1/22/13 DATE IN	2/6/13 SUSPENSE	WVJ ENGINEER	LOGGED IN	SWD 1189-A TYPE	pWVJ1303535000 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

APOC
Eagle Springs 9 Fed SWD #1
9/19N/4W
SANDOVAL
30-043-21065

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify ______________________

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

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Michael S. Allen	*Michael S Allen*	Project Manager	1/14/2013
Print or Type Name	Signature	Title	Date

mallen@highplainsop.com
e-mail Address

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 ____X____Disposal _____Storage
Application qualifies for administrative approval? _____X____Yes _____No

II. OPERATOR: **HPOC, LLC**

ADDRESS: **PO Box 5046, 322 North Railroad Street, Buena Vista, CO 81211**

CONTACT PARTY: **Michael S. Allen** PHONE: **719-395-8059**

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? ____X_____Yes _____No
If yes, give the Division order number authorizing the project: **SWD-1189**

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 EXHIBIT***

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. ***NO WELLS WITHIN AREA OF REVIEW***

VII. Attach data on the proposed operation, including: ***SEE ATTACHED EXHIBIT***

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. ***SEE ATTACHED EXHIBIT***

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). ***(LOGS OF FIRST DRILL FILED W/ OCD; LOGS OF NEW DRILL WILL BE SUBMITTED TO OCD WHEN ACQUIRED)***

*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. ***(NO FRESH WATER WELLS WITHIN 1 MI)***

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. ***SEE ATTACHED EXHIBIT***

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: **Michael S. Allen** TITLE: **Project Manager**

SIGNATURE: Michael S Allen DATE: **1/14/2013**

E-MAIL ADDRESS: **mallen@highplainsop.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.

XIII. 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.

HPOC
322 Railroad Street
P.O. Box 5046
Buena Vista, CO 81211

January 15, 2013

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

Subject: Revised C-108 Application for Eagle Springs 9FederalSWD-1

Dear Will:

Please find enclosed a revised application of our C-108 for our Eagle Springs 9FederalSWD-1 injection well. This revision was based on our receipt of information that an off-set mineral owner Yates Drilling Company had transferred its interest in the lease NM|NM114370 to Oxy Y-1 Company. The attached revised application only reflects the change in notice to Oxy Y-1 with corresponding mail certificate. We have also provided the BLM with a courtesy copy of the revised application.

Thank you for your review and consideration of our injection authorization request, and please direct any questions to me at the contact points below.

Sincerely,

Michael S. Allen
HPOC Project Manager
719.207.2848
mallen@highplainsops.com

cc. Mr. Bill Hoppe (NMOCD)
Mr. Jim Lovato (BLM)

Side 1

INJECTION WELL DATA SHEET

OPERATOR: **HPOC, LLC**

WELL NAME & NUMBER: **Eagle Springs 9Federal-1**

WELL LOCATION: **460' FNL and 350' FEL** | **Unit D** | **9** | **19N** | **4W**

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

Well initially drilled to 5,582' and completed in Morrison Formation for injection.

Updated well data will be submitted post-completion in Entrada Formation.

See exhibit sheet for proposed well configuration.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **12.25"** Casing Size: **9.625"**

Cemented with: **200** sx. *or* _____ ft^3

Top of Cement: **Surface** Method Determined: _____

Intermediate Casing

Hole Size: **8.75"** Casing Size: **7.00"** set at 5518.08' KB

Cemented with: **640** sx. *or* _____ ft^3

Top of Cement: **Surface** Method Determined: _____

Production Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft^3

Top of Cement: _____ Method Determined: _____

Total Depth: _____

Injection Interval

_____ feet to _____

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: _____ Lining Material: _____

Type of Packer: _____

Packer Setting Depth: _____

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

Additional Data

1. Is this a new well drilled for injection? _____Yes ___X___No

   If no, for what purpose was the well originally drilled? **The well was originally drilled as a dry Entrada well and subsequently completed for injection into the Morrison Formation in 2009 (API# 30-043-21065). The Morrison has insufficient capacity for higher volume injection, therefore HPOC proposes to deepen the well and complete in the Entrada Formation.**

2. Name of the Injection Formation: **Entrada Formation**

3. Name of Field or Pool (if applicable): SWD Entrada-Chinle

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. **5087'-5095'; 5114'-5144'; 5176'-5191'; 5197'-5212'; 5242'-5251'; existing perforations will be lined and cemented prior to completion in the Entrada .**_____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: **Fruitland Coal (Surface to 810'); Gallup (3224'); Dakota (4582')**___

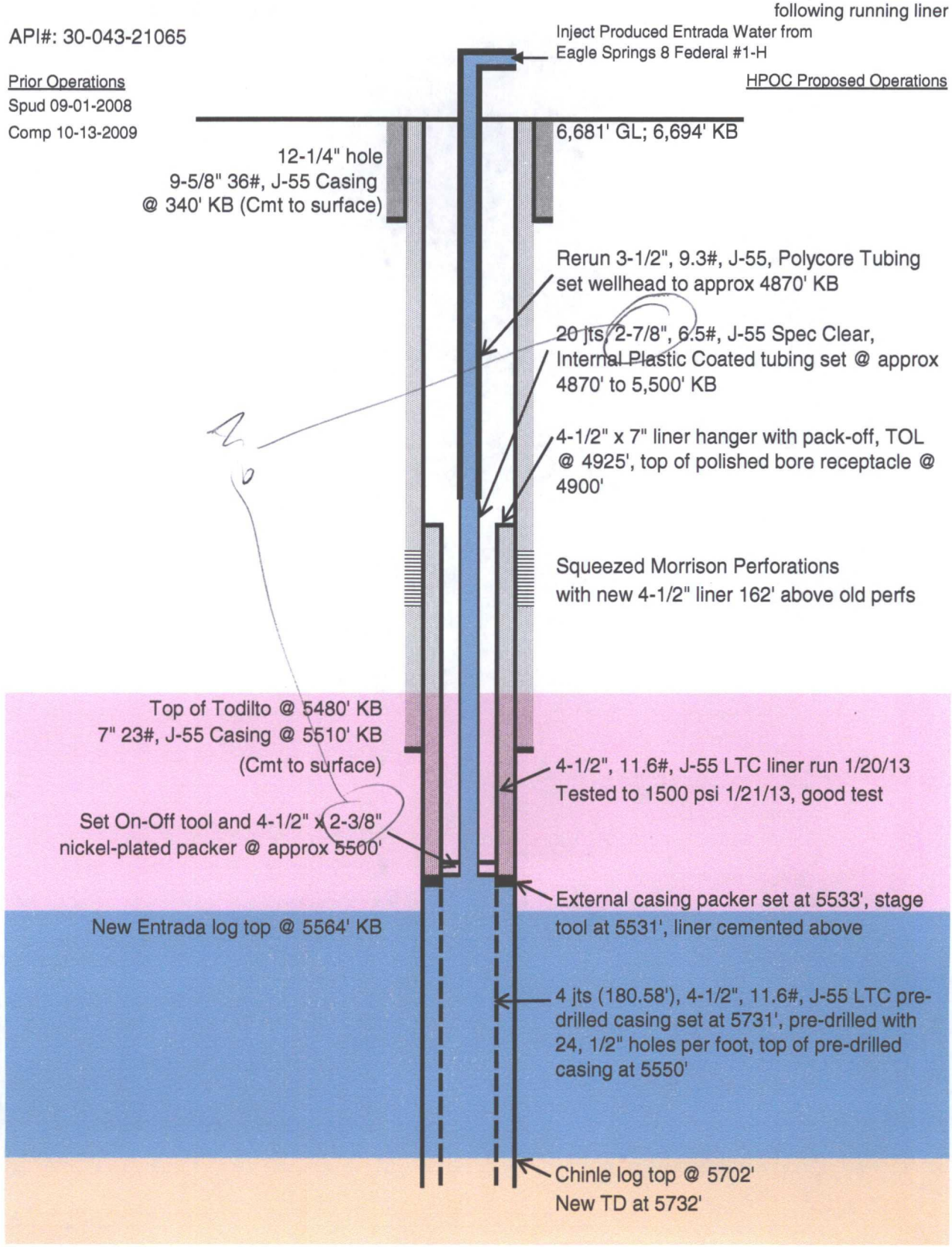
Eagle Springs 9 Federal 1

T19N R4W Section 9, Sandoval County, NM

PROPOSED

Well Schematic for Water Injection in Entrada (5,564' - 5,702')

Updated 1/22/2013
following running liner



Jones, William V., EMNRD

From: Powell, Brandon, EMNRD
Sent: Wednesday, January 23, 2013 8:23 AM
To: Butch Butler
Cc: Jones, William V., EMNRD; Richard Mrlik; Michael Allen; Perrin, Charlie, EMNRD
Subject: RE: HPOC; Ea
Attachments: 2013-01_ES9Fed1_WBD_Proposed Entrada_Current.xlsx

Good morning Butch-

Because the cement circulated and had a good pressure test, a CBL is not required at this time. However, in reviewing your wellbore schematic and your report it appears the Todilto formation is not isolated from the Entrada. Is there a reason why these formations weren't isolated from each other? If these formations remain un-isolated you may be required to include the Todilto in you SWD application.

Thank You
Brandon Powell
I & E Supervisor
New Mexico Oil Conservation
Office: (505) 334-6178 ext. 116

"He who wishes to gain knowledge is wiser than he who thinks he has knowledge (unknown)"

From: Butch Butler [mailto:bbutler@highplainsop.com]
Sent: Tuesday, January 22, 2013 5:41 PM
To: Powell, Brandon, EMNRD
Cc: Jones, William V., EMNRD; Richard Mrlik; Michael Allen
Subject: HPOC; Ea

Hi Brandon. I left a message on your cell. We ran the liner in our Eagle Springs 9 Federal #1 on Sunday. Here's the info from the job.

Rig crew on location at 07:00hrs Sunday, 1/20/2013. RU Permian Power Tongs. Picked up a 4-1/2" cement nose guide shoe, 4jts 4-1/2" perforated csg (180.58'), a 6-1/4" x 4-1/2" Annulus Csg Packer (ACP), 4-1/2" stage tool, 14jts 4-1/2", 11.6#, J-55, LT&C csg (placed 4 centralizers between ACP & liner top evenly spaced) and a 7" x 4-1/2" liner hanger with pack off. RIH with 10ea 5" DC's, 12ea 4-3/4" DC's, 130jts of 2-7/8" tbg & 2ea 8' 2-7/8" tbg subs. Dropped sealing ball. RU Halliburton. Increased pressure to 1200psi to engage liner hanger, liner hanger set. **Csg set @ 5731'KB, top of perforated csg @ 5550'KB, ACP set @ 5533'KB, Stage tool @ 5531'KB, Top of 4-1/2" liner hanger @ 4925'KB with top of polished bore receptacle (RBP) @ 4900'KB.** Increased pressure to 2500psi in 200psi increments, set ACP. Increased pressure to 2700psi and opened stage tool. Circulated csg. Preceded cement with 10bbls of gel spacer. Pumped 75sks (86.25cuft, 1.15yld, 15.6ppg) of class "G" cement with 0.2% Halad-9 & 1/8pps Pol-E-Flake. Dropped tbg wiper plug, displaced with 28.8bbls of water and landed tbg wiper into liner wiper plug. Launched plug and completed displacement of 39bbls of water. Landed plug and closed stage tool at 2520psi. Checked floats, held OK. Set liner pack off with 35K weight. Pull out of hanger and pressure test liner hanger to 1000psi, held 5 minutes, good test. Pulled up hole 16', reverse circulated cement from top of liner. Returned 4bbls of cement to surface. Job completed at 18:00hrs on 1/20/13. RD Halliburton. TOOH with 5stds of tbg. Shut in well and SDON.

Note we had cement returns to surface from the liner cement job. We also did a 1,500 psi pressure test yesterday (Monday, 1/21), and had a very good test on the 7" casing and 4 -1/2" liner. See attached pressure test chart. We have mechanical integrity.

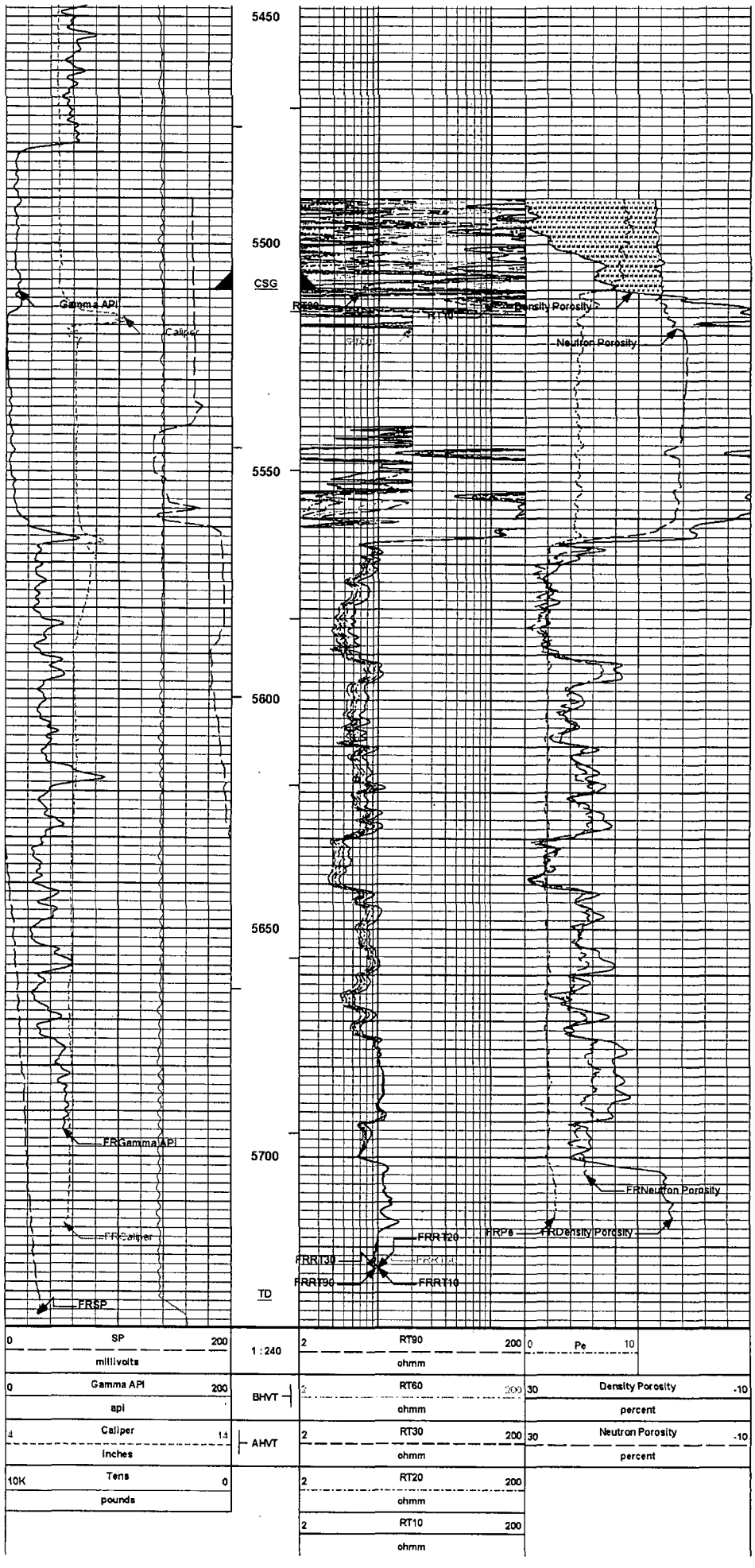
After seeing the cement returns and the good test yesterday, we did not see the need to run the CBL. I called the OCD office and realized it was the MLK holiday. I then called Jim Lovato and although he said he was okay with no CBL, he said the state has primacy on SWD's and I should call Will Jones, which I did. Will concurred that with cement returns and the good pressure test, we did not need to run a CBL.

I've updated our wellbore diagram (attached) with the results of our logging and liner running.

Is Aztec good with this decision that HPOC is not required to run a CBL over the liner interval in this well? We would like to run the injection string first thing on Thursday morning, so if you would confirm ASAP, it will be appreciated.

Thanks for your consideration Brandon. Call me anytime on my cell to discuss.
b

HPOC
Butch Butler – Manager
PO Box 5046
Buena Vista, CO 81211
719-395-8059 office
719-207-0164 cell


5450
5500
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5650
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CSG
TD
Gamma API
Caliper
FRSP
FRGamma API
FRCaliper
RT90
RT60
RT30
RT20
RT10
Density Porosity
Neutron Porosity
FRPe
FRDensity Porosity
FRNeutron Porosity
FRRT20
FRRT30
FRRT90
FRRT10
0 SP 200
millivolts
0 Gamma API 200
api
4 Caliper 14
inches
10K Tens 0
pounds
1 : 240
BHVT
AHVT
2 RT90 200
ohmm
2 RT60 200
ohmm
2 RT30 200
ohmm
2 RT20 200
ohmm
2 RT10 200
ohmm
0 Pe 10
30 Density Porosity -10
percent
30 Neutron Porosity -10
percent

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT, SECTION III
(Proposed well configuration.)

High Plains Operating Company, LLC (now HPOC) drilled and completed the Eagle Springs 9 Federal #1 wildcat well as a dry hole in 2008. OCD permitted (Order SWD-1189) conversion of this well to Morrison Formation salt-water disposal well in 2009, which HPOC completed in 2009. The existing configuration of the well follows:

Current wellbore configuration–see attached wellbore diagram.

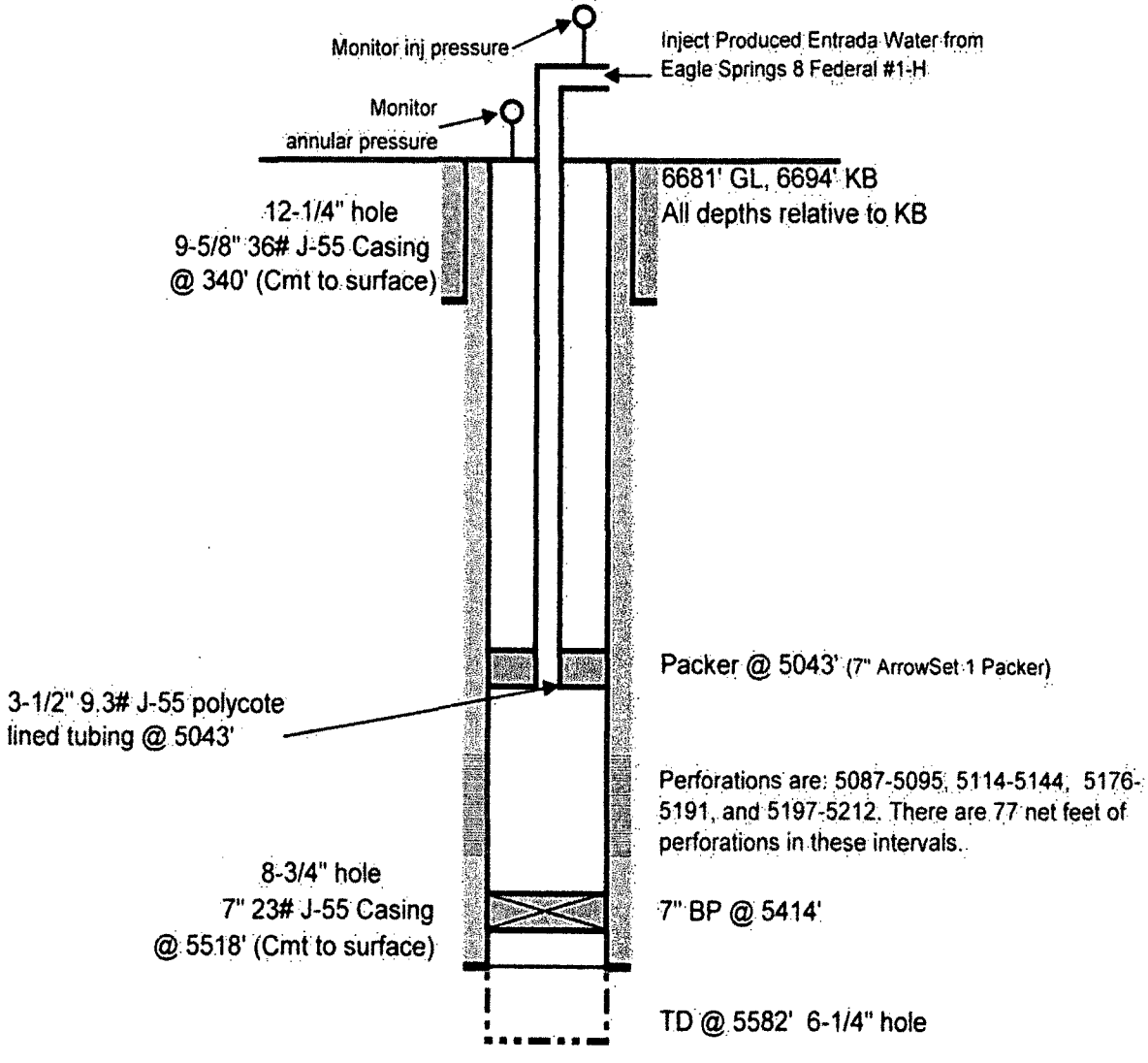
1. Top of Todilto at 5,480′, top of Entrada sandstone at 5577′ KB and present TD at approximately 5,582′. Estimated Chinle top at 5,715′, new TD approx 5,765′. Chinle could be even higher (perhaps 5,705′) if Entrada thins slightly.
2. Bottom of 7″ casing at 5,518′ KB. 3-1/2″, 9.3#, J-55 Polycore tubing currently set @ 5,043′ KB with 7" X 2-7/8" Arrowset nickel plated packer, 7" X 2-7/8" on-off tool with 2.31" X profile and 3-1/2" X 2-7/8" crossover.
3. 7″ CIBP set at 5,414′ KB with 2 sks Portland cement on top.
4. Existing Morrison Formation perforations over a 164′ gross interval from 5251′ to 5087′. The perforations are from 5,242′-5,251′, 5,197′-5,212′, 5,176′-5,191′, 5,114′-5,144′ and from 5,087′-5,095′. There are 77 net feet of perforations in these intervals.
5. There is 163′ of rathole between bottom of existing perforations and CIBP.

See following wellbore diagram.

Eagle Springs 9 Federal #1

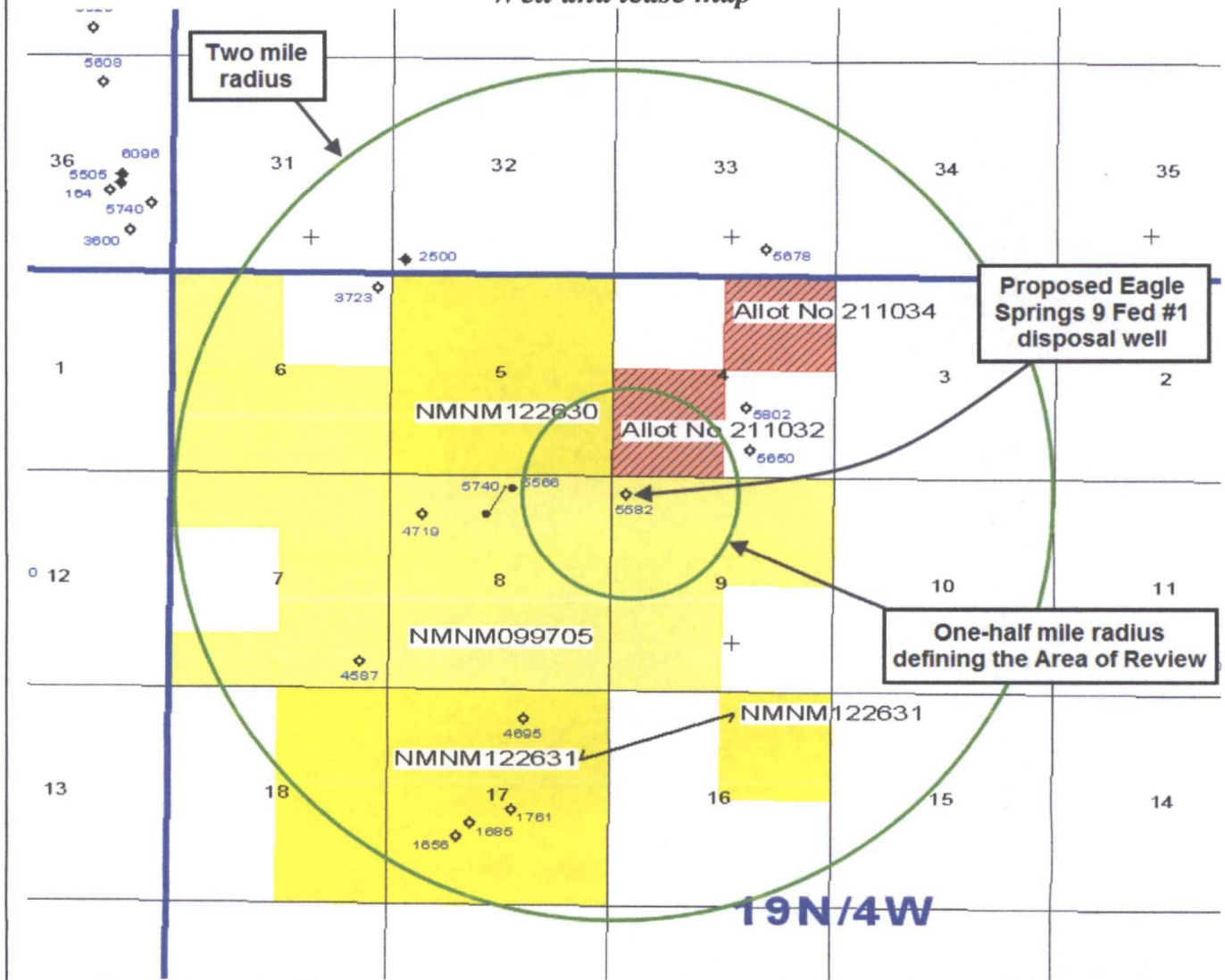
Unit D (NW/NW) Section 9-T19N-R4W, Sandoval County, NM
Well Schematic for Water Injection in Morrison (5087' - 5251' KB)
As Completed 2009

API#: 30-043-21065
Spud 09-01-2008
SWD 10/13/2009



EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT, SECTION V.
(Wells and Leases within 2 miles)

Well and lease map



High Plains Operating Company, LLC (now HPOC) drilled and completed the Eagle Springs 9 Federal #1 wildcat well as a dry hole in 2008. OCD approved conversion of this well to a Morrison Formation salt-water disposal well in 2009, which HPOC completed in 2009.

A little over 1/2 mile to the west, HPOC is producing oil and water from the Entrada formation in the Eagle Springs 8 Federal #1H well in Arena Blanca Entrada Southeast field. This lateral in the Entrada pay is in Unit C (NE/NW) of section 8. HPOC produces about 500 bfpd from the 8 Federal #1H well and disposes of produced water through the 9 Federal #1 SWD well into the Morrison Formation at pressures nearing the maximum allowable. HPOC intends to increase the fluid production rate from the 8 Federal #1H up to 4,000 bpd to enhance oil cuts and produce more oil. Additionally, HPOC intends to re-develop its shut-in Eagle Springs 8 Federal #2M Entrada well located in Unit B (NW/NE) of section 8. In order for HPOC to enhance production from it Eagle Springs Entrada wells, the 9 Federal #1 SWD must be re-developed in the Entrada Formation which regionally has much better injectivity than the Morrison Formation.

High Plains is the lessee of Federal leases NM|NM99705 and NM|NM122630. Yates Petroleum et al are the lessees of a Federal lease that covers the SE quarter of section 4.

OXY X-1

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION VII.
(Operational Data)

1. Average initial daily injection rate: 4,000 BWPD; Maximum daily injection rate: 6,000 BWPD; Average initial daily injection volume: 4,000 bbls; Maximum daily injection volume: 6,000 bbls; . Over the life of the Entrada producing wells generating water to be disposed of, the water cut will continually increase necessitating increased injection volumes over time.
2. The system will be a closed system.
3. Average injection pressure: 600-800 psi; Maximum injection pressure: 1,200 psi. The maximum injection pressure will be based on the depth of the uppermost perforation of the injection interval. The injection facility will have calibrated water flow measuring device as well as calibrated pressure gauges.
4. The source water to be injected into this well is water produced from HPOC's nearby Entrada reservoir oil wells. The proposed well will inject into the lower Entrada Formation. An Entrada water analysis follows from the Eagle Springs 8 Federal #2M well which in all likelihood is similar to the water chemistry to be encountered in the proposed deepened injection well. HPOC will collect and have analyzed an Entrada Formation water sample following perforation of the proposed well, and submit results to NM OCD.

Key Pressure Pumping Services
Water Analysis Result Form
Farmington, NM.
708 S. Tucker
Phone: (505) 325-4192
Fax: (505) 564-3524
Zip: 87401

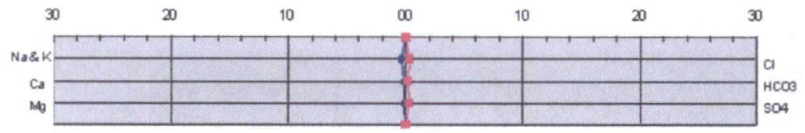
Operator:	High Plains Operating	Sample Date:	August 28, 2007
		Analysis Date:	August 29, 2007
Well	Eagle Springs 8 Fed 2M	District:	Farmington
Formation:	Entrada	Requested By:	Brad Salzman
County:	San Juan, NM	Technician:	Roger Nash
Depth:		Source:	1" connection

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY:	1.010	84 (°F)	S.G. (Corrected):	1.010	
pH:	7.71		MAGNESIUM:	19	ppm
RESISTIVITY:	0.74	ohm/meter	CALCIUM:	32	ppm
IRON:	0.10	ppm	BICARBONATES:	242	ppm
H2S:	0	ppm	CHLORIDES:	2772	ppm
POTASSIUM:	15	ppm	SODIUM:	1824	ppm
SULFATES:	173	ppm	TDS:	5077	ppm

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote

Stiff Plot



Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

5. The proposed injection is for disposal into a zone productive for oil less than one mile from the injection well.

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION VIII.
(Geologic Data of Injection Zone)

The objective disposal reservoir is the Entrada Formation. The Entrada Formation in the southeastern part of the San Juan Basin is predominantly eolian sand deposited during the Middle Jurassic. The Entrada disposal reservoir is composed of fine-grained, well-sorted sandstone, massive or horizontally bedded in the upper part and thinly laminated, with steeply dipping cross bedding, in the lower part. Porosity (23 percent average) and permeability (370 millidarcies average) are very good throughout. The reservoir thickness is expected to be approximately 173 ft. The Entrada is anticipated to be encountered in the range of 5,577 to 5,715 ft deep.

Essentially all domestic and municipal water is from the Ojo Alamo Aquifer. The base of the Ojo Alamo (an unconformity with the underling Cretaceous-age formations) is approximately 100 ft deep in this area. HPOC is unaware of any aquifers below the Ojo Alamo with a TDS of 10,000 mg/L, or less, though some samples of Entrada Formation water from wells in the region show TDS ranging from less than 10,000 mg/L (see previous section).

There are no known fresh water zones below the proposed injection zone (Entrada).

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION IX.
(Stimulation Program)

HPOC will determine the final program for stimulation of this well after drilling and logging. After drilling into the Entrada and setting pre-drilled casing, HPOC proposes the following to assess the injectivity of the Entrada interval and to stimulate if necessary.

HPOC will pump into formation with formation water at up to 10 BPM rate. Measure pressure and monitor when shut-down for pressure fall-off/vacuum. If rates and pressures not adequate, acidize the injection interval. Acid treatment details will be determined based on data. Perhaps as much as 5,000 gallons may be used. Repeat pump into formation with formation water at up to 10 BPM rate. Measure pressure and monitor when shut-down for pressure fall-off/vacuum. If rates and pressures are not adequate, perform Step-rate test to determine need for fracture stimulation. HPOC may fracture stimulate if necessary with notice to and approval from OCD prior to any fracture treatment.

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION XI.
(Fresh Water Wells Nearby)

There are no fresh water wells within one mile of the proposed injection well (see Query Results following).

New Mexico Office of the State Engineer

Wells Without Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 294952.27 **Northing (Y):** 3975009.73 **Radius:** 2000

New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 294952.27 **Northing (Y):** 3975009.73 **Radius:** 2000

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION XII.
(Affirmative Statement regarding sources of drinking water)

HPOC, LLC does hereby state that we have examined all 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.

EXHIBITS TO ACCOMPANY
APPLICATION FOR AUTHORIZATION TO INJECT; SECTION XIII.
(Proof of Notice)

As of this 9th day of January 2013, HPOC, LLC has delivered via courier service a copy of this application to the following, with acknowledgment of receipt documents:

SURFACE OWNER

United States Department of the Interior
Bureau of Land Management
Jim Lovato
6251 College Blvd, Suite A
Farmington, NM 87402

OFFSET MINERAL OWNER—UNLEASED NAVAJO ALLOTTED

Federal Indian Minerals Office
Christine Bitsoi, Realty Specialist -Farmington Indian Minerals Office
Agent for Navajo Allottees
6251 College Blvd, Suite B
Farmington, NM 87402

OFFSET MINERAL OWNER—LEASED FEDERAL TRACT NM|NM114370 COVERING THE NW & SE QUARTER SECTIONS OF SECTION 4-T19N-R4W.

Oxy Y-1 Company, Myco Industries Inc, and Abo Petro Corp (all at the same address)

Mail to Austin Danford, Oxy Y-1 Company
5 Greenway Plaza
Houston, Texas 77046

PROOF OF PUBLICATION

As of this 9th day of January 2013, HPOC, LLC has sent a notice for publication to the following:

Albuquerque Journal (to be published in the January 14, 2013 edition)

NOTICE. HPOC, LLC, Attn: Michael S. Allen, 322 North Railroad Street, Buena Vista, CO 81211 (719-395-8059) is making application to the New Mexico Oil Conservation Division for administrative approval to dispose of produced water into the Entrada Formation through perforations from 5,620' to 5,715' measured depth in the Eagle Springs 9 Federal #1 well located 460' FNL and 350' FWL of section 9-T19N-R4W, Sandoval County, NM. The maximum expected injection rate is 6,000 bbls of water per day and the maximum expected injection pressure is 1,200 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505 within 15 days of the date of publication of this notice.

Revised Ltr to include all of Entrada Section

See Log and You will understand why.

SURFACE OWNER ACKNOWLEDGEMENT OF APPLICATION RECEIPT

United States Department of the Interior
Bureau of Land Management
Jim Lovato
6251 College Blvd, Suite A
Farmington, NM 87402

HPOC, LLC has delivered to Jim Lovato as representative for the United States Department of the Interior–Bureau of Land Management, surface owner, a complete copy of its application with the New Mexico Oil Conservation Division (Form C-108 & exhibits) to inject produced Entrada water into the Entrada Formation in the Eagle Springs 9 Federal #1 (API: 30-043-21065). Receipt of this application is hereby acknowledged.

By: _____ Date: _____

OFFSET MINERAL OWNER—UNLEASED NAVAJO ALLOTTED ACKNOWLEDGEMENT OF APPLICATION RECEIPT

Federal Indian Minerals Office
Christine Bitsoi, Realty Specialist -Farmington Indian Minerals Office
Agent for Navajo Allottees
6251 College Blvd, Suite B
Farmington, NM 87402

HPOC, LLC has delivered to Christine Bitsoi as agent for the Navajo allottees in the southwest quarter of section 4-T19N-R4W, a complete copy of its application with the New Mexico Oil Conservation Division (Form C-108 & exhibits) to inject produced Entrada water into the Entrada Formation in the Eagle Springs 9 Federal #1 (API: 30-043-21065). Receipt of this application is hereby acknowledged.

By: _____ Date: _____

OFFSET MINERAL LESSEE—LEASED BLM TRACT NM|NM114370 ACKNOWLEDGEMENT OF APPLICATION RECEIPT

Mail to Austin Danford, Oxy Y-1 Company
5 Greenway Plaza
Houston, Texas 77046

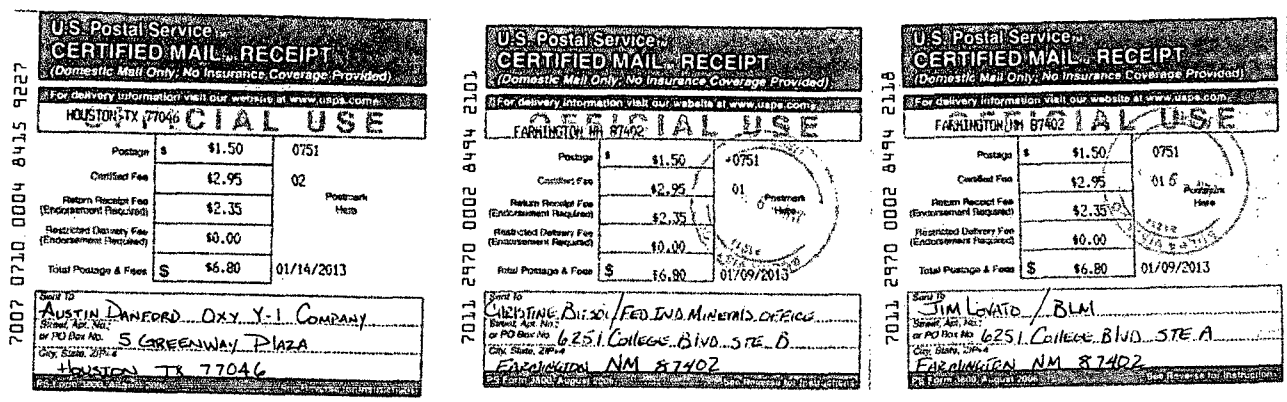
HPOC, LLC has delivered to Oxy Y-1 Company, Myco Industries Inc & Abo Petro Corp, lessees in the southeast quarter of section 4-T19N-R4W, a complete copy of its application with the New Mexico Oil Conservation Division (Form C-108 & exhibits) to inject produced Entrada water into the Entrada Formation in the Eagle Springs 9 Federal #1 (API: 30-043-21065). Receipt of this application is hereby acknowledged.

By: _____ Date: _____

Print Name: _____

Print Title: _____

Mail certificates:



PROOF OF PUBLICATION

As of this 9th day of January 2013, HPOC, LLC has received a notice for publication to the following:

Albuquerque Journal (to be published in the January 14, 2013 edition)

ALBUQUERQUE JOURNAL THE SUNDAY JOURNAL

Albuquerque Publishing Company
7777 Jefferson N.E. Albuquerque, New Mexico 87109
P.O. Drawer J-T Albuquerque, New Mexico 87103
(505) 823-7777

Account Number
1036752

Ad Order Number
0001036945

Ad Proof / Order Confirmation

H P O C, INC
322 NORTH RAILROAD STREET
BUENA VISTA CO 81211

Ordered By	mike allen	**Customer Phone**	719-207-2848	**Pickup #**	0001014489
Customer EMail		**PO Number**		**Joint Ad #**	
Ad Cost	$15.75	**Sales Rep**	pnorman		
Tax Amount	$1.10	**Order Taken by:**	pnorman		
Total Amount	$16.85	**Payment Method**	Credit Card - Visa:9944		
Amount Due	$0.00	**Payment Amount**	$16.85		

Product	Albuquerque Journal	**Placement**	Legal Notices
		Classification	Non-government-0001
Ad Number	0001036945-01	**Sort Text**	NOTICEHPOCLLCATTNMICHAELSALL EN322NORTHRAILROADSTREETBUEN
Ad Type	APC-Legals		
Ad Size	: 1.0 X 25 Li		
Color	<NONE>		
Run Dates	1/14/2013		

Affidavits
0

NOTICE. HPOC, LLC, Attn: Michael S. Allen, 322 North Railroad Street, Buena Vista, CO 81211 (719-395-8059) is making application to the New Mexico Oil Conservation Division for administrative approval to dispose of produced water into the Entrada Formation through perforations from 5,620' to 5,715' measured depth in the Eagle Springs 9 Federal #1 well located 460' FNL and 350' FWL of section 9-T19N-R4W, Sandoval County, NM. The maximum expected injection rate is 6,000 bbls of water per day and the maximum expected injection pressure is 1,200 psi. Interested parties may file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505 within 15 days of the date of publication of this notice.

in 1/22/13

Injection Permit Checklist: Received ____ First Email Date: ____ Final Reply Date: ____ Final Notice Date: 1/14/13

Issued Permit: Type:WFX/PMX/(SWD) Number: 1189-A Permit Date ____ (Legacy Permit: SWD-1189 (9/3/09))

\# Wells 1 Well Name(s): Eagle SPRINGS 9 Federal ~~SWD~~ 1

API Num: 30-043-21065 Spud Date: 9/1/08 New/Old: N (UIC Cl II Primacy March 7, 1982)

Footages 460 FNL/350 FWL Lot ____ Unit D Sec 9 Tsp 19N Rge 4W County SANDOVAL

General Location or Pool Area:

Operator: HPOC, LLC Contact MICHAEL S. ALLEN

OGRID: 246238 RULE 5.9 Compliance (Wells) 0/6 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed ____ Current Status: Morrison SWD

Planned Work to Well: Deepen / Run Liner / inj in Entrada

Diagrams: Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging?: ____

Well Details:	Sizes Hole.......Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned __or Existing ✓ Surface	12 1/4 - 9 5/8	340'	—	200 SX	Surf.
Planned__or Existing __Interm					
Planned__or Existing ✓ LongSt	8 3/4 - 7"	5,510'	—	640 SX	Surf.
Planned ✓ or Existing __ Liner	6 1/4 - 4 1/2	4925'-5731'	5531	(75 CMT above	DV TOOL)
Planned__or Existing __ OpenHole					

Depths/Formations:	Depths, Ft.	Formation	Tops?
Above	~~4552~~ 5480	~~DKTA~~ TODILTO	✓
Above	5564	Entrada	✓
Proposed Interval TOP:	5533	~~Todilto~~ Entrada	
Proposed Interval BOTTOM:	5732	Chinle	
Below	5702	Chinle	✓
Below			

Max. PSI 1107 OpenHole ✓ Perfs ____ (Predrill Liner)

Tubing Size 3 1/2 / 2 7/8 Packer Depth 5500' Topend (IPC)

5533 / 11066

~~Capitan Reef? (in__/thru__), Potash?__Noticed?__[WIPP?__Noticed?__]Salado Top____Bot____Cliff House?__~~

Fresh Water: MaxDepth: 100' FW Formation OJO ALAMO Wells? None Analysis? — Affirmative Statement ✓

Disposal Fluid: Formation Source(s) (Entrada (5100 TPS) On Lease ___ Only from Operator ✓ or Commercial ___

Disposal Interval: Protectable Waters? yes H/C Potential: Log__ /Mudlog__/DST__(/Tested__)Depleted___Other____

Notice: Newspaper Date 1/4/13 MineralOwner BLM Surface Owner BLM N. Date 1/9/13 → 1/14/13

RULE 26.7(A) Identified Tracts? ✓ Affected Persons: OXY Y-1 / BLM / BIA N. Date 1/9/13

AOR: Maps? ✓ Well List? ✓ Producing in Interval? NO Formerly Produced in Interval? NO

Penetrating.......No. Active Wells 0 Num Repairs? 0 on which well(s)? —

Penetrating.......No. P&Aed Wells 0 Num Repairs? 0 on which well(s)? ____ Diagrams? —

Permit Conditions: (Entrada water only

Issues:

Issues:

Issues: