

New Mexico Oil Conservation Division

PO Box 5513 Farmington, NM 87499 (505) 325-5449 Fax (505) 325-6585

January 28, 2004

Attn: William Jones

1220 South St. Francis Drive

Santa Fe, NM 87505

RE:

Class II Application

Injection Well

Bois d' Arc SWD # 1 (039-043-20981)

Sec 22 – T21NR05W Sandoval County, NM

Dear Mr. Jones:

Thank you for timely addressing our administrative application for salt water disposal on this well.

Please find enclosed an updated wellbore diagram, demonstrating the requested modification to the perforations for salt water disposal. The Cubero member of the Dakota has been added, with future permitted perforations from 5920' to 5940'. The permitted depth range for the disposal application should read from 5920' to 6093'.

The surface owner, Bureau of Land Management – AFO, is noticed by copy of this letter.

An updated Public Notice has been placed in both the Farmington Daily Times and the Sandoval Signpost. Notice was placed on January 26, 2004. We will forward the official affidavit copies of this notice upon our receipt from each respective newspaper.

We appreciate your assistance in obtaining our SWD approval, and we look forward to receiving our injection permit.

Best regards,

Thomas E. Mullins Engineering Manager

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cc:

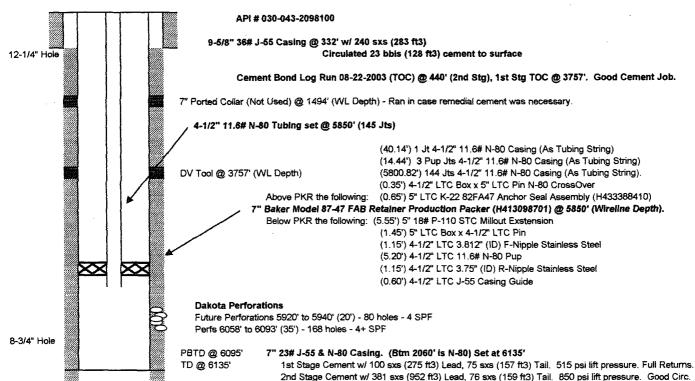
**BLM-AFO** 

NMOCD-Aztec – Steve Hayden

Bois d' Arc SWD # 1 Unit I, Section 22-T21N-R05W 2025' FSL, 675' FEL 7207' GL, 12' KB

Key Rig # 47 BHWS # 2 Spud: 07/21/03 Completed: 10/28/03

Lease # NMNM-105533



Formation T	ops
San Jose	surf
Nacimiento	- 1
Ojo Alamo	940'
Kirtland	1093'
Fruitland	1204
Pict Cliffs	1439'
Lewis	1544'
Cliffhouse	2186'
Menefee	2922'
Pt. Lookout	3751
Mancos	4058'
Gallup	4590'
Greenhorn	5668'
Dakota	5725'
L. Dakota	5999'

Specialty Logs, Misc Mud Log (1000'-TD)

Open Hole Logs (HES)
Gr-Ind-Neu-Dens (07-31-03)

Cased Hole Logs (Blue Jet) GR-CCL-CBL (08-22-03)

Thomas E. Mullins January 5, 2003 Updated January 26, 2004

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08-18-03

08-25-03

	Drill 15' cement, and 2' of Stage Tool. Circulate Clean. Pull up. SDFN.
08-19-03	SM. Make Connection. Drill through Stage Tool at 3770'. HB Swivel. GIH w/ 2-7/8" tubing & BHA. Tag fill at 6100'.
	Drill and CO to 6110', Very Hard Drilling. Circulate Clean. COOH, Laying Down 2-7/8" 6.5# tubing and Six (6) DCs.
08-20-03	SM. Load out DCs. RU Blue Jet. RIH w/ GR-CCL-CBL logging tool. Tag PBTD of 6104'. Pull up. Soft fill. Start to log
	off of bottom. Logging Tool stuck in well. Work tool. No Success. Pull out of rope socket. RD Blue Jet.
	Rig Repairs to Elevators. MU grapple, OS, with guide. GIH on 2-7/8" tubing, picking up. Tag top of fish at 6069'.
	Work over fish. Engage fish. COOH w/ 2-7/8" tubing. Breakout and lay down fish. Inpsect logging tools. Metal & LCM.
08-21-03	SM. MU Bailer, and GIH on 2-7/8" tubing. Tag Fill. Bail hole on bottom. CO 5' fill to new PBTD of 6095'. COOH
	Laying down 2-7/8" tubing. ND Stripping head. Check bailer, containing metal fragments of Stage Tool, LCM, debris.
	PT casing to 500 psi. Good test. Hole loaded for logging in AM. SDFN.

08-22-03 SM. RU Blue Jet. RIH w/ Magnet. PBTD at 6093'. Recover Metal. RIH w/ GR-CCL-CBL log. Log well from PBTD 6093' to Surface with 500 psi pressure. Good Cement Coverage to Surface. Perforate Dakota formation from 6058' to 6093' with 168 holes (35'). Attempt to Breakdown perfs down casing to 2,850 psi. No break. RIH w/ wireline set permanent production packer. Set PKR at 5850'. POOH. RD Blue Jet. Secure Well location.

08-23-03 SM. RU Casing Crew. MU Seal Assembly. GIH w/ 4-1/2" 11.6# N-80 Casing as tubing string. Engage Permanent PKR.

SM. ND WH. NU BOPE. PU 6-1/4" bit, Six (6) 4-3/4" DCs, and GIH on 2-7/8" tubing. Tag Cement above Stage Tool.

SM. RU Casing Crew. MU Seal Assembly. GiH w/ 4-1/2" 11:6# N-80 Casing as tubing string. Engage Permanent PKR. Space out casing. Pump 30 gallons C-1000 PKR fluid in water down casing. Engage PKR, and Land 4-1/2" tubing with 3 pup jts and 144 full jts at 5850". Landed in 10K compression. ND BOPE. NU WH w/ 4-1/16" 5K valving. PT annulus to 700 psi. Good Test. Secure Well Location.

SM. Rig down pump and lines. RD. Move to the Bois d' Arc Divide 22 # 1

10-28-03 Perfs 6058' to 6093' (35') - 168 holes

SM. RU BJ Services. PT lines 6000#. BD Dakota Perforations 6058' to 6093' (35') at 3750 psi. Pump 750 gals 15% HCl acid with 20 bio-ball sealers. Displace with water. Perform Step Rate Injectivity Test to determine frac gradient. Pumping entirely below the fracture gradient. 1.5 BPM 1040#, 2.0 BPM 1133#, 3.0 BPM 1215#, 4.0 BPM 1270#, 6.0 BPM 1360# 7.0 BPM 1430#. ISIP 1040#. Use 2000# maximum pressure limit, yielding 0.76 psi/ft gradient, well below anticipated frac gradient of 0.8 psi/ft. Total Fluid Used 981 bbls. SD. RD BJ Services.

## 8 Legals

## NOTICE

The following amended Class II water disposal injection application has been submitted to the Director of the New Mexico Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico, 87505. Telephone (505) 476-3440

Synergy Operating, LLC, PO Box 5513, Farmington, NM 87499 hereby gives "Proof of Notice" of its intention to apply for Administrative Approval of Application for Authorization to Inject for the Bois d' Arc SWD # 1 (API # 039-043-20981) well located 2025" FSL, 675' FEL, Unit I, Section 22, T21NR05W, Sandoval County, NM. The Class II Application Administrative seeks approval to inject an average of 4,000 barrels of produced water per day at an average surface injection pressure of 1400 psi. The permissible maximum injection volume would be 10,100 barrels of produced water per day at a maximum permissible surface injection pressure of 2000 psi. The Dakota formation is the disposal zone. Disposal perforations are from 5920' to 6093' in depth. Injection will occur through tubing and a permanent packer at 5850' in depth. Interested parties may contact the New Mexico Oil Conservation Division, 1220 South St. Francis Dr, Santa Fe, NM 87505 for comment for fifteen (15) days.

Legal No. 49193 published in The Daily Times, Farmington, New Mexico on Monday, January 26, 2004.

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