20 psig Ambient: 70 °F 06/30/2021 09:15

Method: Cylinder No:

GPA-2261M 1111-002209

Analytical Data

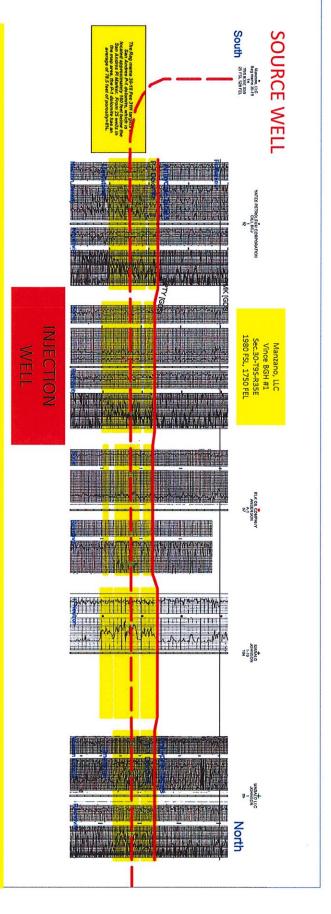
Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia		
Hydrogen Sulfide	0.000	2.40000	2.991		GPM TOTAL C2+	5.431
Nitrogen	7.990	8.17264	8.371		GPM TOTAL C3+	3.311
Methane	54.324	55.56411	32.591		GPM TOTAL iC5+	1.185
Carbon Dioxide	15.374	15.72463	25.302			
Ethane	7.736	7.91305	8.700	2.120		
Propane	4.769	4.87800	7.865	1.346		
lso-butane	0.670	0.68499	1.456	0.225		
n-Butane	1.716	1.75559	3.731	0.555		
Iso-pentane	0.559	0.57135	1.507	0.209		
n-Pentane	0.600	0.61360	1.619	0.223		
Hexanes Plus	1.684	1.72204	5.867	0.753		
	95.422	100.00000	100.000	5.431		
Calculated Physical P	roperties	Tota		C6+		
Relative Density Real C	Gas	0.9482		3.2176		
Calculated Molecular W	Veight	27.35	i/	93.19		
Compressibility Factor		0.9956				
GPA 2172 Calculation	:					
Calculated Gross BTL	J per ft ³ @ 14.696 p	sia & 60°F				
Real Gas Dry BTU		1059		5129		
Water Sat. Gas Base B	TU	1041		5040		
Ideal, Gross HV - Dry a	t 14.696 psia	1054.6		5129.2		
Ideal, Gross HV - Wet	popul	1036.0		5039.7		
Comments: H2S Field	d Content 2.4 %					

Data reviewed by: Eric Ramirez, Analyst

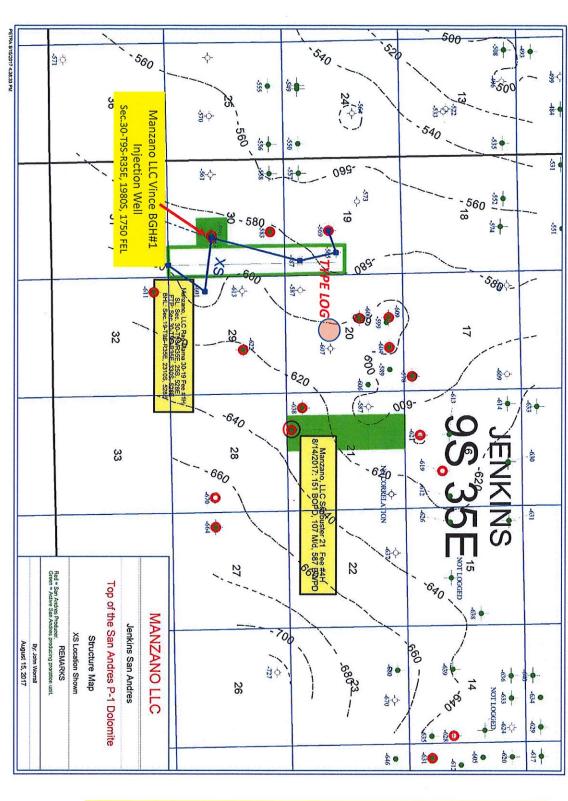
Quality Assurance:

Received by OCD: 12/7/2021 3:52:20 PM

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



by anhydrite, and underlain by tight limestone 31 BWPD. The San Andres formation is present from 4000 to 5460 feet in this well. Shown on this cross in the Manzano LLC Vince BGH#1. The well will be converted to injection; it currently produces 2 BOPD and stratigraphically trapped where this reservoir pinches out northward into anhydrite. The zone is also overlain ohm-m of resistivity. The interval can exhibit up to 100 feet of porosity> 6% (see isopach map). Oil and gas is P-1 dolomite (yellow) is a fine crystalline dolomite reservoir, with typically 4 to 12% porosity, and 20 to 100 section is the San Andres Pi Marker, a regional volcanic ash bed which is the datum for the cross section. The map. The gas will be injected into the San Andres P-1 dolomite in existing perforations at 4840 to 4850 feet Rag Mama 30 19#1H lateral. The location of these wells is shown on the P-1 dolomite isopach and structure VIII. This is a south to north stratigraphic cross section depicting the logs of the vertical wells adjacent to the

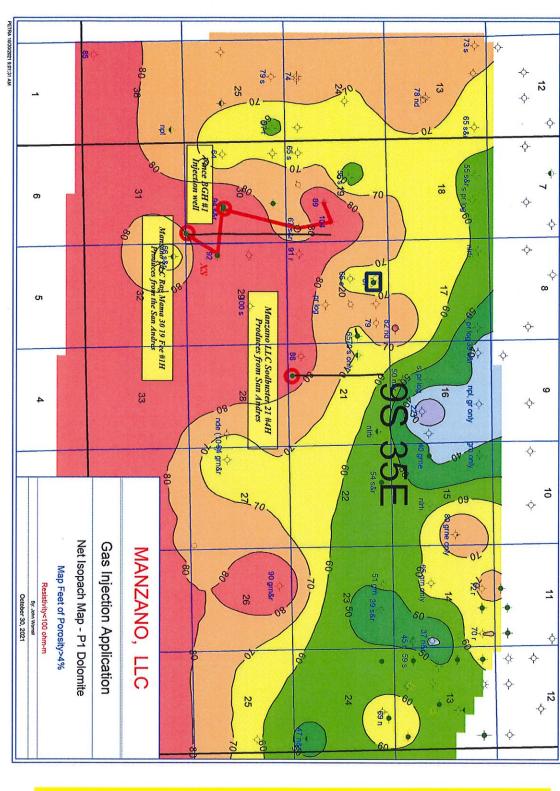


VIII. GEOLOGY

This is a structure map on top of the P-1 dolomite showing the reservoir is relatively flat with only 40 feet of east dip per mile (a half degree slope).

Wells in red have historically produced oil or gas from this reservoir, or exhibit shows. Currently, Manzano produces oil from the two horizontal wells and the Vince #1. The other red wells have been plugged and abandoned.

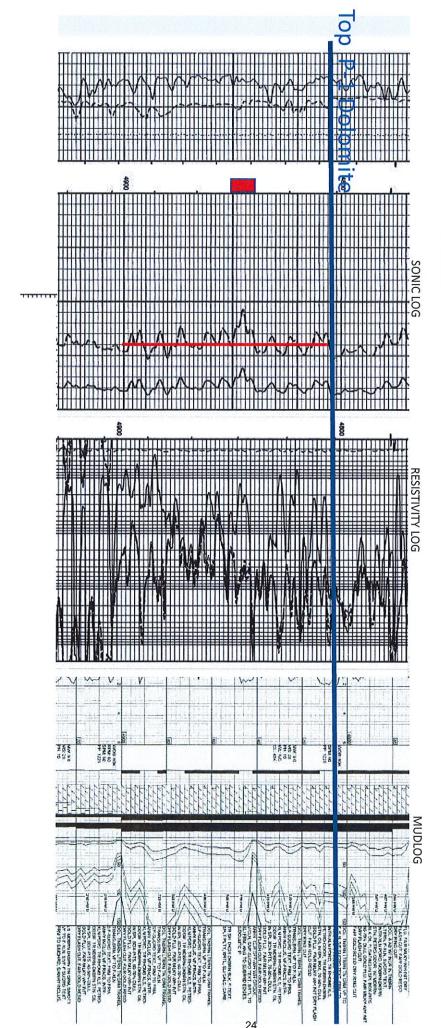
The location of the cross section is shown on this map.

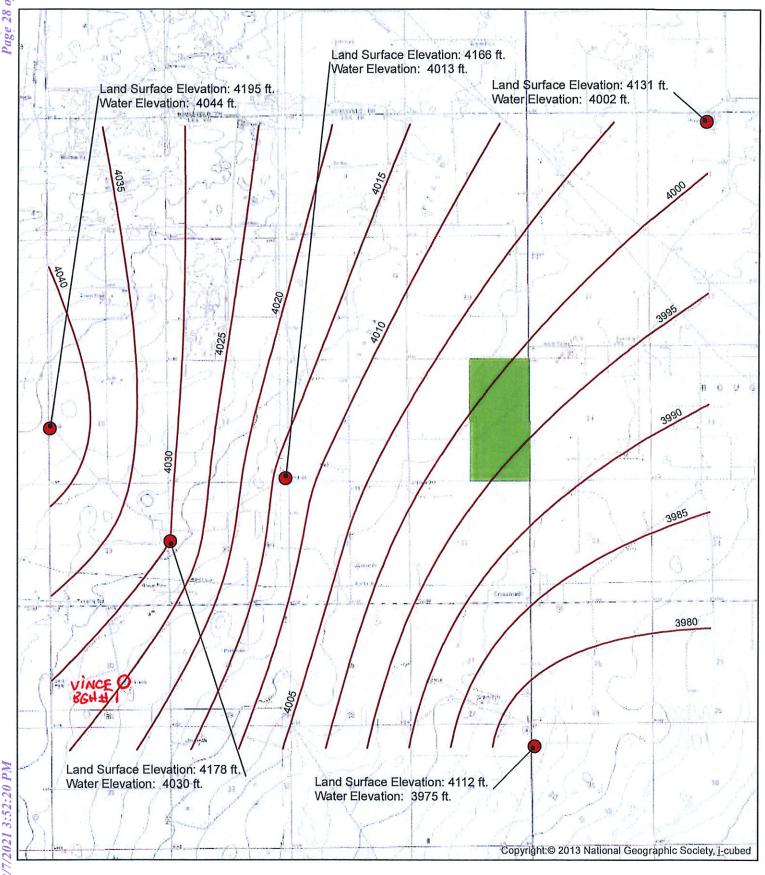


trap. anhydrite filled the zone is present but showing feet of the P-1 dolomite up the stratigraphic dolomite, which sets tight anhydrite and porosity grades into reservoir. Northward up to 100 feet of the P-1 dolomite has < 100 ohm-m. It shows porosity >4% and/or resistivity log showing This is a net isopach of 23

The cross section location is shown along with the injection well and the two source wells.

resistivity from 4810 to 4900 ft. Injection will be through existing perforations at 4840 to 50 feet. Logs show the pay is a dolomite with good porosity and X. Log Data of the Manzano Vince BGH #1 located in Section 30-T9S-R35E, 1980 Fsl, 1750 Fel.







Manzano Fee Land WaterLevels





0 2,000 4,000 8,000 Feet

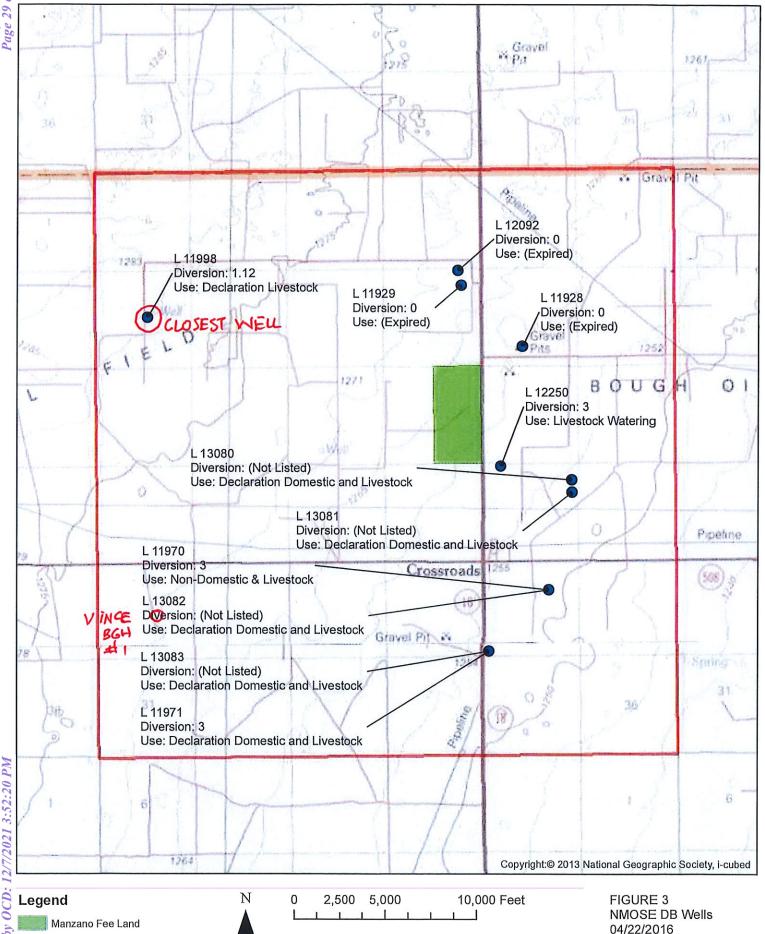
1 inch = 4,000 feet

FIGURE 4 Water Elevation from 1996 NMOSE Well-Schedule Records 04/22/2016



NMOSE DB Wells

Township 9S Range 35 E N.M.P.M.



1 inch = 5,000 feet

LEGAL NOTICE October 1, 2021

Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line. and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and maximum a pressure of 950 psi. Interested parties may file objections requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. within 15 days. Should you have any questions please contact John Worrall at Manzano, LLC at 575-623-1996 ext. 302.

#36902

Ad Text:

LEGAL NOTICE

Received by OCD: 12/7/2021 3:52:20 PM

Advertising Invoice

Hobbs Daily News-Sun

201 N Thorp P. O. Box 850 Hobbs, NM 88241

Phone: 575-393-2123 575-397-0610 Fax:

URL: www.hobbsnews.com

KEN BARBIE MANZANO OIL CORPORATION P.O. BOX 2107 ROSWELL, NM 88202-2107

Cust#:

01101555

Ad #:

00259095

Phone:

(575)623-1996

Date:

09/29/2021

Salesperson: HA

Ad Taker:

Kayla

Sort Line:

36902 BGH#1

Class:

671

Description	Start	Stop	Ins.	Cost/Day	Amount
AFF2 Affidavits (Legals)					6.25
BOLD bold					1.00
07 07 Daily News-Sun	10/1/2021	10/1/2021	1	32.67	32.67

October 1, 2021 Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line, and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and a maximum pressure of 950 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis

Payment Reference:

Total: 39.92 Tax: 2.72 Net: 42.64 Prepaid: 0.00 **Total Due** 42.64 Released to Imaging: 12/8/2021 11:11:00 AM

LEGAL NOTICE

Manzano, LLC of P.O. Box 1737 Roswell, NM has filed an application with the New Mexico Oil Conservation Division to inject gas into the Manzano, LLC Vince BGH #1 well for the purpose of reservoir pressure maintenance. The well is located at Section 30-T9S-R35E, 1980 from south line, and 1750 from east line in Lea County, New Mexico. Gas will be injected in the San Andres dolomite at 4840 to 4850 feet at maximum rate of 1000 MCFGPD and a maximum pressure of 950 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Should you have any questions please contact John Worrall at Manzano, LLC at 575-623-1996 ext. 302.





October 25, 2021

New Mexico Oil Conservation Division Attention: Dylan Rose-Coss Geological and Engineering Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Ladies and Gentlemen,

RE: Application to Inject Gas into the Manzano, LLC Vince BGH State #1

The following statement is sent regarding the need for <u>Seismicity Analysis</u> for the proposed injection of gas into the caption well.

The injection gas will be placed back into the San Andres formation from which it comes. The maximum proposed injection pressure is 950 PSI, which will be in perforations from 4840 to 4850 feet in the Vince BGH State #1. This maximum pressure is only a .196 PSI/ft pressure gradient, which is well below the normal pressure gradient for the formation of .35 psi/ft, and way below the expected .9 to 1.0 psi/ft frac gradient for the formation. Second, the zone of injection is 8000 feet above the Precambrian Basement in this area. For both of these reasons, there is no need for an analysis of the potential for induced seismic activity in this area. Should you have any questions, regarding this issue or statement, please advise.

Sincerely,

John G. Worrall

Geologist

Form C-108 Item XII.

Manzano, LLC Vince BGH #1

AFFIDAVIT

Manzano, LLC has examined the geological and engineering data associated with the proposed injection well and find no evidence of open faults or other hydrologic connections between the injection zone and good sources of drinking water.

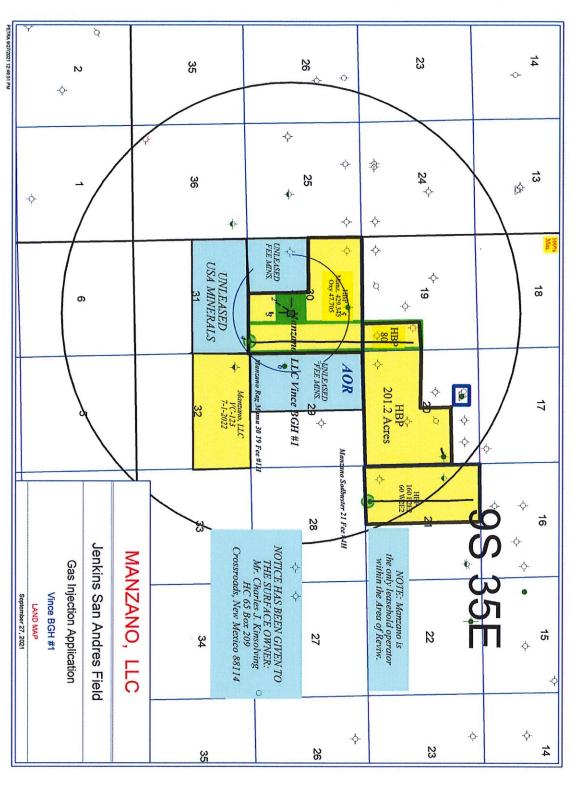
Sincerely,

ohn Worrall)

Partner

Received by OCD: 12/7/2021 3:52:20 PM

Manzano, LLC



XIV. This is a land map showing lease ownership of Manzano, LLC in yellow. Manzano, LLC is the only operator within the Area of Review. The surface owner of the Vince location, Charles Kinsolving, has been given notice, as has the Bureau of Land Management who owns unleased minerals in the N/2 of Section 31. See attached.





October 25, 2021

Bureau of Land Management 620 E. Greene Street Carlsbad, NM 88220

To whom it may concern:

Attached for your notice is a copy of the permit filed with the New Mexico Oil Conservation Division, located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. The Bureau of Land Management manages unleased minerals within the area of interest. In this application, Manzano, LLC is proposing to reinject gas at 4840 to 4850 feet in the San Andres formation in the Vince BGH #1, located at 1980 FSL, 1750 FEL, in Section 30 of T9S-R35E. Should you have any questions, please contact me or Mike Hanagan at 575-623-1996. Thank you.

Sincerely,

John Worrall

On behalf of Manzano, LLC

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete Items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: BLM In a Complete Items 1, 2, and 3. In Article Addressed to: In Article Addressed to:	A. Signature Agent Addressee B. Repelved by (Printed Name) C. Date of Delivery D. Is delivery address different from Item 1? If YES, enter delivery address below:
9590 9402 5491 9249 9341 08	3. Service Type ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery ☐ Collect on Delivery ☐ Collect on Delivery ☐ Signature Confirmation ☐ Signature Confirmation



September 28, 2021

Mr. Charles J. Kinsolving HC 65 Box 209 Crossroads, NM 88114

Mr. Kinsolving,

U.S. Postal Service

CERTIFIED MAIL® RECEIPT

Domestic Mail Only

For delivery information, visit our website at www.usps.com*.

Certified Mail Fee

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy)

Return Receipt (electronic)

Cartified Mail Restricted Delivery \$

Adult Signature Required

Adult Signature Restricted Delivery \$

Postage

Sent To

Sireet and Apr. No., or PO Box No.

City, State, 2/P448

PS Form 3800, April 2015 PSN 7530 02-000 9047

See Reverse for Instruction

Attached for your notice is a copy of the permit filed with the New Mexico Oil Conservation Division, located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. In this application, Manzano, LLC is proposing to reinject gas at 4840 to 4850 feet in the San Andres formation in the Vince BGH #1, located at 1980 FSL, 1750 FEL, in Section 30 of T9S-R35E, on surface lands owned by you. Should you have any questions, please contact me or Mike Hanagan at 575-623-1996. Thank you.

Sincerely,

John Worrall

Received by OCD: 12/7/2021 3:52:20 PM

On behalf of Manzano, LLC