MONTGOMERY & ANDREWS
LAW FIRM

J. SCOTT HALL
Office: (505) 986-2646
Email: shall@montand.com
Reply To: Santa Fe Office
www.montand.com

April 4, 2013

Ms. Jami Bailey, Director
NM Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87501

Hand-Delivered

Re: NMOCD Case No. 14983: Application of Sundown Energy LP for Authorization to Inject for Waterflood Project Operations, Lea County, New Mexico

Dear Ms. Bailey:

On behalf of Sundown Energy LP, enclosed is an original and one copy of an Application in the above-referenced case. Please set this matter for hearing on the May 16, 2013 examiner docket. Also enclosed is a proposed advertisement for the case.

Very truly yours,

J. Scott Hall

JSH:kw
Enclosures

457983

REPLY TO:
325 Paseo de Peralta
Santa Fe, New Mexico 87501
Telephone (505) 982-3873 • Fax (505) 982-4289

Post Office Box 2307
Santa Fe, New Mexico 87504-2307

6301 Indian School Road NE, Suite 400
Albuquerque, New Mexico 87110
Telephone (505) 884-4200 • Fax (505) 888-8929

Post Office Box 36210
Albuquerque, New Mexico 87176-6210

Case 14983: Application of Sundown Energy LP for Authorization to Inject for Waterflood Project Operations, Lea County, New Mexico. Applicant seeks an order authorizing the injection of salt water into the San Andres formation, West Arkansas Junction San Andres Pool (2503) through the following wells:

State of New Mexico W No. 2

API No. 30-025-26605
660' FNL and 660' FWL (Unit D)
Section 28
T-18-S, R-36-E, NMPM

Bobbi No. 4

API No. 30-025-27586
1650' FSL and 990' FWL (Unit L)
Section 20
T-18-S, R-36-E, NMPM

Applicant proposes to conduct waterflood operations to support production from its Bobbi State Waterflood Unit by converting the two wells and utilizing them for the injection of water through a closed system into the San Andres formation through perforations in each of the wells at depths of 5,230' – 5,584' and 5,286' – 5,572', respectively. Injection operations will be conducted at an anticipated average daily injection pressure of 1,057 psi with a maximum surface injection pressure of 2,500 psi or as permitted by the Division. Applicant proposes injection of water at average daily rates of approximately 500 bbls and at maximum daily rates of approximately 1,500 bbls. The lands and wells are located approximately two miles northwest of Arkansas Junction, New Mexico.

STATE OF NEW MEXICO

DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF SUNDOWN ENERGY LP FOR AUTHORIZATION TO INJECT FOR WATERFLOOD PROJECT OPERATIONS, LEA COUNTY, NEW MEXICO.

CASE NO. 14983

APPLICATION

Sundown Energy LP, ("Sundown" or "Applicant"), through its undersigned counsel, Montgomery and Andrews, P.A. (J. Scott Hall, Esq.), applies pursuant to 19.15.26.8 NMAC for an order authorizing the injection of water in the San Andres formation, West Arkansas Junction San Andres Pool (2503), for its Bobbi-State Waterflood Unit comprised of Section 20, N/2 of Section 29 and NW/4 of Section 28 in Township 18 South, Range 36 East NMPM Lea County, New Mexico. In support of its Application, Sundown states:

1. Sundown operates the following wells:

State of New Mexico W No. 2
API No. 30-025-26605
660' FNL and 660' FWL (Unit D)
Section 28
T-18-S, R-36-E, NMPM

Bobbi No. 4
API No. 30-025-27586
1650' FSL and 990' FWL (Unit L)
Section 20
T-18-S, R-36-E, NMPM

2. The State of New Mexico W No. 2 was drilled to a total depth of

approximately 5,670' to the San Andres formation. The Bobbi No. 4 was drilled to a total depth of 5,600', also to the San Andres formation, and is now plugged. Applicant proposes to conduct waterflood operations to support production from its unit by converting the State of New Mexico W No. 2 and the Bobbi No. 4 wells and utilizing them for injection of water through a closed system into the San Andres formation through perforations in each of the wells at depths of 5,230' – 5,584' and 5,286' – 5,572', respectively.

3. Injection operations through the wells will be conducted at an anticipated average daily injection pressure of 1,057 psi with a maximum surface injection pressure of 2,500 psi or as permitted by the Division. Applicant proposes injection of water at average daily rates of approximately 500 bbls and at maximum daily rates of approximately 1,500 bbls. The source of the injected fluids will be produced water from other San Andres formation and Delaware formation wells that have been drilled in the area.

4. Applicant's proposed injection operation can be conducted in a safe and responsible manner without causing waste, impairing correlative rights or endangering fresh water, public health or the environment.

5. A copy of Applicant's form C-108 Application for Authorization to Inject and supporting materials is attached hereto.

WHEREFORE, Applicant requests that this Application be set for hearing before a duly appointed examiner of the Oil Conservation Division on May 16, 2013 and that after notice and hearing as required by law, the Division enter its Order approving the

conversion of the State of New Mexico W No. 2 and the Bobbi No. 4 wells for the injection of water into the San Andres formation at the intervals and at the pressures, volumes and rates indicated, and making such other and further provisions as the Division determines appropriate.

Montgomery and Andrews, P.A.

By: _____

J. Scott Hall, Esq.
Post Office Box 2307
Santa Fe, New Mexico 87504
(505) 982-3873
(505) 982-4289

Attorneys for Sundown Energy LP

456938-4

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: ___X___ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes ___X___ No

II. OPERATOR: Sundown Energy, LP (OGRID-232611)

ADDRESS: 13455 Noel Road, Suite 2000 Dallas, Texas 75240

CONTACT PARTY: Ross Pearson PHONE: (214) 368-6100

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 ___X___ 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:

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: Ross Pearson TITLE: Area Production Manager

SIGNATURE: Ross Pearson DATE: 4/2/2013

E-MAIL ADDRESS: rpearson@sundownenergy.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: _____

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

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.

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.

C-108 Application
Sundown Energy, LP

State of New Mexico W No. 2	Bobbi No. 4
API No. 30-025-26605	API No. 30-025-27586
660' FNL & 660' FWL (Unit D)	1650' FSL & 990' FWL (Unit L)
Section 28, T-18S, R-36E	Section 20, T-18S, R-36E

Lea County, New Mexico

I. The purpose of the application is to request authorization to inject into the San Andres formation within the State of New Mexico W No. 2 and the Bobbi No. 4 for the purpose of instituting a waterflood project within the proposed Bobbi State Unit, which will initially comprise all of Section 20, the N/2 of Section 29 and the NW/4 of Section 28, all in Township 18 South, Range 36 East, NMPM, Lea County, New Mexico.

II. Sundown Energy, LP ("Sundown")
13455 Noel Road
Suite 2000
Dallas, Texas 75240
Contact Party: Ross Pearson (214) 368-6100

III. Injection well data sheets and wellbore schematic diagrams showing the current and proposed wellbore configurations are attached.

IV. This is not an expansion of an existing project.

V. Attached is a map that identifies all wells/leases within a 2-mile radius of the proposed injection wells and a map that identifies the ½ mile "Area of Review" ("AOR") for both injection wells.

VI. AOR well data is attached. Well construction data is included for all existing wells within the AOR. Also included are wellbore diagrams for each PA'd well within the AOR. An examination of the well completion and plugging data indicates that all AOR wells are adequately cased, cemented and/or plugged and abandoned in order to preclude the movement of fluid from the injection zone into any fresh water aquifers.

VII. 1. The average injection rate is anticipated to be approximately 500 BWPD. The maximum rate will be approximately 1,500 BWPD. If the average or maximum rates increase in the future, the Division will be notified.

2. This will be a closed system.

3. Sundown will initially inject water into the subject wells at a surface pressure that is in compliance with the Division's limit of 0.2 psi/ft., or approximately 1,057 psi. The maximum surface injection pressure is anticipated to be approximately 2,500 psi. If a surface injection pressure above 1,057 psi is necessary, Sundown will conduct step rate injection tests to determine the fracture pressure of the San Andres formation in this area.

4. Produced water from the San Andres formation originating from Sundown operated wells in this area will be injected into the subject wells. If necessary, Sundown will also utilize Delaware produced water as make-up water. Attached are San Andres water analysis from Sundown's State of New Mexico Wells No. 1 & 2 and Bobby Well No. 5. Also attached is a Delaware produced water analysis from RKI Exploration & Production, LLC's TORO 22 Well No. 1. Also attached is a compatibility test indicating that slight scaling may result from combining San Andres and Delaware produced waters.

5. Injection is to occur into a formation that is oil productive.

VIII.

Geologic Series:	Guadalupian
Geologic Formation:	San Andres
Thickness:	626 Feet
Lithology:	Sandstone
USDW's:	Ogallala is present at a maximum depth of approximately 160 feet according to attached data obtained from the New Mexico State Engineer's Office. The average depth to water in this area is approximately 54 feet.

IX. No stimulation of the wells is planned

X. Logs were filed at the time of drilling.

XI. Attached is a water analysis from a fresh water well located within one mile of the proposed injection wells.

XII. Affirmative statement is enclosed.

XIII. Proof of Notice is enclosed.

INJECTION WELL DATA SHEET

OPERATOR: Sundown Energy, LP

WELL NAME & NUMBER: State of New Mexico W No. 2 **(API No. 30-025-26605)**

WELL LOCATION:	660' FNL & 660' FWL	D	28	18 South	36 East
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attached Wellbore Schematic

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 ¼" Casing Size: 8 5/8" @ 1,876'

Cemented with: 925 Sx. or _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ or _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8" Casing Size: 4 ½" @ 5,670'

Cement with: 275 Sx. or _____ ft^3

Top of Cement: 4,670' Method Determined: Calculated

Total Depth: 5,670'

Injection Interval

Perforated Interval –5,320'-5,584'

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" 4.7# J-55 Lining Material: Internally Plastic Coated

Type of Packer: Baker AD-1 Injection Packer

Packer Setting Depth: 5,270' or within 100' of the uppermost injection perforations

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

1. Is this a new well drilled for injection: ____ Yes ____X____ No

   If no, for what purpose was the well originally drilled: Well was drilled in 1979 as a producing well in the San Andres formation.

2. Name of the Injection Formation: San Andres

3. Name of Field or Pool (if applicable): West Arkansas Junction-San Andres Pool (Oil-2503)

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.

   None

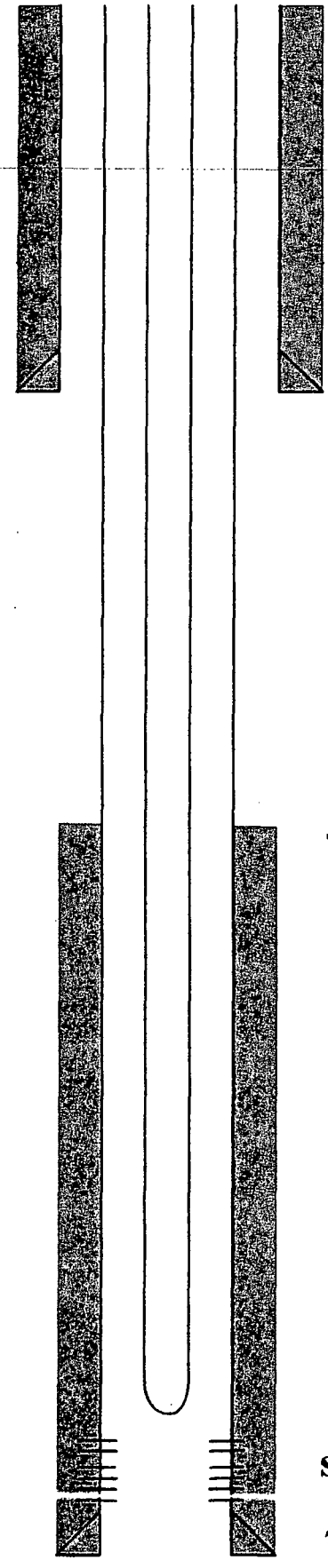
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Within the proposed waterflood project area in Sections 19, 20, 28 & 29, T-18S, R-36E: Arkansas Junction-Penn Pool (10,000'-11,000'); Arkansas Junction-Devonian Pool (12,000'-13,000')

Current Wellbore Configuration

Sundown Energy, LP
State of New Mexico W No. 2
API No. 30-025-26605
660' FNL & 660' FWL, Unit D
Section 28, T-18S, R-36E

Drilled: 12/1979



12 ¼" Hole; Set 8 5/8" 24# csg. @ 1876'
Cemented w/925 sx.
Cement circulated to surface

TOC @ 4,670' by calc.

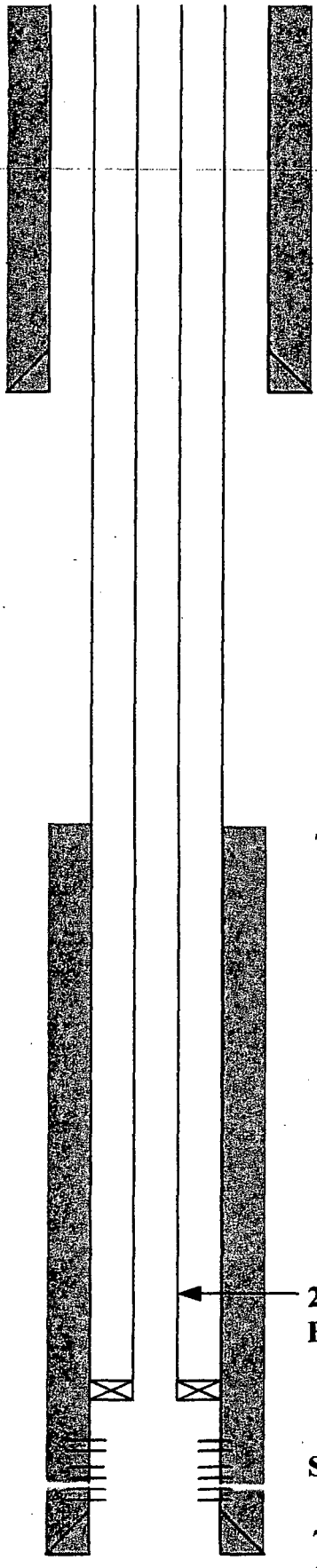
San Andres Perforations: 5,320'-5,584'

7 7/8" Hole; Set 4 ½" 9.5# csg. @ 5,670'
Cemented w/275 Sx.
Calculated TOC @ 4,670'

T.D. 5,670'

Proposed Wellbore Configuration

Sundown Energy, LP
State of New Mexico W No. 2
API No. 30-025-26605
660' FNL & 660' FWL, Unit D
Section 28, T-18S, R-36E



12 ¼" Hole; Set 8 5/8" 24# csg. @ 1876'
Cemented w/925 sx.
Cement circulated to surface

TOC @ 4,670' by calc.

2 3/8" 4.7# IPC J-55 Tubing set in a
Baker Model AD-1 Packer @ 5,270'

San Andres Perforations: 5,320'-5,584'

7 7/8" Hole; Set 4 ½" 9.5# csg. @ 5,670'
Cemented w/275 Sx.
Calculated TOC @ 4,670'

T.D. 5,670'

INJECTION WELL DATA SHEET

OPERATOR: Sundown Energy, LP

WELL NAME & NUMBER: Bobbi No. 4 **(API No. 30-025-27586)**

WELL LOCATION:	1650' FSL & 990' FWL	L	20	18 South	36 East
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attached Wellbore Schematics

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 11" Casing Size: 8 5/8" @ 1,901'

Cemented with: 700 Sx. or _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ or _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8" Casing Size: 4 ½" @ 5,600'

Cement with: 125 Sx. or _____ ft^3

Top of Cement: 5,100' Method Determined: Calculated

Total Depth: 5,600'

Injection Interval

Perforated Interval –5,286'-5,572'

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" 4.7# J-55 Lining Material: Internally Plastic Coated

Type of Packer: Baker AD-1 Injection Packer

Packer Setting Depth: 5,236' or within 100' of the uppermost injection perforations

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

1. Is this a new well drilled for injection: ____ Yes ____X____ No

   If no, for what purpose was the well originally drilled: Well was drilled in 1981 as a producing well in the San Andres formation. Well was plugged and abandoned in 2009.

2. Name of the Injection Formation: San Andres

3. Name of Field or Pool (if applicable): West Arkansas Junction-San Andres Pool (Oil-2503)

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.

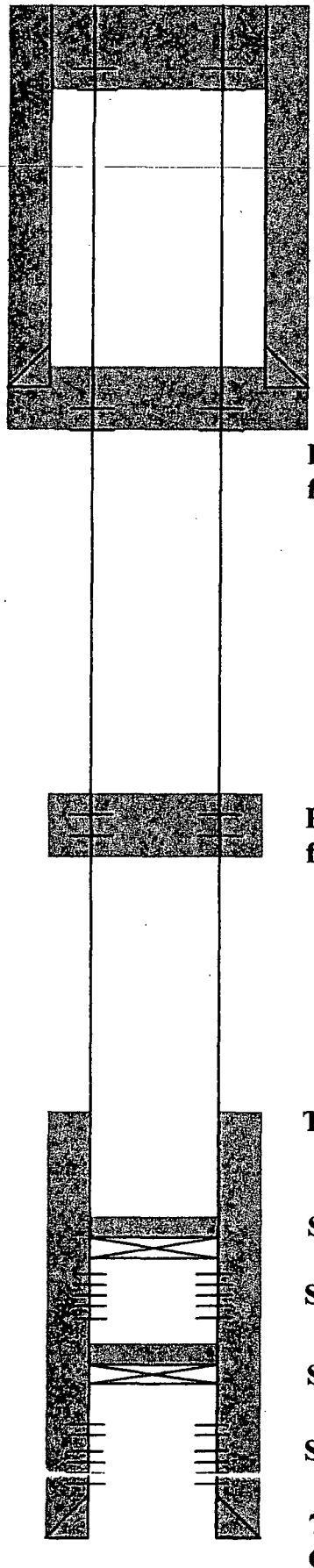
   None

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

   Within the proposed waterflood project area in Sections 19, 20, 28 & 29, T-18S, R-36E: Arkansas Junction-Penn Pool (10,000'-11,000'); Arkansas Junction-Devonian Pool (12,000'-13,000')

Current Wellbore Configuration

Sundown Energy, LP
Bobbi No. 4
API No. 30-025-27586
1650' FSL & 990' FWL, Unit L
Section 20, T-18S, R-36E



Perforate 4 ½" csg. @ 400' & cement to surface w/110 sx.

Drilled: 10/1981
Plugged: 10/2009

11" Hole; Set 8 5/8" 24# csg. @ 1901'
Cemented w/700 sx.
Cement circulated to surface

Perforate 4 ½" csg. @ 1,951' & cement w/40 sx. from 1,755'-1,951 (Tagged)

Perforate 4 ½" csg @ 3,186 & cement w/40 sx. from 2,987'-3,186' (Tagged)

TOC @ 5,100' (Calc.)

Set CIBP @ 5,234' w/cement 5,200'-5,234'

San Andres Perforations: 5,286'-5,389'

Set CIBP @ 5,462' w/cement 5,450'-5,462'

San Andres Perforations: 5,504'-5,572'

7 7/8" Hole; Set 4 ½" 10.5# csg. @ 5,600'
Cemented w/125 Sx.
Calculated TOC @ 5,100'

T.D. 5,600'

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

RECEIVED
OCT 13 2009
HOBBSOCD

CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
June 19, 2008

WELL API NO. 30-025-27586

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR—USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: Bobbi

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number 4

2. Name of Operator: Chesapeake Operating, Inc.

9. OGRID Number 147179

3. Address of Operator: P.O. Box 18496, Oklahoma City, OK 73154-0496

10. Pool name or Wildcat: Arkansas Junction; San Andres, West

4. Well Location
Unit Letter L : 1650' feet from the South line and 990' feet from the West line
Section 20 Township 18S Range 36E NMPM County Lea

11. Elevation (*Show whether DR, RKB, RT, GR, etc.*) 3838' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]	CHANGE PLANS [ ]	COMMENCE DRILLING OPNS. [ ]	P AND A [X]
PULL OR ALTER CASING [ ]	MULTIPLE COMPL [ ]	CASING/CEMENT JOB [ ]	
DOWNHOLE COMMINGLE [ ]			
OTHER [ ]		OTHER: [ ]	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please find the following work performed in the plug and abandonment of this well from 9/30/09 through 10/01/2009.
9/30/09
MIRU PU & SE. NDWH & NUBOP. PU & RIH w/tbg. Tag PBTD @ 5200'. Circ hole w/brine & mud. POOH w/tbg perf 4 1/2" csg at 3186'. RIH & set pkr at 2692'. Mix & pump 40 sxs class C cmt at 3186'-3086'. Shut in press @ 1600 psi.
10/01/09
RIH & tag cmt plug at 2987'. POOH/RIH & perf 4 1/2"' csg at 1951'. Mix & pump 40 sxs Class C cmt from 1951'-1851'. WOC. RIH & tag 1755'. POOH. Perf csg at 400' Mix & pump 110 sxs cmt to surface. NDBOP. RDPU. Turn well over to production for final clean up.
Well P&A'd on 10/01/2009.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

Spud Date: Rig Release Date:

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

SIGNATURE Bryan Arrant TITLE Senior Regulatory Compl. Sp. DATE 10/07/2009

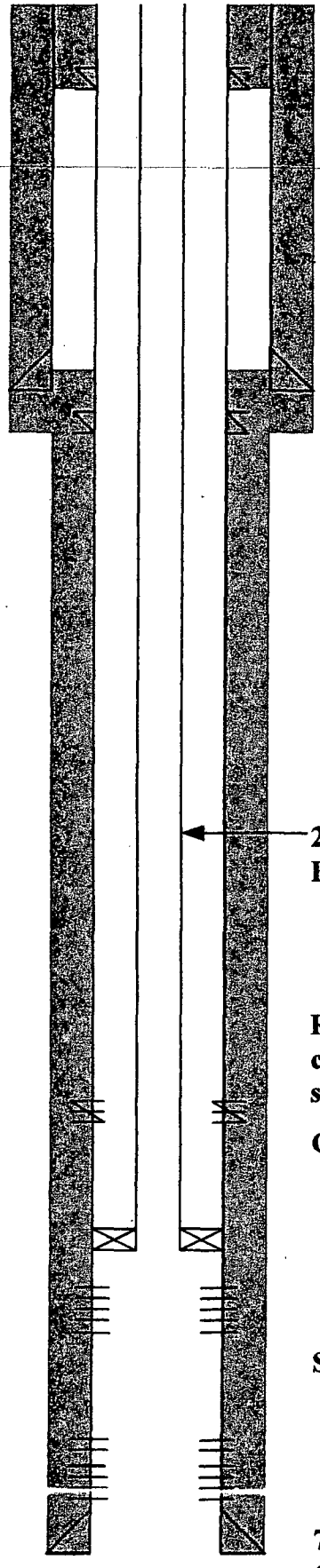
Type or print name Bryan Arrant E-mail address: bryan.arrant@chk.com PHONE: (405)935-3782

For State Use Only

APPROVED BY: TITLE COMPLIANCE OFFICER DATE 10/14/09
Conditions of Approval (if any):

Proposed Wellbore Configuration

Sundown Energy, LP
Bobbi No. 4
API No. 30-025-27586
1650' FSL & 990' FWL, Unit L
Section 20, T-18S, R-36E



11" Hole; Set 8 5/8" 24# csg. @ 1901'
Cemented w/700 sx.
Cement circulated to surface

2 3/8" 4.7# IPC J-55 Tubing set in a
Baker Model AD-1 Packer @ 5,236'

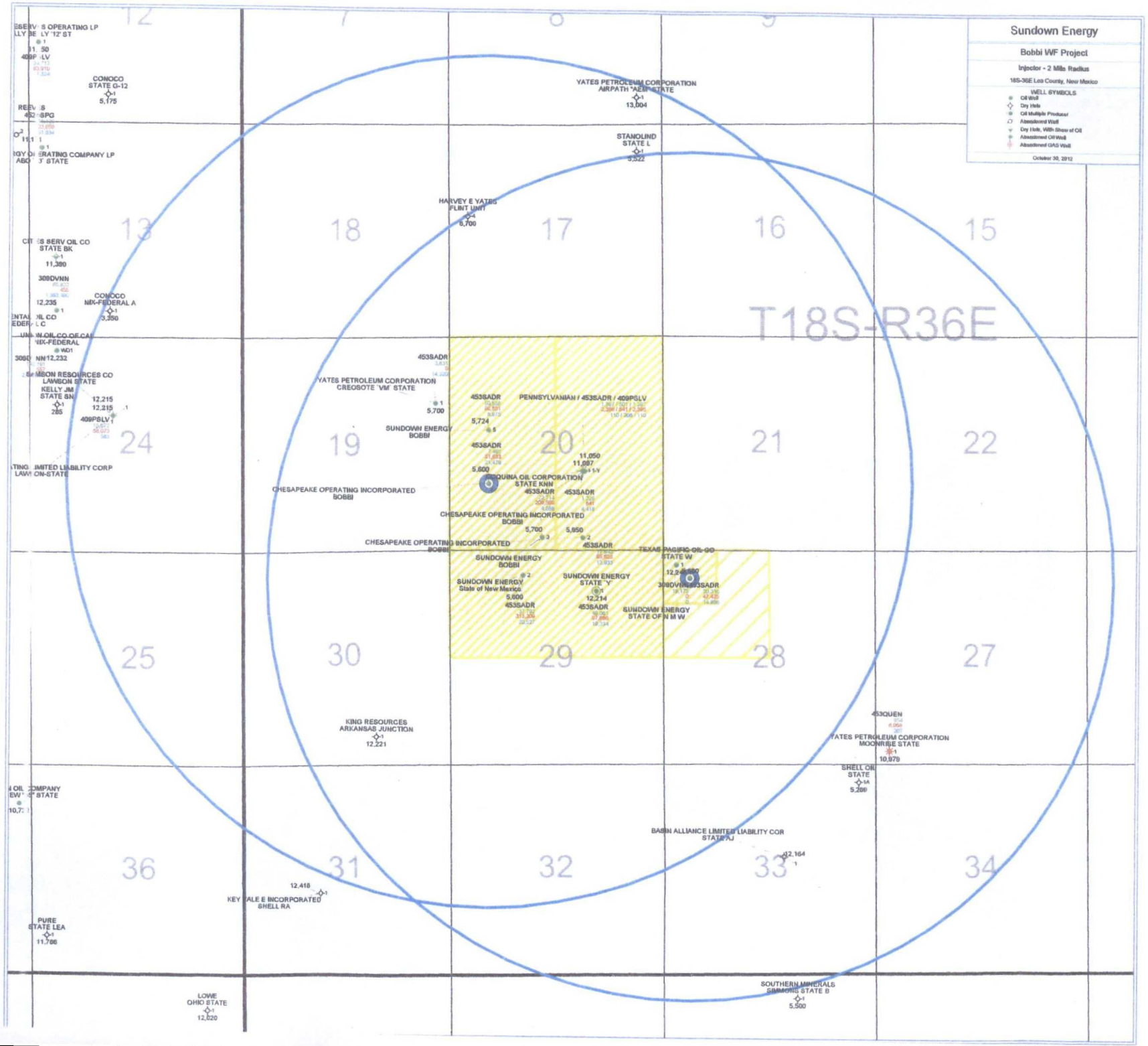
Run CBL to determine TOC. Perforate 4 ½" csg. @ cement top and cement squeeze w/300 sx. 50/50 Poz "C"

Original TOC @ 5,100' (Calc.)

San Andres Injection Perforations: 5,286'-5,572'

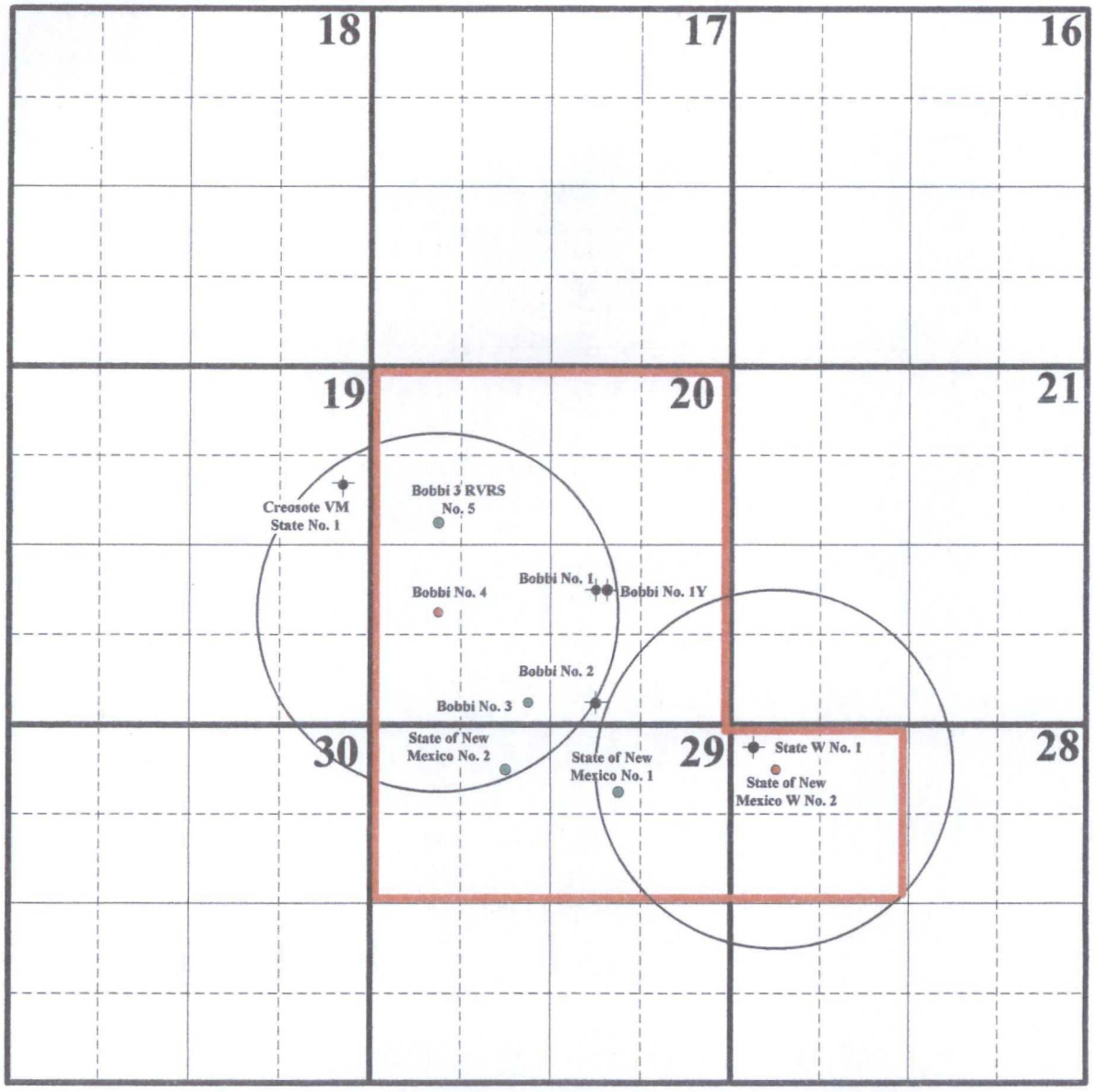
7 7/8" Hole; Set 4 ½" 10.5# csg. @ 5,600'
Cemented w/125 Sx.
Calculated TOC @ 5,100'

T.D. 5,600'


Sundown Energy
Bobbi WF Project
Injector - 2 Mile Radius
18S-36E Lea County, New Mexico
WELL SYMBOLS
Oil Well
Dry Hole
Oil Multiple Produced
Abandoned Well
Dry Hole, With Show of Oil
Abandoned Oil Well
Abandoned GAS Well
October 30, 2012
T18S-R36E
CONOCO STATE G-12 5,175
YATES PETROLEUM CORPORATION AIRPATH "AEM" STATE 13,004
STANOLIND STATE L 5,522
HARVEY E YATES FLINT UNIT 8,700
CITIES SERV OIL CO STATE BK 11,380
CONOCO NIX-FEDERAL A 3,350
SIMSON RESOURCES CO LAWSON STATE
YATES PETROLEUM CORPORATION CREOSOTE "VM" STATE
SUNDOWN ENERGY BOBBI
PENNSYLVANIAN / 453SADR / 409PSLV
CHESAPEAKE OPERATING INCORPORATED BOBBI
SEQUINA OIL CORPORATION STATE KNN
SUNDOWN ENERGY State of New Mexico
SUNDOWN ENERGY STATE "Y"
SUNDOWN ENERGY STATE OF N M W
TEXAS PACIFIC OIL CO STATE W
KING RESOURCES ARKANSAS JUNCTION 12,221
YATES PETROLEUM CORPORATION MOONRISE STATE 10,979
SHELL OIL STATE 5,200
BASIN ALLIANCE LIMITED LIABILITY COR STATE AJ
KEY ALE E INCORPORATED SHELL RA
PURE STATE LEA 11,786
LOWE OHIO STATE 12,020
SOUTHERN MINERALS SIMMONS STATE B 5,500

36E

18S



Proposed Waterflood Project Area

Proposed Injection Well

Producing Well

PA'd Well

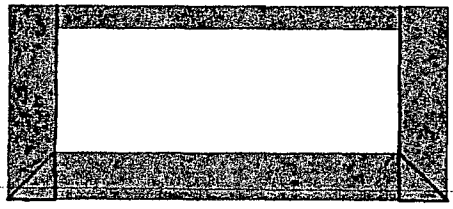
Sundown Energy, LP
Proposed Bobbi State Unit Waterflood
½ Mile AOR Map

SUNDOWN ENERGY, LP
FORM C-108: AREA OF REVIEW WELL DATA
BOBBI STATE UNIT WATERFLOOD PROJECT

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG N/S	N/S	FTG E/W	E/W	UNIT	SEC.	TSHP	RNG.	DATE DRILLED	TOTAL DEPTH	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	HOLE SIZE	CSG. SIZE	SET AT	SX. CMT.	CMT. TOP	MTD.	COMPLETION	REMARKS
30-025-25065	Rex Alcorn	Bobbi	1	P	PA	1980'	S	1980'	E	J	20	18S	36E	Aug-75	12,266'	17 1/2"	12 3/4"	333'	400	Surface	Calc.	11"	8 1/2"	5,010'	700	2,900'	Well File	5,552'-5,583' Perf.	PA'd 5/76. Re-Entered & PA'd 6/79
																						7 7/8"	5 1/2"	5,694'	200	4,626'	Calc.		Schematic Attached
30-025-26356	Chesapeake Operating	Bobbi	1Y	P	PA	1980'	S	1930'	E	J	20	18S	36E	Nov-79	11,050'	17"	13 3/8"	330'	325	Surface	Circ.	11"	8 5/8"	3,800'	1100	1,000'	T.S.	5,474'-5,480' Perf.	PA'd 2/81. Schematic Attached
																						7 7/8"	5 1/2"	11,050'	185	10,200'/4484'	CBL		
30-025-26796	Chesapeake Operating	Bobbi	2	P	PA	330'	S	1980'	E	O	20	18S	36E	May-80	5,650'	12 1/4"	8 5/8"	1,881'	839	Surface	Circ.	7 7/8"	4 1/2"	5,850'	700	3,161'	T.S.	5,476'-5,535' Perf.	PA'd 5/08. Schematic Attached
30-025-26954	Sundown Energy LP	Bobbi	3	P	TA	330'	S	2310'	W	N	20	18S	36E	Jul-80	5,700'	12 1/4"	8 5/8"	1,890'	839	Surface	Circ.	7 7/8"	4 1/2"	5,700'	340	4,652'	CBL	5,485'-5,554' Perf.	TA'd 4/09 w/CIBP @ 5,450' w/3 sx. cmt.
30-025-27841	Sundown Energy LP	Bobbi 3 RVRS	5	P	Active	2310'	N	990'	W	E	20	18S	36E	Nov-81	5,724'	12 1/4"	8 5/8"	1,695'	700	Surface	Circ.	7 7/8"	4 1/2"	5,713'	175	5,100'	Calc.	5,295'-5,307' Perf.	
30-025-03977	V. H. Westbrook	State W	1	P	PA	330'	N	330'	W	D	28	18S	36E	Jan-58	12,245'	17"	13 3/8"	312'	300	Surface	Circ.	13"	9 5/8"	4,789'	1266	415'	T.S.	12,140'-12,186' Perf.	PA'd 4/62. Re-Entered & PA'd 12/79
																						9 5/8"	5 1/2"	12,245'	525	10,010'	T.S.		Schematic Attached
30-025-03978	Sundown Energy LP	State of New Mexico	1	P	Active	990'	N	1650'	E	B	29	18S	36E	Jul-58	12,214'	17"	13 3/8"	319'	350	Surface	Circ.	13"	9 5/8"	4,759'	2066	Surface	Circ.	5,499'-5,508' Perf.	PBTD: 5,555'
																						9 5/8"	5 1/2"	4,670'-5,632'	290	Liner Top	Circ.		
Well plugged 11/58: 40 Sx. @ 12,080'; 20 Sx. @ 10,430'; 50 Sx. @ 7,950'; 50 Sx. @ 6,150'; 30 Sx. @ 4,759'; 10 Sx. @ Surface. Re-entered 10/79: Circulated hole to 5,650'. Set 5 1/2" liner 4,670'-5,632 & cemented w/290 sx. PBTD: 5,555'.																													
30-025-27032	Sundown Energy LP	State of New Mexico	2	P	Active	660'	N	1980'	W	C	29	18S	36E	Sep-80	5,600'	12 1/4"	8 5/8"	1,896'	850	Surface	Circ.	7 7/8"	4 1/2"	5,600'	225	4,500'	Well File	5,152'-5,516' Perf.	
30-025-28071	Yates Petroleum Corp.	Creosote VM State	1	P	PA	1650'	N	330'	E	H	19	18S	36E	Feb-83	5,700'	12 1/4"	8 5/8"	1,822'	1000	Surface	Circ.	7 7/8"	5 1/2"	5,692'	485	3,213'	Calc.	5,312'-5,547' Perf.	PA'd 7/93. Schematic Attached

Rex Alcorn
Bobbi No. 1
API No. 30-025-25065
1980' FSL & 1980' FEL (Unit J)
Section 20, T-18 South, R-36 East, NMPM

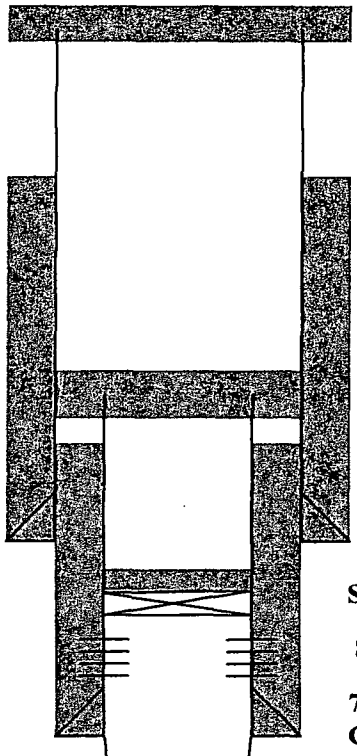
Drilled: 8/75
Plugged: 5/76
Re-Entered &
Re-Plugged: 6/79



10 sx. cmt @ suface

75' cmt. plug @ 333'

17 ½" Hole; Set 12 ¾" Csg @ 333'
Cemented w/400 Sx.
TOC @ surface by calc.



Cut 8 5/8" csg. & pulled @ 1,159'. Spot 75' cmt. plug @ 1,174 after unsuccessful re-entry.

TOC @ 2,900' (Well File)

Cut 5 ½" csg & pulled @ 4,741'. Spot 70 sx. cement stub plug @ 4,741'

TOC @ 4,750' (Estimted)

11" Hole; Set 8 ½" Csg @ 5,010'
Cemented w/700 sx.
TOC @ 2,900' (Well File)

Set CIBP @ 5,420 w/30 sx. cement on top

San Andres perforations: 5,552'-5,583'

7 7/8" Hole; Set 5 ½" Csg. @ 5,694'
Cemented w/200 Sx.
TOC @ 4,750' (Estimated)

Set 35 sx. cmt. plug 5,800'-5,900'

Set 35 sx. cmt. plug 6,600'-6,700'

Set 35 sx. cmt. plug 8,600'-8,700'

Set 35 sx. cmt. plug 10,400'-10,500'

Set 35 sx. cmt. plug 10,800'-10,900'

7 7/8" hole drilled to 12,266'

T.D. 12,266'

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: L-2948

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT..." (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: Rex Alcorn

8. Farm or Lease Name: Bobbi

3. Address of Operator: Ingram Bldg., 100 South Kentucky, Roswell, New Mexico 88201

9. Well No.: 1

4. Location of Well: UNIT LETTER J, 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 20 TOWNSHIP 18 S RANGE 36 E NMPM.

10. Field and Pool, or Wildcat: New Field Wildcat

15. Elevation (Show whether DF, RT, GR, etc.): 3829 GR 3842 DF

12. County: Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
		OTHER Junked & Abandoned [ ]	
OTHER [ ]			

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

(Re-entry attempt of former Coquina Oil Corp. No. 1 State "KNN")

Subsequent to one-week attempt to enter 8 5/8" casing as per attached daily progress report, efforts proved unsuccussful. Hole wsas Junked and abandoned and P&A as follows:

June 2, '79" 75 foot plug @ 1174' (8 5/8" stub)
75 foot plug @ 333' (12 3/4" surface casing)
10 sacks @ surface

Operator will skid 50 feet east and start new hole from surface.

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

SIGNED Rex Alcorn TITLE Operator DATE June 12, 1979

APPROVED BY Orig. Signed by Jerry Sexton Dist 1, Supv. TITLE DATE JUN 22 1979

CONDITIONS OF APPROVAL, IF ANY:

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OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: 1-2948

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: COQUINA OIL CORPORATION

8. Farm or Lease Name: State KNN

3. Address of Operator: P. O. Drawer 2960, Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER J, 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 20 TOWNSHIP 18-S RANGE 36-E NMPM.

10. Field and Pool, or Wildcat: West Arkansas Junction (SA)

15. Elevation (*Show whether DF, RT, GR, etc.*): 3829'

12. County: Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER [ ]	

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

PLUGGED AND ABANDONED AS FOLLOWS:

Pulled 4,741.62' of 5 1/2" casing and 1159.04' of 8 5/8" casing.

1. Set CIBP at 5420' with 30 sacks on top.
2. Spotted 70 sacks reg. in and out of 5 1/2" stub at 4741'.
3. Spotted 75 sacks reg. in and out of 8 5/8" stub at 1159'.
4. 75 sacks reg at 276'.
5. 10 sacks at surface.

Mud was placed between all plugs.

Welded on dry hole marker.

May 26, 1976, operations complete.

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

SIGNED Alan Bump TITLE Engineering Assistant DATE May 27, 1976

APPROVED BY John W. Runyan TITLE _____ DATE _____

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OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name

2. Name of Operator: Coquina Oil Corporation

8. Farm or Lease Name: State KNN

3. Address of Operator: P. O. Drawer 2960, Midland, Texas 79701

9. Well No.: 1

4. Location of Well: UNIT LETTER J, 1980 FEET FROM THE South LINE AND 1980 FEET FROM THE East LINE, SECTION 20 TOWNSHIP 18S RANGE 36E NMPM.

10. Field and Pool, or Wildcat: Arkansas Junction Dev.

15. Elevation (*Show whether DF, RT, GR, etc.*): 3829 GL

12. County: Lea

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER Drilling to Completion	[X]

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Spudded at 10:00 a.m., Aug. 2, 1975. On August 4, ran 333.18' of 12 3/4" 40# 8rd STC casing in 17 1/2" hole; cmt. casing with 400 sx class C, 2% $CaCl_2$ and 1/4# Flocele. August 19, ran 5010.91' of 8 5/8" 32# J-55 STC casing and cemented with 500 sx class C with 1/4# Flocele, plus 200 sx class C with 2% $CaCl_2$ + V4 Flocele, cement top at 2900'. Sept. 22 lost circ. At 12,245' pulled 20 std. Mix 75 bbls. WIH. Circ. 2 1/4 hrs. Lost comp. ret. Pulled 15 std. Pump 300 bbls.--no return. Sept. 24, reach T.D. at 12,266'. Sept. 26, prep to set plug to PBTD & DST 10,878'-10,970'. Dress off plug to 10,970'. Check press. drop. Decide not to attempt San Andres completion. Sept. 27, set cement plug @ 10,206', cmt. w/ 150 sx class H, 6% CFRZ, 5# sd/sx. Sept. 30, PBTD to 5800'. Set plugs as follows:

10,800'-10,900'	35 SX
10,400'-10,500'	35 SX
8,600'-8,700'	35 SX
6,600'-6,700'	35 SX
5,800'-5,900'	35 SX

Oct. 1, ran 5 1/2" 15.5# K-55 8rd casing. Landed @ 5,694'. Cct. 2-6, WO Completion.

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

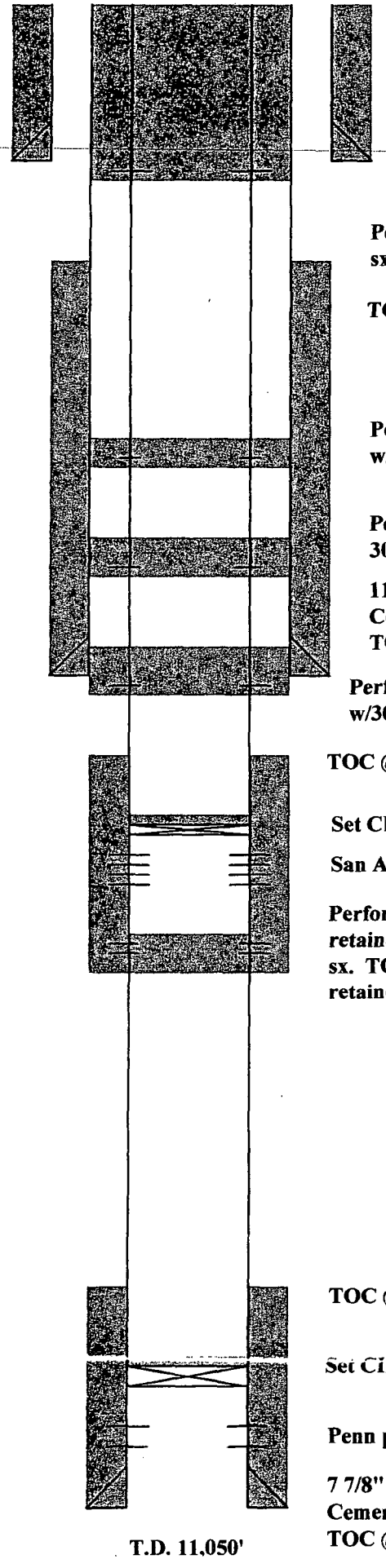
SIGNED [signature] TITLE Eng. Asst. DATE 10-7-75

APPROVED BY [illegible] TITLE [ ] DATE [ ]

CONDITIONS OF APPROVAL, IF ANY: Signed By [illegible] Gas Insp.

Chesapeake Operating, Inc.
Bobbi No. 1Y
API No. 30-025-26356
1980' FSL & 1930' FEL (Unit J)
Section 20, T-18 South, R-36 East, NMPM

Drilled: 1179
Plugged: 8/09



17" Hole; Set 13 3/8" csg @ 330'
Cemented w/325 Sx.
Cement circulated to surface

Perforate 5 ½" csg. @ 380' & squeezed w/100 sx. cmt. Cement circulated to surface.

TOC @ 1,000' by T.S.

Perforate 5 ½" csg. @ 2,006' & squeezed w/30 sx. cmt. Tagged @ 1,800'

Perforate 5 ½' csg. @ 3,280 & squeezed w/ 30 sx. cmt. Tagged @ 3,050'

11" Hole; Set 8 5/8" csg @ 3,800'
Cemented w/1100 sx.
TOC @ 1,000' by T.S.

Perforated 5 ½" csg. @ 3,850' & squeezed w/30 sx. cmt. Tagged @ 3,695'

TOC @ 4,484' by CBL

Set CIBP @ 5,400' w/cement 5,146'-5,400'

San Andres Perforations: 5,474'-5,480'

Perforate 5 ½" csg. @ 5,700'. Ran cmt. retainer & set @ 5,635'. Squeezed w/300 sx. TOC @ 4,484' by CBL. Cmt. plug & retainer in csg. 5,620'-5,700'

TOC @ 10,200' by T.S.

Set CIBP @ 10,700' w/35' of cement on top

Penn perforations: 10,863'-10,933'

7 7/8" Hole. Set 5 ½" csg. @ 11,050'
Cemented w/185 sx.
TOC @ 10,200' by T.S.

T.D. 11,050'

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
June 19, 2008

WELL API NO.	30-025-26356
5. Indicate Type of Lease	STATE [X] FEE [ ]
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name	Bobbi
8. Well Number	1Y
9. OGRID Number	147179
10. Pool name or Wildcat	Arkansas Junction; San Andres, West

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well [X] Gas Well [ ] Other
2. Name of Operator: Chesapeake Operating, Inc.
3. Address of Operator: P.O. Box 18496, Oklahoma City, OK 73154-0496
4. Well Location
   Unit Letter J : 1980' feet from the South line and 1930' feet from the East line
   Section 20 Township 18S Range 36E NMPM County Lea
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3832' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[X]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[ ]		
DOWNHOLE COMMINGLE	[ ]						
OTHER:	[ ]			OTHER:			[ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please find the following work performed in the plug and abandonment of this well from 8/13/09 through 8/19/2009.
MIRU PU & SE. NDWH & NUBOP. POOH w/178 jts of 2 7/8"tbg. RU WL & RIH w/gauge ring to 5620' & tagged top of cement retainer. POOH w/WL. RIH w/ 5 1/2" bridge plug & set @ 5400'. POOH w/WL. RIH w/ 173 of 2 3/8" jts tbg. Circ hole w/plugging mud. Spot 25 sxs class "C" cmt from 5400' to 5146', Est top/cmt. Stood back tbg. RIH w/WL & perf csg at 3850'. POOH w/WL. RIH w/ AD1-pkr & 55 jts of 2 3/8" tbg. Set pkr at 3433'. Break circ out 8 5/8" csg. Sqzd 30 sxs class "C" cmt. Est top/cmt 3750'. WOC. Unseat pkr & POOH. RIH w/open ended tbg. Tag top/cmt 3695'. POOH w/tbg & RIH w/WL. Perf at 3280', POOH w/ WL. RIH w/AD1 pkr & 46 stds. Set at 2871'. Circ through 8 5/8". Sqzd 30 sxs class "C" cmt. WOC. POOH w/tbg & pkr. RIH open ended & tagged cmt @ 3050'. POOH w/tbg. RIH w/WL. Perf @ 2006'. POOH w/WL. RIH w/AD1-PKR & 26 stds. Pkr set @ 1622'. Circ out 8 5/8". Sqzd 30 sxs class "C" cmt. WOC. RIH w/WL & tag cmt @ 1800'. POOH w/wireline. POOH w/tbg & pkr. RIH w/ WL & prf at 380'. POOH w/ WL. RIH w/AD-1 PKR & 1 jt of tbg. Set pkr at 30'. CO 8 5/8". Sqzd 100 sxs class "C" cmt to surface. POOH w/pkr & tbg. Fill cmt to surface. Rig down all equipment. Release PU.
Well P&A'd on 8/19/2009. Turn well over to production for final clean up.

Approved for plugging of well bore only. Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

Spud Date: Rig Release Date:

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

SIGNATURE [signature] TITLE Senior Regulatory Compl. Sp. DATE 08/24/2009

Type or print name Bryan Arrant E-mail address: bryan.arrant@chk.com PHONE: (405)935-3782

For State Use Only

APPROVED BY: [signature] TITLE DISTRICT 1 SUPERVISOR DATE SEP 01 2009

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ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

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SANTA FE, NEW MEXICO 87501

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: L-2948

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: Rex Alcorn

8. Farm or Lease Name: Bobbi

3. Address of Operator: Ingram Building, 100 So. Kentucky, Roswell, New Mexico 88201

9. Well No.: 1-Y

4. Location of Well: UNIT LETTER J, 1980 FEET FROM THE South LINE AND 1930 FEET FROM THE East LINE, SECTION 20 TOWNSHIP 18 S RANGE 36 E NMPM.

10. Field and Pool, or Wildcat: W. Ark. Junct.-SA

15. Elevation (Show whether DF, RT, GR, etc.): 3832' GR 3848' KB

12. County: LEA

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER Plug Back to W. Ark. Junct.- SA [X]	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Well formerly completed as Arkansas Junction-Penn from perfs 10,863' to 10,933'. Pulled rods, pump, tubing and anchor. Ran and set 5 1/2" cast iron bridge plug at 10,700' and spotted 35' cement on top plug. Perf 4 shots at 5700', ran cement retainer and set at 5635'. Squeezed with 300 sacks Class C with 3# KCL, 3% Halad-4 and 4% CER 2. Pulled off retainer and spotted 150 gals 15% MCA acid. Ran GR with collar locater and bond log. Good bond with top cement at 4484'. Perf 2 shots per foot at 5474, 76, 78 & 80. Ran RTTS tool on tbg, tagged bottom at 5623' from KB. Set RTTS at 5357', displaced hole with 2% KCL wtr, acidized with 2000 gals 15% MCA acid and 12 ball sealers. Swabbed dry with show gas and oil. Halliburton fraced down 2 7/8" tbg. with 10,000 gals gelled 2% KCL wtr plus 10,000 gals liquid CO2 plus flush and 18,000 lbs 20/40 sand and 22,500 lbs 10/20 sand. Av trtg pressure 5050#, av inj rate 13 BPM, ISIP 2550#, 2190 in 15 mins. Flowed back portion of load. Swabbed dry with show oil and gas. Pulled tbg and RTTS. Ran 179 jts 2 7/8" tbg with seating nipple and tbg anchor. Seating nipple at 5520' from KB, bottom tagged at 5623'. Ran rods and pump and put on pump. From 12-24-80 to 2-5-81 produced average 3 BOPD plus 30-40% load water. On Feb. 5, 1981, pulled rods and pump, changed out pumping unit from size 640 to Lufkin 114. Pulled tbg, ran tracer survey which indicated treatments entered pay zone. Ran 178 jts 2 7/8" tbg with seating nipple and anchor, bull plug on bottom jt used for mud anchor. SN @ 5489' from KB. Ran 2 x 1 1/2 x 16 pump, 159 jts 3/4" & 58 jts 7/8" rods w/2' sub above pump. POP : work completed 2-9-81.

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

SIGNED Rex Alcorn TITLE Operator DATE 3-4-81

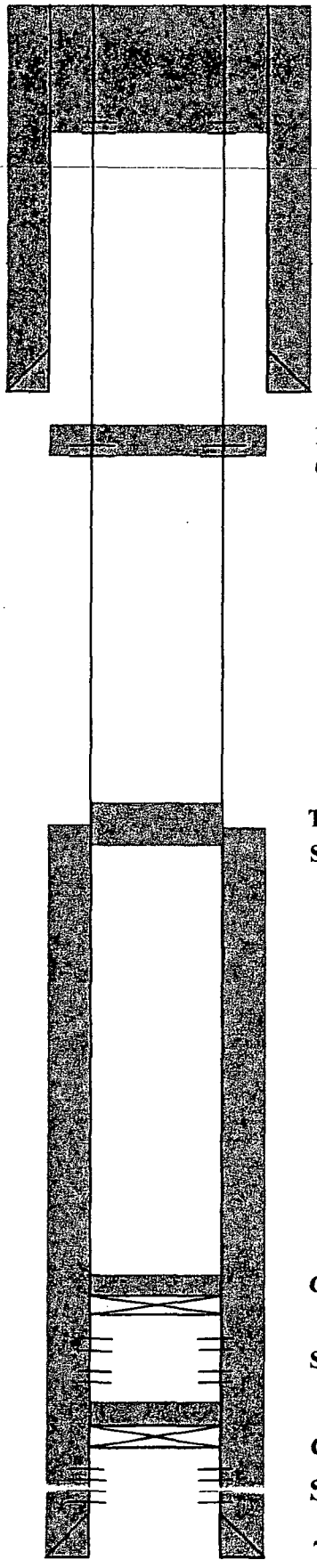
APPROVED BY Orig. Signed By Jerry Sexton TITLE Dist. I Supv. DATE MAR 6 1981

CONDITIONS OF APPROVAL, IF ANY:

Carl Ketchum

Chesapeake Operating, Inc.
Bobbi No. 2
API No. 30-025-26796
330' FSL & 1980' FEL, Unit O
Section 20, T-18S, R-36E

Drilled: 5/1980
PA'd: 5/2008



Perforate 4 ½" csg. @ 450'.
Pumped 135 sx. cmt. down
4 ½" csg. to surface out of
8 5/8" csg. Leave csg. full.

12 ¼" Hole; Set 8 5/8" csg. @ 1881'
Cemented w/839 sx.
Cement circulated to surface

Perforate 4 ½" csg. @ 1,931'. Set packer
@ 1,512' & squeeze w/40 sx. cmt.

TOC @ 3,161' by T.S.
Set 25 sx. cmt. plug @ 3,204'

CIBP @ 5,376' w/25 sx. cement on top

San Andres perforations: 5,476'-5,486'

CIBP @ 5,510' w/10' cement on top

San Andres perforations: 5,523'-5,535'

7 7/8" Hole; Set 4 ½" csg. @ 5,650'
Cemented w/700 Sx.
TOC @ 3,161' by T.S.

T.D. 5,650'

890917

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
May 27, 2004

WELL API NO. 30-025-26796

5. Indicate Type of Lease STATE [x] FEE [ ]

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

RECEIVED
JUN 02 2008
HOBBS OCD

7. Lease Name or Unit Agreement Name: BOBBI

1. Type of Well: Oil Well [x] Gas Well [ ] Other

8. Well Number 2

2. Name of Operator CHESAPEAKE OPERATING, INC.

9. OGRID Number 147179

3. Address of Operator 2010 Rankin Hwy., Midland, TX 79701

10. Pool name or Wildcat Arkansas Junction; San Andres West

4. Well Location

Unit Letter O : 330 feet from the SOUTH line and 1980 feet from the EAST line

Section 20 Township 18 S Range 36 E NMPM LEA County NM

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,832 GR

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type STEEL Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[X]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPLETION	[ ]	CASING TEST AND CEMENT JOB	[ ]		
OTHER:	[ ]			OTHER:			[ ]

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Approval of Plugging of Well Bore: Liability under bond is retained pending receipt of C-103 (Subsequent Report of Well Plugging) which may be found at OCD Web Page under Forms, www.emnrd.state.nm.us/ocd.

5-21-08 Set 4 1/2" C.I.B.P. @5,376'.

5-22-08 Circulate hole with mud. Spot 25 sx. cmt. @5,376'. Spot 25 sx. cmt. @3,204'. Perf. 4 holes @1,931'. Set pkr. @1,512'. Sqz. 40 sx. cmt. Perf. 4 holes @450'.

5-23-08 Pump 135 sx. cmt. down 4 1/2" to surface out of 8 5/8". Leave 4 1/2" full of cement. Install Dryhole Marker.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines [ ], a general permit [ ] or an (attached) alternative OCD-approved plan [ ]

SIGNATURE _____ TITLE P & A SUPV. DATE 5-27-08

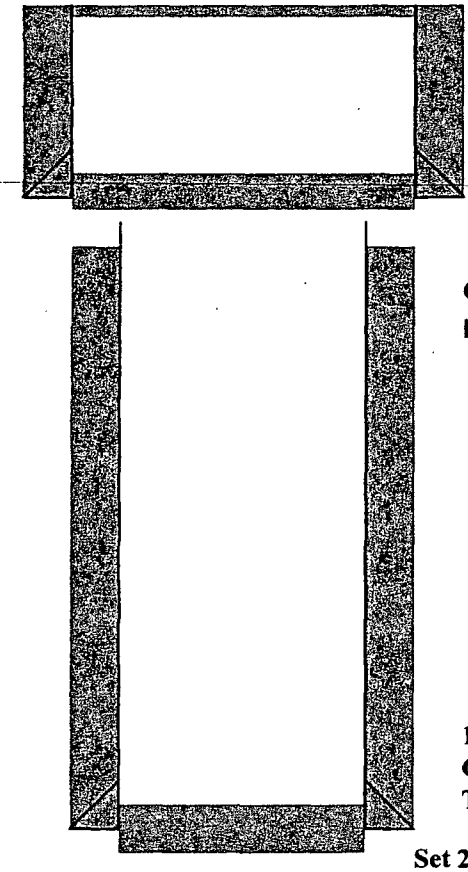
Type or print name GARY EGGLESTON E-mail address: Telephone No. (432) 530-0907

For State Use Only

APPROVED BY _____ TITLE DISTRICT SUPERVISOR/GENERAL MANAGER DATE JUN 05 2008

Conditions of Approval, if any:

V. H. Westbrook
State of New Mexico W No. 1
API No. 30-025-03977
330' FNL & 330' FWL (Unit D)
Section 28, T-18 South, R-36 East, NMPM



10' cmt plug
@ surface

17" Hole; Set 13 3/8" csg @ 312'
Cemented w/300 Sx.
Cement circulated to surface

Cut 9 5/8" csg. & pulled @ 380'. Set 100' cmt. plug 262'-362' after unsuccessful re-entry.

Drilled: 1/58
Plugged: 4/62
Re-Entered &
Re-Plugged: 12/79

13" Hole; Set 9 5/8" csg @ 4,789'
Cemented w/1266 sx.
TOC @ 415' by T.S.

Set 25 sx. cmt. Plug 4,760'-4,820'

Set 25 sx. cmt. Plug 5,560'-5,600'

Set 25 sx. cmt. plug 7,800'-7,840'

Set 25 sx. cmt. plug 8,580'-8,620'

Cut & pulled 5 ½" csg. @ 9,915'. Set 25 sx. cmt plug 9,879'-9,949'

TOC @ 10,010 by T.S.

Set 25 sx. cmt. plug 12,005'-12,180'

Devonian perforations: 12,140'-12,186'

9 5/8" hole; Set 5 ½" csg. @ 12,245'
Cemented w/525 sx.
TOC @ 10,010' by T.S.

T.D. 12,245'

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LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [ ] GAS WELL [ ] OTHER- Re-Entry

7. Unit Agreement Name: L 4236

2. Name of Operator: V. H. Westbrook

8. Farm or Lease Name: State of NM "W"

3. Address of Operator: P.O. Box 2264 Hobbs, New Mexico 88240

9. Well No.: # 1

4. Location of Well: UNIT LETTER D, 330 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE, SECTION 28 TOWNSHIP 18-S RANGE 36-E NMPM.

10. Field and Pool, or Wildcat: W. Arkansas S.A.

15. Elevation (Show whether DF, RT, GR, etc.): 3823 G.L.

12. County: Lea

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [X]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER [ ]	

17. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

12-11-79

1. Set 100' Plug 50' below 13-3/8" surface and 50' into 13-3/8" Casing 100' plug from 362' to 302'

2. Loaded hole w/10# Gelled Brine

3. Set 10' plug @ surface in 13-3/8" surface w/4-1/2" Marker erected.

(Worked performed as directed by OCC, Mr. Les Clements)

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

SIGNED V. H. Westbrook TITLE Operator DATE 9/15/87

APPROVED BY R A Gallegos TITLE OIL & GAS INSPECTOR DATE SEP 18 1987

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company	Address
Texas Pacific Coal & Oil Co. & The Pure Oil Co.	P. O. Box 1688, Hobbs, New Mexico

Lease	Well No.	Unit Letter	Section	Township	Range
State of New Mexico "W"	1	D	28	18-S	36-E

Date Work Performed	Pool	County
3/18 - 4/6 - 1962	Arkansas Junction Devonian	Lea

THIS IS A REPORT OF: *(Check appropriate block)*

☐ Beginning Drilling Operations ☐ Casing Test and Cement Job ☐ Other *(Explain)*:

☒ Plugging ☐ Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

The following work was performed in plugging this well.

1. Loaded hole with 9 lb./gal. salt water jel.
2. Spotted 25 sxs. cement plug from 12,005-12,180' over Devonian perforations.
3. Cut and pulled 5-1/2" csg. from 9915'.
4. Placed cement plugs as follows: 9879-9949' 20 sxs. 5560-5600' 25 sxs.
   8580-8620' 25 sxs. 4760-4820' 40 sxs.
   7800-7840' 25 sxs.
5. Cut and pulled 9-5/8" csg. from 380'.
6. Placed 85 sxs. cement plug from 290-403'.
7. Placed 10 sx. cement plug and marker at surface.
8. Leveled pit and cleaned up location.

4410' 9-5/8" Csg. and 311' of 13-3/8" csg. left in well.

Witnessed by	Position	Company
Rollins M. Roth	Petroleum Engineer	Texas Pacific Coal & Oil Company

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date

Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth

Perforated Interval(s)

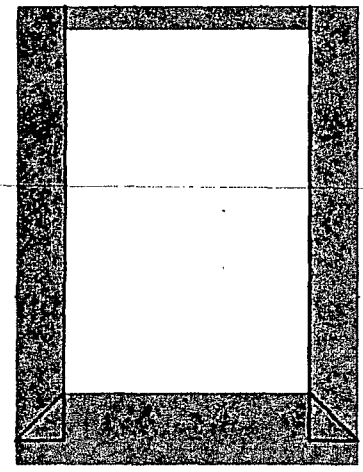
Open Hole Interval	Producing Formation(s)

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION	I hereby certify that the information given above is true and complete to the best of my knowledge.
Approved by Leslie A. Clements	Name Rollins M. Roth
Title	Position Petroleum Engineer
Date MAY	Company Texas Pacific Coal & Oil Company

Yates Petroleum Corporation
Creosote VM State No. 1
API No. 30-025-28071
1650' FNL & 330' FEL, Unit H
Section 19, T-18S, R-36E

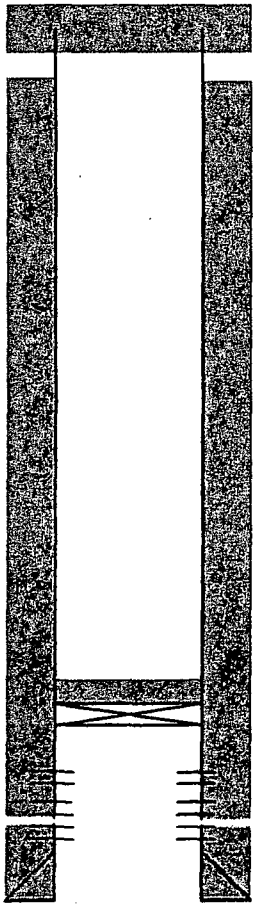


Spot 15 sx. cement plug @ surface

Drilled: 2/1983
Plugged: 7/1993

12 ¼" Hole; Set 8 5/8" 24# csg. @ 1822'
Cemented w/1000 sx.
Cement circulated to surface

Spot 90 sx. cement shoe plug. Tagged plug @ 1,810'. Spot 25 sx. additional cement plug & tagged @ 1,729'



Cut & pulled 3,029' of 5 ½" csg. Spot 40 sx. stub plug 2,965'-3,152' (Tagged)

TOC @ 3,213' by calc.

Set CIBP @ 5,250' w/cement 5,215'-5,250'

San Andres Perforations: 5,312'-5,547'

7 7/8" Hole; Set 5 ½" 15.5# csg. @ 5,692'
Cemented w/465 Sx.
Calculated TOC @ 3,213'

T.D. 5,700'

ubmit 3 Copies
Appropriate
istrict Office

State of New Mexico
Energy, Mine[illegible] and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
O. Box 1980, Hobbs, NM 88240

DISTRICT II
O. Drawer DD, Artesia, NM 88210

DISTRICT III
00 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
30-025-28071

5. Indicate Type of Lease STATE [XX] FEE [ ]

6. State Oil & Gas Lease No.
LG-3862

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
Creosote VM State

Type of Well:
OIL WELL [ ] GAS WELL [ ] OTHER P & A Well

Name of Operator
YATES PETROLEUM CORPORATION

8. Well No.
1

Address of Operator
105 South 4th St., Artesia, NM 88210

9. Pool name or Wildcat
Arkansas Junction SA West

Well Location
Unit Letter H : 1650 Feet From The North Line and 330 Feet From The East Line

Section 19 Township 18S Range 36E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3847' GR

I. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
ERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
EMPORARILY ABANDON	[ ]	CHANGE PLANS	[ ]	COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[X]
ULL OR ALTER CASING	[ ]			CASING TEST AND CEMENT JOB	[ ]		
THER:	[ ]			OTHER:			[ ]

2. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Moved in and rigged up pulling unit. POOH w/rods, pump, anchor and tubing. WIH w/5-1/2" CIBP and set at 5250'. POOH. Ran tubing in hole to top of plug. Loaded hole with mud. Spotted 35' of cement on top of CIBP. POOH w/tubing. Dug out cellar. Cut plate around casing. Stretch casing for free point. Showed to be free at 3100'. WIH w/casing cutter and cut casing at 3029'. Pulled and laid down 5-1/2" casing. RIH w/tubing to 3152'. Spotted 40 sacks of cement across 5-1/2" stub. Pulled 25 stands tubing. WOC. RIH and tagged cement top at 2965'. Pulled and laid down tubing to 2075'. Spotted 90 sacks of cement across 8-5/8" shoot. WOC. RIH w/tubing and tagged cement at 1810'. Cement plug was too low. Re-spotted a 25 sack cement plug. WOC. RIH and tagged plug at 1729'. Pulled and laid down tubing. Spotted a 15 sack surface plug. Installed regulation abandonment marker. PLUGGED AND ABANDONED - FINAL REPORT.

Plugging completed July 31, 1993.

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

SIGNATURE Rusty Klein TITLE Production Clerk DATE Sept. 4, 1993

TYPE OR PRINT NAME Rusty Klein TELEPHONE NO. 505/748-1471

(This space for State Use)

APPROVED BY [signature] TITLE OIL & GAS INSPECTOR DATE MAR 24 1995

CONDITIONS OF APPROVAL, IF ANY:

Location of Water Well Analysis

T18S, R36E, Lea County, New Mexico

Cunningham Well # 2: located in Center of Section 21

Cunningham Well # 13: located in Center of Section 29

Cunningham Well # 14: located in Center of Section 20

Xcel Energy
Chemistry Resources
Amarillo Testing Laboratory
7201 N Lakeside Rd, Amarillo TX, 79108

Certificate # T104704351-08A-TX

Login Batch 12080482	**Login Date** 08/30/2012	**Project Mgr:** Gale Henslee
Collected by RICK WILLIAMS	**Logged In by** GC	**Copies to:** Terry Dennis
	Report Date 12/17/2012	Scott Brake

Project Name CUNNINGHAM ANNUAL WATER

Labworks ID EH30411	**Sample Location** WELL 2	Collection date 8/29/12
Sample ID	**Chain of Custody #** 220979	Collection time 13:40

Parameter	Results	Units	Qualifier	Detection Limit (MDL)	Reporting Limit (RL)	Analyst	Analysis date / time	Method
Total Hardness	160	ppmCaCO3		1	1	RM	10/9/12 10:34	2340B
Calcium	51	ppm		2	2	RM	10/9/12 10:34	EPA 200.7
Magnesium	8	ppm		2	2	RM	10/9/12 10:34	EPA 200.7
Sodium	32	ppm		2	2	RM	10/9/12 10:34	EPA 200.7
Potassium	<5	PPM		2	2	RM	10/9/12 10:34	EPA 200.7
M Alkalinity	178	ppmCaCO3	J	0	0	GC	9/25/12 11:00	2320B
P Alkalinity	0	ppmCaCO3	J	0	0	GC	9/25/12 11:00	2320B
Chloride	25	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Nitrate	10	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Sulfate	37	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Nitrite	<1	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Phosphate	<1	PPM		1	1	GC	8/30/12 13:50	EPA 200.7
TDS by Evap	315	mg/L		10	10	RM	9/5/12 14:30	2540 C
TDS by Analysis	NA					GC	12/17/12 10:23	
TDS Evp/Anal Ratio	NA					GC	12/17/12 10:23	
pH	7.85		F			RW	8/29/12 11:00	4500-H+B
Temperature	19.7	degrees C	F			RW	8/29/12 11:00	
Silica	36	PPM	Z	1	1	RM	10/10/12 15:50	EPA 200.7
COD	3	MG/L		.5	.5	RM	9/5/12 16:30	Hach 8000
BOD	NR	mg/L		1	1	CC	12/14/12 14:43	5210-B
Cyanide (WAD)	NR	mg/L		0.05	0.05	CC	12/14/12 14:43	4500-CN-I
Oil and Grease	NR	mg/L		5.0	5.0	CC	12/14/12 14:43	EPA 1664
Total Anions	262			80	80	GC	9/25/12 11:00	
Total Cations	233			70	70	RM	10/9/12 10:34	
Cation/Anion Balance	-5.9					RM	10/9/12 10:34	
Chromium	1.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Zinc	4.7	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Aluminum	15.2	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Arsenic	6.2	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Barium	97.3	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Boron	0.073	ppm		0.0005	0.0005	CC	10/19/12 09:31	EPA 200.8
Cadmium	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Copper	2.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Iron	84.1	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Lead	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Manganese	0.7	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Mercury	<0.2	ppb		0.5	0.5	CC	12/14/12 14:43	EPA 245.1
Nickel	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Selenium	3.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Silver	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Strontium	490	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Vanadium	26.7	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8

Sample comments:

Project Name CUNNINGHAM ANNUAL WATER

Labworks ID EH30415	**Sample Location** WELL 13	Collection date 8/29/12
Sample ID	**Chain of Custody #** 220979	Collection time 11:00

Parameter	Results	Units	Qualifier	Detection Limit (MDL)	Reporting Limit (RL)	Analyst	Analysis date / time	Method
Total Hardness	163	ppmCaCO3		1	1	RM	10/9/12 10:53	2340B
Calcium	54	ppm		2	2	RM	10/9/12 10:53	EPA 200.7
Magnesium	7	ppm		2	2	RM	10/9/12 10:53	EPA 200.7
Sodium	26	ppm		2	2	RM	10/9/12 10:53	EPA 200.7
Potassium	<5	PPM		2	2	RM	10/9/12 10:53	EPA 200.7
M Alkalinity	176	ppmCaCO3	J	0	0	GC	9/25/12 11:00	2320B
P Alkalinity	0	ppmCaCO3	J	0	0	GC	9/25/12 11:00	2320B
Chloride	22	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Nitrate	11	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Sulfate	37	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Nitrite	<1	ppm		1	1	GC	8/30/12 13:50	EPA 300.0
Phosphate	<1	PPM		1	1	GC	8/30/12 13:50	EPA 200.7
TDS by Evap	314	mg/L		10	10	RM	9/5/12 14:30	2540 C
TDS by Analysis	NA					GC	12/17/12 10:23	
TDS Evp/Anal Ratio	NA					GC	12/17/12 10:23	
pH	7.72		F			RW	8/29/12 11:00	4500-H+B
Temperature	19.7	degrees C	F			RW	8/29/12 11:00	
Silica	37	PPM	Z	1	1	RM	10/10/12 15:50	EPA 200.7
COD	<3	MG/L		.5	.5	RM	9/5/12 16:30	Hach 8000
BOD	NR	mg/L		1	1	CC	12/14/12 14:43	5210-B
Cyanide (WAD)	NR	mg/L		0.05	0.05	CC	12/14/12 14:43	4500-CN-I
Oil and Grease	NR	mg/L		5.0	5.0	CC	12/14/12 14:43	EPA 1664
Total Anions	257			80	80	GC	9/25/12 11:00	
Total Cations	223			60	60	RM	10/9/12 10:53	
Cation/Anion Balance	-7.1					RM	10/9/12 10:53	
Chromium	1.3	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Zinc	7.8	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Aluminum	2.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Arsenic	6.8	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Barium	93.2	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Boron	0.077	ppm		0.0005	0.0005	CC	10/19/12 09:31	EPA 200.8
Cadmium	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Copper	1.4	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Iron	9.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Lead	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Manganese	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Mercury	<0.2	ppb		0.5	0.5	CC	12/14/12 14:43	EPA 245.1
Nickel	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Selenium	3.2	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Silver	<0.5	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Strontium	493	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8
Vanadium	28.0	ppb		0.5	0.5	CC	10/19/12 09:31	EPA 200.8

Sample comments:

Xcel Energy

Chemistry Resources
Amarillo Testing Laboratory
7201 N Lakeside Rd, Amarillo TX, 79108

Certificate # T104704351-08A-TX

Login Batch 11090016	**Login Date** 09/01/2011	**Project Mgr:** Gale Henslee
Collected by RICK WILLIAMS	**Logged In by** GC	**Copies to:** Terry Dennis
	Report Date 01/23/2013	Scott Brake

Project Name CUNNINGHAM ANNUAL WATER

Labworks ID EH04804	**Sample Location** WELL 14	Collection date 8/31/11
Sample ID	**Chain of Custody #** 031725	Collection time 13:25

Parameter	Results	Units	Qualifier	Detection Limit (MDL)	Reporting Limit (RL)	Analyst	Analysis date / time	Method
Total Hardness	215	ppmCaCO3		1	1	RM	9/23/11 12:57	2340B
Calcium	70	ppm		2	2	RM	9/23/11 12:57	EPA 200.7
Magnesium	10	ppm		2	2	RM	9/23/11 12:57	EPA 200.7
Sodium	29	ppm		2	2	RM	9/23/11 12:57	EPA 200.7
Potassium	<5	PPM		2	2	RM	9/23/11 12:57	EPA 200.7
M Alkalinity	188	ppmCaCO3		0	0	RM	9/27/11 10:00	2320B
P Alkalinity	0	ppmCaCO3		0	0	RM	9/27/11 10:00	2320B
Chloride	37	ppm		1	1	GC	9/2/11 15:27	EPA 300.0
Nitrate	9	ppm		1	1	GC	9/2/11 15:27	EPA 300.0
Sulfate	41	ppm		1	1	GC	9/2/11 15:27	EPA 300.0
Nitrite	<1	ppm		1	1	GC	9/2/11 15:27	EPA 300.0
Phosphate	<1	PPM		1	1	GC	9/2/11 15:27	EPA 200.7
TDS by Evap	345	mg/L				RM	9/7/11 16:00	2540 C
TDS by Analysis	NA			.01	.01	GC	10/26/11 09:40	
TDS Evp/Anal Ratio	NA			0.01	0.01	GC	10/26/11 09:40	
pH	7.12					RW	8/31/11 08:00	4500-H+B
Temperature	20.7	degrees C				RW	8/31/11 08:00	
Silica	48	PPM		1	1	RM	9/20/11 13:00	EPA 200.7
COD	4	MG/L		.5	.5	RM	9/7/11 16:30	Hach 8000
BOD	NR	mg/L		1	1	CC	10/17/11 10:10	5210-B
Cyanide (WAD)	NR	mg/L		0.05	0.05	CC	10/17/11 10:10	4500-CN-I
Oil and Grease	NR	mg/L		5.0	5.0	CC	10/17/11 10:10	EPA 1664
Total Anions	292			100	100	RM	9/27/11 10:00	
Total Cations	282			70	70	RM	9/23/11 12:57	
Cation/Anion Balance	-1.7					RM	9/23/11 12:57	
Chromium	3.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Zinc	6.0	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Aluminum	1303	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Arsenic	6.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Barium	101	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Boron	<0.5	ppm		0.0005	0.0005	CC	10/17/11 10:10	EPA 200.8
Cadmium	<0.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Copper	16.1	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Iron	726	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Lead	2.2	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Manganese	29.6	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Mercury	<0.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 245.1
Nickel	1.1	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Selenium	2.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Silver	<0.5	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Strontium	574	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8
Vanadium	31.6	ppb		0.5	0.5	CC	10/17/11 10:10	EPA 200.8

Sample comments:

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 03757	L		LE		1	1	28	18S	36E	653128	3621865*	125	45	80
L 06641	L		LE	4	2	1	30	18S	36E	650410	3621720*	110	42	68
L 12367 POD1	L		LE	1	2	4	28	18S	36E	654244	3621167	92	75	17

Average Depth to Water: **54 feet**

Minimum Depth: **42 feet**

Maximum Depth: **75 feet**

Record Count: 3

PLSS Search:

Section(s): 28-30 **Township:** 18S **Range:** 36E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
L 01250	L		LE	3	3	2	21	18S	36E	653812	3622986*	123	40	83
L 07469	L		LE	2	1	3	21	18S	36E	653213	3622770*	160	70	90

Average Depth to Water: **55 feet**

Minimum Depth: **40 feet**

Maximum Depth: **70 feet**

Record Count: 2

PLSS Search:

Section(s): 19-21 **Township:** 18S **Range:** 36E

***UTM location was derived from PLSS - see Help**

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 19, 2012

KYLE PAXTON

SUNDOWN ENERGY

P. O. BOX 277

WICKETT, TX 79788

RE: WEST ARKANSAS JUNCTION WATERFLOOD UNIT

Enclosed are the results of analyses for samples received by the laboratory on 11/30/12 11:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list on accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
STATE OF NM #1	H202885-03	Water	28-Nov-12 00:00	30-Nov-12 11:46
STATE OF NM #2	H202885-04	Water	28-Nov-12 00:00	30-Nov-12 11:46
COMP OF TORO 22 #1/BOB	H202885-05	Water	30-Nov-12 00:00	30-Nov-12 11:46

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

STATE OF NM #1

H202885-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**342**	5.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Chloride*	**122000**	4.00	mg/L	1	2113003	AP	04-Dec-12	4500-Cl-B	
Conductivity*	**352000**	1.00	uS/cm	1	2121806	HM	18-Dec-12	120.1	
pH*	**6.89**	0.100	pH Units	1	2121811	HM	11-Dec-12	150.1	
Sulfate*	**451**	10.0	mg/L	1	2120406	AP	05-Dec-12	375.4	
TDS*	**205000**	5.00	mg/L	1	2113012	AP	03-Dec-12	160.1	
Alkalinity, Total*	**280**	4.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Dissolved Metals									
Calcium	**9180**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Magnesium	**1900**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Potassium	**1230**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Sodium	**59200**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

STATE OF NM #2

H202885-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**97.6**	5.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Chloride*	**144000**	4.00	mg/L	1	2113003	AP	04-Dec-12	4500-Cl-B	
Conductivity*	**414000**	1.00	uS/cm	1	2121806	HM	18-Dec-12	120.1	
pH*	**4.72**	0.100	pH Units	1	2121811	HM	11-Dec-12	150.1	
Sulfate*	ND	10.0	mg/L	1	2120406	AP	05-Dec-12	375.4	
TDS*	**234000**	5.00	mg/L	1	2113012	AP	03-Dec-12	160.1	
Alkalinity, Total*	**80.0**	4.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Dissolved Metals									
Calcium	**10400**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Magnesium	**2390**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Potassium	**1480**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Sodium	**68700**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

COMP OF TORO 22 #1/BOBBI #5

H202885-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	**244**	5.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Chloride*	**146000**	4.00	mg/L	1	2120402	HM	17-Dec-12	4500-Cl-B	
Conductivity*	**486000**	1.00	uS/cm	1	2121806	HM	18-Dec-12	120.1	
pH*	**6.74**	0.100	pH Units	1	2121810	HM	11-Dec-12	150.1	
Resistivity	**0.0206**		Ohms/m	1	2121908	HM	18-Dec-12	120.1	
Specific Gravity @ 60° F	**1.189**	0.000	[blank]	4	2121909	HM	19-Dec-12	SM 2710F	
Sulfate*	**239**	10.0	mg/L	1	2120406	AP	05-Dec-12	375.4	
TDS*	**243000**	5.00	mg/L	1	2113012	AP	05-Dec-12	160.1	
Alkalinity, Total*	**200**	4.00	mg/L	1	2110104	HM	13-Dec-12	310.1	
Dissolved Metals									
Barium	ND	1.00	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Calcium	**15800**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Iron	ND	5.00	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Magnesium	**3400**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Potassium	**1320**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL
Sodium	**59600**	100	mg/L	100	2121907	CK	13-Dec-12	200.7	GAL

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2110104 - General Prep - Wet Chem										
Blank (2110104-BLK1)				Prepared & Analyzed: 31-Oct-12						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (2110104-BS1)				Prepared & Analyzed: 31-Oct-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			
LCS Dup (2110104-BSD1)				Prepared & Analyzed: 31-Oct-12						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120	0.00	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	0.00	20	
Batch 2113003 - General Prep - Wet Chem										
Blank (2113003-BLK1)				Prepared & Analyzed: 30-Nov-12						
Chloride	ND	4.00	mg/L							
LCS (2113003-BS1)				Prepared & Analyzed: 30-Nov-12						
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (2113003-BSD1)				Prepared & Analyzed: 30-Nov-12						
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
Batch 2113012 - Filtration										
Blank (2113012-BLK1)				Prepared: 30-Nov-12 Analyzed: 07-Dec-12						
TDS	ND	5.00	mg/L							

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2113012 - Filtration										
LCS (2113012-BS1)				Prepared: 30-Nov-12 Analyzed: 07-Dec-12						
TDS	239		mg/L	240		99.6	80-120			
Duplicate (2113012-DUP1)		**Source: H202878-01**		Prepared: 30-Nov-12 Analyzed: 07-Dec-12						
TDS	2410	5.00	mg/L		2510			4.31	20	
Batch 2120402 - General Prep - Wet Chem										
Blank (2120402-BLK1)				Prepared & Analyzed: 04-Dec-12						
Chloride	ND	4.00	mg/L							
LCS (2120402-BS1)				Prepared & Analyzed: 04-Dec-12						
Chloride	104	4.00	mg/L	100		104	80-120			
LCS Dup (2120402-BSD1)				Prepared & Analyzed: 04-Dec-12						
Chloride	100	4.00	mg/L	100		100	80-120	3.92	20	
Batch 2120406 - General Prep - Wet Chem										
Blank (2120406-BLK1)				Prepared: 04-Dec-12 Analyzed: 05-Dec-12						
Sulfate	ND	10.0	mg/L							
LCS (2120406-BS1)				Prepared: 04-Dec-12 Analyzed: 05-Dec-12						
Sulfate	23.5	10.0	mg/L	20.0		117	80-120			
LCS Dup (2120406-BSD1)				Prepared: 04-Dec-12 Analyzed: 05-Dec-12						
Sulfate	23.2	10.0	mg/L	20.0		116	80-120	1.33	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2121806 - General Prep - Wet Chem										
LCS (2121806-BS1)				Prepared & Analyzed: 18-Dec-12						
Conductivity	478		uS/cm	500		95.6	80-120			
Duplicate (2121806-DUP1)		**Source: H203018-01**		Prepared & Analyzed: 18-Dec-12						
Conductivity	1530	1.00	uS/cm		1530			0.00	20	
Batch 2121810 - NO PREP										
LCS (2121810-BS1)				Prepared & Analyzed: 11-Dec-12						
pH	7.08		pH Units	7.00		101	90-110			
Duplicate (2121810-DUP1)		**Source: H202922-01**		Prepared & Analyzed: 11-Dec-12						
pH	7.86	0.100	pH Units		7.82			0.510	20	
Batch 2121811 - NO PREP										
LCS (2121811-BS1)				Prepared & Analyzed: 13-Dec-12						
pH	6.99		pH Units	7.00		99.9	90-110			
Duplicate (2121811-DUP1)		**Source: H202885-03**		Prepared & Analyzed: 13-Dec-12						
pH	7.12	0.100	pH Units		6.89			3.28	20	
Batch 2121909 - General Prep - Wet Chem										
Duplicate (2121909-DUP1)		**Source: H202825-03**		Prepared & Analyzed: 19-Dec-12						
Specific Gravity @ 60° F	1.014	0.000	[blank]		1.016			0.216	200	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

SUNDOWN ENERGY P. O. BOX 277 WICKETT TX, 79788	Project: WEST ARKANSAS JUNCTION WATE Project Number: NOT GIVEN Project Manager: KYLE PAXTON Fax To: NOT GIVEN	Reported: 19-Dec-12 16:33

Dissolved Metals - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2121907 - Dissolved/Potentially Dissolved Metals										
Blank (2121907-BLK1)				Prepared: 12-Dec-12 Analyzed: 13-Dec-12						
Magnesium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
Barium	ND	0.010	mg/L							
Calcium	ND	1.00	mg/L							
Iron	ND	0.050	mg/L							
LCS (2121907-BS1)				Prepared: 12-Dec-12 Analyzed: 13-Dec-12						
Magnesium	26.3		mg/L	25.0		105	85-115			
Sodium	7.88		mg/L	8.10		97.3	85-115			
Calcium	4.68		mg/L	5.00		93.6	85-115			
Potassium	9.85		mg/L	10.0		98.5	85-115			
Barium	2.36		mg/L	2.50		94.4	85-115			
Iron	4.87		mg/L	5.00		97.4	85-115			
LCS Dup (2121907-BSD1)				Prepared: 12-Dec-12 Analyzed: 13-Dec-12						
Sodium	7.87		mg/L	8.10		97.2	85-115	0.127	20	
Iron	4.91		mg/L	5.00		98.2	85-115	0.818	20	
Calcium	4.71		mg/L	5.00		94.2	85-115	0.639	20	
Potassium	9.69		mg/L	10.0		96.9	85-115	1.64	20	
Magnesium	26.3		mg/L	25.0		105	85-115	0.00	20	
Barium	2.36		mg/L	2.50		94.4	85-115	0.00	20	

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*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

GAL	Analysis subcontracted to Green Analytical Laboratories, a subsidiary of Cardinal Laboratories.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Sundown Energy	**BILL TO**
Project Manager: Kyle Purtell	P.O. #:
Address:	Company: Sundown
City: Dallas State: TX Zip:	Attn:
Phone #: 214-368-6100 Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Water Samples	State: Zip:
Project Location:	Phone #:
Sampler Name: Jason Hyde	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.		SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Chlorides/Anions
H20885-01	Bar 22-4		1		✓								11/20/14		✓
02	Bubba Buck #5		1		✓								11/20/14		✓
03	State of NM #1		1		✓										✓
04	State of NM #2		1		✓								↓		✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 11/20/14	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 11:00		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: 575-748-3287
	Time:		kpurtell@sundenergy.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 20.5°C

Sample Condition: Cool ☐ Yes ☑ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) CK

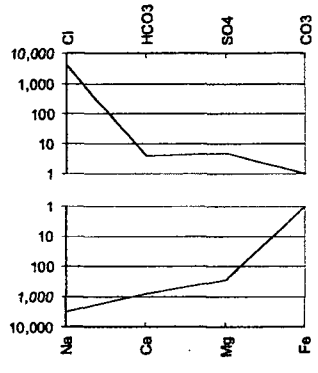
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL LABORATORIES
SCALE INDEX WATER ANALYSIS REPORT

Company	: SUNDOWN ENERGY	Date Sampled	: 11/30/12
Lease Name	: WEST ARKANSAS JCT. WATERFLOOD U.	Company Rep.	: KYLE PAXTON
Well Number	: COMPOSITE OF TORO 22 # 1 & BOBBI #5		
Location	: NOT GIVEN		

ANALYSIS						
1. pH	6.74					
2. Specific Gravity @ 60/60 F.	1.1890					
3. CaCO3 Saturation Index @ 80 F.	+2.159	'Calcium Carbonate Scale Possible'				
@ 140 F.	+3.799	'Calcium Carbonate Scale Possible'				
Dissolved Gasses						
4. Hydrogen Sulfide	ND	PPM				
5. Carbon Dioxide	ND	PPM				
6. Dissolved Oxygen	Not Determined					
Cations	mg/L	/	Eq. Wt.	=	MEQ/L	
7. Calcium (Ca++)	15,800.00	/	20.1	=	786.07	
8. Magnesium (Mg++)	3,400.00	/	12.2	=	278.69	
9. Sodium (Na+)	59,600	/	23.0	=	3,056.81	
10. Barium (Ba++)	0.000	/	68.7	=	0.00	
Anions						
11. Hydroxyl (OH-)	0	/	17.0	=	0.00	
12. Carbonate (CO3=)	0	/	30.0	=	0.00	
13. Bicarbonate (HCO3-)	244	/	61.1	=	3.99	
14. Sulfate (SO4=)	239	/	48.8	=	4.90	
15. Chloride (Cl-)	146,000	/	35.5	=	4,112.68	
Other						
16. Soluble Iron (Fe)	0.000	/	18.2	=	0.00	
17. Total Dissolved Solids	243,000					
18. Total Hardness As CaCO3	53,454.0					
19. Calcium Sulfate Solubility @ 90 F.	919					
20. Resistivity (Measured)	0.021	Ohm/Meters	@ 77	Degrees (F)		

Logarithmic Water Pattern



PROBABLE MINERAL COMPOSITION

COMPOUND	Eq. Wt.	X	MEQ/L	=	mg/L
Ca(HCO3)2	81.04	X	3.99	=	324
CaSO4	68.07	X	4.90	=	333
CaCl2	55.50	X	777.18	=	43,133
Mg(HCO3)2	73.17	X	0.00	=	0
MgSO4	60.19	X	0.00	=	0
MgCl2	47.62	X	278.69	=	13,271
NaHCO3	84.00	X	0.00	=	0
NaSO4	71.03	X	0.00	=	0
NaCl	58.46	X	3,056.81	=	178,701

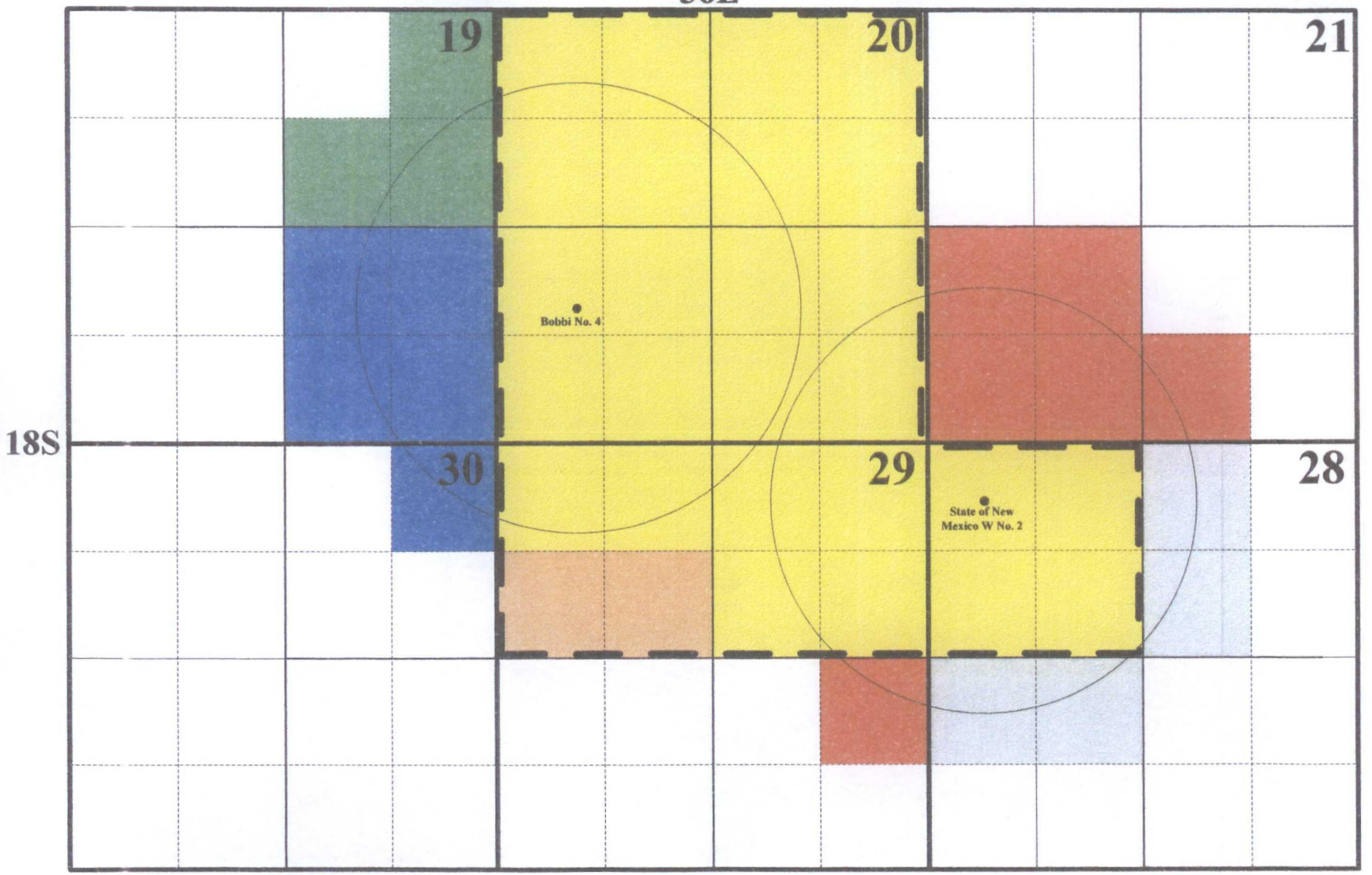
Form C-108
Affirmative Statement
Sundown Energy, LP
Bobbi No. 4 & State of New Mexico W No. 2
Sections 20 & 28, T-18 South, R-36 East, NMPM,
Lea County, New Mexico

Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.

Ross Pearson
Area Production Manager
Sundown Energy, LP

4/2/2013
Date

Sundown Energy, LP
Bobbi State Unit Waterflood Project
Offset Leasehold Identification Map



Sundown Energy, LP
Form C-108: Bobbi No. 4 & State of New Mexico W No. 2
Sections 20 & 28, T-18 South, R-36 East, NMPM
Lea County, New Mexico

Offset Operator/Leasehold Owner Identification & Notification List

Section 19:

E/2 NE/4 & SW/4 NE/4:

Lessee: Crown Energy Partners IV, LP
Attn: Brian Arnold
P.O. Box 50820
Midland, Texas 79701

SE/4:

Record Title Holder: Chevron USA, Inc.
Attn: Notices-Lea County, NM
P.O. Box 2100
Houston, Texas 77252

Section 20:

W/2:

Record Title Holder: EOG Resources
P.O. Box 4362
Houston, Texas 77210-4362

Operator/Lessee: Sundown Energy, LP
*Fortune Natural Resources Corp.

SE/4 & SW/4 NE/4:

Lessee: Fortune Natural Resources Corp.

Section 21:

SW/4 & SW/4 SE/4:

Lessee: Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Section 28:

W/2 NE/4 & N/2 SW/4:

Lessee: Crown Energy Partners IV, LP

NW/4:

Operator/:Lessee: Sundown Energy, LP
Fortune Natural Resources Corp.

Sundown Energy, LP
Form C-108: Bobbi No. 4 & State of New Mexico W No. 2
Sections 20 & 28, T-18 South, R-36 East, NMPM
Lea County, New Mexico

Offset Operator/Leasehold Owner Identification & Notification List (Cont.)

Section 29:

NE/4 & N/2 NW/4:
Operator/Lessee: Sundown Energy, LP

S/2 NW/4:
Record Title Holder: Crescent Porter Hale Foundation
655 Redwood Highway, #301
Mill Valley, CA 94141

NE/4 SE/4:
Lessee: Yates Petroleum Corporation

Section 30:

NE/4 NE/4:
Lessee: Chevron USA, Inc.

Surface Owner: Bobbi No. 4 & State of New Mexico W No. 2

Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

Additional Notice

Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

* Fortune Natural Resources Corporation & Sundown Energy, LP are the same entity.