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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Vaca Draw Unit SWD #1 API:30-25-23895

ADMINISTRATIVE APPLICATION CHECKLIST

	ADMINIOTICATIVE ALLEN	DATION CHECKER	
THIS CHECKLIST IS	MANDATORY FOR ALL ADMINISTRATIVE APPLICATION WHICH REQUIRE PROCESSING AT THE (AND REGULATIONS
Application Acronym	s:		
[NSL-Non-Sta	andard Location] [NSP-Non-Standard Prora	ation Unit] [SD-Simultaneous Ded	ication]
[DHC-Dox	vnhole Commingling] [CTB-Lease Comm	ningling] [PLC-Pool/Lease Comm	ningling]
[PC-Poo	Commingling] [OLS - Off-Lease Storage	[OLM-Off-Lease Measurement	:] [WFX-
	Waterflood Expansion] [PMX-Press	ure Maintenance Expansion]	
	[SWD-Salt Water Disposal] [IPI-Inj	ection Pressure Increase]	
[EOR-Qu	alified Enhanced Oil Recovery Certification	n] [PPR-Positive Production Re	sponse]
[1] TYPE OF A	PPLICATION - Check Those Which Appl	v for [A] Sub-1	71-4
[A]	Location - Spacing Unit - Simultaneous I		10.1.
[rt]	□ NSL □ NSP □ SĐ	574 O	1 Producers
λ		2602	6 ¬
Chec [B]	le One Only for [D] on [C]	- 60 2	7 /
V W Chec	k One Only for [B] or [C]		1
χν γ [B]	Commingling - Storage - Measurement	DO	<u>uz1</u>
~ 3 h	☐ DHC ☐ CTB ☐ PLC ☐	PC OLS OLM	- Vaca Donau G
Chec [B]			
(C)	Injection - Disposal - Pressure Increase -	Enhanced Oil Recovery	> (40 4)
~ W CN ~	☐ WFX ☐ PMX ☒ SWD ☐	IPI 🗌 EOR 📗 PPR	Suo 4, 30-025-231
" pl. k."			4
√ 0.// [D]	Other: Specify		Pod
[2] NOTIFICAL	PION DECEMBED TO COLUMN WI		- Deva
- ·	FION REQUIRED TO: - Check Those Wh		96101
[A]	Working, Royalty or Overriding Roy	yalty Interest Owners	96101
		2	
[B]	X Offset Operators, Leaseholders or S	urface Owner	
[0]	A District Co. Will I Day Co.	Dull' Ladi and Nista	
[C]	X Application is One Which Requires	Published Legal Notice	
(D)	Notification and/or Consument Ann	rovol by DIM on SIO	
[D]	Notification and/or Concurrent App. U.S. Bureau of Land Management - Commissioner of P	TOVAL DY DEIVLOT SEC	
	_		
[E]	x For all of the above, Proof of Notific	cation or Publication is Attached, a	nd/or,
rm.			
[F]	Waivers are Attached		
f21 CHDMIT AC	COMPARE AND COMPLETE INFORM		ee The Type
- 3	CCURATE AND COMPLETE INFORMA	ATION REQUIRED TO PROCE	SSTHETTPE
OF APPLIC	ATION INDICATED ABOVE.		
[4] CERTIFICA	TION. I haraby partify that the information	n submitted with this application fo	r administrativa
	TION: I hereby certify that the information		
	and complete to the best of my knowledge.		ill be taken on this
application until the r	equired information and notifications are sul	binitted to the Division.	
Not	e: Statement must be completed by an individual w	rith managerial and/or supervisory capac	ity.
	K. 12ma 11	B 1.	510/001.6
Kayla McConnell	raya Milamell	Regulatory Analyst	5/2/2016
Print or Type Name	Signafure	Title	Date
	3,	kmcconnell@btaoil.com	
	3	e-mail Address	
		CTURAL AMBLESS	

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

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Application qualifie	Secondary Recovery s for administrative approval?	Х	_Pressure Ma Yes	intenance	No X	Disposal	Storag	ge
П,	OPERATOR:	TA Oil Producers, LLC			<u>.</u>	7811	JV-P Vaca I	Draw Unit SWD	#1
	ADDRESS:1	04 S. Pecos, Midland, TX	79701						
	CONTACT PARTY	Kayla McConnell					PHONE:	432-682-3753	_
III.		nplete the data required on the re- itional sheets may be attached if			for each wel	l propos	ed for injection	1.	
IV.	Is this an expansion If yes, give the Divi	of an existing project? sion order number authorizing th	Yes e project:	<u> </u>	_No				_
V.		entifies all wells and leases within proposed injection well. This circ					with a one-hal	f mile radius circle	е
VI.	data shall include a	of data on all wells of public reco description of each well's type, co illustrating all plugging detail.							
VII.	Attach data on the p	roposed operation, including:							
	 Whether the sys Proposed averaged Sources and an approduced water: If injection is for 	ge and maximum daily rate and watem is open or closed; ge and maximum injection pressurappropriate analysis of injection fand, and, r disposal purposes into a zone no is of the disposal zone formation	re; Tuid and o	compatibility	with the rec	hin one r	nile of the pro	posed well, attach	
*VIII.	Give the geologic n dissolved solids con	geologic data on the injection zon name, and depth to bottom of all to neentrations of 10,000 mg/l or lest derlying the injection interval.	ındergrou	ind sources of	drinking w	ater (aqu	iifers containin	g waters with total	I
IX.	Describe the propos	ed stimulation program, if any.							
*X.	Attach appropriate I	ogging and test data on the well.	(If well l	ogs have beer	ı filed with	the Divi	sion, they need	not be resubmitte	d).
*XI.		nalysis of fresh water from two or well showing location of wells a				le and p	roducing) with	in one mile of any	
XII.		osal wells must make an affirmat te of open faults or any other hyd 							
ХШ.	Applicants must cor	nplete the "Proof of Notice" secti	on on the	reverse side	of this form				
XIV.	Certification: I herel belief.	by certify that the information sub	mitted w	ith this applica	ation is true	and corr	ect to the best of	of my knowledge a	nd
	NAME: Kayla	McConnel1			TITLE	: Reg	ulatory Ana	lyst	_
	SIGNATURE:	Jayla Milamell			<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	DATE	E: _6/2/2016	<u> </u>	_
	E-MAIL ADDRESS	kmcconnell@btaoil.com							
*		quired under Sections VI, VIII, X and circumstances of the earlier			n previousl	-	•	be resubmitted.	_

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 scal 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.

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.

INJECTION WELL DATA SHEET

OPERATOR: BTA Oil Producers, LLC		(API 30-025-23895)
WELL NAME & NUMBER: 7811 JV-P Vaca Draw Unit	SWD #1·	
WELL LOCATION: 657.5' FSL & 661.5' FEL, Sec. 21		
FOOTAGE LOCATION	UNIT LETTER SECTION	TOWNSHIP RANGE
WELLBORE SCHEMATIC	<u>WELL CO.</u> Surface C	NSTRUCTION DATA asing
(See Attached)	(Original)	
	Hole Size: 24"	Casing Size: 20"
	Cemented with: 1550 sx.	orft ³
	Top of Cement: Surface	Method Determined: Circ.
	Intermediate	Casing
	(Original) Hole Size:	Casing Size: 13-3/8"
	Cemented with: 3200 sx.	orft³
	Top of Cement:Surface	Method Determined:Circ.
,	Production	Casing
	(Original/Proposed*)	
	Hole Size:12-1/4"	Casing Size: 10-3/4"
,	Cemented with: 2100 sx. DV tool @ 4965' DV tool @ 6601'	orft ³
	Top of Cement:Surface	Method Determined:Circ.
	Total Depth: 17,909 (Exit casing	@ 12,690'*)
	Injection In	nterval -
	<u>Proposed 17,498'</u> feet	to 19,042' (Open Hole)
	(Perforated or Open Ho	ele; indicate which)

INJECTION WELL DATA SHEET

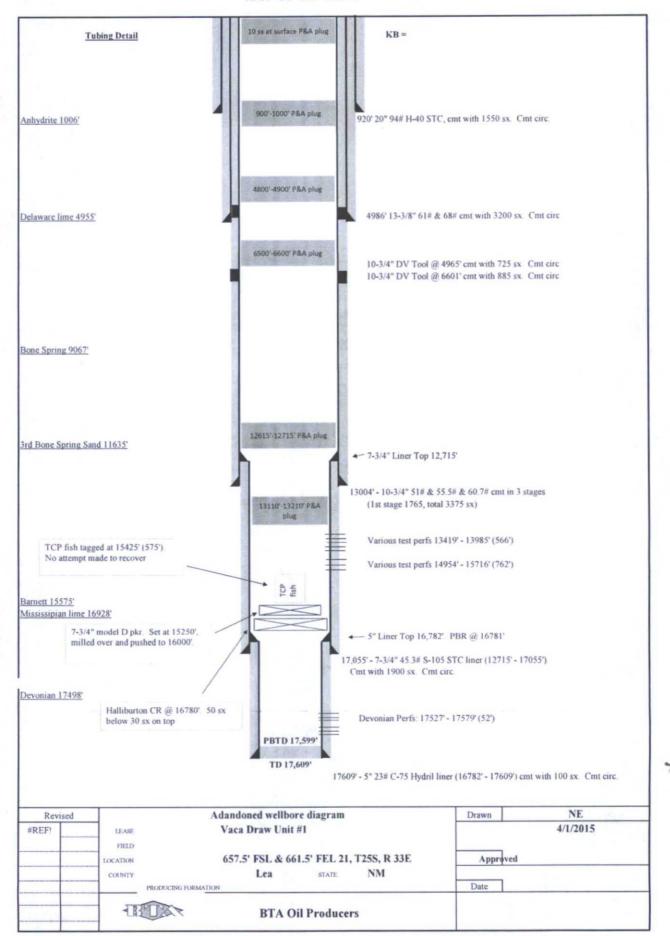
OPERATOR: BTA O	il Producers, LLC				
WELL NAME & NUMI	BER: 7811 JV-P Vaca Draw Un	it SWD #1			
WELL LOCATION:	657.5' FSL & 661.5' FEL, Sec.	21, T25S, R33E, Lea County, NM			
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
<u>WELLB</u>	SORE SCHEMATIC		WELL CO	<u>NSTRUCTION DAT</u>	<u>A</u>
(S∈	ee Attached)		<u>Line</u> s	<u> </u>	
		(Proposed) Hole Size: 8	- 3/4"	Liner Size 7	11
		Cemented with:	SX.	or	ft ³
		Top of Cement:		Method Determined	
			<u>Other</u>	<u>.</u> -	
		(Proposed) Hole Size:	6"	Casing Size: Op	en Hole
		Cemented with:	SX.	or	ft ³
		Top of Cement:		Method Determined	:
,			Injection la	nterval	
		Proposed	17,498' <u>feet</u>	to_19,042' (Oper	n Hole)

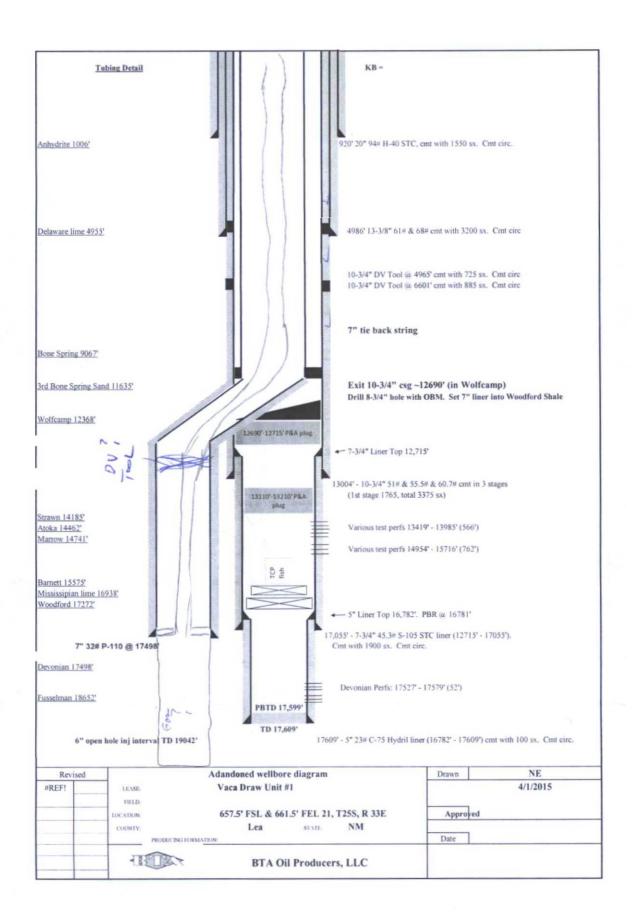
(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tul	oing Size:3-1/2" Lining Material:Internally plastic-coated
Ту	pe of Packer: Arrowset 1X
Pac	cker Setting Depth: 17,4981
Otl	her Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection? Yes Yes x No
	If no, for what purpose was the well originally drilled? Gas Well
	P&A 2-20-1973
2.	Name of the Injection Formation: Siluro-Devonian
3.	Name of Field or Pool (if applicable):
4.	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. Yes, see detail in VI AOR Well Data.
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Anhydrite 1,006', Delaware Lime 4,955', Bone Spring 9,067',
	Mississippian 16,938', Devonian 17,498', Fusselman 18652'

API: 30-025-23895





Vaca Draw Unit SWD #1

Wellbore re-entry and sidetrack of existing wellbore.

Procedure:

- 1. Install wellhead
- 2. Drill out cement plugs in 10-3/4" casing, test csg to 800 psi
- 3. Dress off cmt plug in 10-3/4" casing from 12,615' 12,690' (remaining plug will be 12690' 12715')
- 4. Set whipstock and exit 10-3/4" casing with 8-3/4" bit size
- 5. Drill from 12,690' (wolfcamp) to 17,498' (top of Devonian) using OBM (13.8 ppg 14.0 ppg)
- 6. Set 7" 32# P-110 liner (liner will be kept 1/3 full at all times) 12,550' 17,498' with 620 sx
- 7. Drill 6" open hole injection interval through Devonian/Silurian section using cut brine (8.8 ppg 9.4 ppg to 19,042'
 - a. Pull into 7" csg and test for injection
 - b. Once injection established, run 7" un-cemented tie back string to surface (tie into PBR on top of 7" liner)
- 8. Install 4-1/2" 11.6# P-110 IPC with AS1X packer @ 17,495'
 - a. Perform MIT
- 9. Acidize open hole 17,498' 19,000' with 30,000 gal 15% HCl
- 10. Put well on injection



State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary

David R. Catanach, Division Director Oil Conservation Division



Administrative Order SWD-1571 August 7, 2015

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, BTA Oil Producers, LLC (the "operator") seeks an administrative order to authorize the 7811 JV-P Vaca Draw Unit SWD Well No. 1 located 660 feet from the South line and 660 feet from the East line, Unit letter P of Section 21, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico, for the commercial disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rules 19.15.26.8B. NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objection was received within the required suspense period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, BTA Oil Producers, LLC (OGRID 260297), is hereby authorized to utilize its 7811 JV-P Vaca Draw Unit SWD Well No. 1 (API 30-025-23895) located 660 feet from the South line and 660 feet from the East line, Unit letter P of Section 21, Township 25 South, Range 33 East, NMPM, Lea County, for commercial disposal of oil field produced water (UIC Class II only) in the Devonian formation, through open-hole and perforations from 17498 to 17909 feet. Injection will occur through internally-coated, 3½-inch or smaller tubing and a packer set within 100 feet of the uppermost perforation.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as proposed in the application, and as modified by this Order.

The operator shall supply the Division with a copy of a mudlog over the permitted disposal interval and an estimated insitu water salinity based on open-hole logs. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District I and the operator shall be required to receive written permission prior to commencing disposal.



Administrative Order SWD-1571 BTA Oil Producers, LLC August 7, 2015 Page 2 of 3

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formations are open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval.

The operator shall run a CBL (or equivalent) across the 5-inch liner through the 7-3/4 to 16,500 feet to demonstrate a good cement bond between the two casings.

All existing perforations between 13,419 to 13985, and 14954-15716 shall be squeezed prior to deepening to TD.

If the upper contact of the Ordovician Ellenburger formation is encountered prior to the lower limit of the approved injection interval at 17909 feet, then the total depth of the well (and injection interval) shall be reduced to the upper contact of Ellenburger formation.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District I office and Santa Fe Engineering Bureau office.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to no more than 3500 psi. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District I office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District office. The operator shall submit monthly reports of the disposal

Administrative Order SWD-1571 BTA Oil Producers, LLC August 7, 2015 Page 3 of 3



operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District I office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

DAVID R. CATANACH

Director

DRC/mam

cc: Oil Conservation Division – Hobbs District Office Bureau of Land Management – Carlsbad Well File - 30-025-23895 DISTRICT I
1625 N. French Dr., Robbs, NM 88240
Phoen: (\$75) 393-6161 Fav (\$75) 393-6729
DISTRICT II
Phone: (\$75) 748-1283 Fav: (\$75) 748-9723
DISTRICT III
1000 Rio Brazos Road, Amer., NM 87419
Phone: (\$05) 334-6178 Fax: (\$05) 534-6170
DISTRICT IV
1220 S. St. Francis Dr., Samin Fe, NM 87505
Phone: (\$05) 476-3460 Fax: (\$05) 476-3462

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

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



JWSC W.O . 15 11,0598

WELL LOCATION AND ACREAGE DEDICATION PLAT

		WELI	L LOCA	A MOIT	ND ACRE	AGE DEDICA	ATION PLA	Γ			
30-025-238	PI Number			Pool Code 96101		Pool Name SWD;DEVONIAN					
Property C					Property Nan	ty Name Well Number					
			781	1 JV-P	VACA DRA	DRAW UNIT SWD 1					
OGRID				DTAO	Operator Nar			1	levation		
26029)	<u> </u>		BIAU	Surface Local	CERS, LLC			3359'		
UI, or lot No.	Section	Township	Range	Lei Ida	Feet from the	North/South line	Feet from the	East/West line	County		
Р	21	25-S	33-E	LG Tun	657.5	SOUTH	661.5	EAST	LEA		
	L			Boston Hole		erent From Surface					
UL or lot No.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County		
Dedicated Acres	Joint or	Intill Co	nsolidation C	ode Orde	er No	<u></u>					
3	-										
				· ·	port and the contract of the c		well at this of such mi pooling au hererofore May Signaphic Kayle Printed N	trom hole location or has a location pursuant to a con meral or working interest, a recement or a compulsary pentered by the division McConnell ame	truct with an own or to 8 voluntary souling order 6/4/201 Date		
						- PANN - MARINAN PRO - STORY A PAN	<u> </u>	onnell@btaoi			
					unadamen tra sirine de	• •	l hereby ce was plotted me or unde	VEYOR CERTIFI trify that the well location if from field notes of actual tr my supervision, and that to the best of my belief.	shown on this pi surveys made by		
and the second section of the section of the second section of the section of the second section of the section of th							Date of Si Signature	MAJ622.200 un example of Professional	Elen-		
		GEODETIC CO NAD 27 SURFACE L Y= 4047- X= 7362- LAI = 32.11 LONG.= 103.5	NME OCATION 48.6 N 07.0 E 0473' N	NAD SURFACI Y= 40 X= 77 LAT.=32	COORDINATES 83 NME E LOCATION 4806.6 N 17393.2 E 110597" N 3.570927" W	O57.55	5'- Rona	3230 Military)		

BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 657.5' FSL & 661.5' FEL Section 21, T25S - R33E Lea County, New Mexico

VII Operation Data

Proposed average Daily Injection volume
 Proposed Maximum daily injection volume
 20000 BWPD
 25000 BWPD

2. This will be a closed system.

3. Proposed average daily injection pressure
 Proposed maximum daily injection pressure
 3580 psi

4. Sources of injection water will be produced water from area that have been drilled. These will be compatible with waters in disposal zones.

BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 657.5' FSL & 661.5' FEL Section 21, T25S, R33E Lea County, New Mexico

VII Item 5

Disposal Zone Formation Water

Injection into the 7811 JV-P Vaca Draw Unit SWD #1 will be for disposal of produced water from other wells. The zone identified for disposal is not productive of oil and gas at this location. See attached Producing Formation Map. There is one current producing well within the AOR of the 7811 JV-P Vaca Draw Unit SWD #1. This well is 7811 JV-P Rojo #1 30-025-26188 operated by BTA.

BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 660' FNL & 1830' FWL Section 14, T22S, R34E Lea County, NM

VIII Geologic Data

7811 JV-P Vaca Draw Unit SWD #1 Geological Discussion Regarding Proposed Disposal Interval

A. Disposal Zone

The proposed disposal interval for this wellbore is the Devonian formation. The Devonian formation was deposited a shallow water platform carbonate formation achieving thicknesses >1000 ft in this area. Oil and gas reservoirs occur where porosity is trapped on a closure. This wellbore tested gas on initial completion from the Siluro-Devonian formation, however, the rate was not commercial. The structure has been subsequently drained by the 7811 JV-P Rojo #1 which produced ~6.2 BCF from a structurally higher position before watering-out.

B. Fresh Water Sources:

Fresh water is present in Triassic aged reservoirs to a depth of 600 feet.

Attachment to C-108

BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 657.5' FSL & 661.5' FEL Section 21, T25S, R33E Lea County, New Mexico

- \underline{X} Well logs were filed with original completion.
- XI No water wells are located within a 1-mile radius surrounding the 7811 JV-P Vaca Draw Unit SWD #1.
- XII There is no geological evidence of open faults nor other hydrologic connection between the disposal zone and any underground drinking water sources. Per Britton McQuien, Exploration Engineer.

P. O. 80X 1468 MONAHANS, JEXAS 78756

Martin Water Laboratories, Inc.

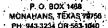


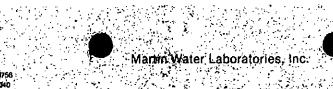
RESULT OF WATER ANALYSES

	_	ABORATORY NO	49057	
TO: Mr. Tom Williams		AMPLE RECEIVED	4-6-90	
104 South Pecos, Midland, Texas		ESULTS REPORTED	4-11-90	
COMPANY BTA 011 Producers	LEASE	Rojo		
	Red Hills			
FIELD OR POOL		Lea s	NM	
SECTION BLOCK SURVEY	- COUNTY	s	ATEBIT	
SOURCE OF SAMPLE AND DATE TAKEN		F .00		
. No. 1 Produced water - taken from I	<u>kojo #1. 4-</u>	<u> </u>		
NO. 2			·	
NO. 3	7	*** * * * * * * * * * * * * * * * * *	(17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
NO. 4	Devonian	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
REMARKS:				
CHEMICAL	NDTHASICAL		4	
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	"1" 0849 "".			the contract of the second
pH When Sampled				
рн When Received	2.2 6.38			
Bicarbonate as HCO3	264			
Supersaturation às CaCO3	11.			
Undersaturation as CaCO3	19 18 35 V	s son in property in		
Total Hardness as CaCO3	18,800			
Calcium.as Ca	6,640		1,11,11	
Magnesium as Mg	535			
Sodium and/or Potassium	39.583		<u> </u>	
Sulfate as 504	472	3 4 4 5 4 7 7 1		
Chloride as CI	73,860			
Trôn as Fe	0.14			* * * * * * * * * * * * * * * * * * * *
Barium as Ba	0.14			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	121,353			
Temperature °F	141,011		•	
Carbon Dioxide, Calculated				
Dissolved Oxygen,	* :			
	27.0			
Hydrogen Sulfide	0.082			
Resistivity, ohms/m at 77° F.	0.002			2.72
Suspended Oil				
Filtrable Solids as mg/				The second of th
Volume Filtered, ml		-		
	<u> </u>			
		 		
Registre 9				
	eported As Milligran		10	<u> </u>
Additional Determinations And Remarks, Our area.				
the north of this field. In compan			e note that	
has decidedly similar ratios of sa.	rts out a ni	guer rever or	the salts tr	tan these
records to the north. This gives s				
is a natural water from the Devonia		and appears to	have little	or no,
influence from condensed water vapo	or.	· · · · · · · · · · · · · · · · · · ·		
	<u> </u>			
		2 - 1		

Form No. 3

Waylan C. Martin, M.A.







		OC	DPY
MONAHANS, TEXAS 78756	ATEM ANALYSES		709 W. INDIANA MIDLAND, TEXAS 79701 PHONE 883-4521
TO Mr. Tom Williams	LABORATORY NO.	89713 8-5 - 97	
104 South Pecos, Midland, TX 79701-5099	AESULTS REPORTED	8-6-97	
COMPANY BTA OIL Producers FIELD OF POOL SECTION 1 BLOCK SURVEY 265&R-32ECOUNTY	LEASE Mesa #1	810 D	
SOURCE OF SAMPLE AND DATE TAKEN NO Produced water - taken from Mesa (1)		A	
NO 2 NO 3			
NO 4 REMARKS WOLfc	âmp		
CHEMICAL AND PH	YSICAL PROPERTIES	NO 3	NO 4

Specific Gravity at 80° F 1.01.56		NO. 1	NO.5	NO.3	NO
PH When Rebelved 7, 28 Bicarbonate as HCG, 390 Supersaturation as CaCQ, Undersaturation as CaCQ, Undersaturation as CaCQ, Calcium as Ca 232 Maghiesium as Mg 34 Sodium endigr Potessium 7, 483 Sudium endigr Potessium 7, 483 Suffice as SO, 48 Chloride as CI 11, 786 Turnsitiv, Electric 371 Calcium as Ba 0 Turnsitiv, Electric 0 Calcium as Ba 19, 974 Temparature, F 7 Carbon Dixidio, Calculated 19, 974 Temparature, F 7 Carbon Dixidio, Calculated 11, 0 Pessativity, chingam at 77 6 Suspentied Oil Filtrable Solids or mgf, 100 Volume Filtered, ms	Scientific Gravity at 80° F.		10 C 20 C 10 C 10 C 10 C 10 C 10 C 10 C	10 10	1 (15%)
### Provided ### P	the state of the s	1	415 VIZ.		
Bicarbonate as HCO ₃ 390 Supersaturation as CaCO ₂ Undersaturation as CaCO ₃ Total Harconess as CaCO ₃ 720 Catclum as Ca Magnesium as Mg 34 Sodium endigr Potessium 7. 483 Sulfate as SO ₃ 488 Chigride as CI 13. 786 Irion as Fe 31 Surfura as Ba Turblidity, Electric Color as Pi. Total Solids, Calculated 19. 974 Temperature 7 Carbon Dioxidia, Calculated 19. 974 Temperature 7 Carbon Dioxidia, Calculated 19. 974 Typic Sulfate Sulfate 11. 0 Registativity, shirijam at 77 F. O 400 Suspented Oil Susp		7.28			
Supersaturation is CaCQ, Undersaturation as CaCQ, Total Hardness as CaCQ, Galcfum as CaCQ, Galcfum as CaCQ, Galcfum as Mg 34 Sodium and/or Potessium 7,483 Sulfaire as SQ, Chigride as CI, Iton as Fe 371 Santum as Ba Turbidity, Electrit: Color as FI Total Solids, Calculated Dissolved Oxygen, Hydrogen Sulfide 11,0 Resistivity, chimalim as 777 E Oxygen/ided as mg/l. Suspended Oil Fittrable Solids as mg/l. Suspended Oil Fittrable Solids as mg/l. Volume Fillered, ms 1.				er i M. M., Misari	1
Undeirsturation es CaCO, Total-Hardness as CaCO, Calcium as Ca Magnestum as Mg Sodium endigr Potessium 7, 483 Solium endigr Potessium 7, 483 Sulfate as SO, Chigride as CI 11, 786 Iten as Fe 371 Bantum as Ba Turbidity, Electric: Color as PI Total Solids, Calculated 19, 974 Temperature F Garbon Dioxide, Calculated Disspiket Oxygen, Hydrigen Sulfide Perstainty, uningsim at 77; E Suspendid Oil: Perstainty, uningsim at 77; E Suspendid Oil: Pittrable Solids as mgd. Volume Filteried, ms.		Water State			• • • • • • • • • • • • • • • • • • • •
Total Hardness as Caco, 720 Calcium as Ca 232 Magnesium as Mg 34 Sodium endigr Potessium 7, 483 Sulfate as SO, 48 Chigride as CI 11, 786 Iron as Fe 371 Bantum as Ba 0, 71 Bantum as Ba 0, 71 Total Solids, Calculated 19, 974 Temperature F Carbon Dioxide, Calculated 11, 974 Hydrogen Sulfate Refreshed Oilsepher Name (77 F) 0, 400 Suspended Oil Filteried, mf 7, 70 Suspended Oil Filteried, mf 7, 70 Volume Filt					
Calcium as Ca 232 Magnesium as Mg 34 Sodium and/or Potassium 7, 483 Sulfate as SO,	The state of the s	720			7
Sodium and/gr Potassium 7,483 Sulfate as SO. 48 Chigride as CI 13,786 Iton as Fe 371 Bartum as Ba 0. Turblidity, Electrit: Color as PI: Total Solids, Calculated 19,974 Temperature *F* Carbon Dioxilde, Calculated 11,0 Disspivets Oxygen, Hydrogen Sulfide 11,0 Suspended Oil Filtreble Solids ar mg8, Volume Filtered, mi		232		J. C. A. A. A. S.	
Sodium and/or Potessium		34			1
Surface as SO, 48. Chloride as CI Iron as Fe		7.483			
Chigride as Cl Itron as Fe 37-1 Bartum as Ba Turbidity, Electric Color as Pt: Total Solids, Calculated Temperature, F Carbon Diavide, Calculated Disselved Oxygen, Hydrogen Sulfide Resistivity, emparing at 77 E. Suspended Oil Filtrable Solids as mgri Volume Filtered, mt	Sulfate as SO.	48.			
Iron as Fe 373 Barlum as Ba 0. Turbidity, Electric Color as PI: Total Solids, Calculated 19.974 Temperature, F Carbon Diavide, Calculated Disselved Oxygen. Hydrogen Sulfide 11.0 Resistivity, chimstric at 77 E. 0.400 Suspended Oil. Filtrable Solids as mgri. Volume Filtered, mi		- 11.786	· 18 · 1. · 1. · 18 · 1. · 18 · 18 · 18	. Parti i v	
Turbidity, Electric Color as FI: Total Solids, Calculated 19,974 Temperature F Carbon Ditaride, Calculated Dissolved Oxygen. Hydrogen Suifide Resistivity, owns/m as 77 E: Suspended Oil Filtrable Solids as mg/l, Volume Filtered, mf	itron as Fe 2	140			11.
Turbidity, Electric Color as PI. Total Solids, Calculated 19,974 Temperature *F Carbon Diaxide, Calculated Disspives Oxygen. Hydrogen Sulfide Resistivity, chimsim at 777 F, Suspended Oil Filtrable Solids as mg/f, Volume Filtered, mi	:Barlum as Ba	0.	The state of the		
Total Solids, Calculated Temparature F Carbon Ditaride, Calculated Dissolved Oxygeh. Hydrogen Sulfide Resistivity, ohms/m et 77 E. Suspentied Oil. Filtrable Solids as mgri, Volume Filtered, mt	Turbidity, Electric	\$ 1, 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Total Solids, Calculated Temperature, F Carbon Droxide, Calculated Dissolved Oxygen. Hydrogen Sulfide Resistivity, chimai/m at 77. F; Suspended Oil: Fittrable Solids as mgf, Volume Filtered, mi	Color as PI				1. 1. 2. 3.
Cârbon Diaxide, Călculated Disspived Oxygen. Hydrogen Suiffde Resistivity, chims/m at 77 E. Suspentied Oil Filtrable Solids as mgf. Volume Filtred, m*	Total Solids, Calculated	19.974		1.	3.5
Dissolved Oxygen. Hydrogen Suiffde Resistivity, chings/m at 77 E O 400 Suspended Oil Filtrable Solids as mg4, Volume Filtered, mi	Temperature *F		a facility of the same	The state of the s	
Hydrogen Sulfide Resistivity, chinistin de 777 E. Suspended Oil Filtrable Solids as mg/l, Volume Filtered, mi	Carbon Dioxide, Calculated				
Resistivity, chimarin at 77 E. Suspended Oil: Fittrable Solids as mg/l; Volume Fillsred, ms	Dissolved Oxygen,				
_Suspended Oil Filtrable Solids as mg/l, Volume Filtered, mi	Hydlogen Sulfide	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Filfreble Salids as mg/l, Volume Filfared, mi	Hospativity, chimalm at 777 to 1975 The state of the stat	07.400		A War Land Land Land	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Filfrable Solids as mgg. Volume Filfraed, mi	Suspended Oil	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			L
	Filfreble Solids as mgfl				1
	Volume Filtered, mi		100		,
		Section 2			

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks In comparing this water with our nearest cataloged records some 5 miles to the northease; we find this water has ratios of salts decidedly similar to what would be expected from a natual Wolfcamp. However, the levels of the salts are approximately one-third those that would be expected from a natural Wolfcamp, therefore strongly indicating a significant dilution influence exists; but there can be some slight amount of Wolfcamp water involved.

Form No. 3

Waylan C. Martin, M.A. are approximately one-third those that would be expected from a natural Wolfcamp.

COPY

					1		!	i i				!
WATER SAMI	PLE REPRESENTATIVE OF WA	TER BEING INJECT	ED INTO THE P	ROPOSED	SWD WELL			i				
		1	T	1	!	1	i	i		·		1
Water is very	similar to that of the receiving for	nation, therefore no c	ompátibility probl	ems are ext	ected	ļ		1			i ———	1
T		1	<u> </u>	1		:		:		<u> </u>	i	
Avalon		 	 									
Lab Test#	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	lonic Strength	TDS	Нα	conductivity	Ca (mg/L)	Mg (mg/L)
2012105497	Gunnér	8 Fed 8H		3/12/2012		1.09	2.20	132205.83			11390.50	
20112100101	03.110	0100011		01122012	121112011	1.00	2.40	102200.00	4,50	<u>'</u>	1,000.00	2000.77

	. !
TH: (CaCO3)[Na:(mg/L)] K*(mg/L) Zn (mg/L)] Fe (mg/L)] Ba (mg/L)] Sr (mg/L)] Mn (mg/L)] Resistivity [HCO3 (mg/L)] CO3 (mg/L)] CO4 (mg/L)] SO4 (mg/L)] CI (mg/L)] CO2 (mg/L)	L) H2S (mg/L)
TH (CaCC3) Na (mg/L) X (mg/L) Zn (mg/L) Fe (mg/L) Ba (mg/L) Sr (mg/L) Mn (mg/L) Resistivity HCO3 (mg/L) CO3 (mg/L) CO4 (mg/L)	0.00

Bone Spring Produced Water

1/2

Kepresentative Delaware Produced And Receiving Formation Water

Genera	al Information	n About: Sample 4	222		
	NORTH EL 1	MAR UNIT 022			
API	Sample Number				
Unit/Section/ Township/Range	J/25/26S/ 32 E	Field	EL MAR		
County	Lea	Formation	DEL		
State	NM	Depth			
Lat/Long	32.01136 / - 103.62579	Sample Source	UNKNOWN		
TDS (mg/L)	244815	Water Type	ļ		
Sample Date(MM/DD/YYYY)		Analysis Date(MM/DD/YYYY)			
Remarks/Description					
Cation Info (mg/l		Anion Information (mg/L)			
Potassium (K)	[Sulfate (SO)	220		
Sodium (Na)		Chloride (CI)	153500		
Calcium (Ca)		Carbonate (CO ₃)			
Magnesium (Mg)		Bicarbonate (HCO ₃)	88		
Barium (Ba)		Hydroxide (OH)			
Mängariese (Mn)		Hydrogen Sulfide (H₂S)			
Strontium (Sr)		Carbon Dioxide (CÖ ₂)			
lron (Fe)		Oxygen (O)	_		



Data obtained from http://octance.nmt.edu



New Mexico Office of the State Engineer



Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file

Cathe file is closed)

and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest). (NAD83 LITM in meters)

	120.0	per annum		O-die lie is diesed)	(dominors and simplication languar)	(MVD09 O DALIN ULUICIDIS)
	Sub				વ લ વ	
WR File Nbr	basin Use Div	ersion Owner	County POD Number	Code Grant	Source 6416 4 Sec Tws Rng	X Y
C 02313	STK	3 MARK T. AND ANNETTE E. MCCLOY	LE <u>C 02313</u>		2 3 3 26 25\$ 33E	636971 3552098* 🏰
C 02916	STK	40.3 BRININSTOOL XL RANCH LLC	LE <u>C 02916</u>		4 3 4 20 25\$ 33E	632924 3553457*
C 02918	STK	40.3 BRININSTOOL XL RANCH LLC	LE C 02918		4 4 3 20 25S 33E	632521 3553452* 🦀

Record Count: 3

PLSS Search:

Section(s): 17-35

Township: 25S

Range: 33E

Sorted by: File Number

BTA OIL PRODUCERS, LLC 7811 JV-P Vaca Draw Unit SWD #1 Attachment to C-108 API: 30-025-23895

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/20/15 7:13 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION





New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a

(R=POD has been replaced, O=orphaned.

C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

water right file.) 1943

POD QQQ. Sub-

Х

Depth Depth Water. Well Water Column

POD Number C 02313

Code basin County 64 16 4 Sec Tws Rng

Y.

150 110

2 3 3 26 25S 33E

636971 3552098* 🚑

110 feet

Average Depth to Water:

Minimum Depth: 110 feet Maximum Depth: 110 feet

Record Count: 1

Basin/County Search:

County: Lea

PLSS Search:

Section(s): 17-35

Township: 25S

Range: 33E

BTA OIL PRODUCERS, LLC 7811 JV-P Vaca Draw Unit SWD #1 Attachment to C-108

API: 30-025-23895

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

BTA Oil Producer, LLC 7811 JV-P Vaca Draw Unit #1 657.5' FSL & 661.5' FEL Attachement to C-108

	HALF MILE RADIUS											
API#	Operator	Well Name	Well No.	TD	Sec	Twn	Rng	Footage Calls	Spud Date	Comp Date	Status	Prod Fm
30025238950000	BTA OIL PRODUCERS, LLC	VACA DRAW UNIT SWD	1	17609	21	255	33E	660'FSL & 660'FEL	10/2/1971	2/20/1973	REC-LOC	
30025300500000	EOG RESOURCES INC	BRINNINSTOOL '21' FEDERAL	1	16050	21	255	33E	660'FSL & 1980'FEL	10/5/1987	1/8/1988	PAGW	MORROW
30025300500001	ENRON OIL & GAS CO	BRINNINSTOOL '21' FEDERAL	1	16050	21	25\$	33E	660'FSL & 1980'FEL	6/30/1992	7/9/1992	PAGW	WOLFCAMP
30025261880000	BTA OIL PRODUCERS, LLC	7811 JV-P ROJO	1	17535	27	255	33E	660'FNL & 660'FWL	2/9/1979	11/12/1979	GAS	DEVONIAN
30025261880001	BTA OIL PRODUCERS, LLC	ROJO 7811 JV-P	1	17535	27	255	33E	660'FNL & 660'FWL	8/12/2008	9/3/2008	GAS	MORROW
30025261880002	BTA OIL PRODUCERS, LLC	ROJO 7811 JV-P	1	17535	27	258	33E	660'FNL & 660'FWL	4/17/2009	4/30/2009	GAS	ATOKA
30025083900000	HANKAMER CURTIS CORP	CONLEY-FEDERAL	1	5039	28	255	33E	660'FNL & 660'FEL	4/12/1962	4/22/1962	DRY	

BTA Oil Producer, LLC 7811 JV-P Vaca Draw Unit #1 657.5' FSL & 661.5' FEL Attachement to C-108

VI. AOR Well Data

Well Name	Operator	Location	Type of	Spud Date	Comp Date	TO/ PBTO	Comp Interval	Producing		Casi	ng Program		Plugging Detail
	<u> </u>		Well	<u> </u>				Formation	Casing	Depth	Amt Cmt	Clrc	
Vaca Draw Unit #1 API: 30-025-23895	American Quatsar	660' FSL & 660' FEL 21-T255-R33E	P&A	10/2/1971	2/20/1973	17,609' MD	P&A {2/20/1972}	P&A	20" 13-3/8" 10-3/4" 7-3/4" Liner 5" Liner	920' 4986' 13004' 17055' 17609'	1550 3200 3375 1900 100	Circ Circ Circ 12,715' 16,782'	13,210'-13110' CP 12715'-13615' CP 6600'-6500' CP 4900'-4800' CP 1000'-900' CP Surface - 10sx
Brinninstool 21 Federal #1 API: 30-025-30050	Enron Oil and Gas Co.	660' FSL & 1980' FEL 21-T255-R33E	P&A	10/5/1987	1/7/1988	16,050' MD	P&A (1/19/2004)		13-3/8" 9-5/8" 7" 4-1/2" Liner	640' 4875' 13264' 16047'	650 sx 2375 sx 1425 sx 425 sx	Circ Circ - 12889'	CIBP @ 9350' -25sx 6416'-6300' - 50sx 4925'-4792' - 75sx 2000'-1900' - 35sx 1450'-1350' - 35sx 690'-590' - 45sx 61' - 25sx
7811 JV-P Rojo #1 API: 30-025-26188	BTA Oil Producers	660' FNL & 660' FWL 27-T255-R33E	GAS	6/6/1979	7/3/1979	16,050' MD	14346'-14458'	Wildcat;Atoka (Gas)	20" 13-3/8" 9-5/8" 7-3/4" Liner 5" Liner	909' 4941' 12992' 16960' 17524'	1650 sx 3400 sx 2300 sx 450 sx 200 sx	12594' 16547'	
Conley Federal #1 API: 30-025-08390	Hankamer Curtis Corp.	660' FNL & 660' FEL 28-T255-R33E	DRY	4/12/1962	4/22/1962	5039' MD	P&A	P&A	N/A	N/A	N/A	N/A	5039-4976 - 20sx 4520-4555 - 20sx 1210-1165 - 20sx 324-265 - 10sx

UP ED STATES SUBMIT IN TRIPL TE	Budget Hures	n No. 42-R1424.
DEPARTMENT OF THE INTERIOR Verse side)	5. LEASE DESIGNATION	AND SERIAL NO.
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTE	OR TREE NAME
SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deeped or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)	U. IF INDIAN, SELOTEE	OR THING JAME
	7. UNIT AGREEMENT NA	ME
OIL GAS OTHER CT	VACA DRA	3
NAME OF OPERATOR	8. FARM OR LEASE NAN	(E .
American Quasar Petrolous Co. of New Nexico	9. WELL NO.	H URIT
606 Vaugin Eldg. , Midland, Texas 79701		
LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)	10. FIELD AND POOL, O	R WILDCAT
At surface	II. SEC., T., R., M., OR I	Ated
660' 78L & 660' YEL, Sec. 21, T-25-S, A-33-B	SURVEY OR AREA	
	Sec. 21, T-2	5-8.B-11
PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH	
30-025-23895 3392' Pt	Lea	M.H.
(Note: Report resul	its of multiple completion	on Well
DESCRIBE SHOPDSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent date proposed work. If well is directionally drilled, give subsurface locations and measured and true vert nent to this work.) This well was non-commercial and plugging operation and completed 2/20/73. Halliburton spotted coment plugs thru open-and tunification comment plug \$ 13,210' - 13,110' 100' coment plug \$ 12,715' - 12,615' 100' coment plug \$ 6,600' - 6,500' 100' coment plug \$ 4,900' - 4,800' 100' coment plug \$ 1,000' - 900'	e commenced :	rm.) te of starting as and zones per
percents inclused on complete operations (Clearly state all pertinent details, and give pertinent details, and give pertinent details, and give pertinent details and give pertinent details and give pertinent details. This wall was non-commercial and plugging operation and completed 2/10/71. Halliburton spotted coment plugs thru open-end tubil 100' coment plug \$ 13.210' - 13.110' 100' coment plug \$ 12.715' - 12.615' 100' coment plug \$ 12.715' - 12.615' 100' coment plug \$ 4.900' - 4.800' 100' coment plug \$ 4.900' - 4.800' 100' coment plug \$ 4.900' - 900' 10 am plug \$ surface Hole filled w/ 104 mud. Steel plate welded on 29° extending \$' above ground level w/ appropriate well filled a pita leveled.	apletion Report and Log for the state of the	rm.) te of starting as and zones per 2/19/72
Description of Recomplexes of Complexes of Persons (Clearly state all pertinent details, and give pertinent date proposed work. If well is directionally drilled, give subsurface locations and measured and true vert nent to this work.) This well was non-commercial and plugging operation and completed 2/10/71. Helliburton spotted coment plugs thru open-and tubic logs coment plug \$ 13,210' - 13,110' 109' coment plug \$ 12,715' - 12,615' 100' coment plug \$ 12,715' - 12,615' 100' coment plug \$ 6,600' - 6,500' 100' coment plug \$ 4,900' - 4,800' 100' coment plug \$ 1,000' - 900' 100 coment plug \$ 1,000' - 900' 100 coment plug \$ 8 urface Hole filled w/ 104 mud. Steel plate welded on 29' extending 4' above ground level w/ appropriate well	apletion Report and Log for the state of the	ipo Collar

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TE		ap)	rov

UNITED STATES SUBMIT	IN	DUPLICA
DEPARTMENT OF THE INTERIOR		. (See o
GEOLOGICAL SUBVEY		LCAGLE

. (See other la-

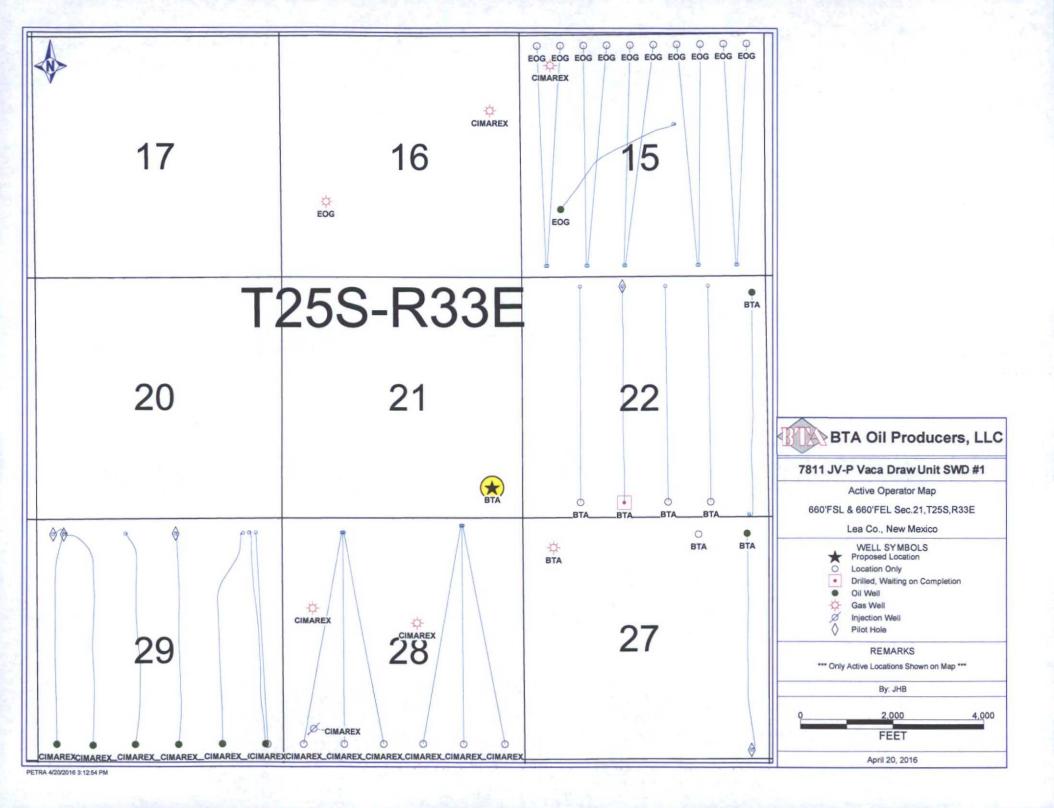
	DEF		OLOGIC	CAL S	ひんくだん								2 **	
										6. t	F INDIAN	, ALLO	TTEE OR TRIBE	NAME
WELL CO		DN C	OR RECC	DMPL	ETION I	REPORT	AND	LOG	*	_				•
A TYPE OF WEL	L:	WELL	WELL		ORY 📑	Other	PLA.			7. :	NIT AGR	ERMENT	NAME	
b. TYPE OF COM					.,		•				VACA	DR	AW	
WELL .	OVER	EN	D PLEG		BESVA.	Other	·			S. 1	ARM OR	LEASE	NAME	
. NAME OF OPERAT	гов									-)	(a ~ a	Part 1	LP 0430 0104	
A A . A		=		0-		27 h&=	سند العدد			9.	ELECTO.	THE V	A ABIA	
ADDRESS OF OPER	RATOR	2 24	ATD TO	WI_CC	1QX	.22191/11 1274	X100			7				
CAG Marian		.	v 4 45			-				10.	FIELD A	P001	OR WILDCAT	
LOCATION OF WE	Report	oostion o	tearly and to	accord	ance with an	y State requ	irementa)•			سراك مدفاة	•	فمحجت	•
At surface	o rat		60 92	27. AF	#ee.2	1. 4-25	A U	*~F#~	e	11.	SEC., T., OR AREA	R., M.,	OR BLOCK AND	CRVEY
At top prod. Inte						***	3.5	. 45 2	•	ļ	-			_
				Surv	rayed					39	e.33	.,T-	23-8 , R-	B-EE
At total depth	Pot 8	GETO	ved:	:						_		<u> </u>	· · · ·	
	•		7	14.	PERMIT NO.	_	DATE IS	SSUED			COUNTY PARISH	OR.	13. STATE	
			<u> </u>							<u> </u>	Les		ELEV. CASINGH	
DATE SPUBDED	16. DATE T	.O. REACI	HED 17. RA	ATE COMP	L. (Resident	1		TIONS (UF,		RT, CR	ETC.)*	1		
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TOTAL DEPTH, MD &	A TVD 21.		ACK 7.D. MD	≜ TVD	NOW W	TIPLE COMPT	-	23. INTER	ED BT	1 4	TARY TOO	,r2	CYBLE 100	,
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PRODUCING INTER	VAC(S), OF 1	THIS COM		OP, BOTT	ON, NAME (X	ID AND TYD)	_		-	•		1	SUBVEY MAI	10.04
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		LA /FT.			CORD (Rep		a set in		- G (DRD RECOR	6N			·
CASING SIZE	WEIGHT,	La./#1.,	DEPTH :	SET (MD) ; HO	LE SIZE	-	CEVIE		ORD RECOR			AMOUNT PU	LLED
CASING SIZE	Con Au		30	bol o) ; HO	LE SIZE	-		Lx_	COM4			AMOUNT PU	FLED
CASING SIZE	Condu	eter	30	bele 10) ; HO	34 *	Nen 155	cevie dy-zai	<u> </u>	con4		 	AMOUNT PU	t-LED
CASING SIZE	Con Au	ator	30 ·	bele 20 186	M GE.	LE SIZE	?}***	dy-mi	<u> </u>	COM4		- - - -	AMOUNT PU	i,LED
CASING SIZE	Condu	ater 4 68 55,0	30 ·	bolo 30 186) ; HO	34 *	155 155 137	cevie dy-zai	<u> </u>	cone cire cire	rote i		AMOUNT PU	LLED
CASING SIZE	Condu	4 68 55.0	30 30 30 50 50 50 50 50 50 50 50 50 50 50 50 50	bel c 20 186 13.	M GE.	34 *	185 185 137	CENE O BX O BX	<u> </u>	COMM CITA CITA CITA TUBII		ORD	AMOUNT PU	
30 ** 24 ** 13 3/8 ** 19 3/4 *	Condu 94.0 61.0	# 68 55.0 LIN BO	ER RECOR	bolo 10 186 13. D	DO CEMENT*	34 . 27 . 27 . 17 1/3 12: 1/4	185 185 137	CEVIE 10 8 X 10 8 X 15 8 X 30.	<u> </u>	COMA CIRC CIRC TUBII	YG REC	QRD (a)	AMOUNT PU	
24° 13 3/8" 19 3/4"	WEIGHT. COMAN 94.0 61.0 51.0, TOP (MD)	# 68 55.0 LIN	DEPTH :	bolo 120 186 13. D	DG CEMENT'	34 ° 28" 17 1/2 1/4 SCREEN (1	185 185 137	CEVIE 10 8 X 10 8 X 15 8 X 30.	<u> </u>	COMA CIRC CIRC TUBII	i. I. VG REC	QRD (a)	AMOUNT PU	(30)
26" 13 3/8" 19 3/4" Bize 7 3/4"	WEIGHT. COMAN 94.0 61.0 51.0, TOP (MD)	# 68 55.0 LIN	DEPTH :	bolo 120 186 13. D	DO CEMENT*	34 . 27 . 27 . 17 1/3 12: 1/4	135 135 1 137	CENE 2 0 8x 30 8x 30. SIZE		COMM CIRC CIRC CIRC TUBIL DEPTE	VG REC	ORD (0)	AMOUNT PO	(30)
24 * 13 3/8 * 19 3/4	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 ORD (Intervo	55.0 LIN BO:	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bolo 100 100 100 100 100 100 100 100 100 10	M Gr.	16 1/2 1/4 SCREEN (17 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	135 135 (10)	CENE Ady - 24 Ady - 2	FRAC	COMMITTEE TURE.	VG RECUSET (N	ORD (D) T SQU	AMOUNT PU	(310)
24° 13 3/8" 19 3/4" Bize 7 1/4"	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 ORD (Intervo	55.0 LIN BO:	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bolo 100 100 100 100 100 100 100 100 100 10	M Gr.	17 1/2 17 1/4 18 1/4 SCREEN (1 BONG NOTICE 132. DEPTH 18	ACII	CEVIE CONTENT CONTE	FRAC	GONAGIA	NG REC	ORD TO SQU	AMOUNT PO	(310)
24 * 13 3/8 * 19 3/4	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 ORD (Intervo	55.0 LIN BO:	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bolo 100 100 100 100 100 100 100 100 100 10	M Gr.	36 1/4 28 1/4 17 1/4 SCREEN (1)	ACII	CEVIE CONTENT CONTE	FRAC	GONAGIA	NG REC	ORD TO SQU	AMOUNT PO O O D PACKER SET 13,21 EEZE, ETC.	(310)
24 * 13 3/8 * 19 3/4	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 ORD (Intervo	55.0 LIN BO:	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bolo 100 100 100 100 100 100 100 100 100 10	M Gr.	17 1/2 17 1/4 18 1/4 SCREEN (1 BONG NOTICE 132. DEPTH 18	ACII	CEVIE CONTENT CONTE	FRAC	GONAGIA	NG REC	ORD TO SQU	AMOUNT PO	(310)
CASING SIZE 30 ** 29 ** 11 3/8 ** 19 3/4 ** BIZE 7 1/4 ** 3 ** PERFORATION RECO	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 ORD (Intervo	55.0 LIN BO:	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bolo 100 100 100 100 100 100 100 100 100 10	M Gr.	17 1/2 17 1/4 18 1/4 SCREEN (1 BONG NOTICE 132. DEPTH 18	ACII	CEVIE CONTENT CONTE	FRAC	GONAGIA	NG REC	ORD TO SQU	AMOUNT PO	(310)
CASING SIZE 30 ** 29 ** 11 3/8 ** 19 3/4 ** BIZE 7 1/4 ** 3 ** PERFORATION RECO	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 OKD (Interval	A 68 35, C LIN BO	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bel (186, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13	M GE.	SCREEN (STATE OF THE INC. OF T	ACIL TERVAL	CEVIE CONT. 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FRAC	GONAGIA	OG REC	ORD (0) T SQU	AMOUNT PU O O PACKER SET A3,21 EEZE, ETC. NATERIAL USE	(310)
CASING SIZE 30 " 29 " 11 3/8" 19 3/4" BIZE 7 1/4 " 3 e PERFORATION RECO	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 OKD (Interval	A 68 35, C LIN BO	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bel (186, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13	DG CEMENT.	SCREEN (STATE OF THE INC. OF T	ACIL TERVAL	CEVIE CONT. 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FRAC	GONAGIA	YG REC	ORD (0) T SQU	AMOUNT PO	(310)
CASING SIZE 30 ** 29 ** 11 3/8 ** 19 3/4 ** BIZE 7 1/4 ** PERFORATION RECO 13,419 **	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MB) 12.715 16.782 ORP (Interval	LIN BO	DEVIN 130 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	balo balo 30 1886 SACKS	PROISE	SCREEN (1) SCREEN (1) BONG	ACIL TERVAL	CEVIE COLOR	FRAC	TURE.	VG REC	ORD TF SQU ND OF STATE ut-in)	PACKER SET DEFENE ETC. STATEMAL USE A PAGE STATEMAL USE PAGE PAGE	(310)
CASING SIZE 30 ** 29 ** 11 3/E ** 19 3/4 ** BIZE 7 ** 14 ** PERFORATION RECO 13,419 **	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MD) 12,715 16,782 OKD (Interval	LIN BO	DEPTH 30 30 30 30 30 30 30 30 30 30 30 30 30	bole bole 30 1986. SACKS (Flowing	M GE.	SCREEN (STATE OF THE INC. OF T	ACIL TERVAL	CEVIE CONT. 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FRAC	TURE.	YG REC	ORD TF SQU ND OF STATE ut-in)	AMOUNT PO	(310)
CASING SIZE 30 ** 24 ** 13 3/E ** 19 3/4 ** BIZE 7 1/4 ** PERFORATION RECO 13,419 ** FIRST PRODUCTION FOR TEST	WEIGHT. COMA! 94.0 61.0 11.715 16.782 ORD (Interval 13.785 HOURS TEST	LIN BO	PETRON (MD) 17,033 17,033 17,033 17,033 17,033	balo balo 30 186 13. D SACKS	PROIDS PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACII TERVAL	CEVIE COLOR	FRAC	COMMITTEE COMMIT	VG REC	ORD TO SQU	PACKER SET A 3.21 EEZE, ETC. NATERIAL USE S (Producing PSA UAS-OIL RATIO	(310)
CASING SIZE 30	WEIGHT. COMAN 94.0 61.0 51.0. TOP (MB) 12.715 16.782 ORP (Interval	LIN BO	DEVIN 130 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SET (MD bole 20 1985. 13. CFlowing (Flowing	PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACIL TERVAL	CEVIE COLOR	FRAC	TURE.	VG REC	ORD TO SQU	PACKER SET DEFENE ETC. STATEMAL USE A PAGE STATEMAL USE PAGE PAGE	(310)
CASING SIZE 30 ** 24 ** 13 3/E ** 19 3/4 ** BIZE 7 ** PERFORATION RECO 13 , 419 ** FIRST PRODUCTION FOR TEST T. TUEING PRESS.	WEIGHT, COMAN 94.0 61.0 11.1 TOP (MD) 12.715 16.782 ORD (Interval 13.78) HOURS TEST	LIN BO'	DEVIN 130 130 130 130 130 130 130 130 130 130	D SACKS (Flouring (F	PROIDS PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACII TERVAL	CEVIE COLOR	FRAC	COMMITTEE TUBIL TURE. NOUNT TO COMMITTEE NOUNT TO COMMITTEE NOUNT NO COMMITTEE NOUNT NOUNT NO COMMITTEE NOUNT NOU	VG RECUSET (NO CEMEN AND KILL SALE)	ORD TF SQU ND OF STATU 47-in)	AMOUNT PO	(310)
CASING SIZE 30 ** 24 ** 13 3/E ** 19 3/4 ** BIZE 7 ** PERFORATION RECO 13 , 419 ** FIRST PRODUCTION FOR TEST T. TUEING PRESS.	WEIGHT, COMAN 94.0 61.0 11.1 TOP (MD) 12.715 16.782 ORD (Interval 13.78) HOURS TEST	LIN BO'	DEVIN 130 130 130 130 130 130 130 130 130 130	D SACKS (Flouring (F	PROIDS PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACII TERVAL	CEVIE COLOR	FRAC	COMMITTEE TUBIL TURE. NOUNT TO COMMITTEE NOUNT TO COMMITTEE NOUNT NO COMMITTEE NOUNT NOUNT NO COMMITTEE NOUNT NOU	VG REC	ORD TF SQU ND OF STATU 47-in)	AMOUNT PO	(310)
CASING SIZE 30 ** 24 ** 13 3/8 ** 19 3/4 ** BIZE 7 ** PERFORATION RECO 13,419 FIRST PRODUCTION E OF TEST W. TUBING PRESS. DISPOSITION OF GA	WEIGHT, COMAIN 94.0 61.0 11.1 TOP (MD) 12.715 16.783 ORD (Interval 13.78:	LIN BO'	DEVIN 130 130 130 130 130 130 130 130 130 130	D SACKS (Flouring (F	PROIDS PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACII TERVAL	CEVIE COLOR	FRAC	COMMITTEE TUBIL TURE. NOUNT TO COMMITTEE NOUNT TO COMMITTEE NOUNT NO COMMITTEE NOUNT NOUNT NO COMMITTEE NOUNT NOU	VG RECUSET (NO CEMEN AND KILL SALE)	ORD TF SQU ND OF STATU 47-in)	AMOUNT PO	(310)
CASING SIZE 30 ** 20 ** 13 3/8 ** 19 3/4 ** BIZE 7 **/4 ** PERFORATION RECO 13,419 ** FIRST PRODUCTION FOR TEST W. TURING PRESS.	WEIGHT, COMAIN 94.0 61.0 11.1 TOP (MD) 12.715 16.783 ORD (Interval 13.78:	LIN BO'	DEVIN 130 130 130 130 130 130 130 130 130 130	D SACKS (Flouring (F	PROIDS PROIDS	SCREEN (1) SCREEN (1) SCREEN (1) BOTH IN IT ALL OIL—BBL.	ACII TERVAL	CEVIE COLOR	FRAC	COMMITTEE TUBIL TURE. NOUNT TO COMMITTEE NOUNT TO COMMITTEE NOUNT NO COMMITTEE NOUNT NOUNT NO COMMITTEE NOUNT NOU	VG RECUSET (NO CEMEN AND KILL SALE)	ORD TF SQU ND OF STATU 47-in)	AMOUNT PO	(310)
CASING SIZE 30 ** 22 ** 13 3/8 ** 13 3/8 ** BIZE 7 3/4 ** PERFORATION RECO 13 419 E FIRST PRODUCTION E OF TEST W. TUBING PRESS. DISPOSITION OF GA	WEIGHT. COMAIN 94.0 61.0 13.715 16.732 ORD (Intervol 13.785 CASING PRE CASING PRE ENTS	LIN BOOK CTIC	ER RECOR TION (MD) 17.033 17.0	bale bale 130 186 13. D SACKS 13. (Flowing	PROISE PROID TO PERIOD	SCREEN (17 1/2) 1/4 SCREEN	ACII TERVAL and typ	CEVIE COLOR	FRAC	COMMITTEE COMMIT	VG REC IN SET (NO CEMEN AND KILL SET TER BR	ORD TO SQU ND OF STATU	AMOUNT PO	(310)

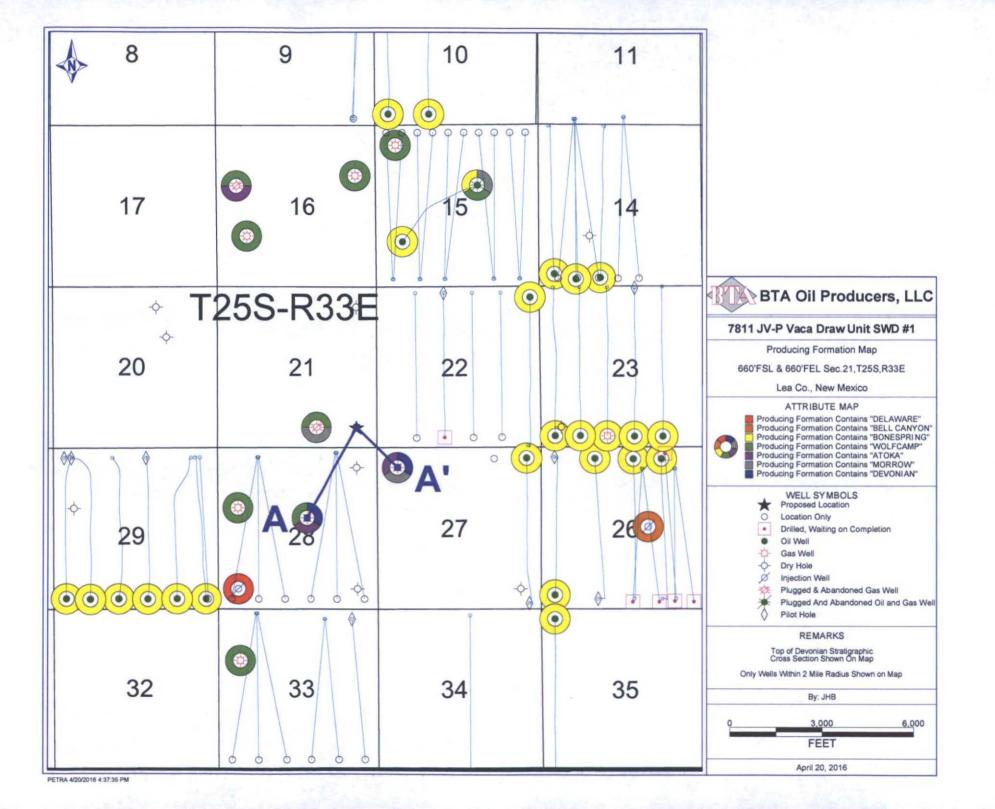
BTA Oil Producers, LLC
7811 JV-P Vaca Draw Unit SWD #1
660' FSL 660' FEL
Section 21, T255, R33E
Lea County, New Mexico

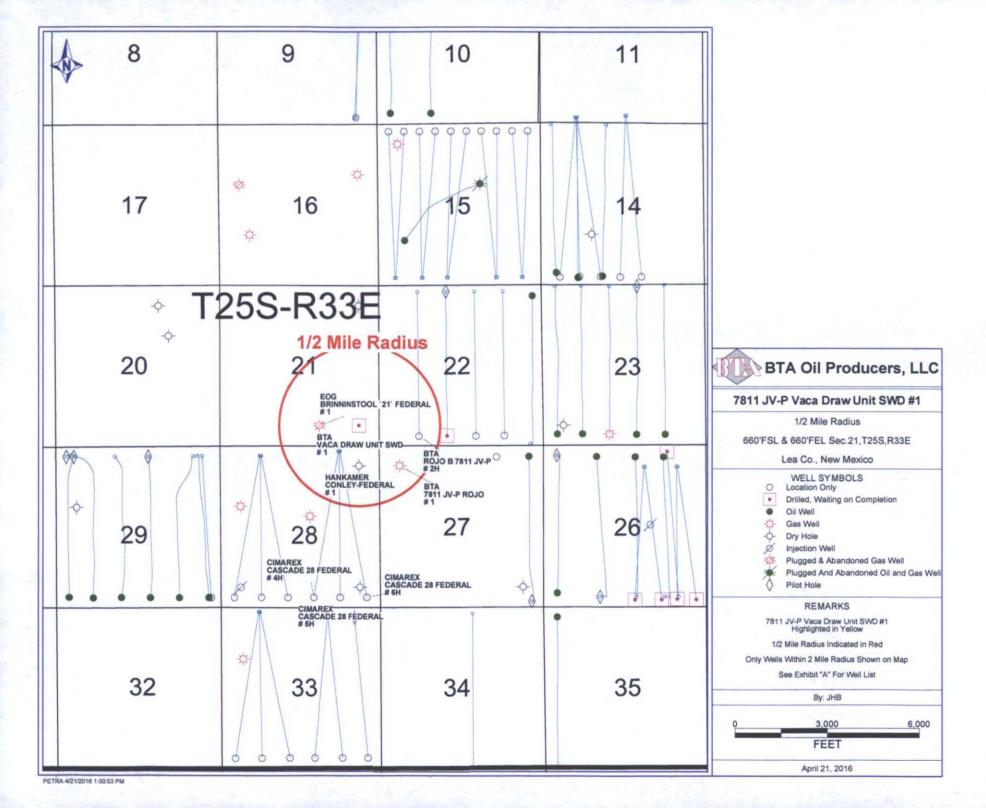
API#	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls	TOC
	BTA OIL PRODUCERS, LLC	VACA DRAW 9418 IV-P	4H		255		190'FNL & 1650'FWL	Surface
	BTA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	5H	 -	255	33E	190'FNL & 330'FWL	Est. Surface
	EOG RESOURCES INC	VACA 11 FEDERAL COM	1H		255		170'FSL & 1200'FWL	Est. Surface
	ENRON OIL & GAS CO	VACA '14' FEDERAL	1	 	255		1650'FSL & 1650'FWL	P&A
	EOG RESOURCES INC	VACA '14' FEDERAL	16H	├	25\$		50'FNL & 2130'FWL	Est. Surface
	EOG RESOURCES INC	VACA '14' FEDERAL COM	5H	└	25\$	33E	50'FNL & 330'FWL	Surface
30025276230000		OCHOA FEDERAL	1	 	255	33E	1980'FNL & 1980'FEL	Surface
	SUPERIOR DRLG INC	OCHOA FEDERAL	1	-	255		1980'FNL & 1980'FEL	Surface
	ENRON OIL & GAS CO	OCHOA FEDERAL	1		258		1980'FNL & 1980'FEL	Surface
	EOG RESOURCES INC	OCHOA FEDERAL	1 7		255		1980'FNL & 1980'FEL	Surface
	CIMAREX ENERGY CO	VACA DRAW '15' FEDERAL	<u> </u>		25S	<u> </u>	660'FNL & 660'FWL	Surface
	HEC PETROLEUM INCORPORATED	VACA DRAW /16/STATE	1		25S		1980'FNL & 660'FWL	Surface
	HNG OIL COMPANY	VACA DRAW 16 STATE	1	—	255	+	1980'FNL & 660'FWL	Surface
	EOG RESOURCES INC	VACA DRAW '16' STATE	2		255		1650'FSL & 990'FWL	Surface
	CIMAREX ENERGY CO	VACA DRAW '16' STATE	3		255		1650'FNL & 660'FEL	Surface
	HANKAMER CURTIS CORP	BASS-FEDERAL	1	20	255	33E	660'FNL & 1980'FEL	Surface
30025347500000	EOG RESOURCES INC	VACA DRAW '20' FEDERAL	1	20	255	33E	1650'FNL & 1650'FEL	P&A
30025083860000	BUCKLES GEO L CO	FEDERAL-MARSHALL	1	21	255	33E	660'FNL & 660'FEL	Surface
	BTA OIL PRODUCERS, LLC	VACA DRAW UNIT SWD	1	21	255	33E	660'FSL & 660'FEL	P&A
30025300500000	EOG RESOURCES INC	BRINNINSTOOL '21' FEDERAL	1	21	25S	33E	660'FSL & 1980'FEL	P&A
30025300500001	ENRON OIL & GAS CO	BRINNINSTOOL '21' FEDERAL	1	21	255	33E	660'FSL & 1980'FEL	P&A
30025424140000	BTA OIL PRODUCERS, LLC	ROJO 7811 JV-P FEDERAL COM	2H	22	255	33E	50'FSL & 430'FEL	N/A
30025083870000	HILL & MEEKER	MUSE-FEDERAL	1	23	255	33E	660'FSL & 660'FWL	P&A
30025400500000	EOG RESOURCES INC	CABALLO '23' FEDERAL	1H	23	255	33E	50'FNL & 440'FWL	Surface
30025400510000	EOG RESOURCES INC	CABALLO '23' FEDERAL	2Н	23	255	33E	50'FNL & 2200'FWL	Surface
30025400520000	EOG RESOURCES INC	CABALLO 23 FEDERAL	3H	23	255	33E	58'FNL & 2200'FEL	Surface
30025400527000	EOG RESOURCES INC	CABALLO 23 FEDERAL	3	23	258	33E	58'FNL & 2200'FEL	surface
30025402470000	EOG RESOURCES INC	CABALLO '23' FEDERAL	5H	23	255	33E	40'FNL & 1295'FWL	Surface
30025402480000	EOG RESOURCES INC	CABALLO '23' FEDERAL	6н	_23	255	33E	20'FNL & 1310'FEL	Surface
30025395310000	EOG RESOURCES INC	LOMAS ROJAS STATE COM 26	1H	26	255	33E	330'FNL & 430'FWL	surface
30025395310100	EOG RESOURCES INC	LOMAS ROJAS STATE COM 26	1H	26	255	33E	330'FNL & 430'FWL	surface
30025397010000	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	2H	26	255	33E	330'F\$L & 1850'FWL	surface
30025397010100	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	2H	26	255	33E	330'FSL & 1850'FWL	surface
30025397020000	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	3H	+	255	33E	330'FSL & 2262'FEL	surface
30025397030100	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	4H		255	33E	330'FSL & 1350'FEL	surface
30025397050000	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	6	+	255	33E	2620'FNL & 1810'FEL	surface
	EOG RESOURCES INC	LOMAS ROJAS 26 STATE COM	502H	-	255	33E	330'FSL & 905'FEL	surface
30025227860000	- 	DICKSON HARRY	. 1	+	255	33E	660'FSL & 660'FEL	P&A
	BTA OIL PRODUCERS, LLC	7811 JV-P ROJO	11	+	255_	33E	660'FNL & 660'FWL	Surface
	BTA OIL PRODUCERS, LLC	ROJO 7811 JV-P	1 1	+	255	33E	660'FNL & 660'FWL	Surface
30025261880002	BTA OIL PRODUCERS, LLC	ROJO 7811 JV-P	11		255	33E	660'FNL & 660'FWL	Surface
30025083900000	HANKAMER CURTIS CORP	CONLEY-FEDERAL	1	+	255	33E	660'FNL & 660'FEL	P&A_
0025083910000	TIDEWATER OIL CO	ANNIE R BASS-FED	1	28	255	33E	660'FSL & 660'FEL	[P&A

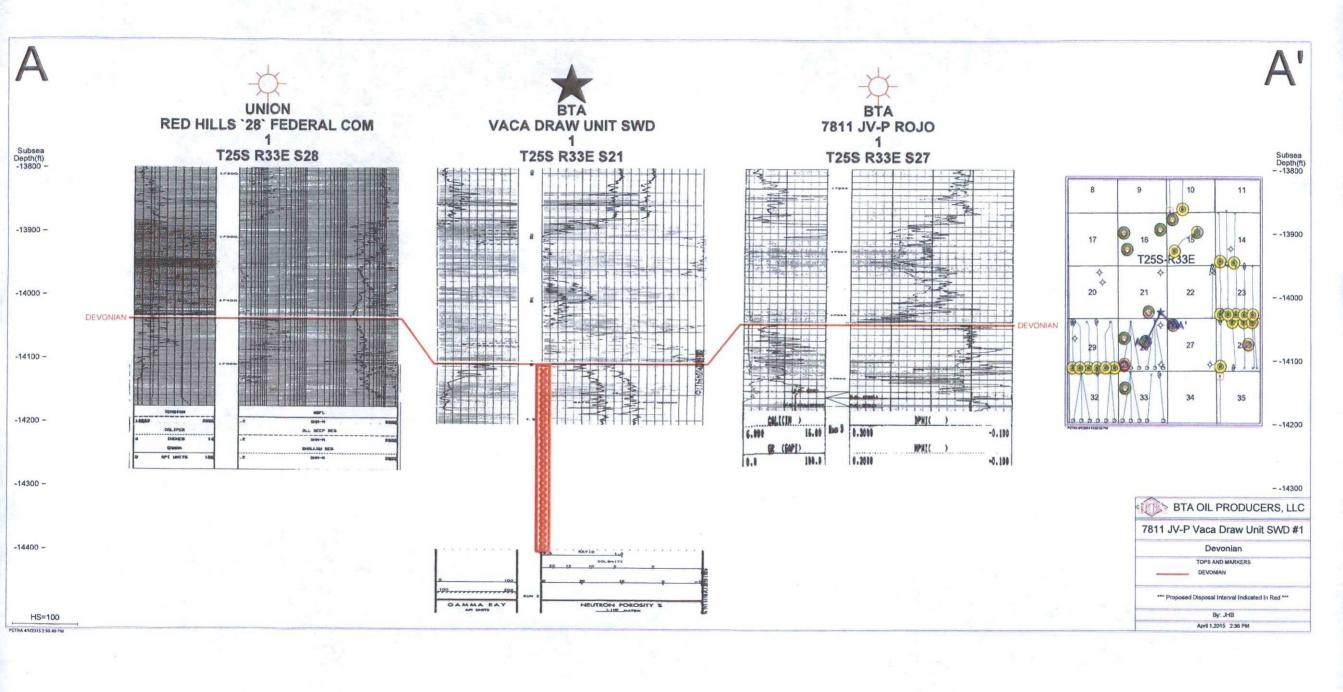
8TA Oil Producers, LLC 7811 JV-P Vaca Draw Unit SWD #1 660' FSL 660' FEL Section 21, T255, R33E Lea County, New Mexico

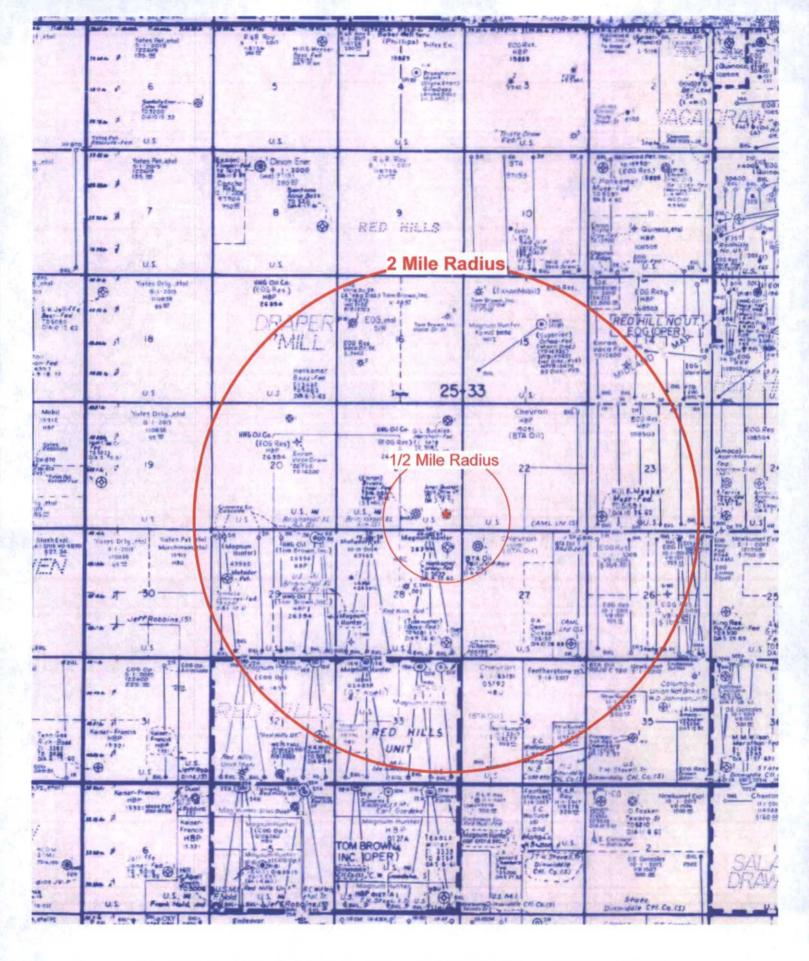
		,				,	
30025291910000 UNION OIL CO OF CA	RED HILLS '28' FEDERAL COM	1	28	255	33E	2310'FNL & 2310'FEL	Surface
30025291910001 UNION OIL CO OF CA	RED HILLS '28' FEDERAL COM	1	28	255	33E	2310'FNL & 2310'FEL	surface
30025291910002 CIMAREX ENERGY CO	RED HILLS 28 FEDERAL COM	1	28	255	33E	2310'FNL & 2310'FEL	Surface
30025329460000 CIMAREX ENERGY CO	RED HILLS '28' FEDERAL COM	2	28	255	33E	1980'FNL & 660'FWL	Surface
30025355980000 CIMAREX ENERGY CO	RED HILLS SWD	1	28	255	33E	660'FSL & 660'FWL	N/A
30025423690000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	1H	28	2\$5_	33E	330'FNL & 1310'FWL	N/A
30025423700000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	2H	28	255_	33E	330'FNL & 1330'FWL	N/A
30025423710000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	3H	28	255_	33E	330'FNL & 1350'FWL	N/A
30025423720000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	4H	28	255	33E	180'FNL & 1350'FEL	N/A
30025423730000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	5H	28	255	33E	180'FNL & 1330'FEL	N/A
30025423740000 CIMAREX ENERGY CO	CASCADE 28 FEDERAL	6H	28	255	33E	180'FNL & 1310'FEL	N/A
30025083920000 TENNECO OIL CO	HW JENNINGS IUS-FED	1	29	255_	33E	1980'FNL & 660'FWL	N/A
30025403460000 CIMAREX ENERGY CO	CASCADE '29' FEDERAL	1H	29	25\$	33E	330'FNL & 350'FWL	N/A
30025403460100 CIMAREX ENERGY CO	CASCADE '29' FEDERAL	1H	29	255	33E	330'FNL & 350'FWL	N/A
30025412400000 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	2H	29	255	33E	330 FNL & 1905 FWL	N/A
30025412410000 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	3H	29	255	33E	330'FNL & 2310'FEL	Surface
30025412410100 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	3H	29	255	33E	330'FNL & 2310'FEL	Surface
30025412420000 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	4H	29	255	33E	330'FNL & 735'FEL	Surface
30025412430000 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	5H	29	258	33E	330'FNL & 580'FWL	Surface
30025412430100 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	5H	29	258	33E	330'FNL & 580'FWL	Surface
30025420310000 CIMAREX ENERGY CO	CASCADE 29 FEDERAL	7H	29	255	33E	340'FNL & 864'FEL	Surface
30025416600000 CIMAREX ENERGY CO	RED HILLS UNIT	10H	32	255	33E	160'FNL & 1290'FWL	Surface
30025416610000 CIMAREX ENERGY CO	RED HILLS UNIT	12H	32	255	33E	160'FNL & 1330'FWL	Est. Surface
30025416620000 CIMAREX ENERGY CO	RED HILLS UNIT	13H	32	25\$	33E	160'FNL & 2200'FEL	Est. Surface
30025416620100 CIMAREX ENERGY CO	RED HILLS UNIT	13H	_32	255	33E	160'FNL & 2200'FEL	Est. Surface
30025416630000 CIMAREX ENERGY CO	RED HILLS UNIT	14H	32	25S	33E	160'FNL & 885'FEL	Est. Surface
30025416640000 CIMAREX ENERGY CO	RED HILLS UNIT	15H	32	25\$	33E	160'FNL & 865'FEL	Est. Surface
30025416730000 CIMAREX ENERGY CO	RED HILLS UNIT	11H	32	25\$	33E	160'FNL & 1310'FWL	Est. Surface
30025351120000 CIMAREX ENERGY CO	RED HILLS UNIT	5	33	25\$	33E	1695'FNL & 717'FWL	N/A
30025423240000 CIMAREX ENERGY CO	RED HILLS UNIT	16H	33	25\$	33E	150'FNL & 1240'FWL	Est. Surface
30025423250000 CIMAREX ENERGY CO	RED HILLS UNIT	17H	33	25\$	33E	150'FNL & 1260'FWL	Est. Surface
30025423260000 CIMAREX ENERGY CO	RED HILLS UNIT	19H	33	255	33E	330'FNL & 1765'FEL	Est. Surface
30025423270000 CIMAREX ENERGY CO	RED HILLS UNIT	21H	33	25\$	33E	330'FNL & 850'FEL	Est. Surface
30025423270100 CIMAREX ENERGY CO	RED HILLS UNIT	21H	33	25\$	33E	330'FNL & 850'FEL	Est. Surface
30025424510000 CIMAREX ENERGY CO	RED HILLS UNIT	18H	33	255	33E	150'FNL & 1280'FWL	Est. Surface
30025413700100 ENDEAVOR ENERGY	BATTLE AXE FEDERAL COM	2H	2	265	33E	2260'FNL & 380'FWL	Est. Surface











BTA Oil Producers, LLC - 7811 JV-P Vaca Draw Unit SWD #1
Wells within ½ mile and 2 mile radius

BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 657.5' FSL & 661.5' FEL Section 21, T25S, R33E Lea County, NM

XIII Notice of Offset Operators within ½ Mile

Surface Owner

Bureau of Land MGMT

620 E. Greene St. Carlsbad, NM 88220

State of New Mexico Commissioner of Public Lands P.O. Box 1148 Sante Fe, NM 87504

Offset Operator list

EOG Resources, Inc.

PO Box 5270 Hobbs, NM 88241

Chevron USA

15 Smith Rd. Midland, TX 79705

Oxy USA Inc.

P.O. Box 50250 Midland, TX 79710

Cimarex Energy Company

600 North Marienfeld St, Suite 600 Midland, TX 79701

Offset Surface Owner

Bureau of Land MGMT

620 E. Greene St. Carlsbad, NM 88220

In addition, I hereby certify that notification of BTA's application was mailed via certified mail to the above named parties on the 2nd day of May, 2016.

| Layla McConnell

Attachment to C-108

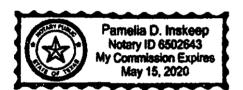
BTA Oil Producers, LLC Application for Authorization to Inject 7811 JV-P Vaca Draw Unit SWD #1 657.5' FSL & 661.5' FEL Section 21, T25S, R33E Lea County, New Mexico

STATE OF TEXAS

COUNTY OF MIDLAND

BEFORE ME, the undersigned authority on this day personally appeared Kayla McConnell, a Regulatory Analyst with BTA Oil Producers, LLC who being by me duly sworn, deposes and states the persons listed on the foregoing attached list have been sent a copy on May 2, 2016, of the New Mexico Oil Conservation Division Form C-108 "Application for Authorization to Inject" for the 7811 JV-P Vaca Draw Unit SWD #1, located in section 21, T25S, R33E, Lea County, New Mexico.

SUBSCRIBED AND SWORN TO before me on this 2nd day of May, 2016, to certify which witness my hand and seal of office.



Pamelia D. Inskeep

Notary Public, State of Texas

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

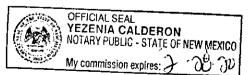
> Beginning with the issue dated March 24, 2016 and ending with the issue dated March 24, 2016.

Publisher

Sworn and subscribed to before me this 24th day of March 2016.

Circulation Coordinator

My commission expires February 28, 2020 (Seal)



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE March 24, 2016

BTAOIL PRODUCERS LLC, 104 S Pecos, Midland, Texas 79701, will file form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the 7811 JV-P Vaca Draw Unit SWD #1 is located 657.5' FSL & 661.5' FEL, Section 21, T25S, R33E, Lea County, NM. Disposal water will be sourced from area wells producing from the Delaware, Bone Spring, and Wolfcamp formations. The disposal water will be injected into the Devonian and Silurian formations at a depth of 17498-19042', at a maximum surface pressure of 3580 psi, and an average rate of 20000 BWPD.

All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe,NM 87505, within 15 days. Additional information can be obtained by contacting Trace Wohlfahrt, Production Engineer, at 104 S Pecos, Midland, TX 79701, or (432) 682-3753.

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PAM INSKEEP BTA OIL PRODUCERS 104 SOUTH PECOS MIDLAND, TX 79701 BTA Oil Producers, LLC
Application for Authorization to Inject
7811 JV-P Vaca Draw Unit SWD #1
657.5' FSL & 661.5' FEL
Section 21, T25S, R33E
Lea County, NM

XIII Notice of Offset Operators within 1/2 Mile

Surface Owner.

Bureau of Land MGMT

620 E. Greene St. Carlsbad, NM 88220

State of New Mexico Commissioner of Public Lands P.O. Box 1148 Sante Fe, NM 87504

Offset Operator list

EOG Resources, Inc. *
PO Box 2267
Midland, TX 79702

Chevron USA

15 Smith Rd. Midland, TX 79705

Oxy USA Inc.
P.O. Box 50250
Midland, TX 79710

Cimarex Energy Company 600 North Marienfeld St, Suite 600 Midland, TX 79701 Offset Surface Owner

Bureau of Land MGMT 620 E. Greene St. Carlsbad, NM 88220

In addition, I hereby certify that notification of BTA's application was mailed via certified mail to the above named parties on the 2^{nd} and 9^{th} day of May, 2016.

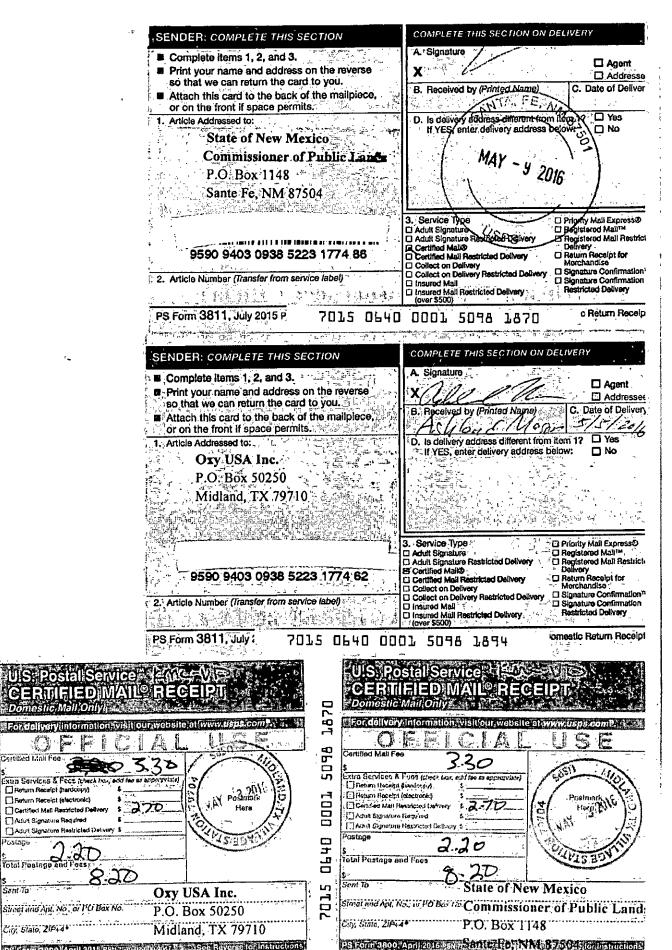
Kayla McConnell

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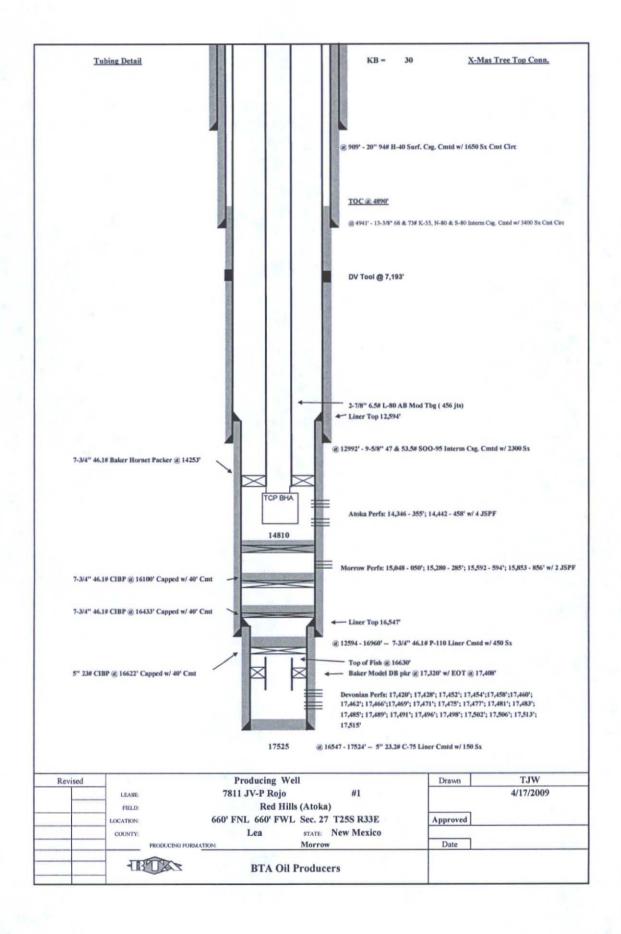
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BTA OIL PRODUCERS, LLC

CARLTON BEAL, JR. 104 SOUTH PECOS STREET
BARRY BEAL MIDLAND, TEXAS 79701-5021
SPENCER BEAL 432-682-3753
KELLY BEAL FAX 432-683-0311
BARRY BEAL, JR.

GULF COAST DISTRICT

TOTAL PLAZA
1201 LOUISIANA STREET, STE. 570
HOUSTON, TEXAS 77002
713-658-0077 FAX 713-655-0346

ROCKY MOUNTAIN DISTRICT 600 17TH STREET, STE 2230 SOUTH

500 17TH STREET, STE. 2230 SOUT) DENVER, COLORADO 80202 303-534-4404 FAX 303-534-4661

May 2, 2016

Re: Amended Application for Authorization to Inject

7811 JV-P Vaca Draw Unit SWD #1

Administrative Order SWD-1571

657.5' FSL & 661.5' FEL Section 21, T25S, R33E

Lea County, New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION
OIL CONSERVATION DIVISION
Attn: Mr. Phillip Goetze

1220 South St. Francis Drive Santa Fe, NM 87505

Dear Mr. Goetze,

STUART BEAL

ROBERT DAVENPORT, JR.

BTA Oil Producers, LLC hereby seeks approval to amend the existing Authorization to Inject for the above referenced location. We are proposing to re-enter this P&A well and convert into an injection well. We also plan to utilize this well as a commercial disposal.

After further review of deep water disposal in Lea County, BTA would like to extend the injection interval from Devonian to Devonian/Silurian. This would entail deepening the wellbore to a TD of 19042', approved permit is for a TD of 17909'. BTA believes this will increase the likelihood of finding porosity that will accept disposal water. Upon additional review of the existing wellbore, it is also requested to make a casing exit of the 10-3/4" existing string in the Wolfcamp formation, drill to the top of the Devonian, set 7" protective casing and finish drilling the injection interval (Devonian/Silurian) with 6" hole, leaving the injection interval open hole for injection. If sufficient injection capacity is discovered, the 7" will then be tied back to surface and 4.5" lined injection tubing installed for injection purposes (details in procedure). The casing exit strategy will then isolate the existing wellbore and provide a new casing string from surface to top of injection zone.

BTA has notified all offset Operators and the Surface Owner of our intentions by certified mail, as well as published a Legal Notice in the Hobbs Daily News-Sun. The Affidavit of Publication is attached and we will forward copies of the signed "green card" PS form 3811 certifications as soon as all are received back.

Should further information be required to approve this application, please advise.

Respectfully,

Kayla McConnell BTA Oil Producers, LLC

Kayla McComell

McMillan, Michael, EMNRD

From:

Kayla McConnell < KMcConnell@btaoil.com>

Sent:

Thursday, May 05, 2016 12:08 PM

To:

McMillan, Michael, EMNRD

Subject:

FW: UIC Question

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]

Sent: Friday, March 18, 2016 11:50 AM

To: Kayla McConnell < KMcConnell@btaoil.com>

Cc: Goetze, Phillip, EMNRD < Phillip.Goetze@state.nm.us>; Jones, William V, EMNRD < William V.Jones@state.nm.us>;

Lowe, Leonard, EMNRD < Leonard.Lowe@state.nm.us>

Subject: RE: UIC Question

It would be considered a major modification, and you would have to submit a new application.

Thank You

Michael A. McMillan

Engineering and Geological Services Bureau, Oil Conservation Division 1220 South St. Francis Dr., Santa Fe NM 87505 O: 505.476.3448 F. 505.476.3462 Michael.mcmillan@state.nm.us

From: Kayla McConnell [mailto:KMcConnell@btaoil.com]

Sent: Friday, March 18, 2016 8:26 AM To: McMillan, Michael, EMNRD

Subject: UIC Question

Good morning.

I had a question about amending injection permits. Will we need to file a new C-108 and notifications to deepen wellbore and add a formation?

Thank you,

Kayla McConnell

BTA Oil Producers LLC Office: 432-682-3753 Fax: 432-683-0325



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced (R=POD has been replaced, O=orphaned,

& no longer serves a water right file.)

C=the file is

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) closed)

(In feet)

POD Depth Depth Water Well Water Column Q Q QSub-Code basin County 64 16 4 Sec Tws Rng POD Number ... 636971 110 2 3 3 26 25\$ 33E C 02313

> Average Depth to Water: 110 feet

> > 110 feet Minimum Depth:

110 feet Maximum Depth:

Record Count: 1

PLSS Search:

Section(s): 20-22, 26-28

Township: 25S

Range: 33E

*UTM location was derived from PLSS - see Help

	14/246	est: S/2/20/ Reply	6						
C-108 Review Checklist:	Received Add. Reque	st: S Peply	Date:	Suspended: [Ver 15]					
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Well No Well Name(s): 78-11-5U-PUACH Brew SWD-# / API: 30-0 25-2389 5 Spud Date: 5785 New or Old: W (UIC Class II Primacy 03/07/1982)									
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COMPLIANCE RULE 5.9: Total Wells: 156 Inacti		Compl. Order?	M/ IS	5.9 OK? V Date: 3-23 246					
WELL FILE REVIEWED (1) Current Status:									
WELL DIAGRAMS: NEW: Proposed O or RE-ENTER				Y					
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McMillan, Michael, EMNRD

From:

Kayla McConnell < KMcConnell@btaoil.com>

Sent: To: Monday, May 23, 2016 3:36 PM McMillan, Michael, EMNRD

Subject:

RE: UIC Question/Vaca Draw Unit SWD Well No. 1

Michael,

Thank you, I talked to our Drilling Manager, he agreed to the DV tool stipulation and we plan to run a CBL to the referenced depth.

Thank you,

Kayla McConnell

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]

Sent: Monday, May 23, 2016 9:25 AM

To: Kayla McConnell < KMcConnell@btaoil.com>

Subject: RE: UIC Question/Vaca Draw Unit SWD Well No. 1

Kayla:

I spoke with Will Jones, and he recommended approval of the Vaca Draw SWD Well No. 1 with the stipulation that BTA run a DV tool at the base of the Wolfcamp formation.

I will also require a CBL through the liner to 12000 feet.

Call me with questions or concersn

Mike

From: Kayla McConnell [mailto:KMcConnell@btaoil.com]

Sent: Thursday, May 05, 2016 12:08 PM

To: McMillan, Michael, EMNRD Subject: FW: UIC Question

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]

Sent: Friday, March 18, 2016 11:50 AM

To: Kayla McConnell < KMcConnell@btaoil.com>

Cc: Goetze, Phillip, EMNRD < Phillip.Goetze@state.nm.us; Jones, William V, EMNRD < William V, William V, William

Lowe, Leonard, EMNRD < Leonard. Lowe@state.nm.us>

Subject: RE: UIC Question

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Thank You