Form 3160-5 (August 2007) DE BI	UNITED STATES				OMB NO	APPROVED D. 1004-0135
HOBBS	UREAU OF LAND MANA	GEMENT	OCD-HO	BBS	5. Lease Serial No. NMLC030132B	July 31, 2010
NOV Do not use this	NOTICES AND REPO is form for proposals to J. Use form 3160-3 (APL	drill or to re-e	LLƏ enter an roposals.		6. If Indian, Allottee o	r Tribe Name
ENF	PLICATE - Other instruc				7. If Unit or CA/Agree	ement, Name and/or No.
1. Type of Well					8. Well Name and No. CLOSSON B 03	~
2. Name of Operator Breitbur	~ Operating Contact:	JEANIE MCM	ILLAN		9. API Well No.	
QUANTUM RESOURCES MO	SMNT LLE-Mail: jeanie.mcm			-)	30-025-08962-0	
3a. Address 1401 MCKINNEY STREET SI HOUSTON, TX 77010		Ph: 713-634 Fx: 713-634		=)	10. Field and Pool, or JALMAT-TAN-Y	ATES-7RVRS
4. Location of Well <i>(Footage, Sec., T</i>		)			11. County or Parish,	
Sec 20 T22S R36E NWNW 6	50FNL 330FWL				LEA COUNTY,	NM
12. CHECK APPI	ROPRIATE BOX(ES) TO	DINDICATE	NATURE OF	NOTICE,	REPORT, OR OTHE	R DATA
TYPE OF SUBMISSION			TYPE O	F ACTION	V	
□ Notice of Intent	Acidize	Deep	en	Prod	luction (Start/Resume)	□ Water Shut-Off
	Alter Casing	Fract	ure Treat	🗖 Recl	amation	U Well Integrity
Subsequent Report	Casing Repair	_	Construction	🗖 Reco		□ Other
Final Abandonment Notice	Change Plans	Plug Plug	and Abandon		porarily Abandon er Disposal	
13. Describe Proposed or Completed Op						in the design of
Conditions of Approval Opera lease. Breitburn Operating Lf approval. Attached hereto is a facility Di Attached is a water analysis a	P respectfully submits the	following rega	rding these co	nditions o	f Accepted for Recor	d Purposes. o Onsite Inspection.
				-	Such	1
Note: This wel	e har been	plural	d. cu.	Blo.15	-)	
14. I hereby certify that the foregoing is	Electronic Submission #	344112 verified	by the BLM W	ell Informa	tion System	1
	For QUANTUM R mmitted to AFMSS for proc	ESOURCES MO	GMNT LLC, ser	nt to the Ho on 09/06/20	obbs 016 (16PP0982SE)	
Name (Printed/Typed) JEANIE N	ICMILLAN		Title REGU	LATORY	MANAGER	
Signature (Electronic	Submission)		Date 07/08/2	2016		
	THIS SPACE FO	OR FEDERA	L OR STATE	OFFICE	USE	
Approved By			Title			Date
Conditions of approval, if any, are attached certify that the applicant holds legal or eq which would entitle the applicant to cond	uitable title to those rights in the		Office			
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it a statements or representations as	crime for any per to any matter wi	rson knowingly an thin its jurisdiction	nd willfully t	o make to any department or	agency of the United
** BLM REV	ISED ** BLM REVISE	D ** BLM RE	VISED ** BL	M REVIS	ED ** BLM REVISE	D **
Accontad	Percent Only		1			
Accepted IC	or Record Only B	ocd II	128/20	16		

#### WATER PRODUCTION & DISPOSAL INFORMATION

In order to process your disposal request, the following information must be completed.

- 1. Name(s) of formation(s) producing water on the lease. JALMAT YATES, SEVEN RIVERS
- Amount of water produced from all formations in barrels per day.
   50 BWPD
- Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. (One sample will suffice if water is commingled).
- How water is stored on lease.
   \_\_IN 500 BBL FG STORAGE TANK\_\_\_\_\_\_
- 5. How water is moved to the disposal facility.

WATER IS PUMPED VIA HP LINE THROUGH HP INJECTION LINE TO CLOSSON B FED #18 WIW\_

- Identify the Disposal Facility by:
   A. Facility Operators name. \_BREITBURN OPERATING\_\_\_\_\_\_
  - B. Name of facility or well name and number. \_CLOSSON B FEDERAL #018 WIW\_\_\_\_\_
  - C. Type of facility or well (WDW) (WIW) etc. \_\_\_\_\_WIW\_\_\_\_\_
  - D. Location by ¼ ¼ \_SW NW \_\_\_\_ Section \_\_19 \_\_\_ Township \_\_22S \_\_Range \_\_\_36E \_\_\_
- 7. Attach a copy of the State issued permit for the Disposal Facility.

Submit to this office, **620 EAST GREENE ST, CARLSBAD NM, 88220**, the above required information on a Sundry Notice 3160-5. Submit 1 original and 3 copies, within abatement period. (This form may be used as an attachment to the Sundry Notice).

#### WATER PRODUCTION & DISPOSAL INFORMATION

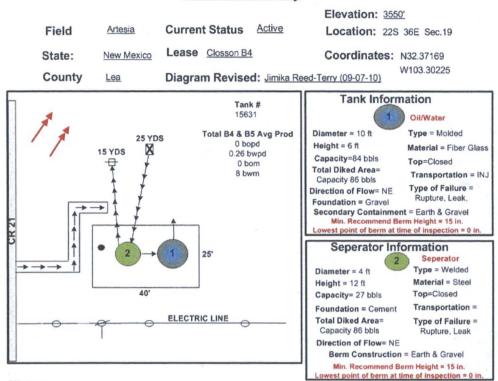
In order to process your disposal request, the following information must be completed.

- Name(s) of formation(s) producing water on the lease. JALMAT YATES, SEVEN RIVERS
- Amount of water produced from all formations in barrels per day.
   25 BWPD
- Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. (One sample will suffice if water is commingled).
- How water is stored on lease.
   \_\_IN 300 BBL FG STORAGE TANK\_\_\_\_\_\_
- 5. How water is moved to the disposal facility.

WATER IS TRANSFERRED VIA 3" POLY FLOW LINE TO CLOSSON B FED BATTER 1 FOR DISPOSAL

- Identify the Disposal Facility by:
   A. Facility Operators name. \_BREITBURN OPERATING\_\_\_\_\_\_
  - B. Name of facility or well name and number. \_CLOSSON B FEDERAL #018 WIW\_\_\_\_\_
  - C. Type of facility or well (WDW) (WIW) etc. \_\_\_\_\_WIW\_\_\_\_\_
  - D. Location by ¼ ¼ \_NE SW\_\_\_\_ Section \_\_30\_\_\_ Township \_\_22S\_\_Range\_\_\_36E\_\_
- 7. Attach a copy of the State issued permit for the Disposal Facility.

Submit to this office, **620 EAST GREENE ST, CARLSBAD NM, 88220**, the above required information on a Sundry Notice 3160-5. Submit 1 original and 3 copies, within abatement period. (This form may be used as an attachment to the Sundry Notice).



**Closson B4 Battery** 

History

Wells Connected to Closson Battery #4 & #5

#3, #9, #26, #30, #32Y, #36, #37

Legend	•	
	Fence	8 Transformer
	Electric Line	Header
	Drainage	- >Underground Load Lin
X	Well Head	> Load Line
	Pump	C Chemical Tank
$\rightarrow \rightarrow$	Flow Line	Circulating Pump
	Electric Box	- Sump Pump
<b>A</b> 1	Flow Meter	X Injection Well Head
a	Electric Pole	- Dike Drain
	Electric Panel	Once Of ann



Catalyst Oilfield Services 11999 E Hwy 158 Gardendale, TX 79758 (432) 563-0727 Fax: (432) 224-1038

# Water Analysis Report

Company:	Breitburn Operating		Sample #:	29037	
Area:	Permian Basin		Analysis ID #:	34157	
Lease:	Closson B				
Location:	B1 Battery	0			
Sample Point:	Wellhead				

Sampling Date:	7/9/2015	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	7/14/2015	Chloride:	35081.4	989.52	Sodium:	13700.0	595.92
Analyst:	Catalyst	Bicarbonate:	1085.8	17.79	Magnesium:	5213.0	428.84
TDS (mg/l or g/m3):	61257.7	Carbonate:			Calcium:	1234.0	61.58
Density (g/cm3):	1.042	Sulfate:	3800.0	79.12	Strontium:	32.8	0.75
Density (gronis).	1.042				Barium:	0.0	0.
					Potassium:	353.3	9.04
Hydrogen Sulfide:	139.4		,		Iron:	0.0	0.
	27				Manganese:	0.000	0.
Carbon Dioxide:	27						
Sec		pH at time of sampli	ng:	6.66			
Comments:		pH at time of analys	is:				
		pH used in Calcula	tion:	6.66			
		Temperature @ lab	conditions (F):	<ul> <li>Conductivity (micro-ohms/cm):</li> <li>Resistivity (ohm meter):</li> </ul>			88100 .1135

Тетр		Values Calculated at the Given Conditions - Amounts of Scale in Ib/1000 bbl										
		Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> 0		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	-	
80	0.42	64.66	-0.18	0.00	-0.23	0.00	0.01	0.66	0.00	0.00		
100	0.54	85.11	-0.21	0.00	-0.19	0.00	0.02	0.66	0.00	0.00		
120	0.67	105.90	-0.22	0.00	-0.12	0.00	0.03	1.32	0.00	0.00	~	
140	0.81	127.01	-0.23	0.00	-0.03	0.00	0.05	2.31	0.00	0.00		
160	0.94	147.80	-0.22	0.00	0.07	133.28	0.08	3.63	0.00	0.00		
180	1.08	167.92	-0.22	0.00	0.19	330.89	0.11	5.28	0.00	0.00		
200	1.22	186.72	-0.21	0.00	0.32	515.31	0.15	6.60	0.00	0.00		
220	1.35	204.21	-0.19	0.00	0.46	680.26	0.18	7.92	0.00	0.00		



Catalyst Oilfield Services 11999 E Hwy 158 Gardendale, TX 79758 (432) 563-0727 Fax: (432) 224-1038

## Water Analysis Report

Company:	Breitburn Operating		Sample #:	29038	
Area:	Permian Basin		Analysis ID #:	34158	
Lease:	Closson B				
Location:	B2 Battery	0			
Sample Point:	Wellhead				

Sampling Date:	7/9/2015	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	7/14/2015	Chloride:	23971.9	676.16	Sodium:	10350.0	450.2
Analyst:	Catalyst	Bicarbonate:	2169.2	35.55	Magnesium:	3101.0	255.1
TDS (mg/l or g/m3):	41738	Carbonate:			Calcium:	440.4	21.98
Density (g/cm3):	1.03	Sulfate:	740.0	15.41	Strontium:	16.3	0.37
Density (gronis).	1.00				Barium:	0.0	0.
					Potassium:	302.3	7.73
Hydrogen Sulfide:	504.9			,	Iron:	0.0	0.
Carbon Dioxide:	0				Manganese:	0.000	0.
		pH at time of samplin	ng:	7.496			
Comments:		pH at time of analysi	s:				
		pH used in Calculation:		7.496	Conductivity (mi	and a home (am).	66200
		Temperature @ lab conditions (F):			Conductivity (mic Resistivity (ohm	66300 .1508	

Temp		Values Calculated at the Given Conditions - Amounts of Scale in Ib/1000 bbl										
		Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> 2H <sub>2</sub> 0		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		rite aSO <sub>4</sub>		
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount		
80	1.18	172.52	-1.18	0.00	-1.23	0.00	-0.81	0.00	0.00	0.00		
100	1.25	193.04	-1.20	0.00	-1.19	0.00	-0.81	0.00	0.00	0.00		
120	1.31	214.23	-1.22	0.00	-1.12	0.00	-0.79	0.00	0.00	0.00		
140	1.38	235.41	-1.22	0.00	-1.04	0.00	-0.77	0.00	0.00	0.00		
160	1.45	256.60	-1.22	0.00	-0.94	0.00	-0.74	0.00	0.00	0.00		
180	1.53	277.11	-1.22	0.00	-0.82	0.00	-0.70	0.00	0.00	0.00		
200	1.61	295.95	-1.21	0.00	-0.69	0.00	-0.66	0.00	0.00	0.00		
220	1.70	312.76	-1.20	0.00	-0.55	0.00	-0.62	0.00	0.00	0.00		

### BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

### Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 6. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 7. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
- 8. Disposal at any other site will require prior approval.
- 9. Subject to like approval by NMOCD.

7/10/14