

Ó. 1

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

### 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.

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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 LLCWELL NAME & NUMBER: 9418 JV-P Vaca Draw #1WELL LOCATION: 1980' FSL & 1980' FWL, UL K, Sec. 10, T25S, R33E, Lea County, NM

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 17-1/2 Casing Size: 13-3/8"Cemented with: 580 sx. or                      ft<sup>3</sup>Top of Cement: surface Method Determined: circIntermediate CasingHole Size: 11"/7-7/8" Casing Size: 8-5/8"/5-1/2"Cemented with: 1925/1850 sx. or                      ft<sup>3</sup>Top of Cement: surface/6980 \* Method Determined: circ/CBL

\*Comp rept showed TOC @ 3440' by TS. We have a CBL that shows TOC @ 6980'

Production CasingHole Size: 4-3/4" Casing Size: 2-7/8"Cemented with: 300 sx. or                      ft<sup>3</sup>Top of Cement: surface Method Determined: circTotal Depth: 14162'Injection IntervalPropose 5056 feet to 6770 Perf

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEETTubing Size: 2-7/8" Lining Material: internally plastic-coatedType of Packer: Arrowset IIPacker Setting Depth: 6900'

Other Type of Tubing/Casing Seal (if applicable): CIBP @ ±13420', cap w/40' cmt  
CIBP @ ±12150', cap w/40' cmt  
Perf/Sqz ±6940' (12 holes) w/1000 sx  
CIBP @ ±6930', cap w/40' cmt

Additional Data

1. Is this a new well drilled for injection? Yes X No

If no, for what purpose was the well originally drilled? Oil & Gas Producer, 1999

2. Name of the Injection Formation: Delaware (Bell Canyon/Upper Cherry Canyon)

3. Name of Field or Pool (if applicable): SWD; Delaware

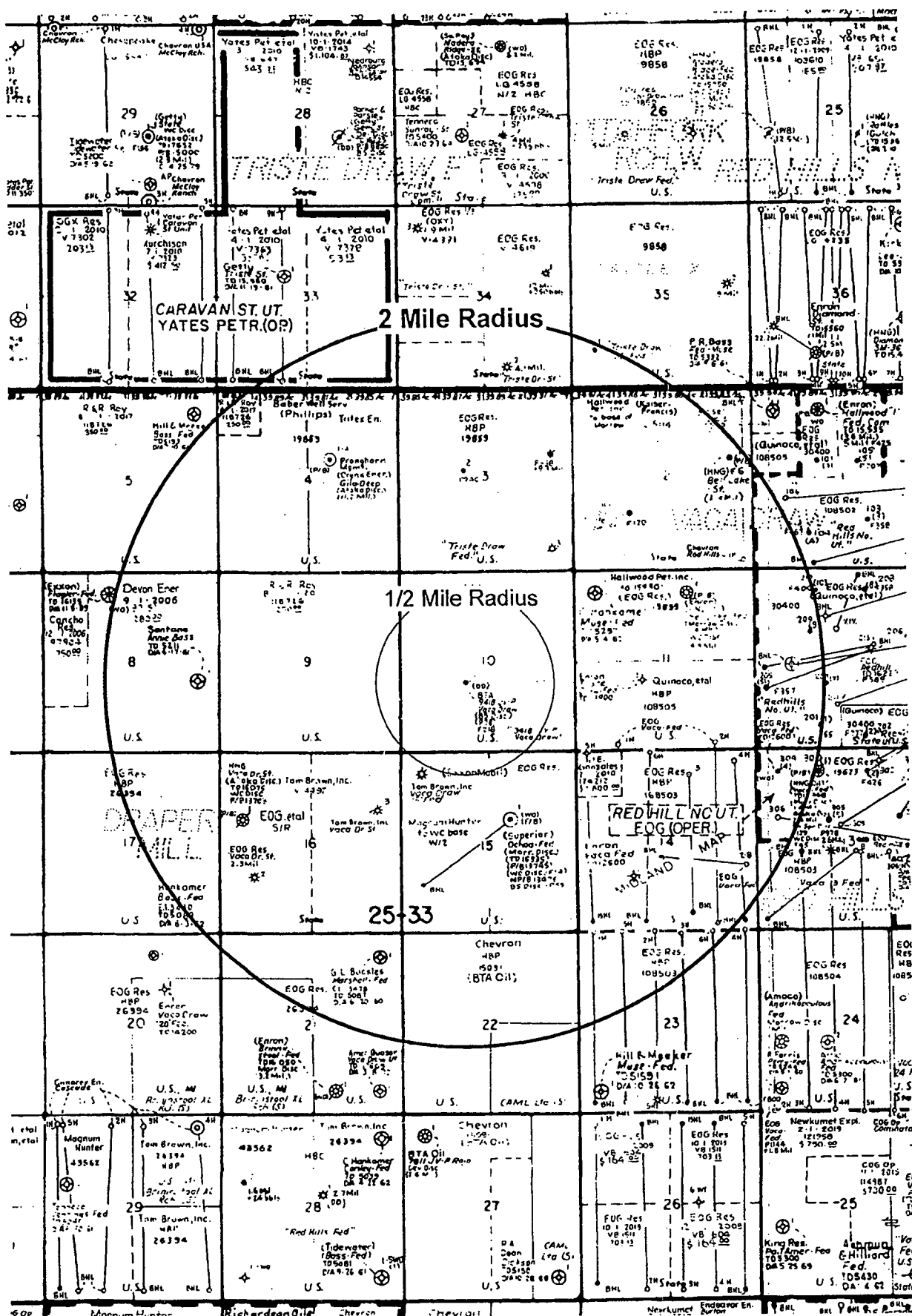
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. Yes, see detail in VI

AOR Well Data

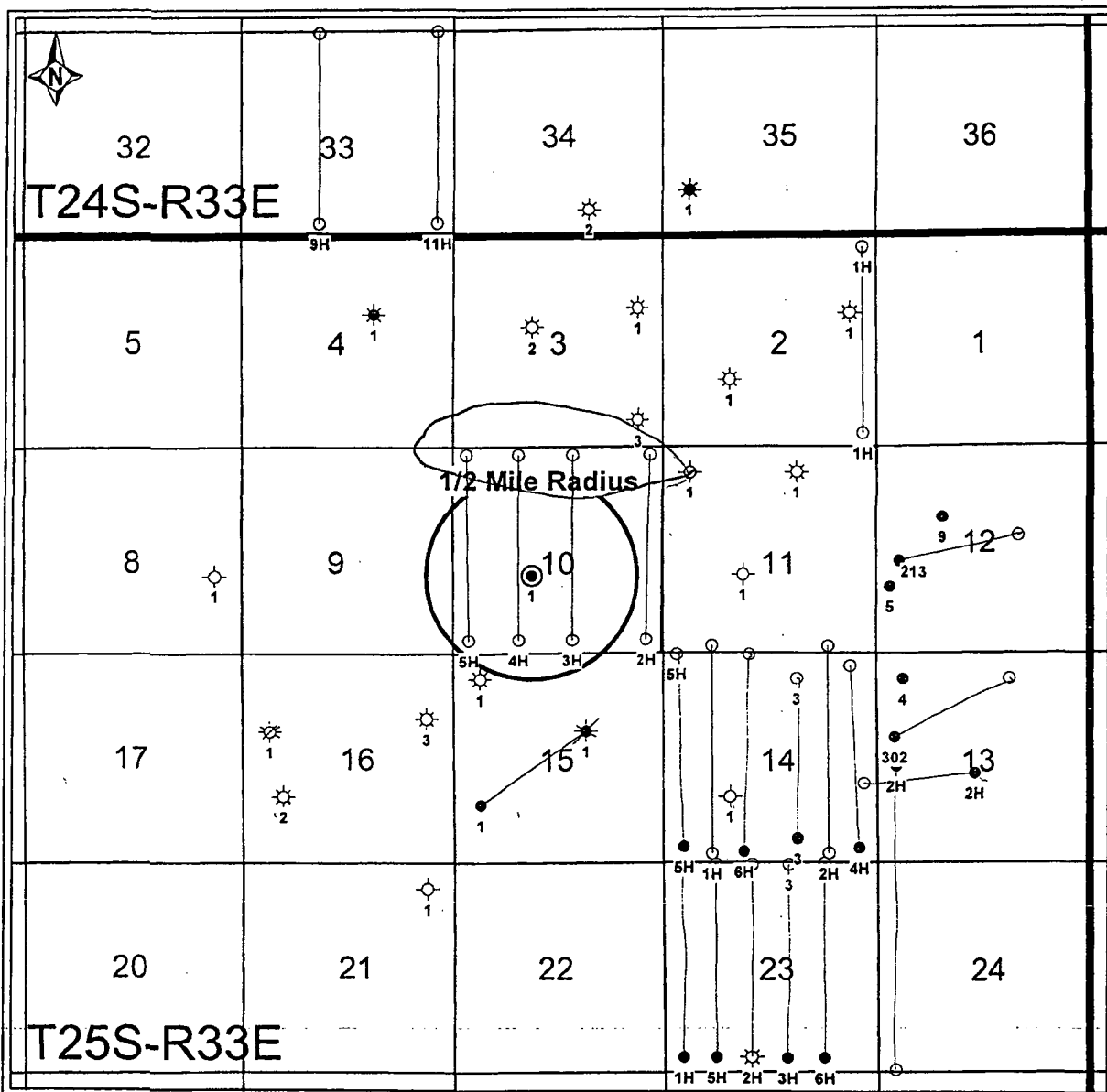
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_


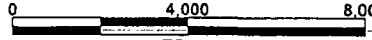
Bell Canyon 5045'; Cherry Canyon 6376'; Brushy Canyon 7581'; Bone Spring 9218';

Wolfcamp 12432'



**BTA Oil Producers, LLC - 9418 JV-P Vaca Draw #1 WIW**  
**Wells within 1/2 mile and 2 mile radius**



 <b>BTA Oil Producers, LLC</b>
<b>9418 JV-P Vaca Draw #1</b>
1/2 Mile Radius Lea Co., New Mexico
<b>WELL SYMBOLS</b> ○ Location Only ● Oil Well ★ Gas Well ★ Oil & Gas Well ⊕ Dry Hole ⊗ Plugged & Abandoned Gas Well ⊗ Plugged And Abandoned Oil and Gas Well ★ Oil & Gas Well
<b>REMARKS</b> 9418 JV-P Vaca Draw #1 Highlighted in Yellow 1/2 Mile Radius Indicated in Red Only Wells Within 2 Mile Radius Shown on Map See Exhibit "A" For Well List
By: JHB
 <b>FEET</b>
February 19, 2014

HALF MILE RADIUS												
API #	Operator	Well Name	Well No.	TD	Sec	Tw	Rng	Footage Calls	Spud Date	Comp Date	Status	Prod Fm
30025336390000	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	12575	10	25S	33E	1980'FSL & 1980'FWL	11/21/1996	2/10/1997	Oil	WOLFCAMP
30025336390001	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	14162	10	25S	33E	1980'FSL & 1980'FWL	5/12/1999	7/5/1999	Oil	WOLFCAMP
30025416220000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	3H		10	25S	33E	190'FNL & 2310'FEL			Location	
30025416230000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	4H		10	25S	33E	190'FNL & 1650'FWL			Location	
30025416240000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	5H		10	25S	33E	190'FNL & 330'FWL			Location	



BTA Oil Producers LLC  
 Application for Authorization to Inject  
 9418 JV-P Vaca Draw #1  
 1980' FSL & 1980' FWL  
 Section 10, T25S, R33E  
 Lea County, NM

VI AOR Well Data

Well Name	Operator	Location	Type of Well	Spud Date	Comp Date	TD P8TD	Comp Interval	Producing Formation	Casing Program			
									Casing	Depth	Amt Cmt	Circ
9418 JV-P Vaca Draw #1 30-025-33639	BTA Oil Producers LLC	1980' FSL & 1980' FWL 10-25S-33E	Gas	11/21/1996	2/8/1997	12575' MD	12196-12242'	Bone Spring	13-3/8"	715	580	Circ
			Oil		Rec 7/4/1999	12470' P8TD 14162' MD 14093' P8TD	13501-14060'	Wolfcamp	8-5/8" 5-1/2"	5000 12575	1925 1850	Circ 6980*
									* Comp rept showed TOC @ 3440' by TS. We have a CBL that shows TOC @ 6980'			
9418 JV-P Vaca Draw #3H 30-025-41622	BTA Oil Producers LLC	190' FNL & 2310' FEL SL 330' FSL & 2260' FEL BHL 10-25S-33E	Oil	New (not drilled)		13942' MD 9380' TVD Proposed	9695-13942'	Bone Spring	13-3/8"	1220	900	Circ
							Proposed		9-5/8" 5-1/2" Proposed	5090 13942 Proposed	1250 1950 Proposed	Circ 4890 Proposed
9418 JV-P Vaca Draw #4H 30-025-41624	BTA Oil Producers LLC	190' FNL & 1650' FWL SL 330' FSL & 1650' FWL BHL 10-25S-33E	Oil	New (not drilled)		13981' MD 9450' TVD Proposed	9695-13981'	Bone Spring	13-3/8"	1220	900	Circ
							Proposed		9-5/8" 5-1/2" Proposed	5100 13981 Proposed	1250 1950 Proposed	Circ 4900 Proposed
9418 JV-P Vaca Draw #5H 30-025-41625	BTA Oil Producers LLC	190' FNL & 330' FWL SL 330' FSL & 380' FWL BHL 10-25S-33E	Oil	New (not drilled)		13972' MD 9450' TVD Proposed	9695-13972'	Bone Spring	13-3/8"	1190	900	Circ
							Proposed		9-5/8" 5-1/2" Proposed	5050 13972 Proposed	1250 1950 Proposed	Circ 4850 Proposed

# Exhibit "A"

API #	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls
30025271780000	CHEVRON MIDCONTINENT LP	BELL LAKE '2' STATE	1	2	25S	33E	1980'FNL & 660'FEL
30025346040000	EOG RES. INC.	TRISTE DRAW '2' STATE	1	2	25S	33E	1650'FSL & 1650'FWL
30025415460000	CHEVRON USA INC.	RED HILLS 2-25-33	1H	2	25S	33E	330'FSL & 340'FEL
30025415460100	CHEVRON USA INC.	RED HILLS 2-25-33	1H	2	25S	33E	330'FSL & 340'FEL
30025345180000	ENRON OIL & GAS CO	TRISTE DRAW '3' FEDERAL	1	3	25S	33E	1826'FNL & 660'FEL
30025345180001	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	1	3	25S	33E	1826'FNL & 660'FEL
30025345850000	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	2	3	25S	33E	2310'FNL & 1980'FWL
30025350720000	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	3	3	25S	33E	660'FSL & 660'FEL
30025308720000	ENDURANCE RESOURCES LLC	GILA '4' DEEP COM	1	4	25S	33E	1975'FNL & 1980'FEL
30025308720001	ENDURANCE RESOURCES LLC	GILA '4' DEEP COM	1	4	25S	33E	1975'FNL & 1980'FEL
30025336390000	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	10	25S	33E	1980'FSL & 1980'FWL
30025336390001	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	10	25S	33E	1980'FSL & 1980'FWL
30025416210000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	2H	10	25S	33E	190'FNL & 330'FEL
30025416220000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	3H	10	25S	33E	190'FNL & 2310'FEL
30025416230000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	4H	10	25S	33E	190'FNL & 1650'FWL
30025416240000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	5H	10	25S	33E	190'FNL & 330'FWL
30025267290000	CHEVRON MIDCONTINENT LP	BELL LAKE '11' FEDERAL	1	11	25S	33E	660'FNL & 1980'FEL
30025267290001	HNG OIL COMPANY	BELL LAKE '11' FEDERAL	1	11	25S	33E	660'FNL & 1980'FEL
30025410980000	EOG RES. INC.	VACA 11 FEDERAL COM	1H	11	25S	33E	170'FSL & 1200'FWL
30025415230000	EOG RES. INC.	VACA 11 FEDERAL	2H	11	25S	33E	170'FSL & 1200'FEL
30025378390000	EOG RES. INC.	VACA 14 FEDERAL	2H	14	25S	33E	1980'FSL & 330'FEL
30025393270000	EOG RES. INC.	VACA 14 FEDERAL	3	14	25S	33E	660'FNL & 1980'FEL
30025393270100	EOG RES. INC.	VACA 14 FEDERAL	3	14	25S	33E	660'FNL & 1980'FEL
30025398920000	EOG RES. INC.	VACA 14 FEDERAL	4H	14	25S	33E	330'FNL & 660'FEL
30025399430000	EOG RES. INC.	VACA '14' FEDERAL	6H	14	25S	33E	50'FNL & 2130'FWL
30025399440000	EOG RES. INC.	VACA '14' FEDERAL COM	5H	14	25S	33E	50'FNL & 330'FWL
30025399440100	EOG RES. INC.	VACA '14' FEDERAL COM	5H	14	25S	33E	50'FNL & 330'FWL
30025276230100	EOG RES. INC.	OCHOA FEDERAL	1	15	25S	33E	1980'FNL & 1980'FEL
30025354450000	CIMAREX ENERGY CO. OF CO.	VACA DRAW '15' FEDERAL	1	15	25S	33E	660'FNL & 660'FWL
30025346530000	EOG RES. INC.	VACA DRAW '16' STATE	2	16	25S	33E	1650'FSL & 990'FWL
30025349090000	CIMAREX ENERGY CO. OF CO.	VACA DRAW '16' STATE	3	16	25S	33E	1650'FNL & 660'FEL

## Exhibit - Two Mile Radius Wells (to BTA 9418 JV-P Vaca Draw #1)

API #	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls	TOC
30025416040000	YATES PETRO. CORP.	CARAVAN STATE UNIT	9H	33	24S	33E	50'FNL & 1930'FWL	est. 4,700'
30025416380000	YATES PETRO. CORP.	CARAVAN STATE UNIT	11H	33	24S	33E	15'FNL & 400'FEL	est. 4,700'
30025416410000	YATES PETRO. CORP.	CARAVAN STATE UNIT	9H	33	24S	33E	50'FNL & '1950'FWL	est. 4,700'
30025345720000	EOG RES. INC.	TRISTE DRAW '34' STATE COM	2	34	24S	33E	660'FSL & 1883'FEL	est. 4,500'
30025347190000	EOG RES. INC.	TRISTE DRAW '35' FEDERAL	1	35	24S	33E	1150'FSL & 660'FWL	4,498'
30025347190001	EOG RES. INC.	TRISTE DRAW 35 FED	1	35	24S	33E	1150'FSL & 660'FWL	4,498'
30025271780000	CHEVRON MIDCONTINENT LP	BELL LAKE '2' STATE	1	2	25S	33E	1980'FNL & 660'FEL	est. 5,061'
30025346040000	EOG RES. INC.	TRISTE DRAW '2' STATE	1	2	25S	33E	1650'FSL & 1650'FWL	4,471'
30025415460000	CHEVRON USA INC.	RED HILLS 2-25-33	1H	2	25S	33E	330'FSL & 340'FEL	est. 4,550'
30025415460100	CHEVRON USA INC.	RED HILLS 2-25-33	1H	2	25S	33E	330'FSL & 340'FEL	est. 4,550'
30025345180000	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	1	3	25S	33E	1826'FNL & 660'FEL	5,115'
30025345180001	ENRON O&G CO.	TRISTE DRAW '3' FEDERAL	1	3	25S	33E	1826'FNL & 660'FEL	5,115'
30025345850000	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	2	3	25S	33E	2310'FNL & 1980'FWL	4,421'
30025350720000	EOG RES. INC.	TRISTE DRAW '3' FEDERAL	3	3	25S	33E	660'FSL & 660'FEL	4,473'
30025308720000	ENDURANCE RESOURCES LLC	GILA '4' DEEP COM	1	4	25S	33E	1975'FNL & 1980'FEL	est. 6,500'
30025308720001	ENDURANCE RESOURCES LLC	GILA '4' DEEP COM	1	4	25S	33E	1975'FNL & 1980'FEL	est. 6,500'
30025083810000	SANTANA PET CORP	BASS-FEDERAL	1	8	25S	33E	1980'FSL & 660'FEL	n/a
30025336390000	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	10	25S	33E	1980'FSL & 1980'FWL	3,440'
30025336390001	BTA OIL PRODUCERS LLC	9418 JV-P VACA DRAW	1	10	25S	33E	1980'FSL & 1980'FWL	3,440'
30025416210000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	2H	10	25S	33E	190'FNL & 330'FEL	est. 4,900'
30025416220000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	3H	10	25S	33E	190'FNL & 2310'FEL	est. 4,900'
30025416230000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	4H	10	25S	33E	190'FNL & 1650'FWL	est. 4,900'
30025416240000	BTA OIL PRODUCER LLC	VACA DRAW 9418 JV-P	5H	10	25S	33E	190'FNL & 330'FWL	est. 4,900'
30025083820000	HANKAMER CURTIS CORP	MUSE-FEDERAL	1	11	25S	33E	660'FNL & 660'FWL	n/a
30025267290000	CHEVRON MIDCONTINENT LP	BELL LAKE '11' FEDERAL	1	11	25S	33E	660'FNL & 1980'FEL	est. 5,029'
30025267290001	HNG OIL CO.	BELL LAKE '11' FEDERAL	1	11	25S	33E	660'FNL & 1980'FEL	est. 5,029'
30025346350000	ENRON O&G CO.	TRISTE DRAW '11' FEDERAL	1	11	25S	33E	1980'FSL & 1980'FWL	4,414'
30025410980000	EOG RES. INC.	VACA 11 FEDERAL COM	1H	11	25S	33E	170'FSL & 1200'FWL	4,450'
30025415230000	EOG RES. INC.	VACA 11 FEDERAL	2H	11	25S	33E	170'FSL & 1200'FEL	4,500'
30025327890000	EOG RES. INC.	HALLWOOD '12' FEDERAL	9	12	25S	33E	1830'FNL & 1650'FWL	4,930'
30025332940000	EOG RES. INC.	HALLWOOD '12' FEDERAL	5	12	25S	33E	1700'FSL & 331'FWL	6,000'
30025365840000	EOG RES. INC.	RED HILLS NORTH UNIT	213	12	25S	33E	2297'FNL & 1748'FEL	4,790'
30025321300000	EOG RES. INC.	VACA '13' FEDERAL	4	13	25S	33E	660'FNL & 660'FWL	5,520'
30025321300001	ENRON O&G CO.	VACA '13' FEDERAL	4	13	25S	33E	660'FNL & 660'FWL	5,520'
30025321820100	EOG RES. INC.	RED HILLS NORTH UNIT	302	13	25S	33E	660'FNL & 1980'FEL	3,800'
30025341180000	ENRON O&G CO.	VACA '14' FEDERAL	1	14	25S	33E	1650'FSL & 1650'FWL	4,845'

## Exhibit - Two Mile Radius Wells (to BTA 9418 JV-P Vaca Draw #1)

API #	Operator	Well Name	Well No.	Sec	Twn	Rng	Footage Calls	TOC
30025378390000	EOG RES. INC.	VACA 14 FEDERAL	2H	14	25S	33E	1980'FSL & 330'FEL	4,850'
30025393270000	EOG RES. INC.	VACA 14 FEDERAL	3	14	25S	33E	660'FNL & 1980'FEL	5,250'
30025393270100	EOG RES. INC.	VACA 14 FEDERAL	3	14	25S	33E	660'FNL & 1980'FEL	5,250'
30025398920000	EOG RES. INC.	VACA 14 FEDERAL	4H	14	25S	33E	330'FNL & 660'FEL	4,600'
30025399430000	EOG RES. INC.	VACA '14' FEDERAL	6H	14	25S	33E	50'FNL & 2130'FWL	4,600'
30025399440000	EOG RES. INC.	VACA '14' FEDERAL COM	5H	14	25S	33E	50'FNL & 330'FWL	4,050'
30025399440100	EOG RES. INC.	VACA '14' FEDERAL COM	5H	14	25S	33E	50'FNL & 330'FWL	4,050'
30025276230000	SUPERIOR OIL CO	OCHOA FEDERAL	1	15	25S	33E	1980'FNL & 1980'FEL	est. 4,991'
30025276230001	SUPERIOR DRLG INC	OCHOA FEDERAL	1	15	25S	33E	1980'FNL & 1980'FEL	est. 4,991'
30025276230002	ENRON O&G CO.	OCHOA FEDERAL	1	15	25S	33E	1980'FNL & 1980'FEL	est. 4,991'
30025276230100	EOG RES. INC.	OCHOA FEDERAL	1	15	25S	33E	1980'FNL & 1980'FEL	est. 4,991'
30025354450000	CIMAREX ENERGY CO. OF CO.	VACA DRAW '15' FEDERAL	1	15	25S	33E	660'FNL & 660'FWL	0'
30025272630000	EOG RES. INC.	VACA DRAW /16/STATE	1	16	25S	33E	1980'FNL & 660'FWL	est. 4,924'
30025272630001	HNG OIL CO.	VACA DRAW '16' STATE	1	16	25S	33E	1980'FNL & 660'FWL	est. 4,924'
30025346530000	EOG RES. INC.	VACA DRAW '16' STATE	2	16	25S	33E	1650'FSL & 990'FWL	4,299'
30025349090000	CIMAREX ENERGY CO. OF CO.	VACA DRAW '16' STATE	3	16	25S	33E	1650'FNL & 660'FEL	est. 4,805'
30025083860000	BUCKLES GEO L CO	FEDERAL-MARSHALL	1	21	25S	33E	660'FNL & 660'FEL	n/a
30025400500000	EOG RES. INC.	CABALLO '23' FEDERAL	1H	23	25S	33E	50'FNL & 440'FWL	4,120'
30025400510000	EOG RES. INC.	CABALLO '23' FEDERAL	2H	23	25S	33E	50'FNL & 2200'FWL	est. 4,050'
30025400520000	EOG RES. INC.	CABALLO 23 FEDERAL	3H	23	25S	33E	58'FNL & 2200'FEL	4,700'
30025400527000	EOG RES. INC.	CABALLO 23 FEDERAL	3	23	25S	33E	58'FNL & 2200'FEL	4,700'
30025402470000	EOG RES. INC.	CABALLO '23' FEDERAL	5H	23	25S	33E	40'FNL & 1295'FWL	est. 4,050'
30025402480000	EOG RES. INC.	CABALLO '23' FEDERAL	6H	23	25S	33E	20'FNL & 1310'FEL	est. 4,050'
30025405280000	EOG RES. INC.	VACA '24' FEDERAL COM	2H	24	25S	33E	50'FSL & 430'FWL	4,550'

BTA Oil Producers LLC  
Application for Authorization to Inject  
9418 JV-P Vaca Draw #1  
1980' FSL & 1980' FWL  
Section 10, T25S, R33E  
Lea County, New Mexico

VIII     Geologic Data

9418 JV-P Vaca Draw #1 Geological Discussion Regarding Proposed Disposal Interval

A. Disposal Zone

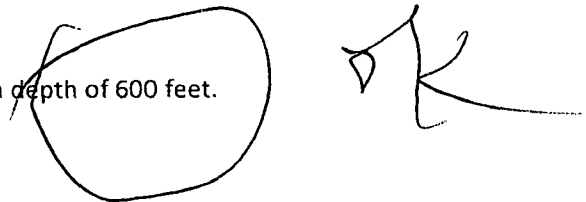
Injection will be into the Bell Canyon and upper Cherry Canyon members of the Delaware Mountain Group.

The Delaware Mountain Group has a total thickness in excess of 4,000 feet within this locality. It is comprised of alternating units of siltstone, sandstone, and limestone with minor units of shale. The proposed injection intervals in the Bell Canyon and upper Cherry Canyon members exhibit very good porosity as observed on electric logs. These sandstones have made productive oil and gas reservoirs regionally when the formations are associated with structural closures. At the proposed location, however, no closure has been observed. Additionally, electric logs indicate the formation is brine saturated and no shows were observed on the mudlog.

The Delaware Mountain Group was deposited within a deep marine basin. The cleaner sandstone units represent submarine channel/fan sequences deposited down dip of the shelf margin under turbiditic conditions triggered by tectonic activity, gravity slumping or sea level changes. The siltstone, limestone and/or shale units represent the normal deposition that occurs within a marine basin between the catastrophic interruptions of turbiditic events.

B. Fresh Water Sources:

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



A

A'

EOG RESOURCES INCORPORATED  
TRISTE DRAW '3' FEDERAL

3  
T25S R33E S3

BTA OIL PRODUCERS LLC  
9418 JV-P VACA DRAW

1  
T25S R33E S10

CIMAREX ENERGY CO OF COLORADO  
VACA DRAW '15' FEDERAL

1  
T25S R33E S15

Subsea  
Depth(ft)  
-1500

Subsea  
Depth(ft)  
-1500

DELAWARE

DELAWARE

-1700 -

-1700

-1900 -

-1900

-2100 -

-2100

-2300 -

-2300

-2500 -

-2500

-2700 -

-2700

-2900 -

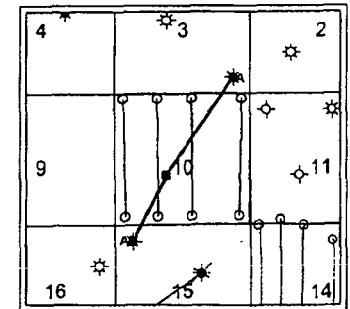
-2900

-3100 -

-3100

-3300 -

-3500 -



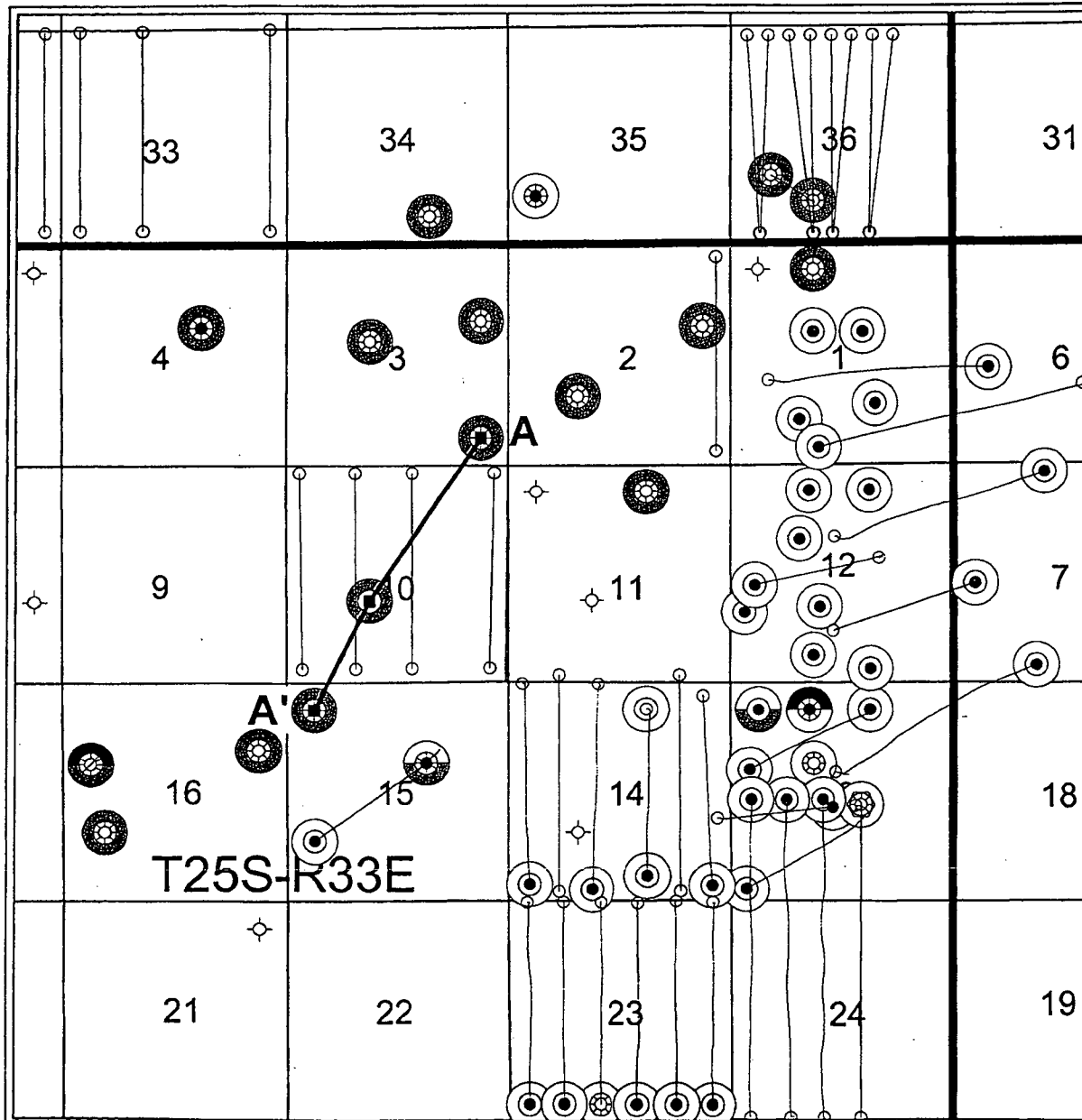
PETRA 2/20/2014 2:51:20 PM

<b>BTA</b> BTA OIL PRODUCERS, LLC
9418 JV-P Vaca Draw
A - A' Stratigraphic Cross Section
Delaware
TOPS AND MARKERS
DELAWARE
*** Top of Proposed Injection Interval Indicated in Red ***
By: JHB
February 20, 2014 2:19 PM

HS-1030

PETRA 2/20/2014 2:19:20 PM

14



**BTA** BTA Oil Producers, LLC

### 9418 JV-P Vaca Draw

Producing Formation Map

Sec. 10 - T25S - R33E

Lea Co., New Mexico

#### ATTRIBUTE MAP

- Producing Formation Contains "ATOKA"
- Producing Formation Contains "BONESPRING"
- Producing Formation Contains "MORROW"
- Producing Formation Contains "WOLFCAMP"

#### WELL SYMBOLS

- Location Only
- Completing/Completed
- Oil Well
- Gas Well
- Oil & Gas Well
- Dry Hole
- Plugged & Abandoned Gas Well
- Plugged And Abandoned Oil and Gas Well
- Oil & Gas Well

#### REMARKS

\*\*\*\* There Is No Delaware Formation Production In The Map Area \*\*\*\*

Top of Delaware Stratigraphic Cross Section Shown On Map

By: JHB



February 20, 2014

BTA Oil Producers  
9418 Vaca Draw #1  
Program to Reconfigure Wellbore  
Johnson Ranch Field  
Lea County, New Mexico

Well Data: TD 14,160'  
PBSD 14,093;

Elevations: 3411' KB  
3394' GL  
17' Diff

Casing: 13-3/8" 54.5# J-55 @ 715' w/ 580 Sx (Cmt Circ)  
8-5/8" 32# J-55 @ 5000' w/ 1925 Sx (Cmt Circ)  
5-1/2" 17# P-110 & S95 @ 12,575' w/ 1850 Sx  
TOC @ 6980' by CBL  
(Originally thought to be @ 3440' by temp survey)  
2-7/8" 6.5# P-110 @ 14,159' w/ 300 SX  
TOC @ 12,250' by temp survey

**Pertinent Well History:** Well originally produced through 5-1/2" casing in the Bone Springs formation. In 1999, well was deepened and completed in the Wolfcamp formation with 2-7/8" P-110 Casing cemented in place.

Capacities:

2-7/8" 6.5# Casing	0.00579 bbl/ft
5-1/2" 17# Casing	0.0232 bbl/ft
Between 2-7/8" and 5-1/2"	0.0152 bbl/ft

Procedure:

1. MIRU pulling unit.
2. Bullhead 80 bbls of 10 ppg brine down 2-7/8" to kill well.
3. MIRU WL unit. RIH w/ 2.3" gauge ring to 13,450'.
4. RIH and set CIBP in 2-7/8" casing @ 13,420'. Dump bail 40' of cement on CIBP. Pressure test plug to 500 psi for 10 min.
5. ND WH. NU 7-1/16" 5K BOP to 5-1/2" casing WH.
6. RU w/ tubing elevators on 2-7/8" csg/tbg.
7. RIH w/ freepoint tool inside 2-7/8" tbg. Find freepoint of 2-7/8" csg/tbg. Notify engineer if 2-7/8" is not free down to at least 12,200'. POH.
8. Rig up joint of tubing w/ grease head as lubricator. RIH w/ chemical cutter. Pull tension down to freepoint. Cut 2-7/8" casing above freepoint (Minimum Depth: 12,100', Target Depth: 12,200'). Be prepared for well to U-tube from heavy mud behind 2-7/8" (~3000 psi out of balance). RDMO wireline.
9. MIRU pump truck capable of 3 bpm @ 5000 psi. Circulate old drilling mud out of 2-7/8"x5-1/2" annulus by pumping 300 bbls produced water down 2-7/8" tbg taking returns out of 5-1/2" casing head valve. Pump more fluid if necessary to clean up.
10. POH standing back 2-7/8" tubing.
11. MIRU WL unit. RIH w/ 4.6" gauge ring and tag top of cut on 2-7/8".
12. RIH and set CIBP in 5-1/2" 17# casing @ 12,150'.
13. Run CBL from 7500' to surface.
14. Dump bail 40' of cement on CIBP @ 12,150'. RDMO WL unit.



15. Notify engineer if there is cement behind 5-1/2" casing above 6980'.
16. Pressure test 5-1/2" casing and CIBP to 1000 psi.
17. RDMO pulling unit.

**Turn over well to Concho for Micro Seismic Activities. After the wellbore is used to monitor frac:**

18. MIRU pulling unit.
19. MIRU WL unit. RIH and perforate cement circulation squeeze holes in 5-1/2" casing (12 holes, 0.42 EHD, 6 SPF) at 6940'.
20. RDMO WL Unit.
21. PU and RIH w/ packer for 5-1/2" casing. Set packer at 6900'.
22. Attempt to establish circulation down tubing taking returns on 5-1/2" x 8-5/8" annulus. Report to engineer.
23. POH and LD packer. PU and RIH w/ Cast Iron Cement Retainer. Set CICR @ ~6900'.
24. Sting into CICR and establish circulation. Pump 1000 sks Class H cement taking returns through 5-1/2" x 8-5/8" casing head. Sting out of retainer and reverse circulate out 1.5x tubing volume.
25. POH and LD stinger. PU and RIH w/ 4-3/4" bit and 6 3.5" drill collars. Drill out CICR and through squeeze perfs. Test perfs to 500 psi for 10 min.
26. RIH to CIBP @ 12,000'. Circulate well clean with 260 bbls inhibited packer fluid.
27. POH and LD 2-7/8" tubing.
28. MIRU WL unit. Pull GR/CCL/CBL from 12,150' to Surface. RDMO WL.
29. ND BOP, NU 7-1/16" 5K bonnet w/ gate valve on wellhead.
30. RDMO pulling unit.

**Once we receive Permit to convert to disposal**

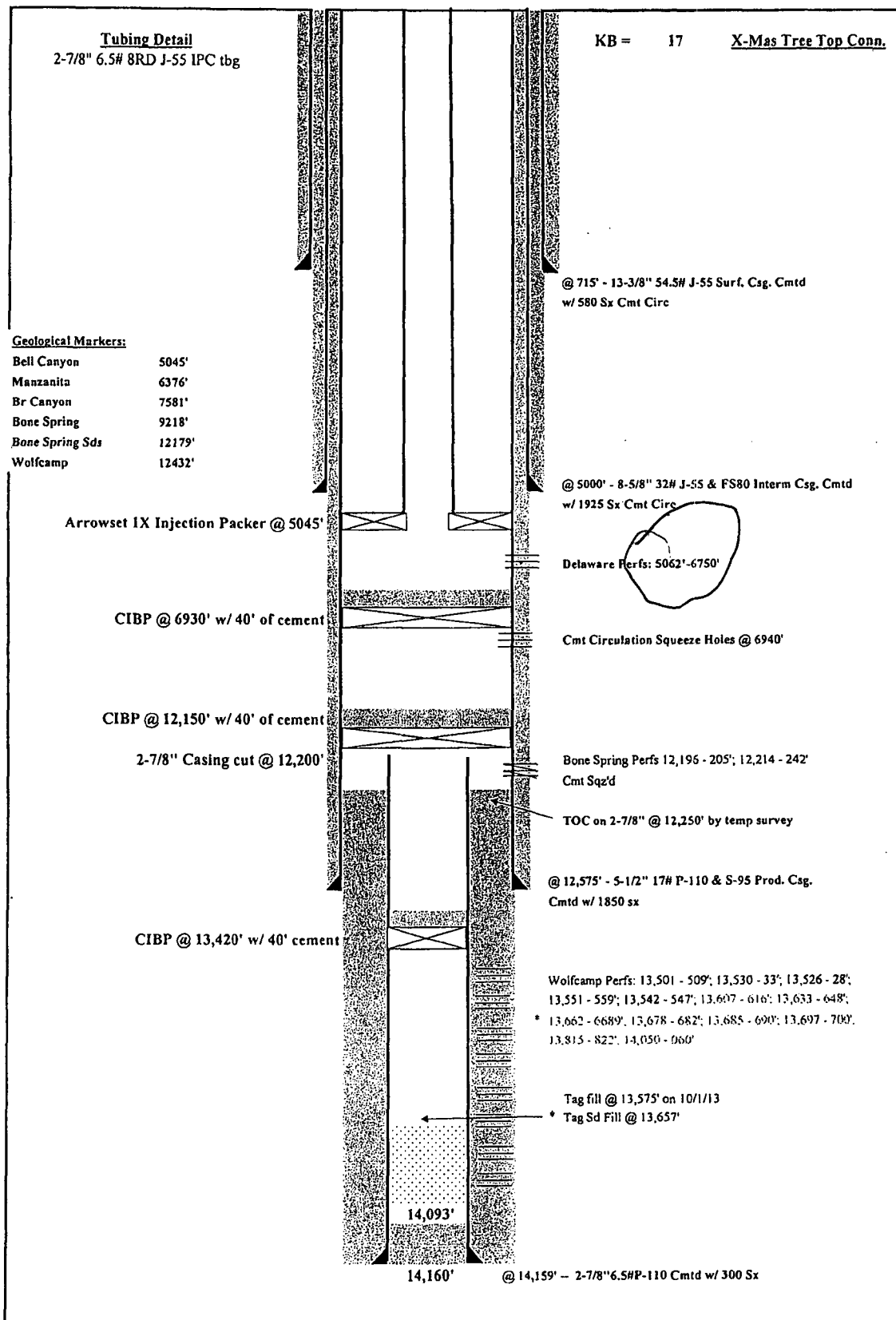
31. Notify Maxey Brown with BLM of job to convert well to disposal. You will need the well API number: 30-025-33639
32. NU BOP. MIRU WL unit and crane. Set CIBP in 5-1/2" 17# casing at 6930'.
33. RIH w/ 3-1/8" 2 JSPF perforating guns and perforate (Delaware) 5062'-6750' as per table below:

Delware Injection Perfs

<u>DEPTH</u>		<u>SPF</u>	<u>HOLES</u>	<u>GUN FTG</u>
6,702'	- 6,750'	2	96	48
6,610'	- 6,674'	2	128	64
6,582'	- 6,600'	2	36	18
6,546'	- 6,572'	2	52	26
6,496'	- 6,522'	2	52	26
6,454'	- 6,470'	2	32	16
6,382'	- 6,430'	2	96	48
6,282'	- 6,322'	2	80	40
6,216'	- 6,264'	2	96	48
6,146'	- 6,166'	2	40	20
6,074'	- 6,122'	2	96	48
5,940'	- 6,030'	2	180	90
5,864'	- 5,888'	2	48	24
5,824'	- 5,848'	2	48	24
5,750'	- 5,770'	2	40	20
5,672'	- 5,698'	2	52	26
5,632'	- 5,654'	2	44	22
5,584'	- 5,610'	2	52	26
5,486'	- 5,540'	2	108	54
5,400'	- 5,420'	2	40	20
5,342'	- 5,382'	2	80	40
5,235'	- 5,260'	2	50	25
5,118'	- 5,170'	2	104	52
5,062'	- 5,078'	2	32	16
h = 1688'			1682	841

34. RIH and dump bail 40' of cement on CIBP @ 6930'. RDMO WL unit and crane.
35. MIRU pulling unit.
36. PU and RIH w/ pump off plug, nickel coated OD / plastic coated ID Arrowset 1X packer for 5-1/2" 17# casing; T2 on/off tool w/ 2.25F SS Profile; and new 2-7/8" J-55 plastic coated ID tubing. Set packer at 5045'.
37. Get off of packer and circulate around 120 bbls inhibited packer fluid. Pressure test backside to 500 psi for 30 min recording results on chart.
38. ND BOP, NU WH. RDMO pulling unit.
39. Pressure up on tubing and blow pump off plug.
40. Establish injection into Delware perfs. Report injection rate/pressure to office.
41. Schedule and perform Mechanical Integrity Test with Maxey Brown at the BLM. Send in chart to office.
42. After MIT has been approved, put well on injection.

RTW  
3/12/13



Revised		Gas Well			Drawn	TJW
RTW	2/20/2014	LEASE:	9418 JV-P Vaca Draw	#1	3/29/2007	
		FIELD:	Johnson Ranch			Approved
		LOCATION:	1980' FSL 1980' FWL Sec. 10 T2SS R33E			Date
		COUNTY:	Lea	STATE:	New Mexico	
		PRODUCING FORMATION:	Wolfcamp			
		BTA Oil Producers				

BTA Oil Producers LLC  
Application for Authorization to Inject  
9418 JV-P Vaca Draw #1  
1980' FSL & 1980' FWL  
Section 10, T25S, R33E  
Lea County, New Mexico

- X Well logs were filed with the original completion.
- XI No water wells are located in the 2-mile area surrounding the 9418 JV-P Vaca Draw #1.
- XII There is no geological evidence of open faults nor other hydrologic connection between the disposal zone and any underground drinking water sources.

BTA Oil Producers LLC  
 Application for Authorization to Inject  
 9418 JV-P Vaca Draw #1  
 1980' FSL & 1980' FWL  
 Section 10, T25S, R33E  
 Lea County, New Mexico



## Water Samples for Well COTTON DRAW UNIT 004

API = 3002508221

Formation = DEL

Field = PADUCA

### Current Water Production Information

#### Instructions:



For general information about this sample.



For scale calculation pages (Stiff-Davis or Oddo Tomson methods).



To select this water sample for water mixing. It will lead to the main page, and add the sample ID to the mixing table.

Click

**664**

Click the hyperlinked sample number to make a .csv for that sample, or select several check boxes and click Submit for multiple samples

The ions are in (mg/L) units.

Sample ID	T	R	S	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	K	Na	Ca	Mg
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4293



25S 32E 22 552 170500 null 198 null null null null

BTA Oil Producers LLC  
Application for Authorization to Inject  
9418 JV-P Vaca Draw #1  
1980' FSL & 1980' FWL  
Section 10, T25S, R33E  
Lea County, New Mexico

XIII Notice of Offset Operators Within ½ Mile

Surface Owner is Federal

Offset Operator List

Chevron Midcontinent LP  
Chevron USA Inc  
1400 Smith  
Houston, TX 77002  
Attn: Sandy Stedman-Daniel

Cimarex Energy Company of Colorado  
600 N Marienfeld, Ste 600  
Midland, TX 79701

AMENDED ADDRESS

Endurance Resources LLC  
15455 Dallas Pkwy, Suite 600  
Addison, TX 75234

EOG Resources, Inc.  
P. O. Box 2267  
Midland, TX 79702

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