

District I
1625 N. French Dr. Hobbs, NM 88240
Phone: (575) 393-6161 Fax (575) 393-0720
District II
811 S. First St. Artesia, NM 88210
Phone: (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax (505) 334-6170
District IV
1220 S. St. Francis Dr. Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

HOBBS OCD

DEC 22 2011

RECEIVED

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised December 16, 2011

Permit

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address BC Operating, Inc. P.O. Box 50820 Midland, Texas 79710		OGRID Number 160825
Property Code 38111		API Number 30-025-39734
Property Name South Denton 6 State		Well No. 2

Surface Location

U/I - Lot D	Section 6	Township 16S	Range 38E	Lot Idn. 84	Feet from 330	N/S Line N	Feet From 330	E/W Line W	County Lea
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Pool Information

SWD - Queen	96117
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Additional Well Information

Work Type Plug Back	Well Type SWD	Cable/Rotary R	Lease Type State	Ground Level Elevation 3751' GR
Multiple	Proposed Depth 6850'	Formation Queen	Contractor	Spud Date 1/6/11
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	12 1/4"	8 5/8"	24#	2019'	1035	Surface
Production	7 7/8"	5 1/2"	15.5#	6500'	980	Surface
Open Hole	4 3/4"	N/A	N/A	6850'	N/A	N/A

Casing/Cement Program: Additional Comments

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Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	3M

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

I further certify that the drilling pit will be constructed according to NMOC guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.

Signature: Pam Stevens

Printed name: Pam Stevens

Title: Regulatory Analyst

E-mail Address: pstevens@bcooperating.com

Date: 12/21/11

Phone: 12/21/11

OIL CONSERVATION DIVISION

Approved By:

Mark Whitaker

Title:

Compliance Officer

Approved Date:

12-27-2011

Expiration Date:

12/27/13

Conditions of Approval Attached

Condition of Approval: Notify OCD Hobbs office 24 hours prior to running MIT Test & Chart.

Permit Expires 2 Years From Approval Date Unless Drilling Underway

Plugback

"CONDITION FOR APPROVAL" Approval for Drilling only. CANNOT Dispose into the wellbore without a Disposal order approved by the Santa Fe OCD Office

Notes R-13325 is disposal approval for San Andres onl

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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-39734	Pool Code 96117	Pool Name SWD; Queen
Property Code 38111	Property Name SOUTH DENTON "6" STATE	Well Number 2 SWD
OGRID No. 160825	Operator Name BC OPERATING	Elevation 3781'

Surface Location

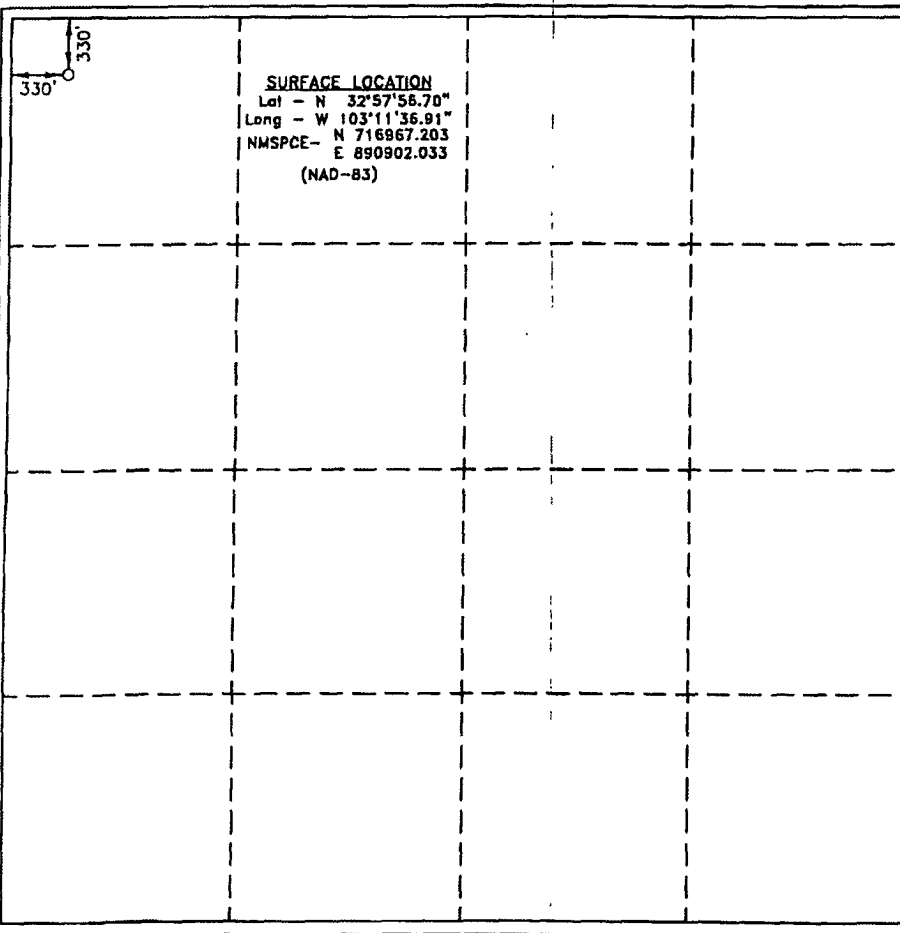
UL or lot No. D	Section 6	Township 16 S	Range 38 E	Lot Idn.	Feet from the 330	North/South line NORTH	Feet from the 330	East/West line WEST	County LEA
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	SURFACE LOCATION Lat - N 32°57'58.70" Long - W 103°11'35.91" NMSPC- N 716967.203 E 890902.033 (NAD-83)
	OPERATOR CERTIFICATION <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>[Signature]</i> 4/13/10 Signature Date Star L Harrell Printed Name</p>
SURVEYOR CERTIFICATION <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 2010 Date Surveyed Signature Professional Surveyor 7877 Certificate No. Gary L. Jones 7877</p> <p>BASIN SURVEYS</p>	

South Denton 6 State #2 SWD
 330' FNL & 330' FWL, Sec. 6, T16S, R38E
 Lea County, New Mexico
 API# 30-025-39734

12/21/2011

SWD Well Recompletion – Queen

Well Data

Tubing: None
 Casing: 5-1/2", 15.5#, J-55 @ 6500' with 980 sx
 TD: 6850' PBTD: 6850' Elevation: 3751' GL 12' KB

San Andres Perforations

5200' – 5222', 5230' – 5238', 5962' – 5970', 6230' – 6240', and 6322' – 6332'

4-3/4" Open Hole (Glorieta)
 6500' – 6850'

Procedure

1. Comply with all company and governmental safety regulations.
2. Rig up pulling unit. ND wellhead and NU BOP.
3. TOH with packer and workstring.
4. MIRU wireline unit. Rig up wireline lubricator. Correlate to Baker open hole log dated 1/14/2011 with GR/CCL.
5. Set CIBP @ 6450' and cap with 35' of cement.
6. Set CIBP @ 5150' and cap with 35' of cement.
7. Perforate the Queen formation as follows:

3-1/8" Slick guns w/ 60 degree phasing & Titan 23 gram Charges (EH-0.43, Pen-37)

Stage #1		Queen	
Top Perf	Bottom Perf	SPF	# of Holes
4,436	4,452	4	64
4,342	4,352	6	60
4,270	4,278	6	48
4,210	4,240	4	120
		Net H	64
		Total Holes	292
		Gross H	242

Visually inspect that all charges have fired. RMDO wireline.

8. TIH with stimulation packer on 2-7/8", 6.5#, J-55 workstring. Set packer at +/-4,100'. Rig up pumping services company. Pressure up on backside to 300# and monitor backside pressure during acid job. Establish injection rate with water. Acidize Queen

- completion 4210' – 4452' with 3000 gallons 15% HCl with no diverter. Avg rate 3 BPM. Overflush bottom of open hole with 20 bbl water. Run step rate injection test TOH, laying down tubing and packer.
9. TIH with 5-1/2", 15.5# nickel plated injection packer (1.87" profile in on/off tool) on 3-1/2", 9.3#, J-55 fiberglass lined injection tubing. Set packer at +/-4160'. Pressure test casing/tubing annulus to 500# for 30 minutes. Flange up wellhead and rig down pulling unit. Schedule MIT with NMOCD.
 10. ND BOP and NU wellhead. RDMO pulling unit. Perform MIT. Leave well shut in. Amend injection permit to cover the Queen formation.
 11. Begin injection into the Queen formation. Gather injection test information and evaluate.

Contacts

Jason Wacker	Operations Manager	432-684-9696
Mike Parker	Workover Supervisor	325-450-5110
Val Saenz	Well Site Supervisor	575-631-9249

LEASE & WELL NO.
FIELD NAME
LOCATION

South Denton 6 State #2 SWD

South Denton

330.FNL & 330.FWL, Sec 6, T16S, R38E

FORMER NAME

COUNTY & STATE Lea Co., NM

API NO.

30-025-39734

K.B. ELEV.

D.F. ELEV.

GROUND LEVEL

3781'

QUEEN (PROPOSED)

Tubing Description

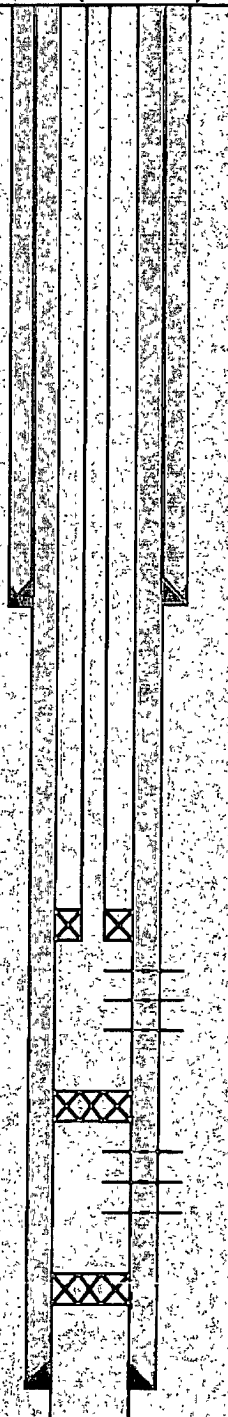
FG 3-1/2", 9:3#, J-55

SURFACE CASING

SIZE 8-5/8" WEIGHT 24.0# DEPTH 2019'
GRADE SX. CMT. 1035 sx TOC @ surface

WELL HISTORY

4/15/2010 APD Approved
8/5/2010 NMOCD Hearing for Injection Permit; permit approved
1/16/2011 Drilled well; no San Andres porosity encountered
Propose to deepen well by 350' to Glorieta
12/21/2011 Deepended to Glorieta & perforated San Andres
No injectivity - tight rock
12/22/2011 Perforate Queen



Inj Pkr @ 4160'

Perf 4436'-4452', 4342'-4353'
4270'-4278', 4210'-4240'

CIBP @ 5150' w/ 35' cmt

Perf 6322'-6332', 6230'-6240'
5962'-5970', 5230'-5238'
5200'-5222'

CIBP @ 6450' w/ 35' cmt

Injection Interval
5200' - 6850'
San Andres & Glorieta

PRODUCTION CASING

SIZE 5-1/2" WEIGHT 15.5# DEPTH 6500'
GRADE SX. CMT. 980 sx TOC @
PBTB@ 6850'
TD@ 6850'

12/22/2011

HJW