

DATE IN 10/4/12	SUSPENSE	ENGINEER WVTS	LOGGED IN 10/4/12	TYPE SWD 1360	REF. NO. WVTS
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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



## ADMINISTRATIVE APPLICATION CHECKLIST

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 \_\_\_\_\_

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

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders <sup>or</sup> 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.

KYLE ALPERS \_\_\_\_\_ ENGINEER \_\_\_\_\_  
 Print or Type Name Signature Title Date

KAlpers@armstrongenergy.com  
 e-mail Address



500 North Main Street, Suite 200  
P.O. Box 1973  
Roswell, New Mexico 88202-1973  
(575) 625-2222  
Fax (575) 622-2512

RECEIVED OOD  
2012 OCT -4 P 12:55

October 3, 2012

Via Certified-Return Receipt

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

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Sir:

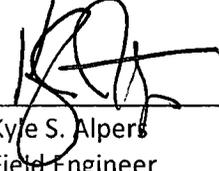
Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

Enclosed is an original and one copy of the C-108 "Application for Authorization to Inject" for the conversion of the Dora Dean 24 #1 to an injector. Injection will be over an interval which contains both perforations (8212'-8245') and open hole (8406'-8515'). The anticipated injection rate is approximately 300 barrels of water per day, at an anticipated injection pressure of 0 psi.

Also enclosed is proof of mailing by Certified, Return-Receipt mail to each surface owner along with a copy of the Affidavit of Legal Publication in the Portales New-Tribune, published October 2, 2012. Should you have any questions, please contact me at Armstrong Energy Corporation, 575-625-2222.

Sincerely,

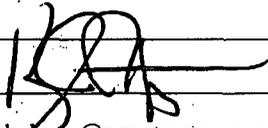
ARMSTRONG ENERGY CORPORATION

  
\_\_\_\_\_  
Kyle S. Alpers  
Field Engineer

Enclosures

cc: Oil Conservation Division  
1625 N. French Drive  
Hobbs, NM 88240

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery Pressure Maintenance  Disposal Storage  
Application qualifies for administrative approval?  Yes  No
- II. OPERATOR: Armstrong Energy Corporation  
ADDRESS: P.O. Box 1973, Roswell NM, 88202-1973  
CONTACT PARTY: Kyle Alpers PHONE: (575)625-2222
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project?  Yes  No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected;
  - Whether the system is open or closed;
  - Proposed average and maximum injection pressure;
  - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  - If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Kyle Alpers TITLE: Field Engineer  
SIGNATURE:  DATE: 9/28/12  
E-MAIL ADDRESS: kalpers@armstrongenergycorp.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### 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: Armstrong Energy Corporation

WELL NAME & NUMBER: Dora Dean 24 #1

WELL LOCATION: 990'FNL 1700'FEL B 24 T5S R33E

FOOTAGE LOCATION

UNIT LETTER

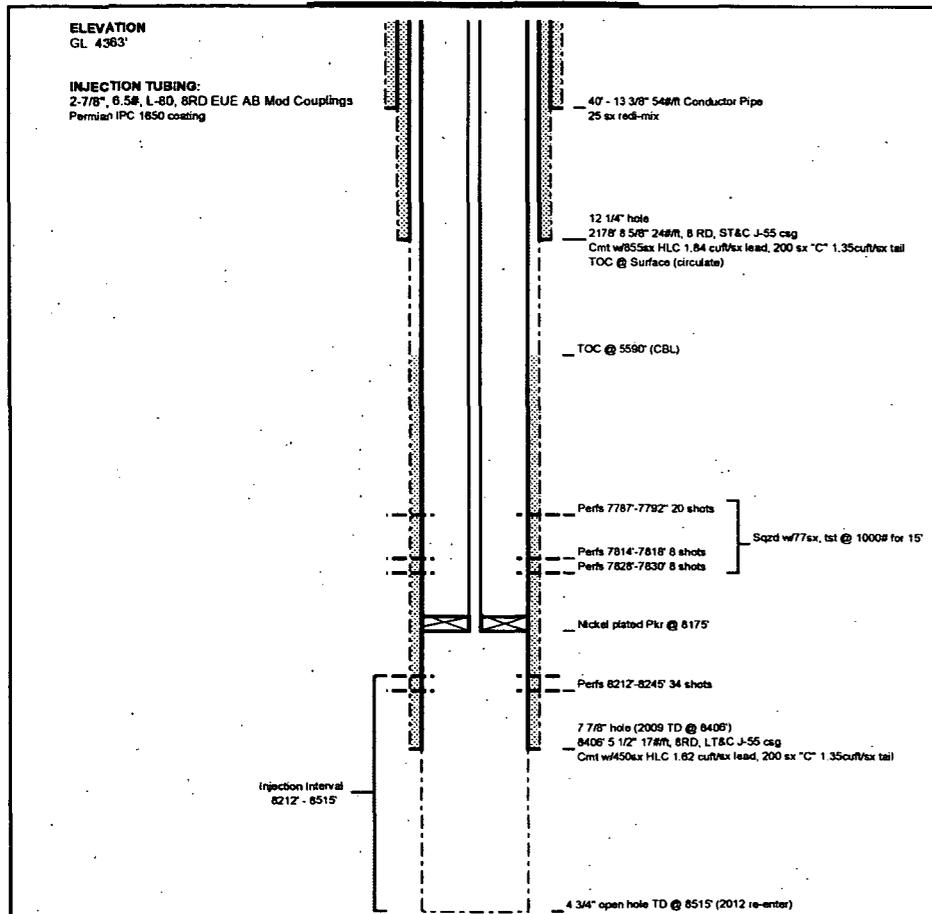
SECTION

TOWNSHIP

RANGE

**WELLBORE SCHEMATIC**

**WELL CONSTRUCTION DATA**



Surface Casing

Hole Size: 12 1/4"  
 Cemented with: 1055 sx. *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: Surface Method Determined: Circ

Intermediate Casing

Hole Size: N/A Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx. *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7 7/8" Casing Size: 5 1/2" 17#/ft  
 Cemented with: 650 sx. *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: 5590' Method Determined: CBL

Total Depth: OH TD @ 8515' (5 1/2" EOC @ 8406')

Injection Interval

8212' feet to 8515' (both Perforated and OH)

(Perforated or Open Hole; indicate which)

REV.	DATE		DRAWN	KSA
1	8/21/2012	Dora Dean 24 #1 (Proposed Configuration) Sec. 24, T5S-R33E	APP'D	NTS
		API NO. 30-041-20938 Roosevelt County, NM	SCALE	8/22/2012
			DATE	
<b>Armstrong Energy Corporation</b>			SHEETS	SHEET

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" Lining Material: IPC

Type of Packer: Nickel Plated

Packer Setting Depth: 8175'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

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

If no, for what purpose was the well originally drilled? \_\_\_\_\_

Well originally drilled to test Fusselman/Penn production

2. Name of the Injection Formation: Fusselman

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. 7787'-7792' 20 shots

7788'-7791' 12 shots, 7814'-7818' 8 shots, 7828'-7830' 4 shots,. Squeezed all existing perfs with 77 sx cement. Perfs from 8212'-8245' (34 shots) are in injection zone and have not been squeezed.

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

Next highest zone is Pennsylvanian @ 7718' (top)

\_\_\_\_\_

\_\_\_\_\_

## C-108 Well Data – Page 1

I. See form

II. See form

### III. WELL DATA

#### A.

(1) Dora Dean 24 #1 S24 T5S R33E, 990'FNL 1700'FEL

(2) Surface Casing 8 <sup>5</sup>/<sub>8</sub>" 24#/ft, 2178', 1055sx, 12 <sup>1</sup>/<sub>8</sub>" hole, TOC @ Surface, circ

Production Casing 5 <sup>1</sup>/<sub>2</sub>" 17#/ft, 8406', 650sx, 7 <sup>7</sup>/<sub>8</sub>" hole, TOC @ 5590', CBL

(3) Tubing 2 7/8" 6.5#/ft L-80 EUE 8RD w/AB mod couplings, Permian IPC 1850 coating

(4) Packer Nickel plated, @ 8175'

#### B.

(1) Fusselman

(2) Injection Interval is from 8212' – 8515', as follows:

8175'-8406' cased hole with perforations @ 8212'-8245', 34 shots

8406'-8515' non-cased, open hole

(3) Well originally drilled to test Fusselman production. Also tested Penn production.

(4) Additional Perfs 7788'-7791' 12 shots

7787'-7792' 20 shots

7814-7818' 8 shots

7828'-7830' 4 shots

All perforations from 7787' – 7830' squeezed with 77sx.

(5) Next higher oil or gas zone is the Pennsylvanian, top @ 7718'

IV. See form

V. See attached maps

### VII.

(1) Proposed average daily injection rate 300bpd

Proposed max daily injection rate 400bpd

(2) This will be a closed system

(3) Proposed average injection pressure 0 psi

Proposed max injection pressure 100psi

## C-108 Well Data – Page 2

(4) Injection fluid will be re-injected produced water from Fusselman and Penn wells in the area.

Mustang Sally #1		Pep 36 State #1	
Fusselman Water		Penn Water	
S.G.	1.075	S.G.	1.081
pH	6.10	pH	6.880
Ca	10,500	Ca	2,850
Mg	11,100	Mg	1,498
Cl	64,500	Cl	70,984
SO <sub>4</sub>	>1600	SO <sub>4</sub>	2,550
HCO <sub>3</sub>	567	HCO <sub>3</sub>	628
Fe	>500	Fe	98.5

(5) Zone is productive of oil or gas within one mile of the proposed well.

### VIII. Lithological Detail Dolomite

Geologic name        Fusselman  
Thickness            300'  
Depth                 8200'  
Drinking Water – Causey Lingo Basin, at +/- 300'.

IX. Breakdown perforations with 5000 gallons 15% NEFE acid.

X. Logs submitted to OCD when well was drilled, mudlog for new interval attached with this application.

XI. There are three fresh water wells within a 1 mile radius of the Dora Dean 24 #1. Water samples from each of these wells have been obtained and are attached. The wells are designated North, North East, and South West on the attached analyses summary from Halliburton Services, according to their location relative to the proposed injector.

XII. Re: Dora Dean 24 #1

We have examined the available geological and engineering data and find no evidence of open faults or any other hydraulic connection between the injection zone and any underground source of drinking water.

Armstrong Energy Corporation  
Date: 9/28/12

  
\_\_\_\_\_  
Kyle S. Alpers, Field Engineer

XIII. Public notice for the application will be published October 2<sup>nd</sup>, 2012 in the Portales News Tribune in Portales, New Mexico. Copies of application and notices will be mailed via certified mail to all affected parties on September 28, 2012.

# WELL LOGS

K Z

API number:	30-041-20938		
OGRID:		Operator:	ARMSTRONG ENERGY CORP
		Property:	DORA DEAN 24 # 1

surface	ULSTR:	B	24	T	05S	R	33E
			990	FNL	1700	FEL	

BH Loc	ULSTR:	B	24	T	05S	R	33E
			990	FNL	1700	FEL	

Ground Level:	4363	DF:	4376	KB:	4378
Datum:	KB			TD:	8406

Land: FEE

Completion Date: (1) 1/16/2010  
 Date Logs Received: 1/20/2010  
 Date Logs Due in: (2) \_\_\_\_\_

Confidential:	NO			Date out:	
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Confidential period: 90 Days for State & Fee, 1 Year for federal  
 Date Due In: (1) is equal to Completion Date (1) + 20 days

Logs	Depth interval		
TD LD CN/GR	200	8289	Three Detector Litho-Density
HRLA	2178	8289	High Resolution Laterolog

K Z

## OCD TOPS

Rustler	1820	Strawn		
Tansill		Atoka		
Yates	2184	Morrow		
7 rvrs				
		Austin		
		Chester		
Queen	2650	Miss Lime	8008	
Penrose		Fussleman	8204	
Grayburg	2966			
San Andres	3219			
Glorieta	4560			
Yeso	4659			
Tubb	5882			
Lwr Yeso (Drinkard)	6260			
Abo	6640			
Wolfcamp	7400			
Penn	7718			

# INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

## INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn "A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss 8008'	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen 2650'	T. Silurian 8204'	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres 3218'	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb 5882'	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo 6634'	T.	T. Entrada	
T. Wolfcamp 7368'	T.	T. Wingate	
T. Penn 7718'	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

### OIL OR GAS SANDS OR ZONES

No. 1, from.....8204'.....to.....8260'.....  
 No. 2, from.....7788'.....to.....7830'.....  
 No. 3, from.....to.....  
 No. 4, from.....to.....

### IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

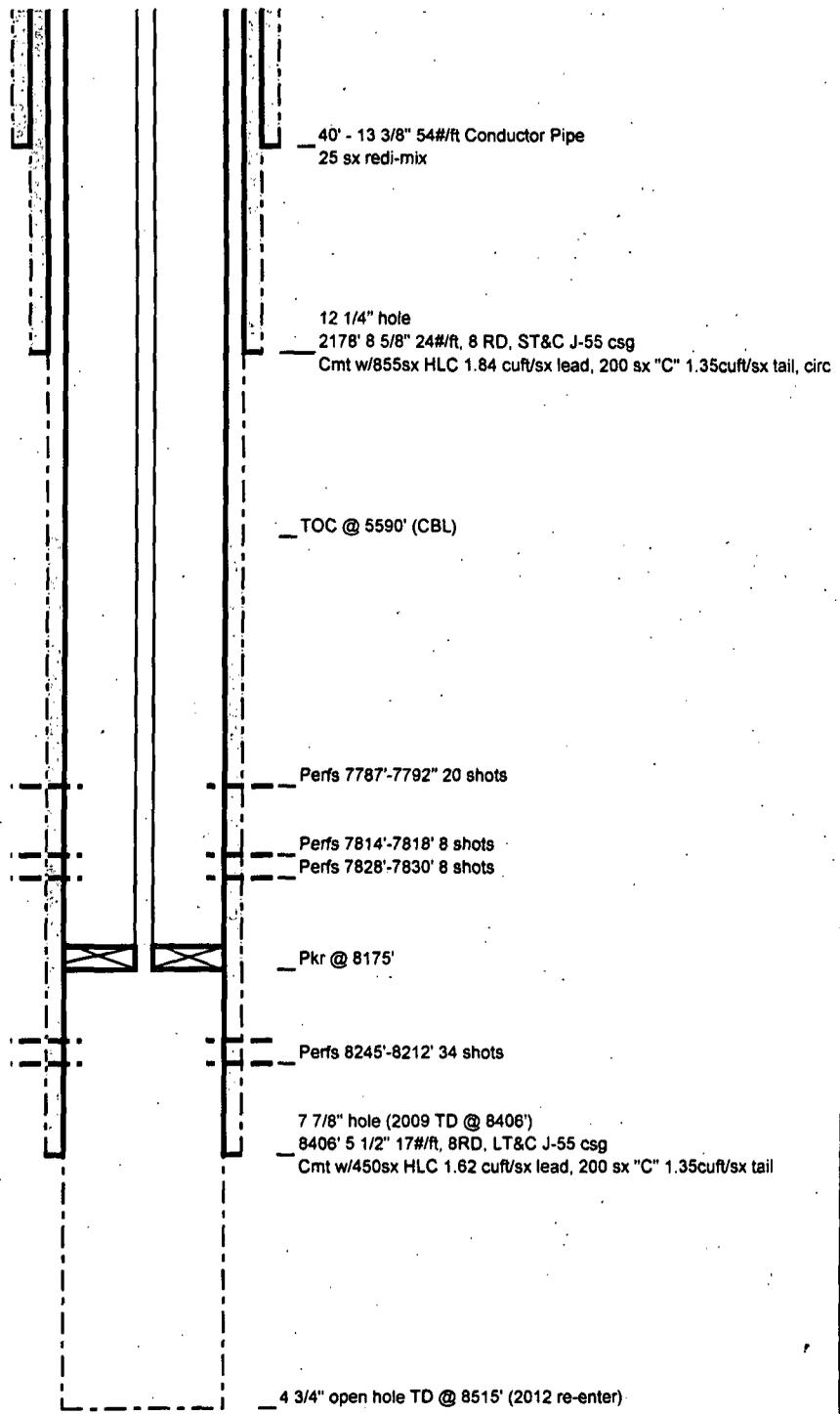
No. 1, from.....to.....feet.....  
 No. 2, from.....to.....feet.....  
 No. 3, from.....to.....feet.....

## LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology
2178'	7368'	5190	Red Shale, Lime, Sand & Dolomite				
7368'	7718'	350	Lime, Dolomite, Gray Shales				
7718'	8008'	290	Lime				
8008'	8204'	196	Lime				
8204'	8292'	88	Dolomite				

ELEVATION  
GL 4363'

INJECTION TUBING:  
2-7/8", 4.7#, N-80, 8Rd IPC



REV.	DATE

Dora Dean 24 #1 (Proposed Configuration)  
Sec. 24, T5S-R33E

API NO. 30-041-20938  
Roosevelt County, NM

DRAWN	KSA
APP'D	
SCALE	NTS
DATE	8/22/2012
SHEETS	SHEET

**Armstrong Energy Corporation**

# SHANKSLOG

P. O. Box 1179  
 Carlsbad, N.M. 88220  
 (575)-885-0458  
 DAVE SHANKS

COMPANY: ARMSTRONG ENERGY CORPORATION  
 WELL: DORA DEAN 24 #1 (DEEPEN)  
 FIELD: FUSSELMAN TEST COUNTY: ROOSEVELT STATE: NEW MEXCIO  
 LOCATION: 990' FNL & 1700' FEL, SEC. 24 T5S R33E

Interval Logged: 8406' To: 8516 G.L.: 4363' K.B.: 4378'  
 Date Logged: 8/17/2012 To: 8-21-12 Spud Date:       
 Rig: TWS INC Unit No.: 6  
 Loggers: Paul Amancio  
 Api No.: 30-041-20938  
 Filename: dora dean 24 \_1 deepen .mlw  
 Geologist: TOM KING

### Abbreviations:

NB...New Bit  
 CO...Circ Out  
 NR...No Returns  
 TG...Trip Gas  
 WOB...Wt on Bit  
 RPM...Rev/Min  
 SG...Survey Gas  
 DST...Drill Stem Test  
 DS...Directional Survey  
 CG...Connection gas  
 LAT...Logged After Trip  
 PP...Pump Pressure  
 SPM...Strokes/Min  
 DTG...Down Time Gas

### Mud Data

WT..Weight V..Viscosity  
 PH..Acidity F..Filtrate  
 CHL..Chlorides SC..Solids Content

### Lithology Symbols:

Anhydrite	Salt	Granite
Siltstone	Chert	Sandstone
Dolomite	Conglomerate	Limestone
Coal	Shale	Bentonite
Carb Shale	Granite Was	Quartz Wash
Red Sh	Org Sh	Green Sh
Cust Sh1	Cust Sh2	Cust Sh3
Cust Sh4	Cust Sh5	Cust Sh6

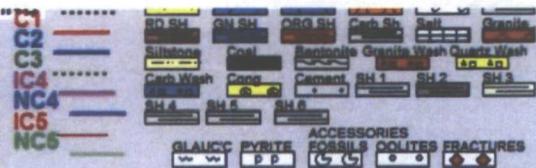
### Gas Chromatograph Analysis:

HW \_\_\_\_\_  
 C1 \_\_\_\_\_  
 C2 \_\_\_\_\_  
 C3 - - - - -  
 IC4 \_\_\_\_\_  
 NC4 \_\_\_\_\_  
 IC5 \_\_\_\_\_

### Accessories

Glauconite Pyrite Fossils Oolites  
 Fractures Cement

Drilling Rate MIN/FT	Vis Por	Lithology	% Oil Cut Flu Tr / Tr / p f g pfg 1/2	Descriptions/Remarks	Total Gas/Chromatograph
2 4 6 8 10 12 14				PULLING UNIT TWS INC DRILL OUT PLUGS TAG FORMATION @ 8406'	25 50 100 200 300 400 500
8400				REVERSE CIRCULATION SAMPLE LAG 16 min. @ SPM 121	
TAG FORMATION 3:00 pm MDT 8/17/12					

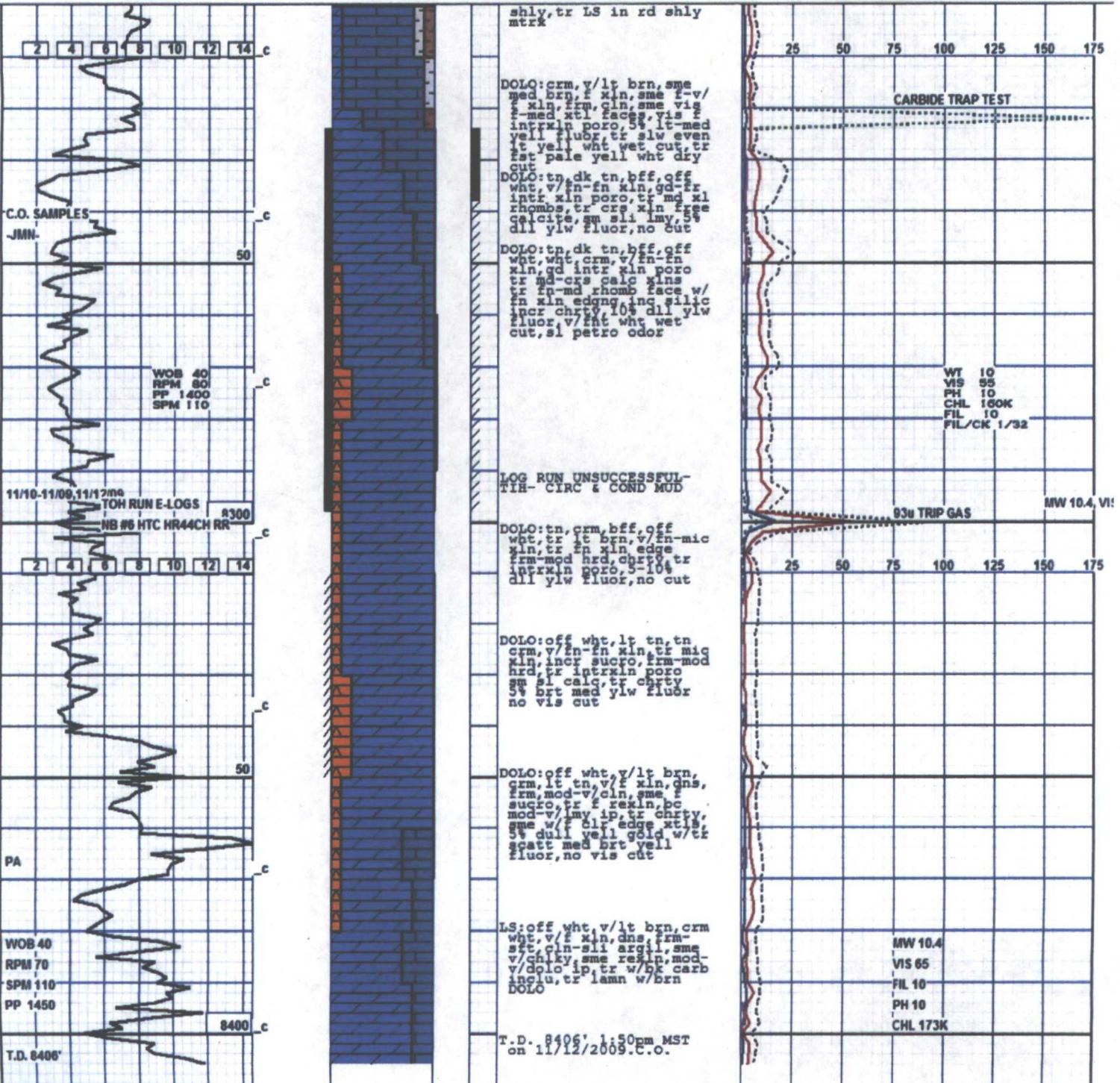


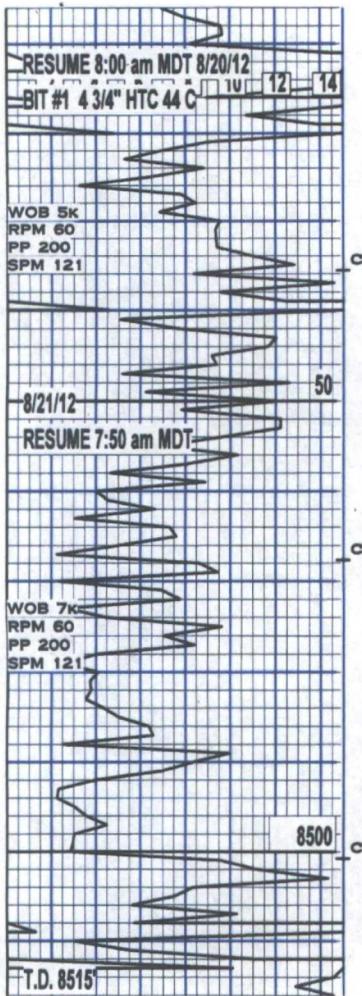
**COMPANY:** Armstrong Energy Corporation  
**WELL:** Dora Dean 24 #1  
**LOCATION:** 990' FNL & 1700' FEL--- Sec. 24 T5S R33E  
 Roosevelt Co., New Mexico  
**API NO.:** 30-041-20938  
**Drill Rate Min/Ft**

**DATES LOGGED:** 10/18/09 to 11/12/2009  
**DEPTHS LOGGED:** 2055 to 8406'  
**GL:** 4383'  
**KB:** 4378'  
**UNIT No:** 4  
**LOGGERS:** J.Norris/P.Amancio

**GEOLOGIST:** Tom King  
**Gas Units**

Por Lithology Flu Cut





DOLO: lt brn, crm, lt tn,  
 v/f-f xln, frm, sme dns,  
 cln, f rexln ip, sme f  
 sucro, vis f xtl faces,  
 tr vis f intrxln poro,  
 tr-5% spoty lt yell  
 fluor, no vis wet cut

DOLO: crm, v/lt brn, off  
 wht, v/f-f xln, frm, cln,  
 sme f rexln, sme f  
 sucro, scatt vis f xtl  
 faces, tr vis f intrxln  
 poro, tr-5% spoty lt  
 yell fluor, no vis wet  
 cut

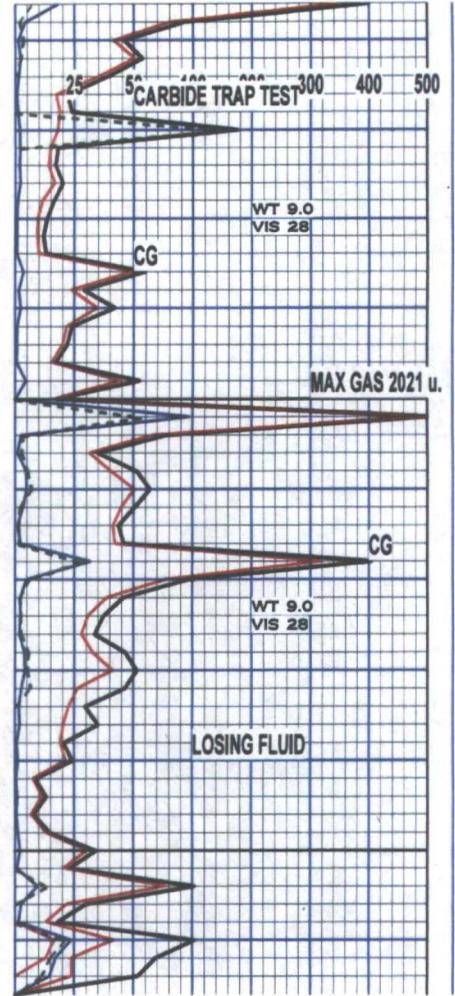
SHUT IN OVER NIGHT

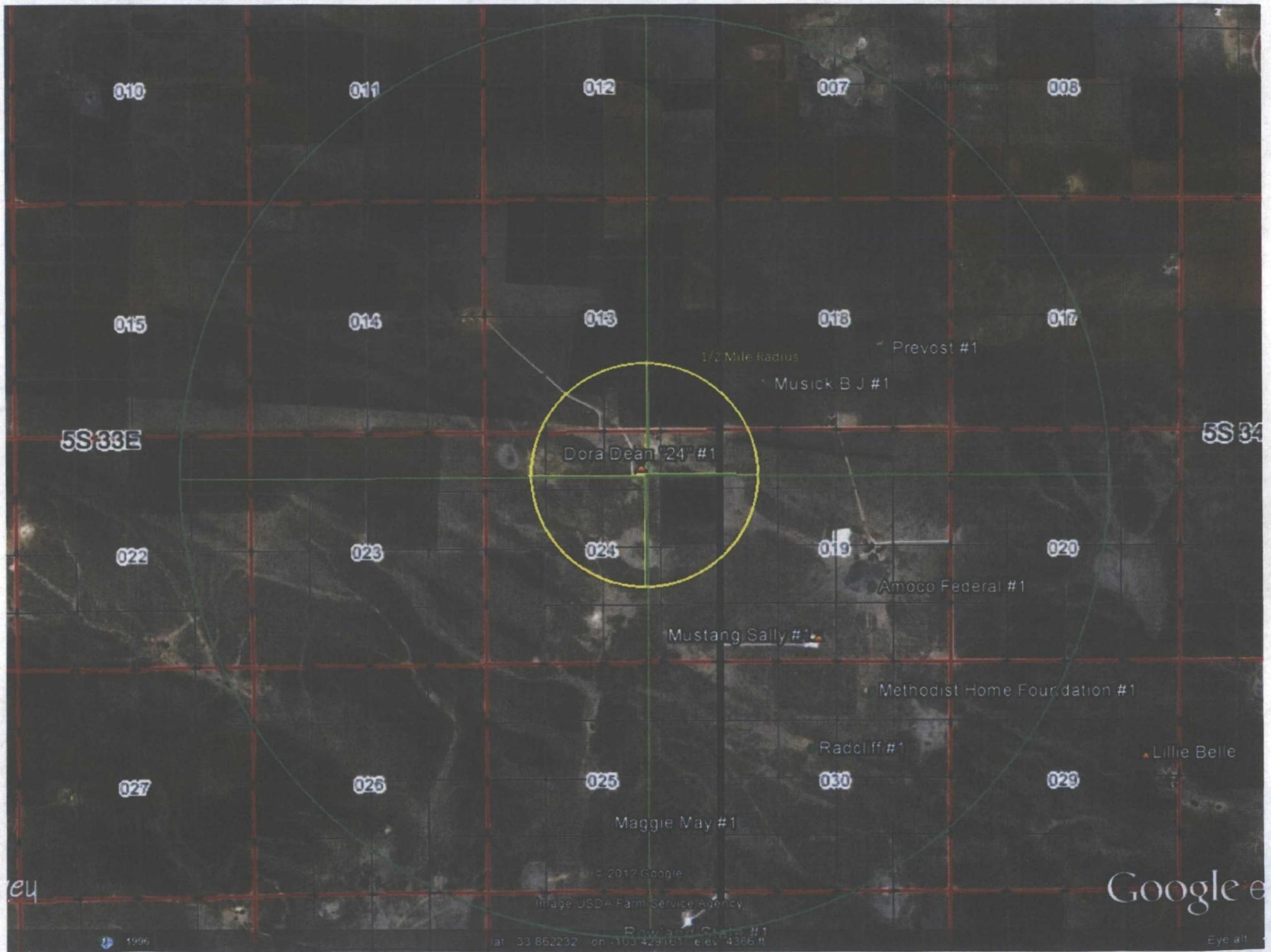
DOLO: crm, lt brn, off wht  
 lt gry, lt buff, v/f-f  
 xln, dns, frm, mod cln, sm  
 sli argil, rexln ip, tr  
 f sucro, tr vis f-med  
 xtl faces, tr vis f  
 intrxln poro, tr scatt  
 lt yell fluor, no vis  
 wet cut

CHRT: lt gry, clr, off wht  
 pred v/transl, sme opq  
 ip, sme v/transl-transp  
 dolo ip, tr v/f pyr

DOLO: lt brn, crm, off wht  
 f-med xln, frm, cln, abt  
 rexln, f-med xtl faces,  
 abt pyr inclu, sme mass  
 free pyr, tr free euhed  
 rhombs, tr pnk feld in-  
 clu

GR: med-dk orng, pnk, off  
 wht, scatt bk, dk grn,  
 sme feld faces, tr qrtz  
 tr mica, chl, scatt w/f  
 pyr, sme off wht clay  
 TD 8515' @ 4 pm 8/21/12







# Permian Treating WATER ANALYSIS REPORT

**SAMPLE**

Oil Co. : **Armstrong Energy**  
 Lease : **pet 36** *Pep 36 State*  
 Well No.: **1**  
 Location:  
 Attention:

Date Sampled :  
 Date Analyzed: **15-February-2010**  
 Lab ID Number: **Feb1510.002- 1**  
 Salesperson :  
 File Name : **Feb1510.002**

**ANALYSIS**

- 1. Ph 6.880
- 2. Specific Gravity 60/60 F. 1.081
- 3. CACO3 Saturation Index @ 80F
- @ 140F

0.514 Mild  
 1.404 Severe

**Dissolved Gasses**

- 4. Hydrogen Sulfide Not Present
- 5. Carbon Dioxide Not Determined
- 6. Dissolved Oxygen Not Determined

MG/L.                      EQ. WT.                      \*MEQ/L

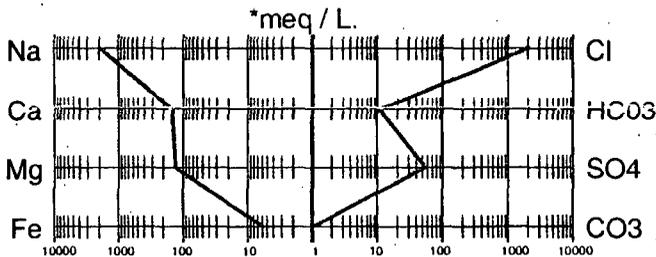
**Cations**

- 7. Calcium (Ca++) 2,850 / 20.1 = 141.79
- 8. Magnesium (Mg++) 1,498 / 12.2 = 122.79
- 9. Sodium (Na+) (Calculated) 41,385 / 23.0 = 1,799.35
- 10. Barium (Ba++) Not Determined

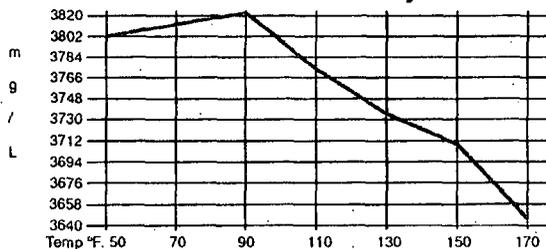
**Anions**

- 11. Hydroxyl (OH-) 0 / 17.0 = 0.00
- 12. Carbonate (CO3=) 0 / 30.0 = 0.00
- 13. Bicarbonate (HCO3-) 628 / 61.1 = 10.28
- 14. Sulfate (SO4=) 2,550 / 48.8 = 52.25
- 15. Chloride (Cl-) 70,984 / 35.5 = 1,999.55
- 16. Total Dissolved Solids 119,895
- 17. Total Iron (Fe) 98.50 / 18.2 = 5.41
- 18. Manganese (Mn++) Not Determined
- 19. Total Hardness as CaCO3 13,284
- 20. Resistivity @ 75 F. (Calculated) 0.068 Ohm · meters

**LOGARITHMIC WATER PATTERN**



**Calcium Sulfate Solubility Profile**



**PROBABLE MINERAL COMPOSITION**

COMPOUND	*meq/L	X	EQ. WT.	=	mg/L.
Ca(HCO3)2	10.28		81.04		833
CaSO4	52.25		68.07		3,557
CaCl2	79.26		55.50		4,399
Mg(HCO3)2	0.00		73.17		0
MgSO4	0.00		60.19		0
MgCl2	122.79		47.62		5,847
NaHCO3	0.00		84.00		0
NaSO4	0.00		71.03		0
NaCl	1,797.50		58.46		105,082

\* milliequivalents per Liter

*Elisabeth Andrews*  
 Elisabeth Andrews, Analyst

# HALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY  
 WATER ANALYSIS REPORT  
 HOBBS, NEW MEXICO

COMPANY Armstrong Energy  
#1 Sample Mustang Sally #1  
#2 Sample Lillie Belle #1  
 \_\_\_\_\_  
 \_\_\_\_\_

REPORT W11-070  
 DATE September 7, 2011  
 DISTRICT \_\_\_\_\_  
 \_\_\_\_\_

SUBMITTED BY Rocky

TANK SAMPLE	Mustang Sally	Lillie Belle			
Sample Temp.	73 °F	73 °F	°F	°F	°F
RESISTIVITY					
SPECIFIC GR.	1.075	1.067			
pH	6.10	5.85			
CALCIUM	10,500 mpl	7,000 mpl	mpl	mpl	mpl
MAGNESIUM	11,100 mpl	6,900 mpl	mpl	mpl	mpl
CHLORIDE	64,500 mpl	57,620 mpl	mpl	mpl	mpl
SULFATES	>1600 mpl	>1600 mpl	mpl	mpl	mpl
BICARBONATES	567 mpl	366 mpl	mpl	mpl	mpl
SOLUBLE IRON	>500 mpl	>500 mpl	mpl	mpl	mpl
KCL	Negative	Negative			
Sodium	mpl	mpl	mpl	mpl	mpl
TDS	mpl	mpl	mpl	mpl	mpl
OIL GRAVITY	@ 60°F	@ 60°F	@ 60°F	@ 60°F	@ 60°F

REMARKS Proposed injection water for Dora Dean 24#1  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MPL = Milligrams per liter  
 Resistivity measured in: Ohm/m2/m

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Co.

ANALYST: SH/TR

# HALLIBURTON

PERMAIN BASIN OPERATIONS LABORATORY  
 WATER ANALYSIS REPORT  
 HOBBS, NEW MEXICO

COMPANY: Armstrong Energy  
 LEASE: Dora Dean 25 #1  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

REPORT DATE: W12-191  
August 30, 2012  
 DISTRICT: Hobbs

SUBMITTED BY \_\_\_\_\_

TANK SAMPLE	North	North East	South West		
Sample Temp.	70 °F	70 °F	70 °F	°F	°F
RESISTIVITY	15.8	15.8	15.8		
SPECIFIC GR.	1.001	1.001	1.001		
pH	7.43	7.61	7.60		
CALCIUM	100 mpl	145 mpl	100 mpl		
MAGNESIUM	90 mpl	105 mpl	96 mpl		
CHLORIDE	113 mpl	122 mpl	95 mpl		
SULFATES	<400 mpl	<400 mpl	<400 mpl		
BICARBONATES	238 mpl	195 mpl	244 mpl		
SOLUBLE IRON	0 mpl	0 mpl	0 mpl		
KCL	Neg	Neg	Neg		
Sodium	mpl	mpl	mpl		
TDS	mpl	mpl	mpl		
OIL GRAVITY	@ 60 °F	@ 60 °F	@ 60 °F	@ 60 °F	@ 60 °F

REMARKS Water analyses for surrounding fresh water wells with respect to Dora Dean 24 #1

MPL = Milligrams per liter  
 Resistivity measured in: Ohm/m2/m

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ANALYST: LF

AFFIDAVIT OF LEGAL PUBLICATION

LEGAL # 7985

Copy of Publication attached

STATE OF NEW MEXICO  
COUNTY OF CURRY:

The undersigned, being duly sworn, says:  
That she is a Legal Clerk of  
The Portales New-Tribune, a daily  
Newspaper of general circulation,  
published in English at Clovis,  
said county and state, and that the  
hereto attached

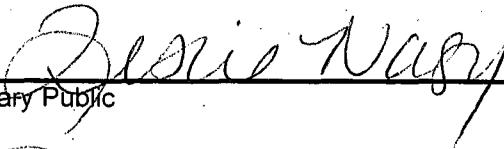
LEGAL NOTICE

was published in said Portales New-Tribune,  
a daily newspaper duly  
qualified for that purpose within  
the meaning of Chapter 167 of the  
1937 Session Laws of the State of  
New Mexico for 1 consecutive  
days/weeks on the same days as follows:

First Publication: October 2, 2012  
Second Publication:  
Third Publication:  
Fourth Publication:

  
\_\_\_\_\_  
Legal Clerk

Subscribed and sworn to before me  
October 2, 2012

  
\_\_\_\_\_  
Notary Public



OFFICIAL SEAL  
LESLIE NAGY  
NOTARY PUBLIC - STATE OF NEW MEXICO

My Commission Expires: May 24, 2015

Legal 7985  
October 2, 2012  
**Legal Notice**  
Notice is hereby given that Armstrong Energy Corporation, P.O. Box 1973, Roswell, NM 88202-1973 has submitted an Application for Authorization to Inject for the Dora Dean 24 #1.  
Armstrong proposes to begin disposal of produced water into the Fusselman formation by converting the Dora Dean 24 #1 to injection. The well is located in Township 5 South, Range 33 East, Section 24, 990 ENL & 1700 FEL in Roosevelt County, New Mexico. Injection will be into a perforated interval from 8212-8245' as well as a lower, non-cased open hole interval from 8406-8515'. The anticipated injection rate is 300 BWP/D at 0 psi.  
An objection to this application or a request for hearing must be filed with the New Mexico Oil Conservation Division, 1220 St. Francis Dr. Santa Fe, New Mexico 87505, within 15 days of this notice. Should you have any questions, please contact Kyle Alpers with Armstrong Energy Corporation at 575-625-2222.

September 28, 2012

Via Certified-Return Receipt

Katherine Sharon Butler  
417 Tierra Berrenda Dr.  
Roswell, NM 88201

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Mrs. Butler:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

Enclosed is a copy of the C-108 "Application for Authorization to Inject" for the conversion of the Dora Dean 24 #1 to an injector. Injection will be over an interval which contains both perforations (8212'-8245') and open hole (8406'-8515'). The anticipated injection rate is approximately 300 barrels of water per day, at an anticipated injection pressure of 0 psi.

An objection to this application or a request for hearing must be filed with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days of this notice. Should you have any questions please contact Kyle Alpers with Armstrong Energy Corporation at 575-625-2222.

Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

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ROSWELL, NM 88201										
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Katherine Sharon Butler										
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City, State, ZIP+4										

September 28, 2012

Via Certified-Return Receipt

Lisa Nelson  
11501 Santa Monica Ave., NE  
Albuquerque, NM 87122

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Mrs. Nelson:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

Enclosed is a copy of the C-108 "Application for Authorization to Inject" for the conversion of the Dora Dean 24 #1 to an injector. Injection will be over an interval which contains both perforations (8212'-8245') and open hole (8406'-8515'). The anticipated injection rate is approximately 300 barrels of water per day, at an anticipated injection pressure of 0 psi.

An objection to this application or a request for hearing must be filed with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days of this notice. Should you have any questions please contact Kyle Alpers with Armstrong Energy Corporation at 575-625-2222.

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Lisa Nelson			
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City, State, ZIP+4			

Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

September 28, 2012

Via Certified-Return Receipt

Samuel Stanfield  
11207 Margarite NW  
Albuquerque, NM 87144

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Sir:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

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City, State, ZIP+4			

Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

September 28, 2012

Via Certified-Return Receipt

Randy Wayne Evans  
800 Daniel Boone  
Green River, WY 82935

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Sir:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

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Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

Sent To Randy Wayne Evans  
 Street, Apt. No. or PO Box No. \_\_\_\_\_  
 City, State, ZIP+4 \_\_\_\_\_

September 28, 2012

Via Certified-Return Receipt

Kenneth L. Musick  
1656 South Roosevelt Road H  
Rogers, NM 88130

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Sir:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

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Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

Sent To Kenneth L. Musick  
 Street, Apt. No., or PO Box No. \_\_\_\_\_  
 City, State, ZIP+4 \_\_\_\_\_

9997 0499 9999 9997 9997



September 28, 2012

Via Certified-Return Receipt

Mona Kay (Kelley) Crow  
1933 FM 1780  
Morton, TX 79346

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Ms. Crow:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

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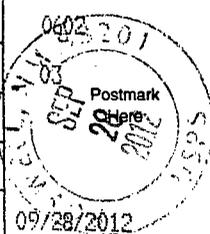
An objection to this application or a request for hearing must be filed with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days of this notice. Should you have any questions please contact Kyle Alpers with Armstrong Energy Corporation at 575-625-2222.

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Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

Sent To Mona Kay (Kelley) Crow  
 Street, Apt. No.,  
 or PO Box No.  
 City, State, ZIP+4

September 28, 2012

Via Certified-Return Receipt

Karen Sharp  
1673 Newcastle Drive  
Abilene, TX 79601

Re: Dora Dean 24 #1 Water Disposal Well  
NE/4 24-T5S-R33E  
Roosevelt County, New Mexico

Dear Ms. Sharp:

Armstrong Energy Corporation operates the Dora Dean 24 #1 in the NE/4 of Section 24-T5S-R33E, Roosevelt County, New Mexico. The Dora Dean 24 #1 was drilled and completed as a producing well in the Fusselman formation in early 2010. The well was found to be nonproductive and has since been shut in. Armstrong proposes to convert the Dora Dean 24 #1 from a producer to a water disposal well. The plan calls for the injection of approximately 300 barrels per day of produced water from Armstrong's surrounding wells, into the Fusselman formation at low anticipated injection pressure. The use of this well as a disposal well will greatly decrease the amount of truck traffic through the area, as it will eliminate the need to haul produced water from these wells.

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Sent To: <u>Karen Sharp</u>		
Street, Apt. No., or PO Box No.		
City, State, ZIP+4		

Sincerely,

ARMSTRONG ENERGY CORPORATION

Kyle S. Alpers  
Field Engineer

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, October 12, 2012 12:32 PM  
**To:** 'kalpers@armstrongenergycorp.com'; Phillips, Dorothy, EMNRD  
**Cc:** Gonzales, Elidio L, EMNRD  
**Subject:** RE: Disposal application from Armstrong Energy Corporation: Dora Dean 24 #1 30-041-20938 Fusselman perfs and open hole from 8212 to 8515 feet

Kyle,

It does look like Armstrong needs one single well bond – see this link ... and work with Dorothy Phillips of this office to get that posted.

<https://wwwapps.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellFinancialAssuranceReport.aspx?Operator=1092>

Not a big deal, but I can't release the SWD permit without all bonding in place.

Let me know when this is done because I am onto other applications and will not know unless you tell me.

Thank You,

Will Jones

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, October 12, 2012 12:23 PM  
**To:** 'kalpers@armstrongenergycorp.com'  
**Cc:** Gonzales, Elidio L, EMNRD  
**Subject:** Disposal application from Armstrong Energy Corporation: Dora Dean 24 #1 30-041-20938 Fusselman perfs and open hole from 8212 to 8515 feet

Hello Kyle,

You noticed lots of surface owners, but who is the surface owner at the well site?

If it is Randy Evans – he is probably related to the basketball player I knew from Dora years ago.

Lots of gas effect on that log – when will you get a pipeline?

Application looks great – only thing missing is the “Administrative Application Checklist” form but I filled one out for you.

Have a great weekend,

William V. Jones, P.E.  
505-476-3448W 505-476-3462F  
Engineering Bureau, Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## Jones, William V., EMNRD

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**From:** Kyle Alpers <kalpers@armstrongenergycorp.com>  
**Sent:** Monday, October 15, 2012 10:28 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Disposal application from Armstrong Energy Corporation: Dora Dean 24 #1 30-041-20938 Fusselman perms and open hole from 8212 to 8515 feet

Will,

Thanks for filling out the Administrative Application Checklist for me. How did I miss that, and do you need further information from me for it?

With respect to the pipeline, as soon as we get an approved permit we will lay poly to the location. We are aware of the required plugging bond and have been working on it for some time now as we also have an APD in limbo as a result of it. JP Morgan has not been exactly speedy and so on Friday we put in motion other measures which I hope to have in effect today or tomorrow so we can move forward. I will let you know as soon as I hear something.

In addition, to answer your question regarding surface ownership, I apologize for not making it clear – the surface owner is Sharon Butler and her children Lisa Nelson and Samuel Stanfield.

Hopefully I will be back in touch with you very soon.

Thanks

***Kyle Alpers***

**Field Engineer**

[kalpers@armstrongenergycorp.com](mailto:kalpers@armstrongenergycorp.com)

(O) 575-623-2999 Ext. 305

(C) 575-626-2727

(F) 575-622-2512



P.O. Box 1973  
Roswell, New Mexico 88203

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**From:** Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]  
**Sent:** Friday, October 12, 2012 12:32 PM  
**To:** [kalpers@armstrongenergycorp.com](mailto:kalpers@armstrongenergycorp.com); Phillips, Dorothy, EMNRD  
**Cc:** Gonzales, Elidio L, EMNRD  
**Subject:** RE: Disposal application from Armstrong Energy Corporation: Dora Dean 24 #1 30-041-20938 Fusselman perms and open hole from 8212 to 8515 feet

Kyle,  
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## Jones, William V., EMNRD

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**From:** Kyle Alpers <kalpers@armstrongenergycorp.com>  
**Sent:** Tuesday, October 16, 2012 3:55 PM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Disposal application from Armstrong Energy Corporation: Dora Dean 24 #1 30-041-20938 Fusselsman perfs and open hole from 8212 to 8515 feet

Will,

I was notified that our plugging bond you mentioned (For the NE Kemnitz #10) should have been taken care of and entered into your system sometime this morning. Hopefully this will facilitate the approval of our SWD application.

Thanks, and please let me know if there's anything further you need from me.

### ***Kyle Alpers***

**Field Engineer**

[kalpers@armstrongenergycorp.com](mailto:kalpers@armstrongenergycorp.com)

(O) 575-623-2999 Ext. 305

(C) 575-626-2727

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P.O. Box 1973  
Roswell, New Mexico 88203

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Will Jones

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**From:** Jones, William V., EMNRD  
**Sent:** Friday, October 12, 2012 12:23 PM  
**To:** 'kalpers@armstrongenergycorp.com'

10/16/09 SPVD

Injection Permit Checklist (11/15/2010)

WFX PMX SWD 1360 Permit Date 10/20/12 UIC Qtr (0 N/D) 30-25-01932

# Wells 1 Well Name(s): DORA Dean 24#1

API Num: 30-0 41-20938 Spud Date: 11/20/09 New/Old: N (UIC primacy March 7, 1982)

Footages 990 FNL / 1700 FEL Unit B Sec 24 Tsp 55 Rge 33E County ROOSEVELT

General Location:

Operator: ARMSTRONG Energy Corporation Contact KYLE ALPERS

OGRID: 001092 RULE 5.9 Compliance (Wells) 2/84 (Finan Assur) X IS 5.9 OK? X

Well File Reviewed ✓ Current Status: 2012 (OH) FUSSEL, DE, SPEED Penn @ 7787-7830

Planned Work to Well: SIZE UPPER Perfs (RUN TBG) DISPOSE

Diagrams: Before Conversion     After Conversion ✓ Elogs in Imaging File: ✓ Run on LIME (LOTS of XOVER)

2009  
2012

Well Details:	SIZES		Setting Depths	Stage Tool	Cement Sx or Ef	Determination Method
	Hole.....	Pipe				
New <u>   </u> Existing <u>✓</u> Surface	12 1/4	8 5/8	2178'	—	855+200	CIRC
New <u>   </u> Existing <u>   </u> Interm						
New <u>   </u> Existing <u>✓</u> LongSt	7 7/8	5 1/2	8406'	—	450+200	5590 CBL
New <u>   </u> Existing <u>   </u> Liner						
New <u>   </u> Existing <u>✓</u> OpenHole	4 3/4		8406-8515'			

Depths/Formations: Depths, Ft. Formation Tops? 8008 = MISS

Formation(s) Above	7718 8204	Penn Fussell	✓ ✓	
Injection TOP:	8212-8225	Fussell	Max. PSI <u>1642</u>	OpenHole <u>✓</u> Perfs <u>✓</u>
Injection BOTTOM:	8406-8515 (OH)		Tubing Size <u>27/8</u>	Packer Depth <u>   </u>
Formation(s) Below	8500	Enride	✓	

~~2012~~

Capitan Reef?     (Potash?     Noticed?    ) (WIPD?     Noticed?    ) Salado Top/Bot     Cliff House?    

Fresh Water: Depths: 300' Formation OG allada Wells? 3 Analysis? ✓ Affirmative Statement ✓

Disposal Fluid Analysis? Sources: Fussell / Penn

Disposal Interval: Analysis?     Production Potential/Testing: See MVDLOG

Notice: Newspaper Date 10/2/12 Surface Owner Sharon Butler / Lisa Anderson / Sam Stanford Mineral Owner(s) Faz

RULE 26.7(A) Affected Persons: 9/28/12 (all Armstrong)

AOR: Maps?     Well List?     Producing in Interval? No Wellbore Diagrams?    

.....Active Wells 0 Repairs?     Which Wells?    

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

Issues:     Request Sent     Reply: