

DATE IN <u>6.8.12</u>	SUSPENSE	ENGINEER <u>WVJ</u>	LOGGED IN <u>6.8.12</u>	TYPE <u>SWD</u>	APP NO. <u>1216050743</u>
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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



*Cameron Oil & Gas Co.*  
181109

*Gulf State #2*

## ADMINISTRATIVE APPLICATION CHECKLIST *30-075-2845*

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify \_\_\_\_\_

*N-2-235-37E*

*2ea / Stat*

### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
[B] ☒ Offset Operators, Leaseholders or Surface Owner  
[C] ☒ Application is One Which Requires Published Legal Notice  
[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,  
[F] ☐ Waivers are Attached

### [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ben Stone		Agent for Cameron O&G	6/05/12
Print or Type Name	Signature	Title	Date
		ben@sosconsulting.us	
		e-mail Address	

RECEIVED OCD

2012 JUN -8 P 1:44

June 6, 2012

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

Attn: Ms. Jami Bailey, Director

*Re: Application of Cameron Oil and Gas Company to reinstate for salt water disposal in its Gulf State No.2 well located in Section 2, Township 23 South, Range 37 East, NMMP, Lea County, New Mexico.*

Dear Ms. Bailey,

Please find enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to re-enter and convert for disposal, the Gulf State No.2.

Cameron Oil and Gas seeks to optimize efficiency, both economically and operationally, of its operations. Approval of this application is consistent with that goal as well as the NMOC's mission of preventing waste and protection of correlative rights.

Published legal notice ran in the April 25, 2012 edition of the Hobbs News-Sun and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included in this application package. This application also includes wellbore schematics, area of review maps, leaseholder plats and other required information for a complete Form C-108. The well is located on state lands and a copy of this application has been submitted to the State Land Office, Division of Oil, Gas and Minerals.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

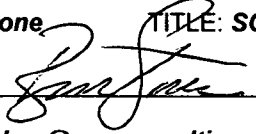


Ben Stone, Partner  
SOS Consulting, LLC  
Agent for Cameron Oil and Gas Company

Cc: Application attachment and file

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: ***Salt Water Disposal*** and the application *qualifies* for administrative approval.
- II. OPERATOR: ***Cameron Oil & Gas Company***  
ADDRESS: ***P.O. Box 1465, Roswell, NM 88202***
- CONTACT PARTY: ***David Sweeney (575) 627-3284***  
***Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850***
- III. WELL DATA: ***All well data and applicable wellbore diagrams are attached hereto.***
- IV. ***This is not an expansion of an existing project.***
- V. ***A map is attached*** that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- \*VI. ***A tabulation is attached*** of data on all wells of public record within the area of review which penetrate the proposed injection zone. ***(NO wells within the AOR penetrate the subject interval.)*** The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail.
- VII. ***The following data is attached*** on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. ***Appropriate geologic data on the injection zone is attached*** including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. ***No stimulation program is proposed at this time.***
- \*X. ***Logs are on file with OCD and available on OCD Online and they need not be resubmitted.***
- \*XI. ***There are 2 fresh water wells within one mile the proposed salt water disposal well however, the construction of the SWD will prevent any potential threat to the shallow domestic wells.***
- XII. ***An affirmative statement is attached that available geologic and engineering data has been examined and no evidence was found*** of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. ***"Proof of Notice" section on the next page of this form has been completed.***  
***All offset operators within ½ mile - all were notified via U.S. certified mail on May 24, 2012.***
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: ***Ben Stone*** TITLE: ***SOS Consulting, LLC agent / consultant for Cameron Oil & Gas Company***  
SIGNATURE:  DATE: ***6/05/2012***  
E-MAIL ADDRESS: ***ben@sosconsulting.us***

- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

III. WELL DATA – *The following information and data is included:*

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 *pursuant to the following criteria is attached.*

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. ***Leaseholders are identified on the included "Leasehold Map".***

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.

## CURRENT WELL CONFIGURATION - P&amp;A'd

## Formerly Gulf State Well No.1

API 30-025-28435

660' FSL & 1980' FWL, SEC. 2-T23S-R37E  
LEA COUNTY, NEW MEXICO

Spud Date: 10/13/1983

P&amp;A Date: 9/11/84

Well plugged by:  
Morris R. Antweil

&lt;PLUGGING ITEMS LISTED LEFT&gt;

P&amp;A Marker

G.R. 3296.4'

&lt;PRE-P&amp;A EXISTING ITEMS LISTED RIGHT&gt;

PLUGS: Spot 10 sxs  
85'-0'Spot 15 sxs  
1232'-1097'Spot 15 sxs  
2532'-2397'Spot 15 sxs  
4260'-4125'Spot 35 sxs  
6515'-6405'

Formation Fluids

7175'

TD @ 7175'

Surface Casing13.375" 32# Csg. (17.5" Hole) @ 1150'  
900 sx Class 'C' - CirculatedIntermediate Casing8.625" 32# Csg. (12.25" Hole) @ 4200'  
3925 sx Class 'C' - Circulated (2 Stage - DV @ 3223')P&A Subsequent Sundry

17. Describe Treatment or Completion Operations (Clearly state all previous details, and give previous dates, including estimated date of starting any proposed work) SEE P&amp;A 1185.

## Plugged and Abandoned as follows:

- 1) 35 sx from 6405' to 6515' tagged plug after 12 hours
- 2) 15 sx from 4125' to 4260'
- 3) 15 sx from 2397' to 2532'
- 4) 15 sx from 1097' to 1232'
- 5) 10 sx surface plug w/dry hole marker.

Plugged and Abandoned 9/11/84

18. I hereby certify that the information shown is true and complete to the best of my knowledge and belief.

\_\_\_\_\_  
Agent DATE 9/17/84

\_\_\_\_\_  
OIL & GAS INSPECTOR DATE 9/17/84

Production Casing5.5" 17# Csg. (7.875" Hole) @ 7175'  
1150 sx Class 'C' - Circulated (2 Stage - DV @ 4316')Upper Abo Perfs  
6575'-6685'Set CIBP @ 6765'  
Cap w/ 30' Cmt  
Plug Lower PerfsAbo Perfs  
6789'-7049'

Cameron Oil &amp; Gas

SOS Consulting, LLC

Drawn by: Ben Stone, 6/04/2016

**PROPOSED WELL CONFIGURATION (Currently P&A'd)**

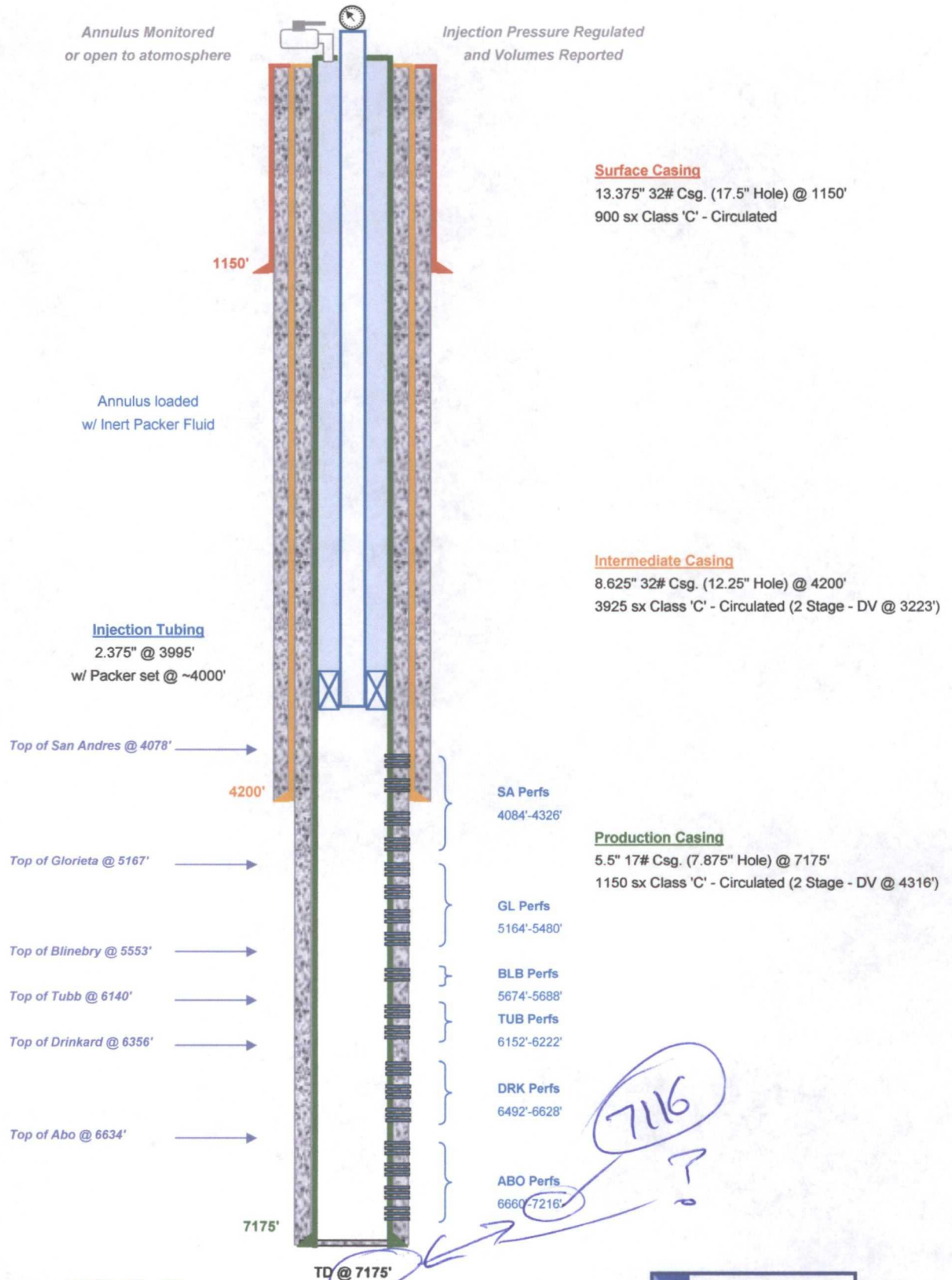
**Gulf State Well No.2 - SWD**

**API 30-025-28435**

660' FSL & 1980' FWL, SEC. 2-T23S-R37E  
LEA COUNTY, NEW MEXICO

Spud Date: 10/13/1983

P&A Date: 9/11/84



**Cameron Oil & Gas**

**SOS Consulting, LLC**

Drawn by: Ben Stone, 6/04/2016

## **C-108 - Item III - Well Data**

### Gulf State No.2 SWD

#### **Proposed Intervals for Disposal**

##### **San Andres:**

4084'-92', 4166'-82', 4248'-64', 4320'-26'

##### **Glorieta:**

5164'-82', 5196'-5210', 36'-42', 52'-55', 60'-67', 95'-5300', 18'-26',  
90'-98', 5475'-80'

##### **Blinebry:**

5674'-78', 82'-86'

##### **Tubb:**

6152'-68', 6216'-22'

##### **Drinkard:**

6492'-6502', 6524'-38', 70'-82', 88'-98', 6602'-28'

##### **Abo:**

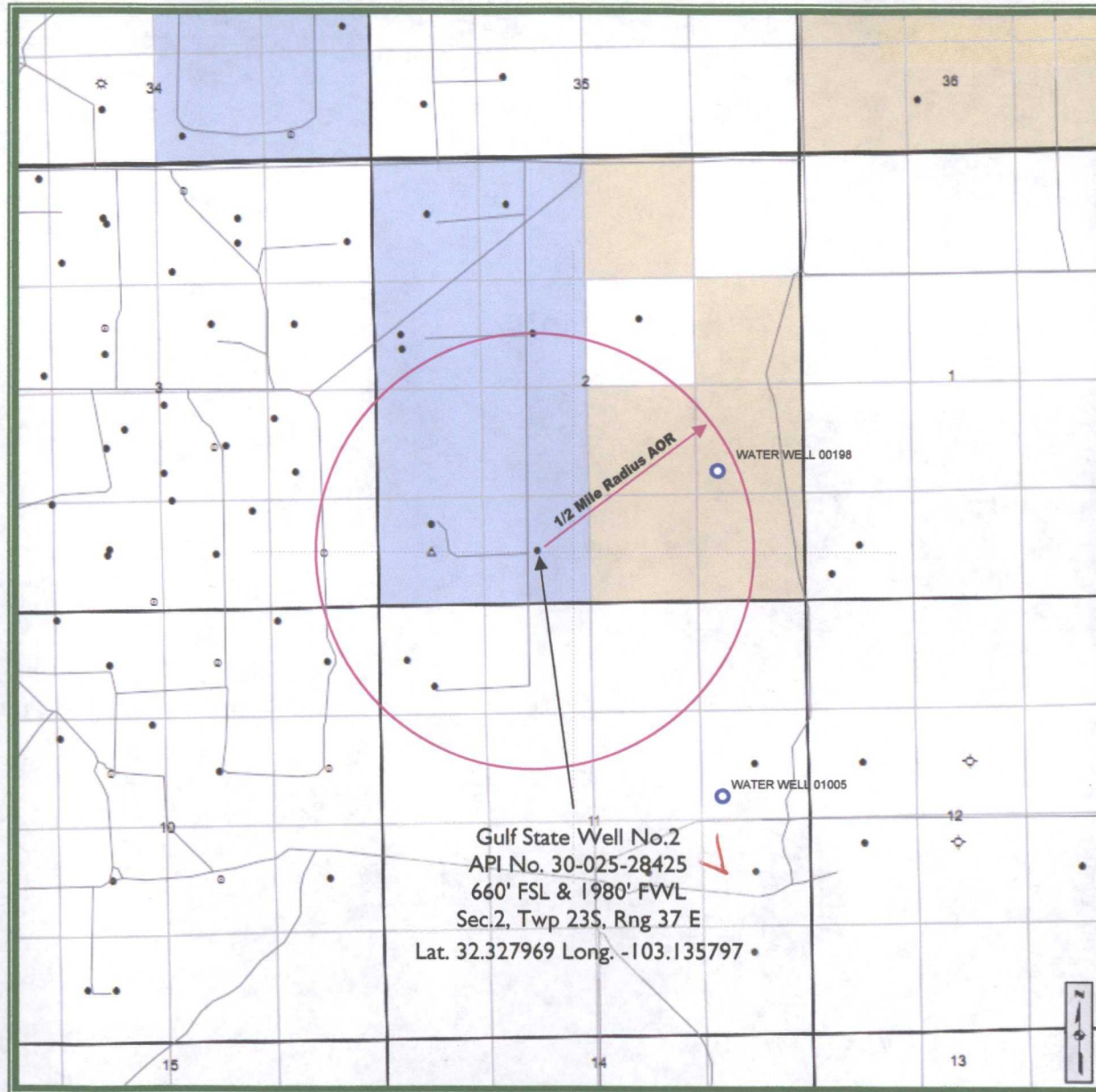
6660'-68', 6790'-6814', 6908'-12', 38'-44', 64'-74', 92'-7004', 7030'-  
36', 7044'-50', 7098'-7102', 12'-16'

7,116

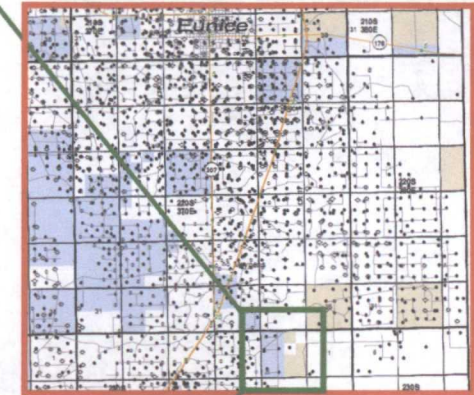
Note: Cameron Oil & Gas may choose to NOT perforate all intervals listed above however, the tops and bottoms listed for each formation will not be exceeded. The top injection interval WILL be in the San Andres at 4084'.

# Gulf State Well No.2 - Area of Review / Overview Map

(For inclusion with NMOCD Form C-108, Application for Authority to Inject.)



6 miles South of Eunice, NM



Lea County, New Mexico

**Cameron Oil & Gas Company, Inc.**

# Form C-108 Item VI - Tabulation of AOR Wells

Depth to Top of Proposed Injection  
Interval - San Andres - 4084'

No Wells Penetrate Injection Interval

## Section 2 Wells

Current Operator	API	Well Name	Well Number	Type	Lease	Status	UL	STR	Total Depth
[214263] PRE-ONGARD WELL OPERATOR	30-025-28425	PRE-ONGARD WELL	#001	Oil	State	Plugged, Site Released	N	2-23S-37E	7175'
<i>Cameron</i>	<i>30-025-24318</i>	<i>GULFSTAR</i>	<i>1</i>	<i>SUP-138A</i>	<i>SAN ANDRES</i>		<i>M</i>	<i>2</i>	<i>4500</i>
[214263] PRE-ONGARD WELL OPERATOR	30-025-24590	PRE-ONGARD WELL	#001	Oil	State	Plugged, Site Released	E	2-23S-37E	3634'
[214263] PRE-ONGARD WELL OPERATOR	30-025-10594	PRE-ONGARD WELL	#001	Oil	State	Plugged, Site Released	E	2-23S-37E	3658'
[214263] PRE-ONGARD WELL OPERATOR	30-025-24591	PRE-ONGARD WELL	#003	Oil	State	Plugged, Site Released	M	2-23S-37E	3639'

## Section 3 Well

Current Operator	API	Well Name	Well Number	Type	Lease	Status	UL	STR	Total Depth
[240974] LEGACY RESERVES OPERATING, LP	30-025-10599	SKELLY PENROSE A UNIT	#040	Injection	Private	Approved Temporary Abandonment	P	3-23S-37E	3675'

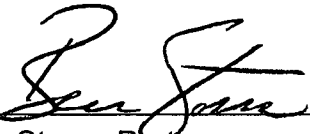
## Section 11 Wells

Current Operator	API	Well Name	Well Number	Type	Lease	Status	UL	STR	Total Depth
[214263] PRE-ONGARD WELL OPERATOR	30-025-24682	PRE-ONGARD WELL	#001	Oil	Private	Plugged, Site Released	D	11-23S-37E	3659'
[214263] PRE-ONGARD WELL OPERATOR	30-025-10708	PRE-ONGARD WELL	#001	Oil	Private	Plugged, Site Released	D	11-23S-37E	3658'

SOS Consulting, LLC

## C-108 ITEM XII – GEOLOGIC AFFIRMATION

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.


  
Ben Stone, Partner  
SOS Consulting, LLC

Project:      Cameron O&G  
                 Gulf State Well No.2 SWD  
                 Reviewed 5/22/2012

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date **7/14/2011** Endura Rep **DeShawn Johnson** Code **10136888**  
Sampling Point/Date **well head 7/14/2011** State **New Mexico**  
Company **Cameron Oil and Gas** County **Lea**  
Formation  Lease **Flour** Well **#2**

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	20,769	903
Total Hardness as Ca++	9,984	0
Calcium Ca++	1,896	95
Magnesium, Mg++	4,932	411
Barium, Ba++	0	0
Iron (Total) Fe+++*	1	0

### ANIONS

Chlorides, Cl-	46,000	1,296
Sulfate, SO4-	4,600	96
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	1,049	17
Sulfide, S-*	0	0
Total Dissolved Solid	79,247	

## OTHER PROPERTIES

pH*	5.790
Specific Gravity, 60/60 F.	1.047
Turbidity	129

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>ASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	-0.6824	-0.0795	-0.2741	-29.1320
120	-0.3655	-0.0865	-0.1006	-29.3572
160	0.1234	-0.0964	0.0621	-29.5840

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date **7/14/2011** Endura Rep **DeShawn Johnson**

Code **10136889**

Sampling Point/Date **well head 7/14/2011**

State **New Mexico**

Company **Cameron Oil and Gas**

County **Lea**

Formation  Lease **Flour**

Well **#3**

## DISSOLVED SOLIDS

### CATIONS

	mg/l	mc/l
Sodium, Na+ (Calc.)	25,093	1,091
Total Hardness as Ca++	14,296	0
Calcium Ca++	1,576	79
Magnesium, Mg++	7,756	646
Barium, Ba++	0	0
Iron (Total) Fe+++*	1	0

### ANIONS

Chlorides, Cl-	59,950	1,689
Sulfate, SO4-	5,300	110
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	1,025	17
Sulfide, S-*	0	0
Total Dissolved Solid	100,701	

## OTHER PROPERTIES

pH*	6.050
Specific Gravity, 60/60 F.	1.067
Turbidity	268

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>ASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	-0.4177	-0.1608	-0.3744	-29.2144
120	-0.0833	-0.1722	-0.2053	-29.4303
160	0.4346	-0.1969	-0.0573	-29.6602

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date **7/14/2011** Endura Rep **DeShawn Johnson**

Sampling Point/Date **well head 7/14/2011**

Company **Cameron Oil and Gas**

Formation **A**

Lease **Flour**

Code **10136891**

State **New Mexico**

County **Lea**

Well **#Water Tank**

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	18,768	816
Total Hardness as Ca++	10,480	0
Calcium Ca++	1,632	82
Magnesium, Mg++	5,395	450
Barium, Ba++	0	0
Iron (Total) Fe+++*	1	0

### ANIONS

Chlorides, Cl-	43,950	1,238
Sulfate, SO4-	4,500	94
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	952	16
Sulfide, S-*	0	0
Total Dissolved Solid	75,198	

## OTHER PROPERTIES

pH*	6.510
Specific Gravity, 60/60 F.	1.046
Turbidity	96

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>ASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	-0.0750	-0.1519	-0.3447	-29.1233
120	0.2404	-0.1603	-0.1726	-29.3492
160	0.7267	-0.1715	-0.0112	-29.5755

## PERFORATIONS

# DownHole SAT™ Water Analysis Report



OMEGA ENGINEERING CHEMICALS, INC.

## SYSTEM IDENTIFICATION

CAMERON OIL & GAS  
FLOUR #2

Sample ID: 1  
Report Date: 07-12-2011  
Sample Date: 06-30-2011  
#1 1428

## WATER CHEMISTRY

### CATIONS

Calcium(as Ca) 4620  
Magnesium(as Mg) 2000  
Barium(as Ba) 0.00  
Sodium(as Na) 25547  
Iron(as Fe) 29.24  
Manganese(as Mn) 0.00

### ANIONS

Chloride(as Cl) 53200  
Sulfate(as SO<sub>4</sub>) 2338  
Dissolved CO<sub>2</sub>(as CO<sub>2</sub>) 0.392  
Bicarbonate(as HCO<sub>3</sub>) 73.20  
H<sub>2</sub>S (as H<sub>2</sub>S) 40.00

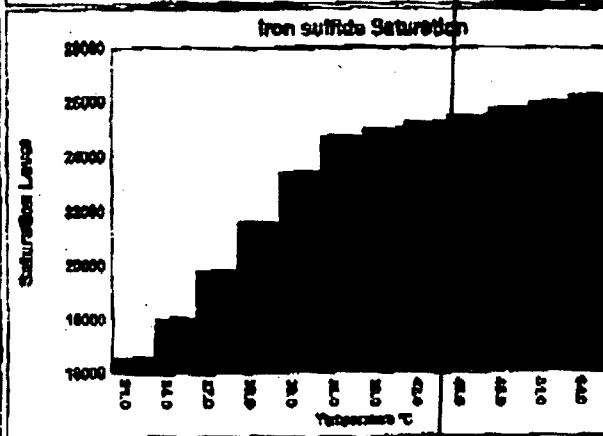
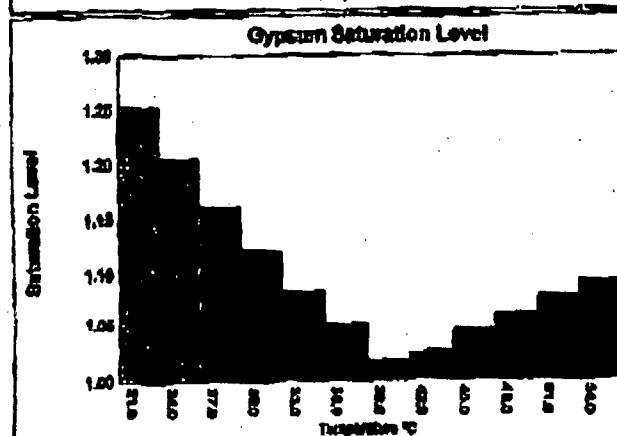
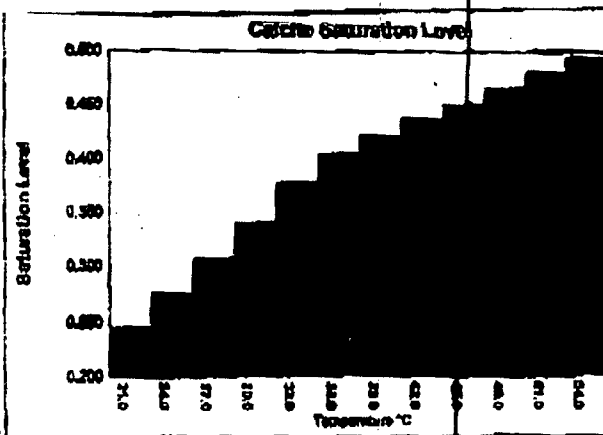
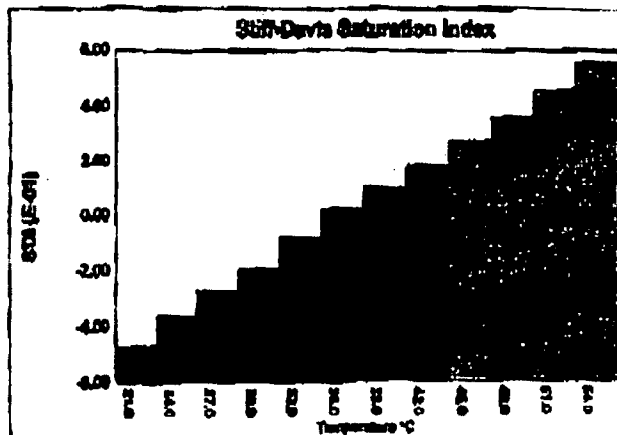
### PARAMETERS

Sample pH 6.50

## SCALE AND CORROSION POTENTIAL

Temp. (°C)	Press. (psig)	Calcite CaCO <sub>3</sub>	Anhydrite CaSO <sub>4</sub>	Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O	Bartite BaSO <sub>4</sub>	Celestite SrSO <sub>4</sub>	Siderite FeCO <sub>3</sub>	Mackinawite FeS	CO <sub>2</sub> (mpy)	pCO <sub>2</sub> (psia)							
21.00	0.00	0.345	-0.0822	1.09	70.72	1.25	208.18	0.00	-0.253	0.00	-473.77	0.981	>0.001	184804	7.03	0.0523	0.232
24.00	0.00	0.275	-0.0308	1.04	33.89	1.21	171.88	0.00	-0.313	0.00	-480.10	1.14	0.00171	180723	6.39	0.389	0.232
27.00	0.00	0.207	-0.0203	1.01	8.11	1.19	187.80	0.00	-0.388	0.00	-605.76	1.33	0.00388	197809	8.34	0.178	0.232
30.00	0.00	0.340	-0.0278	0.882	-15.74	1.12	105.02	0.00	-0.434	0.00	-520.85	1.53	0.00970	218768	8.90	0.111	0.232
33.00	0.00	0.378	-0.0258	0.988	-29.17	1.08	73.87	0.00	-0.508	0.00	-534.72	1.78	0.00778	234490	8.88	0.0817	0.232
36.00	0.00	0.408	-0.0243	0.853	-35.94	1.05	43.85	0.00	-0.590	0.00	-548.43	1.97	0.00843	247029	6.81	0.0828	0.232
39.00	0.00	0.421	-0.0235	0.957	-36.82	1.02	16.83	0.00	-0.678	0.00	-555.39	2.14	0.0106	249578	8.77	0.0634	0.232
42.00	0.00	0.436	-0.0227	0.982	-31.54	1.03	22.47	0.00	-0.778	0.00	-684.12	2.33	0.0118	282037	6.78	0.0547	0.232
45.00	0.00	0.451	-0.0219	0.874	-21.38	1.04	37.49	0.00	-0.888	0.00	-572.78	2.51	0.0128	284837	6.88	0.0481	0.232
48.00	0.00	0.468	-0.0211	0.801	-8.83	1.08	60.83	0.00	-1.01	0.00	-581.89	2.71	0.0135	257041	8.64	0.0438	0.232
51.00	0.00	0.480	-0.0203	1.02	11.43	1.08	82.70	0.00	-1.15	0.00	-589.85	2.91	0.0143	259486	6.59	0.0410	0.232
54.00	0.00	0.494	-0.0196	1.05	32.73	1.09	73.25	0.00	-1.31	0.00	-608.48	3.11	0.0181	281883	8.64	0.0380	0.232
		Lib per		Lib per		Lib per		Lib per				Lib per		Lib per			
		xSAT		xSAT		xSAT		xSAT				xSAT		xSAT			
		1000		1000		1000		1000				1000		1000			
		Barrels		Barrels		Barrels		Barrels				Barrels		Barrels			

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g.  $(Ca)(CO_3)/K_{sp}$ . pCO<sub>2</sub> (psia) is the partial pressure of CO<sub>2</sub> in the gas phase.  
Lib/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.



# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date **7/28/2011** Endura Rep **DeShawn Johnson**

Sampling Point/Date **Windmill 7/25/2011**

Company **Cameron Oil and Gas**

Formation

Lease **Flour**

Code **10137707**

State **New Mexico**

County **Lea**

Well **#NE Windmills**

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	230	10
Total Hardness as Ca++	146	0
Calcium Ca++	66	3
Magnesium, Mg+	49	4
Barium, Ba++	0	0
Iron (Total) Fe+++*	1	0

### ANIONS

Chlorides, Cl-	398	11
Sulfate, SO4-	106	2
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	268	4
Sulfide, S-*	0	0
Total Dissolved Solid	1,118	

## OTHER PROPERTIES

pH*	8.140
Specific Gravity, 60/60 F.	0.999
Turbidity	11

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	0.7038	-1.8273	-1.9692	-27.7473
120	0.9347	-1.8461	-1.8076	-27.9546
160	1.1762	-1.8077	-1.5965	-28.0665

## PERFORATIONS

# Endura Products Corporation

P.O. Box 3394, Midland, Texas 79702  
Phone (432) 684-4233 Fax (432) 684-4277

## WATER ANALYSIS

Date	7/28/2011	Endura Rep	DeShawn Johnson	Code	10137717
Sampling Point/Date	Windmill 7/25/2011	State	New Mexico	County	Lea
Company	Cameron Oil and Gas	Well	#SW Windmills		
Formation	Lease Flour				

## DISSOLVED SOLIDS

### CATIONS

	mg/l	me/l
Sodium, Na+ (Calc.)	253	11
Total Hardness as Ca++	220	0
Calcium Ca++	106	5
Magnesium, Mg+	70	6
Barium, Ba++	0	0
Iron (Total) Fe+++*	1	0

### ANIONS

Chlorides, Cl-	534	15
Sulfate, SO4-	106	2
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	293	5
Sulfide, S-*	0	0
Total Dissolved Solid	1,363	

## OTHER PROPERTIES

pH*	7.840
Specific Gravity, 60/60 F.	0.999
Turbidity	14

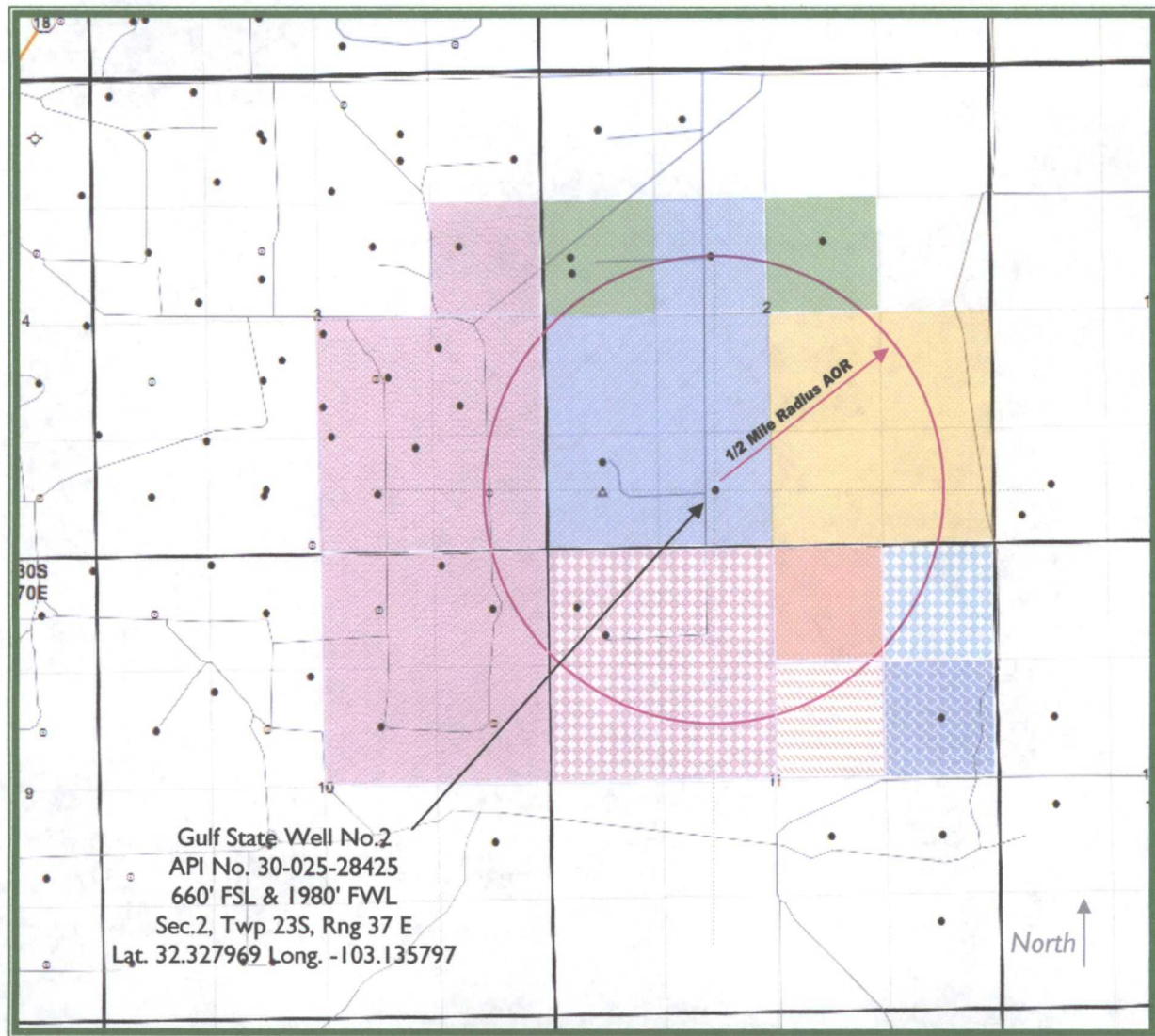
## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	0.6076	-1.6769	-1.8191	-27.8142
120	0.8417	-1.6964	-1.6582	-28.0223
160	1.0922	-1.6597	-1.4487	-28.1369

## PERFORATIONS

# Gulf State Well No.2 - Leasehold Plat

(For inclusion with NMOCD Form C-108, Application for Authority to Inject.)



*Cameron Oil & Gas Company, Inc.*

## LEGEND

-  Apache Corporation / Prize Energy Resources LP
-  Yates Petroleum Corporation
-  MGM Oil & Gas Company
-  Cameron Oil & Gas, Inc.
-  Legacy Reserves Operating, LP
-  Legacy Reserves Operating, LP / Prize Energy Resources LP
-  Rice Operating Company \*
-  D.K. Boyd Oil & Gas Company, Inc. \*
-  Finley Production Company, LP \*

Certified research performed by MBF Land Services, LLC  
\* Research performed by C&G Records Research

**C-108 ITEM XIII – PROOF OF NOTIFICATION  
INTERESTED PARTIES LIST**

**SURFACE OWNER**

STATE OF NEW MEXICO (FedEx'ed copy)  
Oil, Gas and Minerals Division  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

**OFFSET MINERALS LESSEES**

APACHE CORPORATION (USPS Certified Mail)  
303 Veterans Air Park Lane  
Suite 3000  
Midland, TX 79705

PRIZE ENERGY RESOURCES, LP (USPS Certified Mail)  
5215 N. O'Conner Blvd.  
Suite 1500  
Irving, TX 75039

YATES PETROLEUM CORPORATION (USPS Certified Mail)  
105 S. 4th Street  
Artesia, NM 88210

MGM OIL & GAS COMPANY (USPS Certified Mail)  
P. O. Box 891  
Midland, TX 79702

LEGACY RESERVES OPERATING, LP (USPS Certified Mail)  
P. O. Box 10848  
Midland, TX 79702

RICE OPERATING COMPANY (USPS Certified Mail)  
122 W. Taylor  
Hobbs, NM 88240

D.K. BOYD LAND & CATTLE COMPANY (USPS Certified Mail)  
110 W Louisiana Avenue # 400  
Midland, TX 79701-3414

FINLEY PRODUCTION COMPANY (USPS Certified Mail)  
1308 Lake Street  
Fort Worth, TX 76102

**GRAZING LESSEE**

WALCO RANCH, LLC (USPS Certified Mail)  
P. O. Box 1289  
Hobbs, NM 88241

**REGULATORY**

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed original and copy)  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)  
1625 N. French Drive  
Hobbs, New Mexico 88240

NEW MEXICO STATE LAND OFFICE (FedEx'ed copy)  
Commissioner of Public Lands  
310 Old Santa Fe Trail  
Santa Fe, NM



May 22, 2012

**NOTIFICATION TO INTERESTED PARTIES**

To Whom It May Concern:

Cameron Oil & Gas Company, Roswell, New Mexico, is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit salt water disposal in the Gulf State Well No.2. The well is located in Section 2, Township 23 South, Range 37 East in Lea County, New Mexico.

Following is the notice published in the Hobbs News-Sun, Hobbs, New Mexico on April 25, 2012.

**LEGAL NOTICE**

Cameron Oil & Gas Company, Inc., P.O. Box 1465, Roswell, NM 88202-1465 is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit salt water disposal in the Gulf State Well No.1. The well, API No.30-025-28425 is located 660 FSL & 1980 FWL in Section 2, Township 23 South, Range 37 East in Lea County, New Mexico. Produced water from typical area producing formations (Seven Rivers through the Drinkard) will be disposed into the San Andres, Glorieta, Blinbry, Tubb, Drinkard and Abo formations through perforations located between approximately 4080 feet to 7116 feet. (Exact depths may be obtained by contacting individuals shown below.) Injection will be at a maximum injection pressure of 816 psi and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from Cameron Oil & Gas, David Sweeney (575)627-3284 or its agent, SOS Consulting, LLC, (903)488-9850.

Please note that other activities in the preparation of the application delayed the mailing of this notice. This delay will in no way hinder your right to object, comment or direct questions to either the NMOCD or the applicant. The 15-day review period will start with your receipt of this letter.

Thank you for your attention in this matter.

Best regards,

Ben Stone, SOS Consulting, LLC  
Agent for Cameron Oil & Gas Co.

Cc: Application File

**C-108 - Item XIV**

**Proof of Notice (Certified Mail Receipts)**

7009 2250 0002 8162 6248

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.75

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Street, Apt. or PO Box  
City, State

**RICE OPERATING COMPANY**  
122 W. Taylor  
Hobbs, NM 88240

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**FINLEY PRODUCTION COMPANY**  
1308 Lake Street  
Fort Worth, TX 76102

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**WALCO RANCH, LLC**  
P. O. Box 1289  
Hobbs, NM 88241

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State, Z

**APACHE CORPORATION**  
303 Veterans Air Park Lane  
Suite 3000  
Midland, TX 79705

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**PRIZE ENERGY RESOURCES, LP**  
5215 N. O'Conner Blvd.  
Suite 1500  
Irving, TX 75039

PS Form 3800 (Endorsement Required)

5089 2250 0002 8162 6248

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.75

Sent To  
Street, Apt. No. or PO Box No.  
City, State, ZIP

**YATES PETROLEUM CORPORATION**  
105 S. 4th Street  
Artesia, NM 88210

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**MGM OIL & GAS COMPANY**  
P. O. Box 891  
Midland, TX 79702

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**LEGACY RESERVES OPERATING, LP**  
P. O. Box 10848  
Midland, TX 79702

PS Form 3800 (Endorsement Required)

Total Postage & Fees \$ 5.75

Sent To  
Street, Apt. or PO Box  
City, State

**D.K. BOYD**  
**LAND & CATTLE COMPANY**  
110 W Louisiana Avenue # 400  
Midland, TX 79701-3414

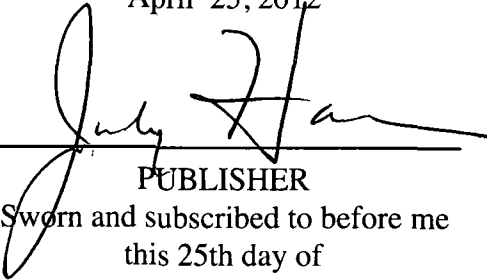
PS Form 3800 (Endorsement Required)


# Affidavit of Publication

State of New Mexico,  
County of Lea.

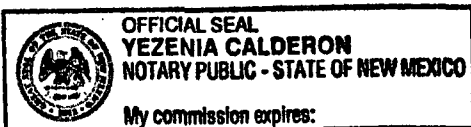
I, JUDY HANNA  
PUBLISHER  
of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

of 1 issue(s).  
Beginning with the issue dated  
April 25, 2012  
and ending with the issue dated  
April 25, 2012

  
PUBLISHER  
Sworn and subscribed to before me  
this 25th day of  
April, 2012

  
Notary Public

My commission expires  
February 28, 2016  
(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  
publication has been made.

## LEGAL NOTICE APRIL 25, 2012

*with REMAKE*  
*OK*

Cameron Oil & Gas Company, Inc., P.O. Box 1465, Roswell, NM 88202-1465 is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit salt water disposal in the Gulf State Well No. 1. The well, API No. 30-025-28425 is located 660 FSL & 1980 FWL in Section 2, Township 23 South, Range 37 East in Lea County, New Mexico. Produced water from typical area producing formations (Seven Rivers through the Drinkard) will be disposed into the San Andres, Glorieta, Blinberry, Tubbs, Drinkard and Abo formations through perforations located between approximately 4080 feet to 7116 feet. (Exact depths may be obtained by contacting individuals shown below.) Injection will be at a maximum injection pressure of 816 psi and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505) 476-3460 within 15 days of the date of this notice. Additional information may be obtained from Cameron Oil & Gas, David Sweeney (575) 627-3284 or its agent, SOS Consulting, LLC, (903) 488-9850.

#27303

67104417

00091723

BEN STONE  
SOS CONSULTING, LLC.  
P.O. BOX 300  
COMO, TX 75431

# Injection Permit Checklist (11/15/2010)

WFX \_\_\_\_\_ PMX \_\_\_\_\_ SWD 1342 Permit Date 8/26/12 UIC Qtr A (M/J)

# Wells 1 Well Name(s): GULF STATE #2

API Num: 30-0 25-28425 Spud Date: 10/13/83 New/Old: N (UIC primacy March 7, 1982)

Footages 660 FSL / 1980 FWL Unit N Sec 2 Tsp 235 Rge 37 E County LEA

General Location: 6 MI SOUTH of EUNICE

Operator: CAMERON OIL & GAS INC Contact Ben Stone DAVID Sturtevant

OGRID: 181109 RULE 5.9 Compliance (Wells) 2/90 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed ☒ Current Status: DEAD

Planned Work to Well: Re-enter

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: ☒

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
New ___ Existing ___ Surface	17 1/2 13 3/8	1150	—	900SK	CIRC
New ___ Existing ___ Interm	12 1/4 8 5/8	4200	3223	3,925	CIRC
New ___ Existing ___ LongSt	7 7/8 5 1/2	7,125	4316	1,150SK	
New ___ Existing ___ Liner					
New ___ Existing ___ OpenHole					

Depths/Formations: Depths, Ft. Formation Tops? R-5003 AREA

Formation(s) Above	4078	SA	✓
Injection TOP:	4084	SA, CL, BUB, TB	Max. PSI <u>817</u> OpenHole <u>✓</u> Perfs <u>✓</u>
Injection BOTTOM:	7416	DRK, ABO	Tubing Size <u>2 3/8"</u> Packer Depth <u>4600'</u>
Formation(s) Below	?	WC	✓

Capitan Reef? (Potash? Noticed? ) (WIPP? Noticed? ) Salado Top/Bot (1300-2300) Limestone? ✓

Fresh Water: Depths: \_\_\_\_\_ Formation \_\_\_\_\_ Wells? yes Analysis? ✓ Affirmative Statement ✓

Disposal Fluid Analysis? Sources: 7 RVRS — DRINKARD

Disposal Interval: Analysis? Production Potential/Testing: Tested Drilled & ABO

Notice: Newspaper Date 4/25/12 Surface Owner SLO. Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A) Affected Persons: APACHE / Lagoy / YPC / MEM / RICE / BOYD / FINLEY (5/24/12)

AOR: Maps? ☒ Well List? ☒ Producing in Interval? NO Wellbore Diagrams? ☒

.....Active Wells 01 Repairs? \_\_\_\_\_ Which Wells? \_\_\_\_\_

.....P&A Wells 0 Repairs? \_\_\_\_\_ Which Wells? \_\_\_\_\_

Issues: \_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_