1/9/04 LR SWD PLR0400928430

Synergy Operating, LLC

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

WVS

January 7, 2004

New Mexico Oil Conservation Division
Attn: William Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Class II Application
Injection Well
Bois d' Arc SWD # 1 (030-043-20981)
UNIT I/NESE/ Sec 22 – T21NR05W 2025FSL 675FEL
Sandoval County, NM

Dear Mr. Jones:

Thank you for taking my phone call the other day regarding this matter. Please find attached the completed "Application For Authorization to Inject" for the above well.

Synergy will be forwarding copies and affidavits of the "Public Notice" that are being placed in both the Farmington Daily Times and the Sandoval Signpost.

This injection well is of central importance to our planned Meneffe (Coal Bed) development pod, consisting of five (5) producing wells. All produced waters are to be disposed of in this wellbore.

We have three (3) of the five (5) wells completed, and our awaiting this application's approval to start-up our facility.

A copy of this application is being sent to the Bureau of Land Management (Albuquerque Field Office), the owner of the surface covering the "Area of Review".

Synergy Operating, LLC is the operator in New Mexico for Comstock Oil and Gas Resources and Bois d' Arc Offshore, Ltd. The record title holder of the majority of our minerals.

This facility will play a key part in determining the cost effectiveness of developing Meneffe Coal Bed Methane resources on the Chaco Slope of the San Juan Basin.

If there are any deficiencies or concerns with the application, please contact me directly at (505) 566-3725.

Warm regards,

Thomas E. Mullins
Engineering Manager

tem

cc: BLM-AFO
NMOCD-Aztec

1/29/04 complete application + 15 days = 2/13/04 issue date

Synergy Operating, LLC

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

RECEIVED
JAN 29 2004
OIL CONSERVATION DIVISION

January 28, 2004

New Mexico Oil Conservation Division
Attn: William Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Class II Application
Injection Well
Bois d' Arc SWD # 1 (30-043-20981)
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

tem
cc: BLM-AFO
NMOCD-Aztec – Steve Hayden

Synergy Operating, LLC

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

January 16, 2004

New Mexico Oil Conservation Division
Attn: William Jones
1220 South St Francis Drive
Santa Fe, NM 87505

RECEIVED
JAN 21 2004
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: Class II Application
Injection Well
Bois d' Arc SWD # 1 (30-043-20981)
Sec 22 – T21NR05W
Sandoval County, NM

Dear Mr. Jones:

Thank you for the phone call regarding our application. I hope I was able to answer your concerns.

Please find enclosed a copy of the Pason Mud Log for the SWD well indicating no hydrocarbon shows through the Dakota.

Also, please find enclosed an Affidavit of Publication regarding our notice in the Farmington Daily Times, run on January 8th and 11th, 2004.

I would be happy to answer any additional concerns that you may have by phone at (505) 566-3725, or e-mail: tom.mullins@synergyoperating.com.

Best regards,

Thomas E. Mullins
Engineering Manager

tem
cc: BLM-AFO - Affidavit only
NMOCD-Aztec – Affidavit only

Synergy Operating, LLC

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

February 10, 2004

New Mexico Oil Conservation Division
Attn: William Jones
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Class II Application
Injection Well
Bois d' Arc SWD # 1 (30-043-20981)
Sec 22 – T21NR05W
Sandoval County, NM

Dear Mr. Jones:

Please find enclosed an official Affidavit of Publication for the re-notice on the above well.

I have also included a photocopy of the notice placed in the Sandoval Signpost. These items were placed on January 26, 2004.

We appreciate your assistance in obtaining our SWD approval, and look forward to the start of injection operations upon receipt of our approved application.

Best regards,

Thomas E. Mullins
Engineering Manager

tem

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance **XXX** Disposal _____ Storage
Application qualifies for administrative approval? **XXX** Yes _____ No

II. OPERATOR: **Synergy Operating, LLC** **(Well API # 030-043-20981)**

ADDRESS: **PO Box 5513, Farmington, NM 87499** **(OGRID # 163458)**

CONTACT PARTY: **Thomas E. Mullins** PHONE: **(505) 325-5449**

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 **XXX** 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. **SEE ATTACHED**

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:

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. 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: **Thomas E. Mullins** TITLE: **Engineering Manager**

SIGNATURE: _____ DATE: 1-7-05

E-MAIL ADDRESS: **tom.mullins@synergyoperating.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: **Sundry Notices, Completion Reports**

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

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 **(SEE 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.

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.

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.

Synergy Operating, LLC

Application for Authority to Inject
Bois d' Arc SWD # 1

I. See Main Page

II. See Main Page

III. See Wellbore Diagram for the Bois d' Arc SWD # 1 (Attached). \

A. (1) Bois d' Arc SWD # 1 (API # 030-043-20981)
2025' FWL, 675' FEL (Unit I)
Sec 22, T21NR05W
Sandoval County, NM

(2) Cement Coverage is from 6135' to 440' on 7" 23# Production Casing String. Tops of Cement are determined from the attached GR-CBL log run 08-22-2003. The log was run under 500 psi pressure.

(3) The Tubing String is a 4-1/2" 11.6# N-80 Casing String. There is no lining material. The tubing is set inside the permanent packer at 5,850'.

(4) The Packer is a 7" Baker Model 87-47 FAB Production Packer. The Seal Assembly is a Baker K-22 82FA47 Seal Assembly. See Wellbore diagram for specifics.

B. (1) The injection formation is the Dakota. The pool is the WC21N5W22I Dakota. See 1/28/04 letter

5920

(2) The injection interval is perforated (through casing) from ~~6058~~' to 6093' (35'). There are a total of 168 perforations in this interval.

(3) This well was specifically drilled and configured for injection.

(4) There are no other perforated intervals in this wellbore.

(5) The next shallower formation within this wellbore that may contain oil or gas is the Gallup formation. It lies approximately 1,400 feet above the disposal zone. The next deeper formation that may contain oil or gas, that lies beneath, the disposal zone, is the Entrada. It lies approximately 900 feet below the disposal zone.

IV. No. This is not an expansion of an existing project.

V. See the two (2) Attached Maps. The full circle is the one-half (1/2) mile radius circle defining the "Area of Review". The dashed circle is a one (1) mile radius circle for investigation of additional wells.

VI. See the attached spreadsheet of information. There are NO WELLS within the "Area of Review" that penetrate the Dakota formation. There is one (1) well within the expanded one (1) mile radius that penetrates the Dakota formation. A detailed wellbore diagram of this well, the Dome Petroleum Ltd, Federal 22 # 1, is included in the data package.

VII. 1. What is the proposed average and maximum daily rate and volume of fluids to be injected?

Average Volume: 4,000 BWPD Maximum Volume: 10,100 BWPD

2. Whether the system is open or closed?

The system is a CLOSED system.

3. Proposed Average and Maximum Injection Pressure?

Average Pressure: 1400 psi Maximum Pressure: 2000 psi

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation, if other than re-injected produced water?

The injection water will be Meneffe formation produced water. This water has been analyzed per the attached data sheets. The basic components are summarized here.

TDS	22,000 to 36,000	ppm
Hardness	460 to 1250	ppm
Bi-Carbonate	1250 to 1260	ppm
Iron	0 to 3	ppm
Barium	0	ppm
Magnesium	40 to 90	ppm
PH	7.5 to 7.9	

5. Attach a chemical analysis of the disposal zone formation water. This water is analyzed per the attached sheets from a Dakota test approximately 6 miles south of the SWD # 1 well.

TDS	14,600 to 15,200	ppm
Hardness	776 to 795	ppm
Bi-Carbonate	460 to 485	ppm
Iron	0 to 3	ppm
Barium	0	ppm
Magnesium	29 to 39	ppm
PH	7.1 to 7.3	

The waters appear to be compatible and no adverse reactions have been noted in the literature. In fact, the Dakota formation and the Mesaverde formation, are approved for downhole commingle throughout much of San Juan Basin. No Adverse effects should occur.

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 (acquifers containing waters with total disolved solids (tds) 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.

The Dakota formation is made up of several Sandstone bodies, some of which are deposited in a marine environment and some deposited in fluvial environment. The injection zone is a fluvial sandstone of the Lower Dakota, sometimes referred to as the Burro Canyon and/or Encinal Canyon Sandstone. In this area, the formation is indicated as part of the Dakota. This principal disposal zone in the SWD # 1 wellbore is approximately 104 feet in total thickness from 5998' to 6102' (104'). The most permeable and porous interval of this sandstone body is located from 6043' to 6102' (59'). Synergy has concentrated the disposal perforations from 6058' to 6093' (35'). The average density porosity of this interval is approximately 19%, with peak porosity of 26%. This porous sand body has excellent permeability, and no additional stimulation is anticipated to this interval to allow for maximum disposal capability.

A future marine sandstone body of the Dakota, the ~~Two Wells (?) member~~ Cubero from 5920' to 5940' (20'), has uphole disposal potential with in the Dakota. Synergy does not foresee the need to utilize this additional Dakota sandstone body for disposal for the foreseeable future. Should this additional zone be required, written request will be made to the NMOCD.

Dakota produced water samples were taken from swab testing of this same Lower Dakota interval in the Bois d' Arc Encino 15 # 1 well (Unit A, Sec 15-

T20NR05W, McKinley County, NM). These samples were taken after different swab runs to verify the consistency of the Dakota formation waters.

There do not appear to be any fresh water aquifers immediately underlying the injection interval. The Morrison (Jurassic) formation was utilized as a water source for Uranium Mining to the Southwest of the subject area near Crownpoint, NM. No water quality information is available from the Morrison formation in the Area of Review. It should be noted that where the Morrison formation was utilized for water to the Southwest, the depth to the Morrison formation was only several hundred feet. This Surface Aquifer is different from the Morrison formation at depth in the interior of the San Juan Basin. Water recharge occurs on the flanks of the San Juan Basin, with the flow gradient toward the deeper portions of the San Juan Basin.

Above the injection interval, several shallow sandstone bodies are believed to contain (< 10,000 mg/l) total dissolved solids. These formations include the Ojo Alamo Sandstone and the Nacimiento Sandstone. The formation top of the Ojo Alamo sandstone is at 940', while the Nacimiento believed to be at surface.

IX. Describe the proposed stimulation program, if any. None Planned. 750 gallons of 15% HCl acid was used to breakdown the perforations. No stimulation required.

X. Attach appropriate logging and test data on the well. Well Logs are included, both Openhole and Cased Hole. Cement Bond Quality is very good, with a top of cement at 440' (slight fallback from surface). Attached is a step rate pump in test utilized to indicate the injectivity of the Dakota zone in this wellbore. Synergy believes that the Dakota will accept all volumes of water at maximum rate, up to 10,000 BWPD, at an injection pressure less than 2,000 psi. We expect injection pressures to remain between 1,300 and 1,500 psi for the life of the well. Synergy has not exceeded the fracture gradient of the Dakota in this wellbore. 1400 psi / 6058 feet, yields a gradient of 0.23 psi/ft above the hydrostatic gradient. The maximum pressure of 2000 psi, will yield an approved injection gradient of 0.33 psi/ft above the hydrostatic gradient. The well will go on a vacuum after sufficient shut-in time.

The Tubing-Casing annulus has been successfully pressure tested to 750 psi and the pressure held for 30 minutes. Corrosion Inhibited Packer Fluid was placed in the annulus. This facility has automation equipment installed. Pressures, injection rates, and annulus pressure will be monitored continuously.

XI. No fresh water sources are available within one (1) mile of the subject injection well.

XII. Synergy Operating, LLC has analyzed all of the available proprietary and publicly available information regarding the geologic and engineering data. We have

identified no "open faults" or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicant has completed the "Proof of Notice". There are no offsetting parties to notify per the application ½ mile boundary. Synergy investigated a 1-mile boundary and again no offsetting parties require notification.

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: Thomas E. Mullins Title: Engineering Manager

Signature: _____ Date: 1-7-03

E-mail Address: tom.mullins@synergyoperating.com

* Some of the above information may have been submitted previously through either Sundry Notice, and/or a completion report.

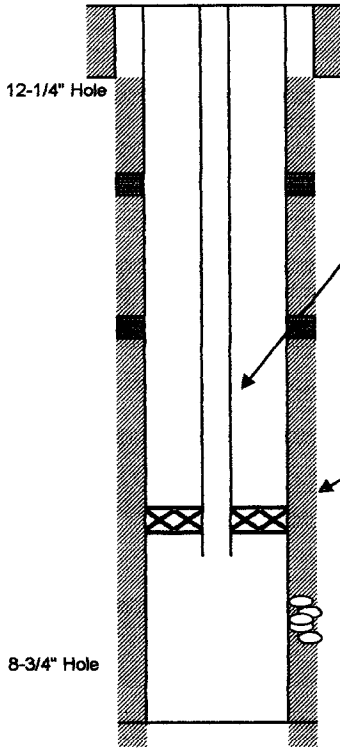
Bois d' Arc SWD # 1
Unit I, Section 22-T21N-R05W
2025' FSL, 675' FEL
7207' GL, 12' KB

Key Rig # 47
BHWS # 2

Spud: 07/21/03
Completed: 10/28/03

Lease # NMNM-105533

API # 030-043-2098100



9-5/8" 36# J-55 Casing @ 332' w/ 240 sxs (283 ft3)
Circulated 23 bbls (128 ft3) cement to surface

Cement Bond Log Run 08-22-2003 (TOC) @ 440' (2nd Stg), 1st Stg TOC @ 3757'. Good Cement Job.

7" Ported Collar (Not Used) @ 1494' (WL Depth) - Ran in case remedial cement was necessary.

4-1/2" 11.6# N-80 Tubing set @ 5850' (145 Jts)

DV Tool @ 3757' (WL Depth)

(40.14') 1 Jt 4-1/2" 11.6# N-80 Casing (As Tubing String)
(14.44') 3 Pup Jts 4-1/2" 11.6# N-80 Casing (As Tubing String)
(5800.82') 144 Jts 4-1/2" 11.6# N-80 Casing (As Tubing String).
(0.35') 4-1/2" LTC Box x 5" LTC Pin N-80 CrossOver
Above PKR the following: (0.65') 5" LTC K-22 82FA47 Anchor Seal Assembly (H433388410)
7" Baker Model 87-47 FAB Retainer Production Packer (H413098701) @ 5850' (Wireline Depth).
Below PKR the following: (5.55') 5" 18# P-110 STC Millout Exstension
(1.45') 5" LTC Box x 4-1/2" LTC Pin
(1.15') 4-1/2" LTC 3.812" (ID) F-Nipple Stainless Steel
(5.20') 4-1/2" LTC 11.6# N-80 Pup
(1.15') 4-1/2" LTC 3.75" (ID) R-Nipple Stainless Steel
(0.60') 4-1/2" LTC J-55 Casing Guide

Dakota Perforations
Future Perforations 5920' to 5940' (20') - 80 holes - 4 SPF
Perfs 6058' to 6093' (35') - 168 holes - 4+ SPF

PBTD @ 6095'
TD @ 6135'

7" 23# J-55 & N-80 Casing. (Btm 2060' is N-80) Set at 6135'
1st Stage Cement w/ 100 sxs (275 ft3) Lead, 75 sxs (157 ft3) Tail. 515 psi lift pressure. Full Returns.
2nd Stage Cement w/ 381 sxs (952 ft3) Lead, 76 sxs (159 ft3) Tail. 850 psi lift pressure. Good Circ.

Formation Tops	
San Jose	surf
Nacimiento	
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'

Formation Name: **Dakota**

08-18-03 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. 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. 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.

08-25-03 SM. Rig down pump and lines. RD. Move to the Bois d' Arc Divide 22 # 1

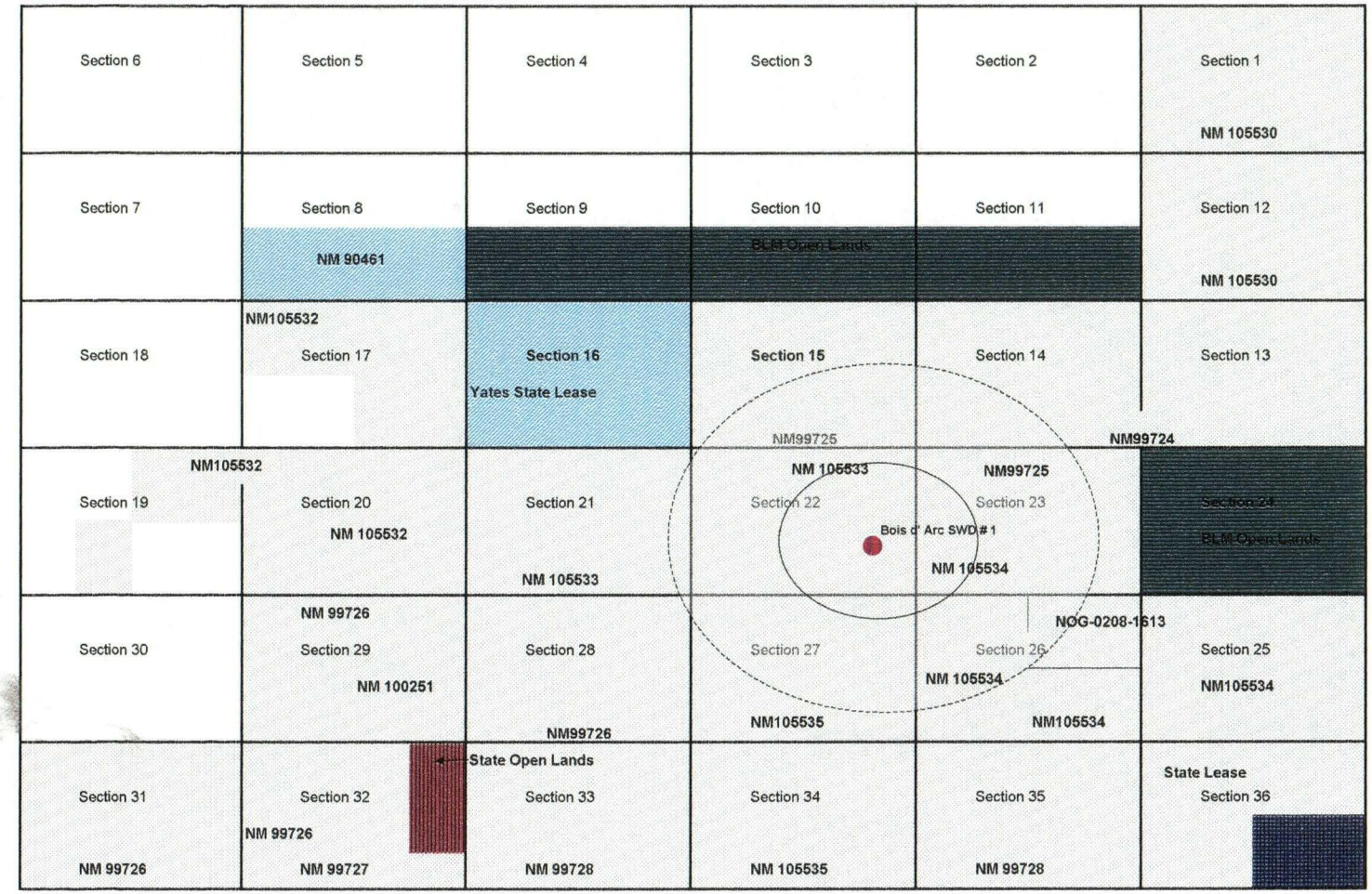
10-28-03 Perfs 6058' to 6093' (35') - 168 holes
SM. RU BJ Services. PT lines 6000#. BD Dakota Perforations 6058' to 6093' (35') at 3750 psi. Pump 750 gals 15% HCl acid with 20 bio-ball sealers. Displace with water. Perform Step Rate Injectivity Test to determine frac gradient. Pumping entirely below 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.

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

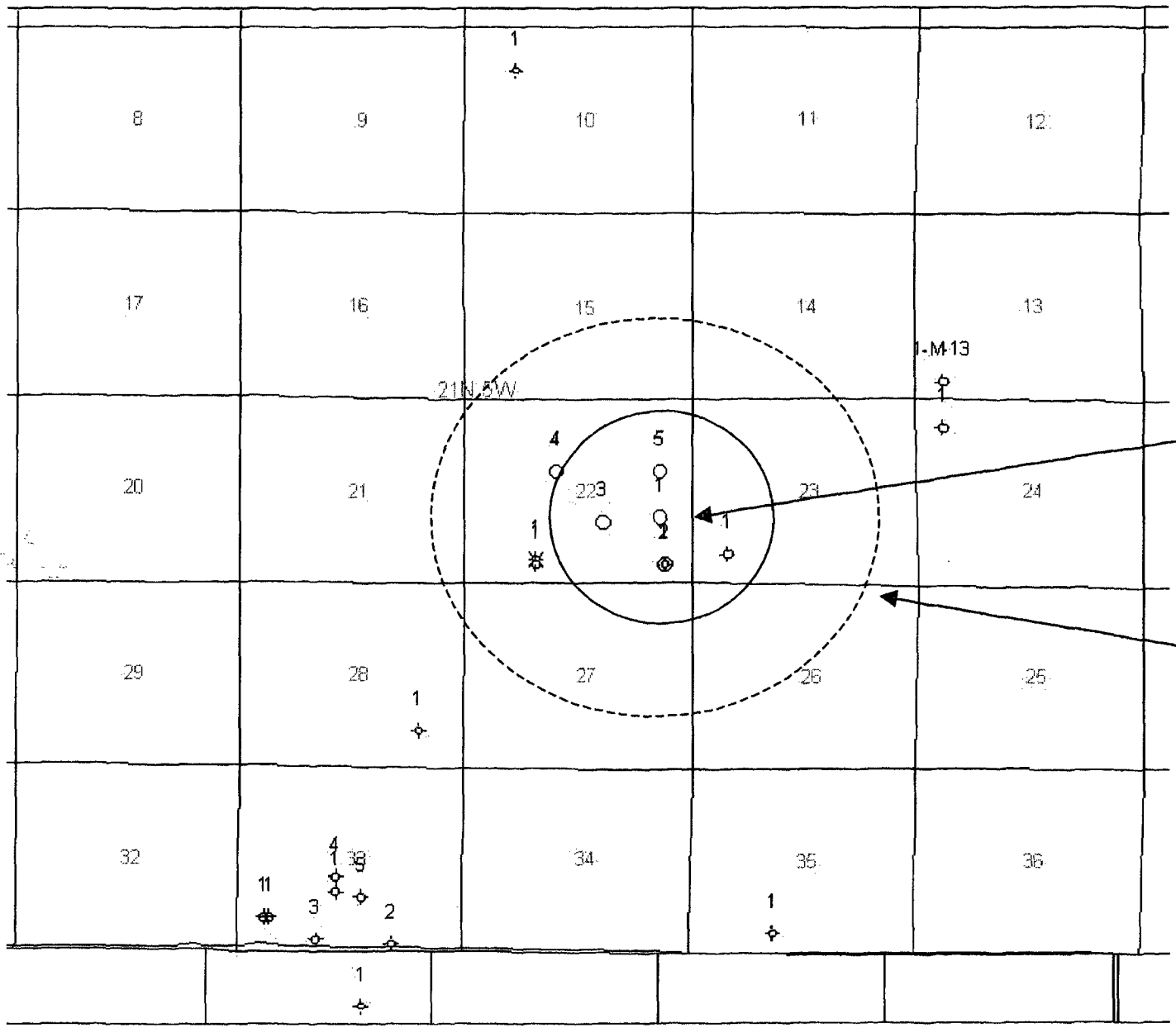


Bois d' Arc SWD # 1 - 2025' FSL, 675' FEL, Unit I, Section 22 - T21NR05W

Owner # 1:	Comstock Oil & Gas, Inc.	NMNM-99724	T21NR05W, Sec 13 All, Sec 14 All
	Comstock Oil & Gas, Inc.	NMNM-99725	T21NR05W, Sec 15 All, Sec 19 Lots 3,4, E2SW, Sec 23 N2, SE
	Comstock Oil & Gas, Inc.	NMNM-99726	T21NR05W, Sec 28 All, Sec 29 N2, SESW, NESE, S2SE, Sec 31 All, Sec 32 NWNE, W2
	Comstock Oil & Gas, Inc.	NMNM-99727	T21NR05W, Sec 32 SWNE, W2SE, SESE
	Comstock Oil & Gas, Inc.	NMNM-99728	T21NR05W, Sec 33 All, Sec 35 All
	Comstock Oil & Gas, Inc.	NMNM-100251	T21NR05W, Sec 29 N2SW, SWSW, NWSE
	Comstock Oil & Gas, Inc.	NMNM-105530	T21NR05W, Sec 1 All, Sec 12 All
	Comstock Oil & Gas, Inc.	NMNM-105532	T21NR05W, Sec 17 E2, NW, Sec 19 NE, Sec 20 E2
	Comstock Oil & Gas, Inc.	NMNM-105533	T21NR05W, Sec 21 All, Sec 22 All
	Comstock Oil & Gas, Inc.	NMNM-105534	T21NR05W, Sec 23 SW, Sec 25 All, Sec 26 W2, SE
	Comstock Oil & Gas, Inc.	NMNM-105535	T21NR05W, Sec 27 All, Sec 34 All
	Comstock Oil & Gas, Inc.	NOG-0208-1613	T21NR05W, Sec 26 NE Allotment # 448
	Comstock Oil & Gas, Inc.	State Lease	T21NR05W, Sec 36 W2, NE
Owner # 2:	Yates Oil & Gas	NM90461	T21NR05W, Sec 8, S2
	Yates Oil & Gas	Unknown State Lease Number (QCD # 2457)	T21NR05W, Sec 16 All
Owner # 3:	EDC	Allotment # 414	T21NR05W, Sec 36 SE Allotment # 414
Owner # 4:	BLM (Open Lands)	Open Lands	T21NR05W, Sec 9 S2
	BLM (Open Lands)	Open Lands	T21NR05W, Sec 10 S2
	BLM (Open Lands)	Open Lands	T21NR05W, Sec 11 S2
	BLM (Open Lands)	Open Lands	T21NR05W, Sec 24 All
Owner # 5:	State (Open Lands)	Open Lands	T21NR05W, Sec 32 E2NE, NESE

Bois d' Arc SWD # 1
2025' FSL, 675' FEL,
Unit I, Sec 22 T21NR05W
Sandoval County, NM

Synergy Operating, LLC
Application for Authorization to Inject



Bois d' Arc SWD # 1
w/ 1/2 mile radius circle
defining area of review

Dashed Line 1-mile radius

Bois d' Arc SWD # 1
2025' FSL, 675' FEL,
Unit I, Sec 22 T21NR05W
Sandoval County, NM

Synergy Operating, LLC
Application for Authorization
to Inject

Synergy Operating, LLC

Bois d' Arc SWD # 1 - Application for Dispoal Well
Supporting Information

Well Number	LEASE NAME	Well #	OPERATOR NAME	API	SPUD DATE	COMP DATE	TWP	RNG	SEC	FIELD NAME	DRILLER TD	GROUND EL	KB ELEV	CSG DEPTH	CSG SIZE
1	CEJA PELCN 6	13	GARY-WILLIAMS OIL PR	30043207530000	19850331	19870320	21	4	6	UNNAMED	2370	7100	7110	197;2345	8 5/8 IN;4 1/2 IN
2	FEDERAL 10-21-5	1	BENSON MINRL GROUP	30043203480000	19780629	19780705	21	5	10	WILDCAT	2275	7175		97;2263	7 IN;4 1/2 IN
3	U S A	1-M-13	UNION OIL CO OF CAL	30043200670000	19710319	19710614	21	5	13	WILDCAT	12000	7136	7152	293;6270	13 3/8 IN;9 5/8 IN
4	** BOIS D' ARC SWD	1	SYNERGY OPERATING	30043209810000	20030720		21	5	22	UNNAMED		7207			
5	BOIS D ARC DIVIDE 22	1	SYNERGY OPERATING	30043209520000	20011105	20021112	21	5	22	UNNAMED	3848	7304		162;3848	8 5/8 IN;5 1/2 IN
6	FEDERAL-22	1	DOME PETROLEUM LTD	30043202330000	19761116	19761217	21	5	22	WILDCAT	7135	7299	7312	199	10 3/4 IN
7	BOIS D' ARC DIVIDE 22	3	SYNERGY OPERATING	30043209830000	20030809		21	5	22	WILDCAT		7235			
8	BOIS D' ARC DIVIDE 22	2	SYNERGY OPERATING	30043209820000	20030802		21	5	22	WILDCAT		7238			
9	BOIS D' ARC DIVIDE 22	4	SYNERGY OPERATING	30043209800000			21	5	22	WILDCAT		7295			
10	BOIS D' ARC DIVIDE 22	5	SYNERGY OPERATING	30043209790000	20030820		21	5	22	WILDCAT		7213			
11	POOL-FOUR	1	SHELL OIL CO	30043600380000	19570815	19570901	21	5	22	WILDCAT	5095	7232	7242	215	8 5/8 IN
12	FEDERAL 23-21-5	1	BENSON MINRL GROUP	30043203680000	19780930	19790915	21	5	23	WILDCAT	1513	7204		96;1512	7 IN;4 1/2 IN
13	DEER MESA-FEDERAL	1	MERRION O&G CORP	30043207630000	19850530	19851115	21	5	24	WILDCAT	3998	7104	7112	94;3987	8 5/8 IN;4 1/2 IN
14	FEDERAL 28-21-5	1	BENSON MINRL GROUP	30043203640000	19780831	19800606	21	5	28	WILDCAT	1111	6922		87;1011	7 IN;4 1/2 IN
15	FEDERAL-33	1	FILON EXPL CORP	30043201700000	19750710	19750727	21	5	33	WILDCAT	6561	6882	6894	219	10 3/4 IN
16	BROWN	1	HANCOCK J D ETAL	30043051300000	19510419	19510620	21	5	33	WILDCAT	5623	6850		218	10 3/4 IN
17	FEDERAL-33	5	FILON EXPL CORP	30043202140000	19760430	19760517	21	5	33	WILDCAT	6627	6913	6926	189	10 3/4 IN
18	FEDERAL-33	4	FILON EXPL CORP	30043201970000	19751115	19751129	21	5	33	WILDCAT	6605	6872	6886	237	10 3/4 IN
19	FEDERAL-33	2	FILON EXPL CORP	30043201760000	19750809	19750830	21	5	33	WILDCAT	6690	7014	7028	216	10 3/4 IN
20	BOIS D ARC CEJITA BLA	1	SYNERGY OPERATING	30043209510000	20020407	20030808	21	5	33	WILDCAT	3166	6850		162;3166	8 5/8 IN;5 1/2 IN
21	FEDERAL-33	3	FILON EXPL CORP	30043201910000	19751016	19751108	21	5	33	WILDCAT	6387	6842	6857	236;6363	10 3/4 IN;5 1/2 IN
22	SHELL-HALL	1	SHELL OIL CO	30043051290000	19570428	19570521	21	5	35	WILDCAT	5681	6893		220	8 5/8 IN

There are Twenty (22) Wells Listed on the Analysis Map

Wells in Bold are Within the "Area of Review"
There are Six (6) Wells that qualify for further analysis (within 1/2 mile of the subject well). Listed Below:

1	BOIS D' ARC DIVIDE 22	3	SYNERGY OPERATING	30043209830000	20030809		21	5	22	WILDCAT		7235		
2	BOIS D' ARC DIVIDE 22	2	SYNERGY OPERATING	30043209820000	20030802		21	5	22	WILDCAT		7238		
3	BOIS D' ARC DIVIDE 22	4	SYNERGY OPERATING	30043209800000			21	5	22	WILDCAT		7295		
4	BOIS D' ARC DIVIDE 22	5	SYNERGY OPERATING	30043209790000	20030820		21	5	22	WILDCAT		7213		
5	POOL-FOUR	1	SHELL OIL CO	30043600380000	19570815	19570901	21	5	22	WILDCAT	5095	7232	7242	215 8 5/8 IN
6	FEDERAL 23-21-5	1	BENSON MINRL GROUP	30043203680000	19780930	19790915	21	5	23	WILDCAT	1513	7204		96;1512 7 IN;4 1/2 IN

None of these Six (6) Wells Penetrate the Disposal (Dakota) Formation

The Closest Well that does penetrate the Dakota Formation is:

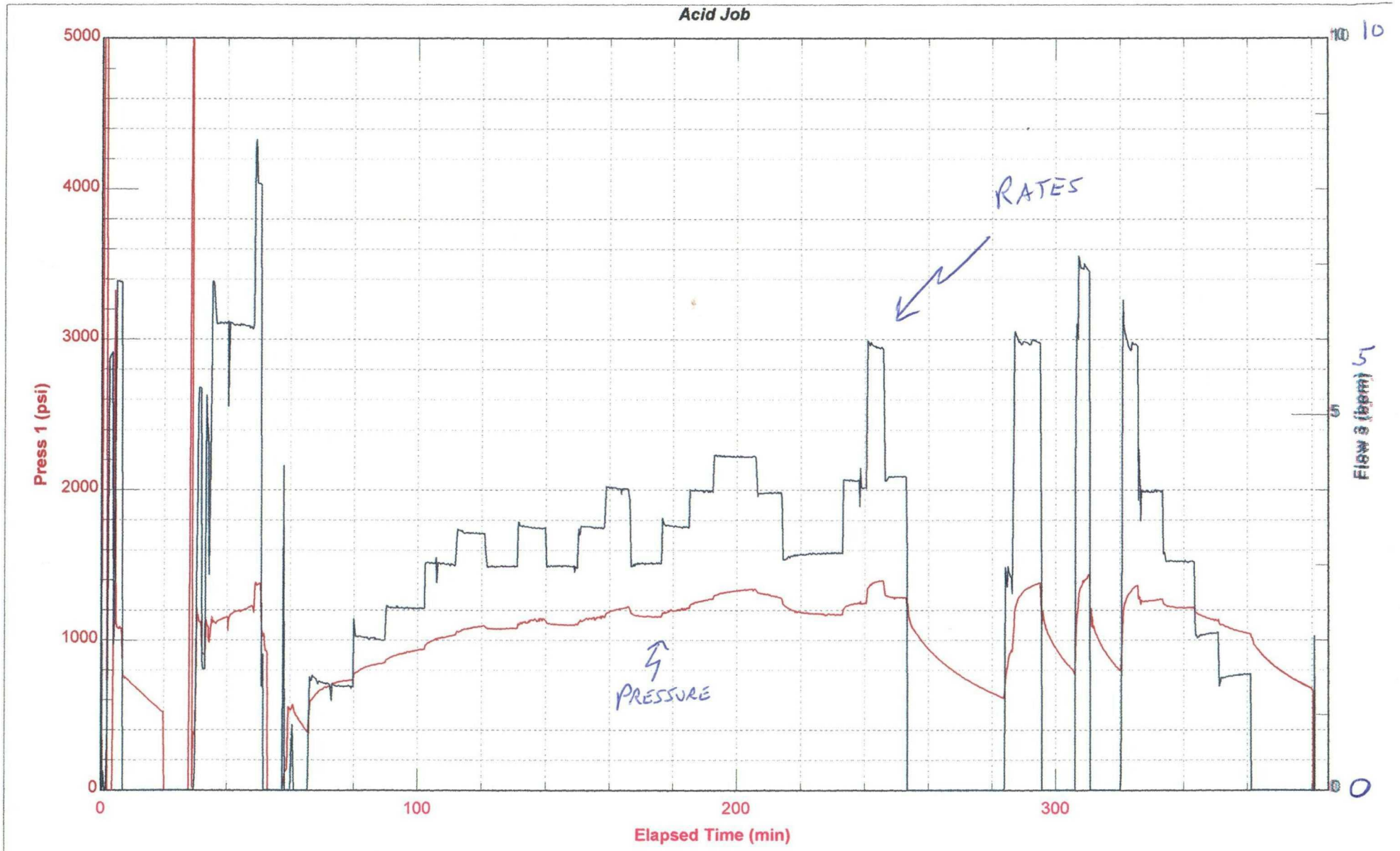
1	FEDERAL-22	1	DOME PETROLEUM LTD	30043202330000	19761116	19761217	21	5	22	WILDCAT	7135	7299	7312	199 10 3/4 IN

This well has plugging cement coverage across the Dakota and uphole zones. Please see detailed Wellbore Diagram

Prepared by TEM 01-05-2004

BJ Services JobMaster Program Version 2.61

Job Number: 216428685
Customer: SYNERGY
Well Name: BOIS D' ARC SWD 1



Tom.

STIMULATION TREATMENT REPORT

Date 27-OCT-03 District Farmington F.Receipt 216428685 Customer Synergy Operating, LLC
Lease BOIS D` ARC SWD 1 Well Name BOIS D` ARC SWD 1
Field UNNAMED Location 22-21N-5W
County Sandoval State New Mexico Stage No 1 Well API - API 30043209810000

WELL DATA Well Type: NEW Well Class: DISPOSAL Depth TD/PB: 6093 Formation: DAKOTA

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	TBG	4	11.6	3.428	N-80	0	5850
TUBULAR	CSG	7	23	6.366	N-80	5850	6093

Perf Intervals

Top	Bottom	SPF	Diameter
6058	6093	5	.38

Packer Type MODEL B Packer Depth 5850 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
TREATMENT FLUID	15% hCL	750
TREATMENT FLUID	PRODUCED WATER	40,488

Prop. Description	Volume Pumped(Lbs)
NO PROPPANT	

Total Prop Qty:

Previous Treatment NO Previous Production NO
Hole Loaded With PRODUCED WA Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: In Stages Type
Auxiliary Materials 5 GALS FERROTROL-300L, 3 GALS CI-25

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	91
Casing Cap.	8.4
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	9
Pad Volume	25
Treating Fluid	17
Flush	99
Overflush	840
Fluid to Recover	981

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
14:10						ON LOC
14:45						SAFETY MEETING
14:55						PT LINES TO 6000 PSI
15:00	0		25			START BD
15:06	1081					SHUTDOWN
15:26	370		17	0		START ACID
15:29	980			9		DROP BALLS
15:30	890			10.5		ALL BALLS
15:33	1100		107	17		ALL ACID START WATER
15:44	1230			99		ACID ON
15:46	1360			108		BALLS ON
15:47	1380			116		ALL ACID AWAY
15:52	920			124		SHUTDOWN
16:02	368		832	124		START INJECTION TEST
20:58	1040			956		SHUTDOWN

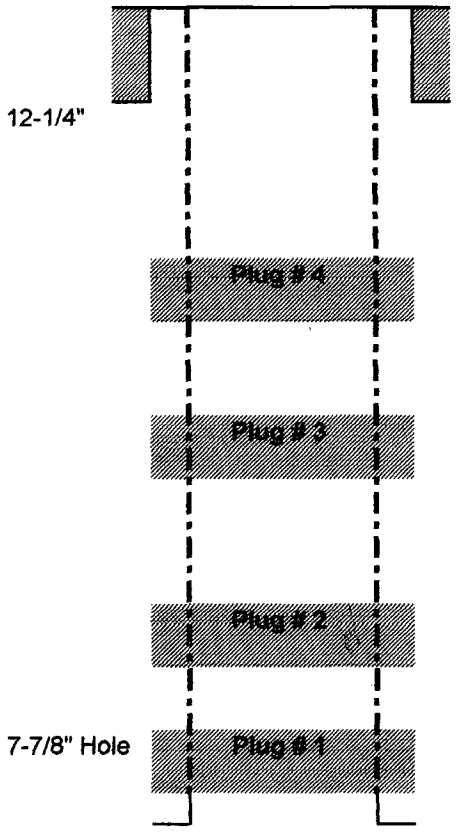
Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	Tom Mullins
Minimum	890	Treating Fluid	5	ISDP	1040	BJ Rep.	Jay Savage
Maximum	3788	Flush	8	5 Min.	870	Job Number	216428685
Average	1250	Average	4	10 Min.	787	Rec. ID No.	
Operators Max. Pressure				15 Min.	725	Distribution	
5000				*Final* 20 In 675 Min.			
				Flush Dens. lb./gal.	8.43		

Shell Pool Four 22 # 1 (P&A)

Shell Pool Four 22 # 1
Unit P, Section 22-T21N-R05W
675' FSL, 650' FEL
7232' GL, 12' KB

Forsee Drlg Co.

Spud: 08/15/57
Completed: Plugged & Abandoned



API # 30-043-60038

8-5/8" 28# Casing @ 215' w/ 150 sxs to Surface

Plugged and Abandoned with Drilling Rig 09-01-1957
Five (5) Cement Plugs, Placed with Drill Pipe in Openhole

# 1	4800' Plug with 50 Sacks Cement	Covers Gallup
# 2	3900' Plug with 50 Sacks Cement	Covers Mancos
# 3	1560' Plug with 50 Sacks Cement	Covers Pict Cliffs
# 4	250' Plug with 50 Sacks Cement	Cover Shoe
# 5	Surface Plug 10 Sxs Cement	Surface Plug

This Well is located inside the 1/2 Mile "Area of Review"
but is Not Drilled Deep Enough to Encounter the Dakota

Supplied for Informational Purposes Only

Zones Covered by Cement Plugs
Well Did Not Penetrate Dakota. TD 750'+/- Above Dakota

Formation Tops	
San Jose	
Nacimiento	
Ojo Alamo	
Kirtland	
Fruitland	
Pict Cliffs	1460'
Lewis:	1693'
Cliffhouse:	1860'
Pt. Lookout	3820'
Mancos	3928'
Gallup:	4853'
TD:	5095'
Dakota:	NDE

Specialty Logs, Misc

DST # 1 (3686' to 3801') - Menefee. Wk Blow Slightly Oil Cut Mud & H2O
DST # 2 (4740' to 4811') - Gallup. Light Blow. Slightly Oil Cut Mud

Open Hole Logs
Electric Log Only

Cased Hole Logs (Blue Jet)
None Applicable

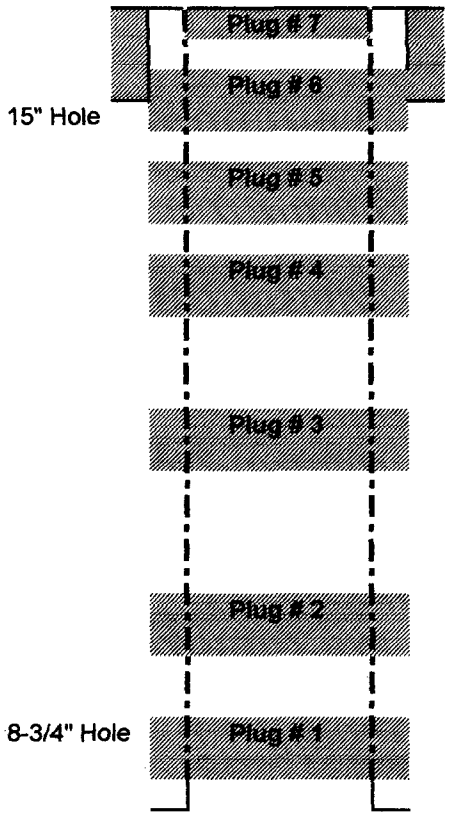
Thomas E. Mullins
January 5, 2003

Dome Fed 22 # 1 (P&A)

Dome Petroleum Ltd, Federal 22 # 1
Unit N, Section 22-T21N-R05W
660' FSL, 1650' FWL
7299' GL, 12' KB

Loffland Bros # ?

Spud: 11/16/76
Completed: Plugged & Abandoned



Open Hole TD @ 7135'

API # 30-043-2023300

10-3/4" 32.75# Casing @ 199' w/ 200 sxs to Surface

Plugged and Abandoned with Drilling Rig 12-16-1976
Seven Cement Plugs, Placed with Drill Pipe in Openhole

# 1	6991' to 6781' (210') 75 sxs Cement	Entrada Covered
# 2	6006' to 5856' (150') 55 sxs Cement	Dakota Covered
# 3	3995' to 3845' (150') 55 sxs Cement	Mancos Covered
# 4	1937' to 1787' (150') 55 sxs Cement	Chacra Covered
# 5	1205' to 1045' (160') 60 sxs Cement	Fruitland, Kirtland
# 6	250' to 150' (100') 35 sxs Cement @ Shoe	Shoe Covered
# 7	0' to 30' (30'), 15 sxs Cement, Installed Above Ground Dry Hole Marker	

This Well is located outside of the 1/2 Mile "Area of Review"
but is located within 1 Mile of the Injection Well

Supplied for Informational Purposes Only

Zones Covered by Cement Plugs

Formation Tops	
San Jose	
Nacimiento	
Ojo Alamo	
Kirtland	
Fruitland	
Pict Cliffs	1490'
Chacra:	1860'
La Ventana:	2255'
Pt. Lookout	3803'
Mancos	3945'
Gallup:	4565'
Sanastee:	5368'
Greenhorn	5691'
Graneros	5722'
Dakota:	5932'
Morrison:	6053'
Summerville	6880'
Todilto:	6902'
Entrada:	6911'
Carmel:	7107'
TD:	7135'

Specialty Logs, Misc
Full Core from 1855' to 1980' (125')
DST # 1 (1850' to 1920') - Misrun
DST # 2 (1850' to 1980') - slight blow and died
DST # 3 (3722' to 3737') - Menefee Misrun
DST # 4 (6909' to 6924') - Entrada (5090' - 100% Water)

Open Hole Logs
GR-Neu-Density

Cased Hole Logs (Blue Jet)
None Applicable

Thomas E. Mullins
January 5, 2003

BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW02-0031

Customer/Well Information

Company:	Synergy Operating	**Date:**	3/23/02
Well Name:	Bois D Arc Encino 15-1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	MC Kinley County, NM	**Prepared by:**	Dave Shepherd
Formation:	Unspecified - DAKOTA #1	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing:	Sample Labeled #1
Completion type:	
Well History:	
Comments:	Sample Labeled #1

Sample Characteristics

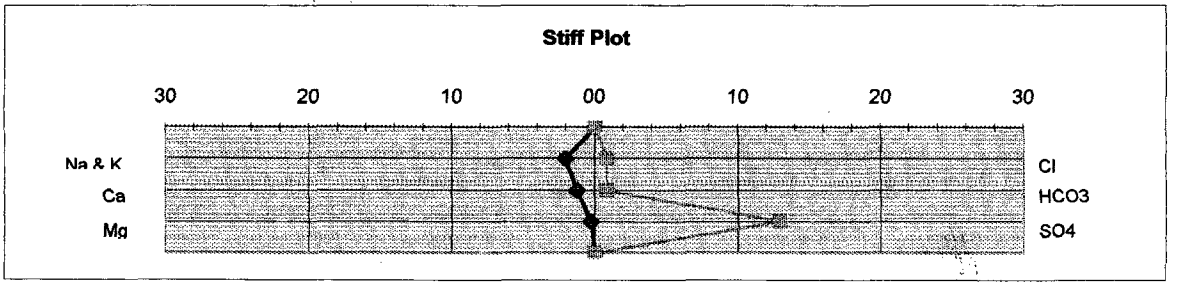
Sample Temp:	70 (°F)	**Viscosity:**	1 cp
pH:	7.10	**Color:**	Clear
Specific Gravity:	1.007	**Odor:**	None
S.G. (Corrected):	1.009 @ 60 °F	**Turbidity:**	Clear
Resistivity (Calc):	0.43 Ω-m	**Filtrates:**	Trace Iron

Sample Composition

		mg/l	me/l	ppm
CATIONS	Sodium (calc.)	4662	202.8	4630
	Calcium	257	12.8	255
	Magnesium	34	2.8	34
	Barium	0	0.0	0
	Potassium	180	4.6	179
	Iron	0.00	0.0	0.00
ANIONS	Chloride	3000	84.6	2979
	Sulfate	6300	131.2	6256
	Hydroxide	0	0.0	0
	Carbonate	< 1	----	----
	Bicarbonate	488	8.0	485
SUMMARY	Total Dissolved Solids(calc.)	14741		14638
	Total Hardness as CaCO3	781	15.6	776

Scaling Tendencies

CaCO3 Factor	125240.3	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	1616832	Calcium Sulfate Scale Probability -------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW02-0032

Customer/Well Information

Company:	Synergy Operating	**Date:**	3/23/02
Well Name:	Bois D Arc Encino 15-1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	MC Kinley County, NM	**Prepared by:**	Dave Shepherd
Formation:	Unspecified - DAKOTA # 2	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing:	Routine Water Analysis
Completion type:	
Well History:	
Comments:	Sample Labeled #2

Sample Characteristics

Sample Temp:	70 (°F)	**Viscosity:**	1 cp
pH:	7.30	**Color:**	Clear
Specific Gravity:	1.007	**Odor:**	None
S.G. (Corrected):	1.009 @ 60 °F	**Turbidity:**	Clear
Resistivity (Calc):	0.43 Ω-m	**Filtrates:**	Trace Iron

Sample Composition

CATIONS

	mg/l	me/l	ppm
Sodium (calc.)	4753	206.7	4720
Calcium	265	13.2	263
Magnesium	29	2.4	29
Barium	0	0.0	0
Potassium	160	4.1	159
Iron	3.00	0.1	2.98

ANIONS

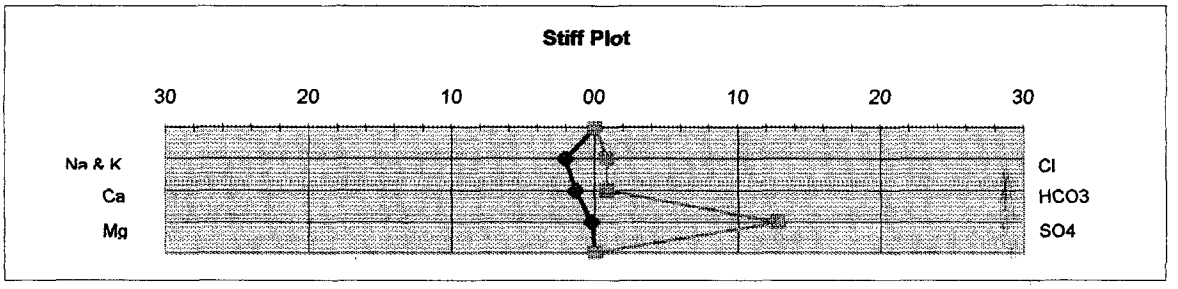
Chloride	3200	90.3	3178
Sulfate	6200	129.1	6157
Hydroxide	0	0.0	0
Carbonate	< 1	----	----
Bicarbonate	488	8.0	485

SUMMARY

Total Dissolved Solids(calc.)	14938		14834
Total Hardness as CaCO3	781	15.6	776

Scaling Tendencies

CaCO3 Factor	129154.1	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	1640892	Calcium Sulfate Scale Probability -------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW02-0033

Customer/Well Information

Company:	Synergy Operating	**Date:**	3/23/02
Well Name:	Bois D Arc Encino 15-1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	MC Kinley County, NM	**Prepared by:**	Dave Shepherd
Formation:	Unspecified - DAKOTA #3	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing:	Routine Water Analysis
Completion type:	
Well History:	
Comments:	Sample Labeled #3

Sample Characteristics

Sample Temp:	70 (°F)	**Viscosity:**	1 cp
pH:	7.36	**Color:**	Clear
Specific Gravity:	1.007	**Odor:**	None
S.G. (Corrected):	1.009 @ 60 °F	**Turbidity:**	Clear
Resistivity (Calc):	0.41 Ω-m	**Filtrates:**	Trace Iron

Sample Composition

CATIONS

	mg/l	me/l	ppm
Sodium (calc.)	4892	212.8	4858
Calcium	257	12.8	255
Magnesium	39	3.2	39
Barium	0	0.0	0
Potassium	140	3.6	139
Iron	0.00	0.0	0.00

ANIONS

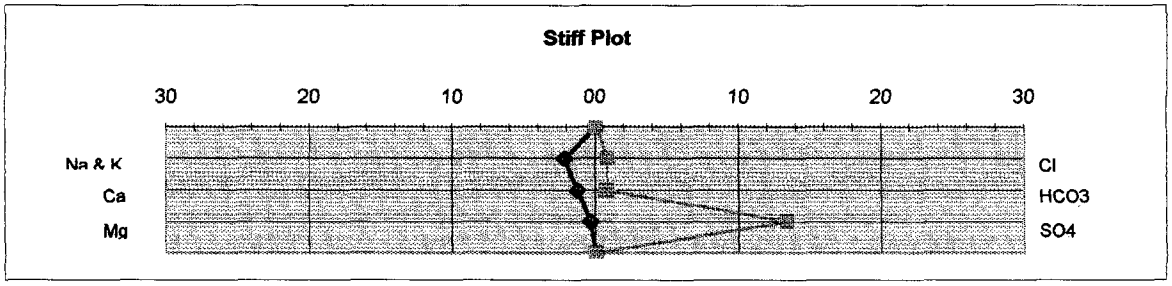
Chloride	3200	90.3	3178
Sulfate	6500	135.3	6455
Hydroxide	0	0.0	0
Carbonate	< 1	----	----
Bicarbonate	464	7.6	460

SUMMARY

Total Dissolved Solids(calc.)	15351		15244
Total Hardness as CaCO3	801	16.0	795

Scaling Tendencies

CaCO3 Factor	118978.3	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	1668160	Calcium Sulfate Scale Probability -------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW03-0080

Customer/Well Information

Company:	Synergy	**Date:**	5/8/03
Well Name:	Encino 15-1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	County, NM	**Prepared by:**	Dave Shepherd
Formation:	Meneffe	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing: Routine Water Analysis
Completion type:
Well History:
Comments:

Sample Characteristics

Sample Temp:	77 (°F)	**Viscosity:**	1 cp
pH:	7.51	**Color:**	Clear
Specific Gravity:	1.018	**Odor:**	Hydrocarbon
S.G. (Corrected):	1.021 @ 60 °F	**Turbidity:**	None
Resistivity (Calc):	0.17 Ω-m	**Filtrates:**	Trace

Sample Composition

CATIONS

	mg/l	me/l	ppm
Sodium (calc.)	13704	596.1	13462
Calcium	369	18.4	362
Magnesium	87	7.2	86
Barium	0	0.0	0
Potassium	59	1.5	58
Iron	0.00	0.0	0.00

ANIONS

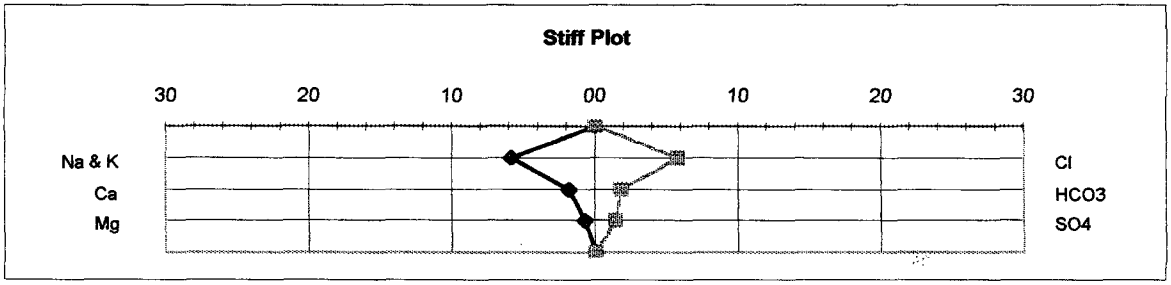
Chloride	21000	592.4	20629
Sulfate	700	14.6	688
Hydroxide	0	0.0	0
Carbonate	< 1	----	----
Bicarbonate	1135	18.6	1115

SUMMARY

Total Dissolved Solids(calc.)	36995		36341
Total Hardness as CaCO3	1281	25.6	1259

Scaling Tendencies

CaCO3 Factor	418576.6	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	258244	Calcium Sulfate Scale Probability ------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW03-0079

Customer/Well Information

Company:	Synergy	**Date:**	5/8/03
Well Name:	Divide 22 #1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	County, NM	**Prepared by:**	Dave Shepherd
Formation:	Menffee	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing: Routine Water Analysis
Completion type:
Well History:
Comments:

Sample Characteristics

Sample Temp:	77 (°F)	**Viscosity:**	1 cp
pH:	7.92	**Color:**	Clear
Specific Gravity:	1.015	**Odor:**	Hydrocarbon
S.G. (Corrected):	1.018 @ 60 °F	**Turbidity:**	None
Resistivity (Calc):	0.20 Ω-m	**Filtrates:**	Trace

Sample Composition

CATIONS

	mg/l	me/l	ppm
Sodium (calc.)	11867	516.2	11691
Calcium	112	5.6	111
Magnesium	44	3.6	43
Barium	0	0.0	0
Potassium	45	1.2	44
Iron	0.00	0.0	0.00

ANIONS

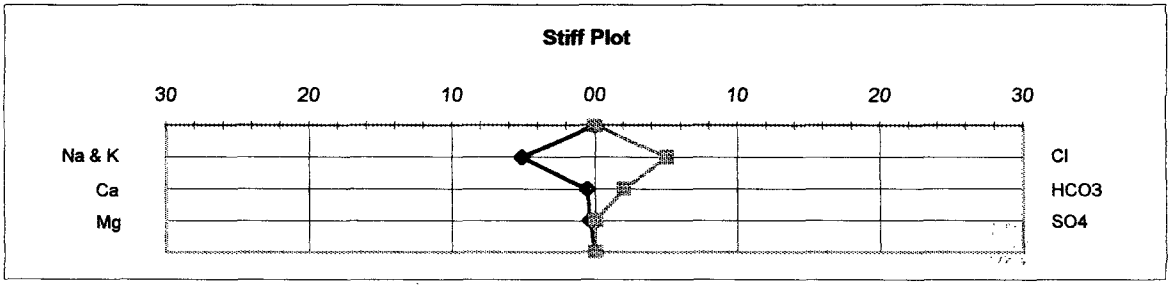
Chloride	18000	507.8	17734
Sulfate	0	0.0	0
Hydroxide	0	0.0	0
Carbonate	< 1	----	----
Bicarbonate	1269	20.8	1250

SUMMARY

Total Dissolved Solids(calc.)	31292		30829
Total Hardness as CaCO3	460	9.2	454

Scaling Tendencies

CaCO3 Factor	142460.9	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	0	Calcium Sulfate Scale Probability -------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW03-0107

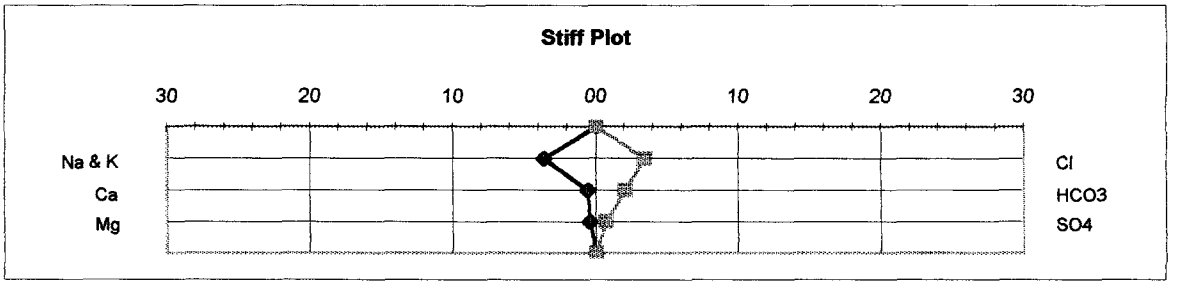
Company:	Synergy Operating	**Date:**	7/1/03
Well Name:	Divide 22 #1	**Prepared for:**	Tom Mullins
Location:		**Submitted by:**	Tom Mullins
State:	San Juan County, NM	**Prepared by:**	Dave Shepherd
Formation:	2nd Coal - Menefee	**Water Type:**	Produced
Depth:	ft		

Reason for Testing: Routine Water Analysis
Completion type: N/A
Well History: N/A
Comments:

Sample Temp:	77 (°F)	**Viscosity:**	1 cp
pH:	7.57	**Color:**	Clear
Specific Gravity:	1.012	**Odor:**	Trace
S.G. (Corrected):	1.015 @ 60 °F	**Turbidity:**	None
Resistivity (Calc):	0.27 Ω-m	**Filtrates:**	Trace Oil

		mg/l	me/l	ppm
CATIONS	Sodium (calc.)	8091	351.9	7995
	Calcium	107	5.3	106
	Magnesium	49	4.0	48
	Barium	0	0.0	0
	Potassium	530	13.6	524
	Iron	0.00	0.0	0.00
ANIONS	Chloride	12333	347.9	12187
	Sulfate	350	7.3	346
	Hydroxide	0	0.0	0
	Carbonate	< 1	----	----
	Bicarbonate	1281	21.0	1266
SUMMARY	Total Dissolved Solids(calc.)	22210		21947
	Total Hardness as CaCO3	467	9.3	462

CaCO3 Factor	136981.6	Calcium Carbonate Scale Probability --> REMOTE
CaSO4 Factor	37426.67	Calcium Sulfate Scale Probability -------> REMOTE



BJ SERVICES
Farmington District Lab
Water Analysis Report

Test # FW02-0039

Customer/Well Information

Company:	Synergy Operating	**Date:**	4/11/02
Well Name:	Encino 15 #1	**Prepared for:**	Tom Mulins
Location:		**Submitted by:**	Tom Mulins
State:	County, NM	**Prepared by:**	Dave Shepherd
Formation:	Mancos — Between DK and Mesaverde	**Water Type:**	Produced
Depth:	ft		

Background Information

Reason for Testing: Routine Water Analysis
Completion type:
Well History:
Comments: Mancos Produced Water - Shown for comparison purposes only

Sample Characteristics

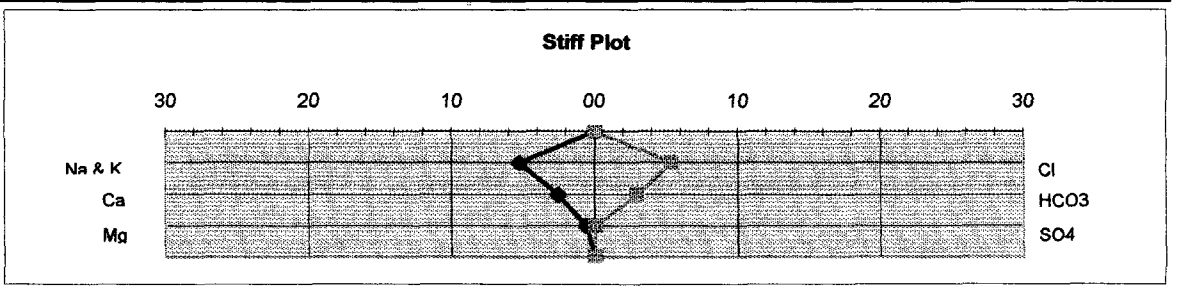
Sample Temp:	76 (°F)	**Viscosity:**	1 cp
pH:	6.82	**Color:**	Clear
Specific Gravity:	1.018	**Odor:**	Trace
S.G. (Corrected):	1.021 @ 60 °F	**Turbidity:**	Clear
Resistivity (Meas.):	0.28 Ω-m	**Filtrates:**	None

Sample Composition

		mg/l	me/l	ppm
CATIONS	Sodium (calc.)	12082	525.5	11869
	Calcium	521	26.0	512
	Magnesium	73	6.0	72
	Barium	0	0.0	0
	Potassium	480	12.3	472
	Iron	3.00	0.1	2.95
ANIONS	Chloride	19200	541.6	18861
	Sulfate	0	0.0	0
	Hydroxide	0	0.0	0
	Carbonate	< 1	----	----
	Bicarbonate	1854	30.4	1822
SUMMARY	Total Dissolved Solids(calc.)	33734		33137
	Total Hardness as CaCO3	1602	32.0	1574

Scaling Tendencies

CaCO3 Factor	966698.7	Calcium Carbonate Scale Probability --> POSSIBLE
CaSO4 Factor	0	Calcium Sulfate Scale Probability -------> REMOTE



AFFIDAVIT OF PUBLICATION

Ad No. 49193

STATE OF NEW MEXICO
County of San Juan:

CONNIE PRUITT, being duly sworn says: That she is the CLASSIFIED MANAGER of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Monday, January 26, 2004.

And the cost of the publication is $47.07.

Connie Pruitt

ON 1/26/04 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Jenny Beck

My Commission Expires April 2, 2004.

COPY OF PUBLICATION

918 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 Administrative Application 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 maximum permissible 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.

THE SANDOVAL SIGNPOST

CLASSIFIED ADS —CONTINUED—

LANDSCAPING—CONTINUED

FIRE SEASON IS NEAR
Clear dead trees and undergrowth around your residence or business. Complete tree removal, will stack or haul away. Free estimates.
Call Rick or Andy 898-1940 or 969-0368

LEGAL 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 Administrative Application 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 maximum permissible 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.

LODGING

ADOBE GUESTHOUSE IN PLACITAS.
One bedroom, great views, furnished. Safe, quiet, clean. Walking trails nearby. Full Kitchen. Cable TV. Sleeps 4. Ideal for visiting relatives/friends. No smoking inside. $65/night, $400/week, longer-term negotiable. 867-5603.

RECYCLING

Placitas Recycling Center
REMINDER:
We can only accept #1 and #2 plastic.

PROPERTY MANAGEMENT

HAMMACK PROPERTIES
SHEILA HAMMACK, Real Estate Broker
Specializing in Property Management
Excellent Rates. Dependable Service.
(505) 867-2605
29 Tres Amigos Rd. Placitas, NM 87043

FOR RENT / RENTAL WANTED

DUPLEX FOR RENT—Available February 1.
This adobe duplex is over 100 years old. Vigas, brick and wood floors, charm and easy access to downtown Bernalillo as well as freeway. Rent one side, sub rent the other for income. 3,000 sq ft total; 1700 and 1300 sq ft separately. Rent them both for $1600 pr month, utilities included or Duplex A 1,700 sq ft $895 per month /Duplex B 1,300 sq ft. $795 per month. Ideal live/work situation or mother-in-law quarters or casita for guests or teen children! Walk to the Range Café, Silva's Saloon, art galleries, and grocery store. Call 280-4603 today. This won't last long.

Placitas Office Space for lease.
Call Jon @ 507-5145

CHARMING PLACITAS ADOBE HOME for rent, two acres, private, fabulous views, horse property, 1200 sq. ft. One large master bedroom, kiva fireplace, latillas, vigas, washer/dryer, large storage unit, fenced yard, pets, horses okay. $950.00 per month. 828-1500.

RENTAL PROPERTY IN PLACITAS: Precious little adobe in Placitas Village for rent starting February, $900/month. Also, small apartment in lovely new house in Placitas West $650/month. Call 280-8352 for information and showing.

SERVICES

RETIRED GENERAL CONTRACTOR will build for you, house plans drawn, and save you money. Phone 867-8688. Lic. #57412.

TAX PREPARATION—By local professional. Individual and small business. Returns from $40.00 and up. Bonnie @ 867-8581 or 239-9505.

PAINTING
by Classic Elegance
EXTERIOR/INTERIOR
Stucco Repair • Drywall Repair
Tile Work • Woodworking