SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
12/22/06	Jones	12/8/06	SWD	pTDSOG3423138?

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

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]

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

Rosetta's
Tsah Tah SWD #11

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.

Print or Type Name	Signature	Title	Date
BRIAN WOOD (505) 466-8120 FAX 466-9682	B Wood	CONSULTANT	12-1-06 e-mail Address brian@permitswest.com

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 YES Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: ROSETTA RESOURCES OPERATING LP

ADDRESS: 1200 17TH ST., SUITE 770, DENVER, CO 80202

CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: (505) 466-8120

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 _____(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: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: DEC. 1, 2006

E-MAIL ADDRESS: brian@permitswest.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: _____

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.

Side 1

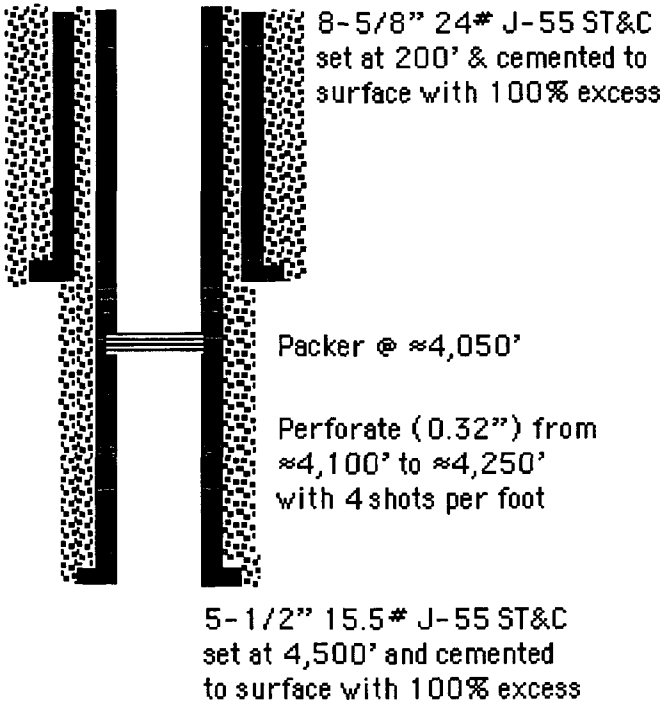
INJECTION WELL DATA SHEET

OPERATOR: ROSETTA RESOURCES OPERATING LP

WELL NAME & NUMBER: TSAH TAH SWD #11

WELL LOCATION:	970' FSL & 1510' FWL	N	11	24 N	10 W
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8" 24# J-55 ST&C

Cemented with: 140 sacks *or* 165 ft^3

Top of Cement: SURFACE Method Determine: VISUAL & CBL

Intermediate Casing

Hole Size: Casing Size:

Cemented with: _____ sacks *or* _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2" 15.5# J-55 ST&C

Cemented with: 800 sacks *or* 1,560 ft^3

Top of Cement: SURFACE Method Determine: VISUAL & CBL

Total Depth: ≈4,500'

Injection Interval

From ≈4,100 feet To ≈4,250 feet

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.5# J-55 Lining Material: PLASTIC

Type of Packer: 5-1/2" x 2-7/8" COMPRESSION SET WITH ON/OFF TOOL

Packer Setting Depth: WITHIN 50' OF THE HIGHEST PERFORATION

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

Additional Data

1. Is this a new well drilled for injection? ✓ Yes _____ No

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: POINT LOOKOUT SANDSTONE

3. Name of Field or Pool (if applicable): SWD; MESA VERDE

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. _____

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

   OVER: FRUITLAND (1,386') & PICTURED CLIFFS (1,636')

   UNDER: GALLUP (5,186') & DAKOTA (6,159')

ROSETTA RESOURCES OPERATING LP
TSAH TAH SWD #11
970' FSL & 1510' FWL
SEC. 11, T. 24 N., R. 10 W.
SAN JUAN COUNTY, NEW MEXICO

I. Purpose is water disposal.

II. Operator: Rosetta Resources Operating LP
Operator phone number: (720) 359-9144
Operator address: 1200 17th St., Suite 770
Denver, CO 80202
Contact: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMNM-112955
Lease Size: 1,761.69 acres
Lease Area: SW4NE4, S2NW4, S2, & Lots 2-4 Sec. 1
SE4NE4 & NE4SE4 Sec. 3
SW4 & N2 Sec. 11
all Sec. 12
all T. 24 N., R. 10 W.
Closest Lease Line: 970'
Well Name & Number: Tsah Tah SWD #11
Well Location: 970' FSL and 1510' FWL Sec. 11, T. 24 N., R. 10 W.
(see Exhibit A)

A. (2) Surface casing (8-5/8", 24#, J-55, S T & C) will be set at ≈200' in a 12-1/4" hole and cemented to the surface with ≈100% excess. Will use ≈165 cubic feet (≈140 sacks) Class B cement + 1/4 pound per sack cellophane + 2% $CaCl_2$ mixed at 15.6 pounds per gallon and 1.18 cubic feet per sack. Top will be visually determined.

Production casing (5-1/2", 15.5#, J-55, S T & C) will be set at ≈4,500' in a 7-7/8" hole and cemented to the surface with ≈100% excess. Top will be determined by visual observation and cement bond log. About ten centralizers will be used.

Lead with ≈1,442 cubic feet (≈700 sacks) Class B with 2% SMS + 1/4 pound per sack cellophane + 5 pounds per sack gilsonite. Yield = 2.06 cubic feet per sack. Lead weight = 12.6 pounds per gallon. Tail with ≈118 cubic feet (≈100 sacks) Class B with 1/4 pound per sack cellophane + 5 pounds per sack gilsonite + 2% $CaCl_2$. Tail yield = 1.18 cubic feet per sack. Tail weight = 15.6 pounds per gallon. Top will be determined by visual observation and cement bond log.

Mechanical integrity of the casing will be assured by hydraulically pressure testing to ≈3,500 psi.

A. (3) Tubing will be 2-7/8" 6.5# J-55 plastic lined injection string. It will be set at ≈4,050' (disposal interval will be ≈4,100' to ≈4,250').

A. (4) A 5-1/2" x 2-7/8" compression set packer with an on/off tool or its equivalent will be set within ≈50' of the highest perforation. Thus, packer will be set at ≈4,050' which will be ≈50' above the top perforation of ≈4,100'.

B. (1) Disposal zone will be the Point Lookout sandstone of the Mesa Verde Formation (Pool 96160). Fracture gradient is expected to be a normal ≈0.433 psi per foot.

B. (2) Disposal interval will be ≈4,100' to ≈4,250' (well logs will determine exact interval after drilling). It will be perforated (0.32") with four shots per foot.

B. (3) Well has not yet been drilled. It will be drilled for the exclusive use by Rosetta and for the sole purpose of water disposal from present and future Rosetta wells. Water analyses from two Basin Fruitland coal gas wells 2 to 3 miles away in Sections 15 and 16 of 24n-10w are attached.

B. (4) Well bore has not yet been perforated since the well has not yet been drilled. It will be perforated from ≈4,100' to ≈4,250' (logs will determine exact interval after drilling).

B. (5) Top of the Point Lookout is predicted to be ≈4,086'. Oil has been produced elsewhere in the San Juan Basin from the Point Lookout (≈33 miles east-southeast in 32-23n-4w at the Otero Point Lookout Field). Bottom of the closest potentially productive zone (Pictured Cliffs) is at ≈1,786'. There will be a ≈2,314' interval between the bottom of the Pictured Cliffs and the highest injection perforation. Top of the closest underlying potentially productive zone (Gallup) is at ≈5,186'. There will be a ≈936' interval between the lowest injection perforation and the top of the Gallup.

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

V. A map (Exhibit B) showing all existing wells (1 stock watering well) within a half mile radius is attached. A map (Exhibit C) showing all 62 wells (32 P & A + 25 oil or gas producers + 5 water) within a two mile radius is attached. Details (no depth or casing details in state files) on the one well within a half mile are:

OPERATOR	WELL USE	LOCATION	ZONE	TD	DISTANCE
Thomas & Sarah Yazzie	stock watering	NWSE 11-24n-10w	Nacimiento ??	??	≈1/4 mile

Exhibit D shows all leases (all BLM) within a half mile radius. Details are:

AREA	LESSOR	LEASE #	LESSEE(S)
E2 10-24n-10w	BLM	NMNM-104606	Coleman
W2 & NE4 11-24n-10w	BLM	NMNM-112955	Rosetta
SE4 11-24n-10w	BLM	NMNM-114376	Rosetta & Baseline
N2 14-24n-10w	BLM	NMNM-016760	Questar
NE4 15-24n-10w	BLM	NMNM-100807	Coleman

A map (Exhibit E) showing all lessors within a two mile radius is attached. Most leases are BLM. The remainder are Navajo allotted (FIMO) or State (NMSLO).

VI. There is only one well (stock watering well) within a half mile radius. It did not penetrate the Point Lookout. There will be a ≈3,000' interval between the bottom of the deepest (1,100') water well within a ≈1.95 mile radius and the highest proposed perforation (≈4,100'). No other wells have been drilled to date within a half mile, though Rosetta has filed an Application for Permit to Drill its 1,900' deep Basin Fruitland coal gas well Tsah Tah 11 #3. The 11 #3 is staked at 1000 FSL & 1205 FWL 11-24n-10w. It will be 382' away as measured from well head to well head (see Exhibit F).

VII.

1. Average injection rate will be ≈1,500 bwpd.
   Maximum injection rate will be ≈2,000 bwpd.
2. System will be closed (Rosetta will lay water pipelines with its gas pipelines). Facilities will include a tank battery with skimmer and settling tanks, filters, and an electric injection pump.
3. Average injection pressure will be ≈450 psi
   Maximum injection pressure will be ≈820 psi (≤0.2 psi x depth of top perforation)
4. Water source will be existing and future Rosetta wells in the San Juan Basin. As of November 23, Rosetta had 22 approved wells in Townships 24 and 25 North, Range 10 West. Seventeen of the 22 have been drilled, none of which have been completed. All will be Fruitland coal gas with a maximum TD of 1,900'. The closest (382') is the Tsah Tah 11 #3.
   Two water analyses from the Point Lookout, Menefee, and Mesa Verde (Exhibit G) are attached. Two produced water analyses from the Basin Fruitland coal (Exhibit H) are also attached. A summary follows on the next page.

Well:	Juniper 24-15	Juniper 1	Juniper 4 SWD	Sanchez O'Brien 1
Location:	15-24n-10w	16-24n-10w	17-24n-10w	6-24n-9w
Zone(s) Sampled:	Fruitland	Fruitland	Point Lookout & Menefee	Mesa Verde
Parameter				
pH	7.34	7.59	7.06	7.23
Total Dissolved Solids	14,300	13,900	21,520	37,823
Total Hardness as CaCO3	460	420	1,480	1,074
Chloride	8840	8340	12,450	22,137
Iron	0.7	No	57.1	3
Calcium	133	121	417	336
Magnesium	31.6	27.3	106	57
Potassium	75.8	21.6	118	84

No closer (the Juniper 4 SWD is ≈3 miles away) sample exists from the Point Lookout. (The Sanchez O'Brien #1 is ≈2.2 miles northeast. However, the laboratory analysis indicates the water came from the "Mesa Verde".) Rosetta will try to swab load water back after stimulation and take a Point Lookout water sample. If successful, then the analysis will be sent to the New Mexico Oil Conservation Division.

5. The Point Lookout has not been proven productive within two miles of the proposed well. Indeed, water is being disposed into the Point Lookout at the Sanchez O'Brien #1 well which is ≈2.2 miles northeast. Point Lookout water near recharge zones (basin fringe) generally has a specific conductance of >1,500 μmhos. Entrada water from deeper parts of the basin has a specific conductance of >59,000 μmhos. Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico wrote, "The Point Lookout Sandstone is not widely used as a source of water ...." An analysis of Point Lookout is summarized in the above table.

VIII. The Point Lookout is a very fine to medium grained coastal marine sandstone. It produced oil elsewhere in the basin (e. g., ≈33 miles east-southeast in 32-23n-4w at the Otero Point Lookout Field). The Point Lookout is estimated to be ≈200' thick in the proposed SWD #11 well bore. Top is ≈4,086' and bottom is ≈4,286'. Estimated formation tops are:

Nacimiento: 0'
Ojo Alamo Sandstone: 886'
Kirtland Shale: 961'
Fruitland Formation: 1,386'
Pictured Cliffs Sandstone: 1,636'
Lewis Shale: 1,786'
Cliffhouse Sandstone: 2,411'
Menefee Shale: 2,986'
Point Lookout Sandstone: 4,086'
Mancos Shale: 4,286'
Total Depth: 4,500'

There is one water well within a one mile radius. It is a stock watering well ≈1/4 mile northeast in the NWSE Section 11. There are two water wells within a two mile radius. There is the previously mentioned stock well, plus a Dugan water well in NWNW 7-24n-9w which is ≈1.95 miles northeast. This latter well is 1,100' deep and is used to support oil field exploration and production.

No existing underground drinking water sources are below the Point Lookout within a two mile radius. There will be ≈3,000' of vertical separation between the bottom of the deepest water well within ≈1.95 miles and the top of the Point Lookout.

IX. The well will be stimulated with a sand-water fracture.

X. IES Gamma Ray Density logs will be run. Copies will then be provided to the NMOCD.

XI. There is one water well within a one mile radius. It is a stock watering well of unreported depth. It is ≈1/4 mile northeast in the NWSE of Section 11. A water analysis is attached as Exhibit I. (The analysis was also hand delivered to the family which operates the well. The well is only used for stock watering.) A

Navajo Tribal Utility Authority water pipeline provides drinking water to the family.

XII. Rosetta is not aware of any geologic or engineering data which may indicate the Point Lookout is in hydrologic connection with any underground sources of water. There will be ≈3,000' of vertical separation between the top (≈4,086') of the Point Lookout and the bottom (1,100') of the deepest water well within ≈1.95 miles. This interval includes at least two shale zones (Lewis and the Menefee).

XIII. Notice (this application) has been sent (Exhibit J) to the surface owner (BLM), operators of all wells (Rosetta and Yazzie), and lessees or lease operating right holders (Baseline, Coleman, EOG, North American Petro Corp, Questar), and lessors (only BLM) within a half mile. A legal ad (see Exhibit K) was published on November 1, 2006.

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-	96160	SWD; MESA VERDE

[4] Property Code	[5] Property Name	[6] Well Number
	TSAH TAH SWD	11

[7] OGRID No.	[8] Operator Name	[9] Elevation
239235	ROSETTA RESOURCES OPERATING LP	6886'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	11	24N	10W		970'	SOUTH	1510'	WEST	SAN JUAN

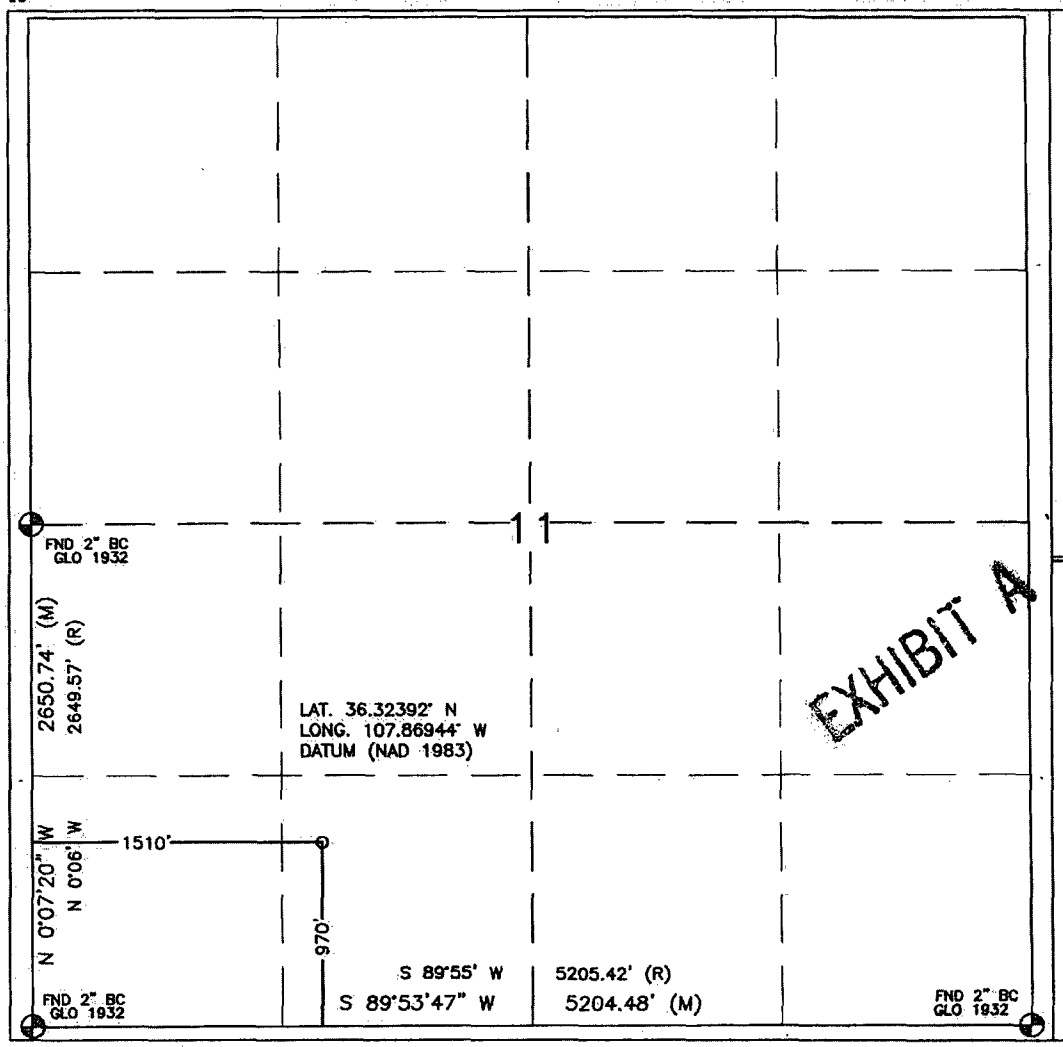
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



[17] OPERATOR CERTIFICATION

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

Signature

BRIAN WOOD
Printed Name

CONSULTANT
Title

NOV. 23, 2006
Date

[18] SURVEYOR CERTIFICATION

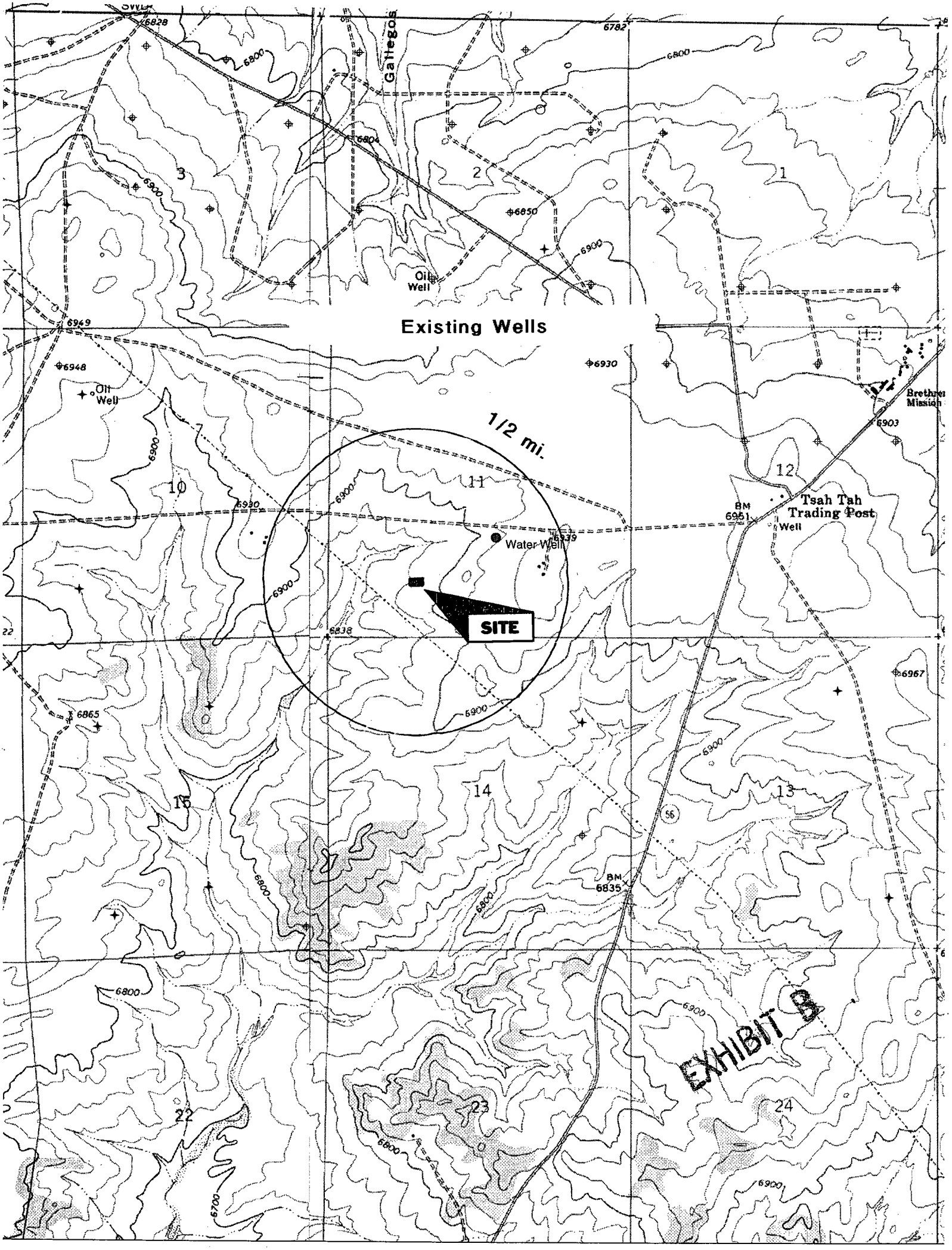
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

SEPTEMBER 23, 2006
Date of Survey

Signature and Seal of Professional Surveyor:

NEW MEXICO 10201 REGISTERED PROFESSIONAL LAND SURVEYOR DAVID RUSSELL

DAVID RUSSELL
Certificate Number 10201


Existing Wells
1/2 mi.
SITE
Water Well
Oil Well
Oil Well
Tsah Tah Trading Post
Well
BM 6951
BM 6835
Gallegos
6828
6782
6800
6804
6850
6900
6969
6948
6930
6903
6939
6838
6865
6967
6700
1
2
3
7
10
11
12
13
14
15
22
23
24
EXHIBIT B

Existing Wells

SITE

2 mi.

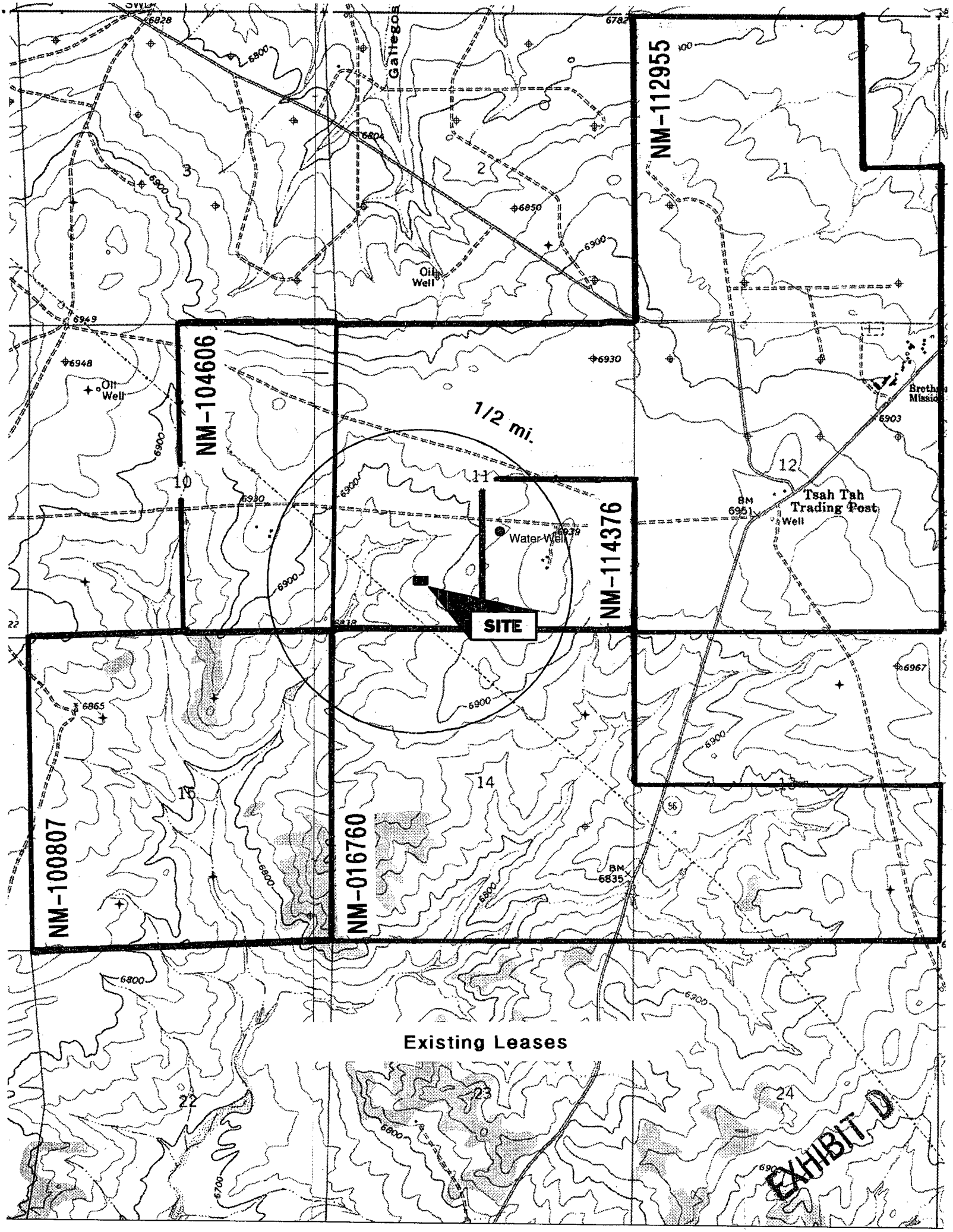
EXHIBIT C

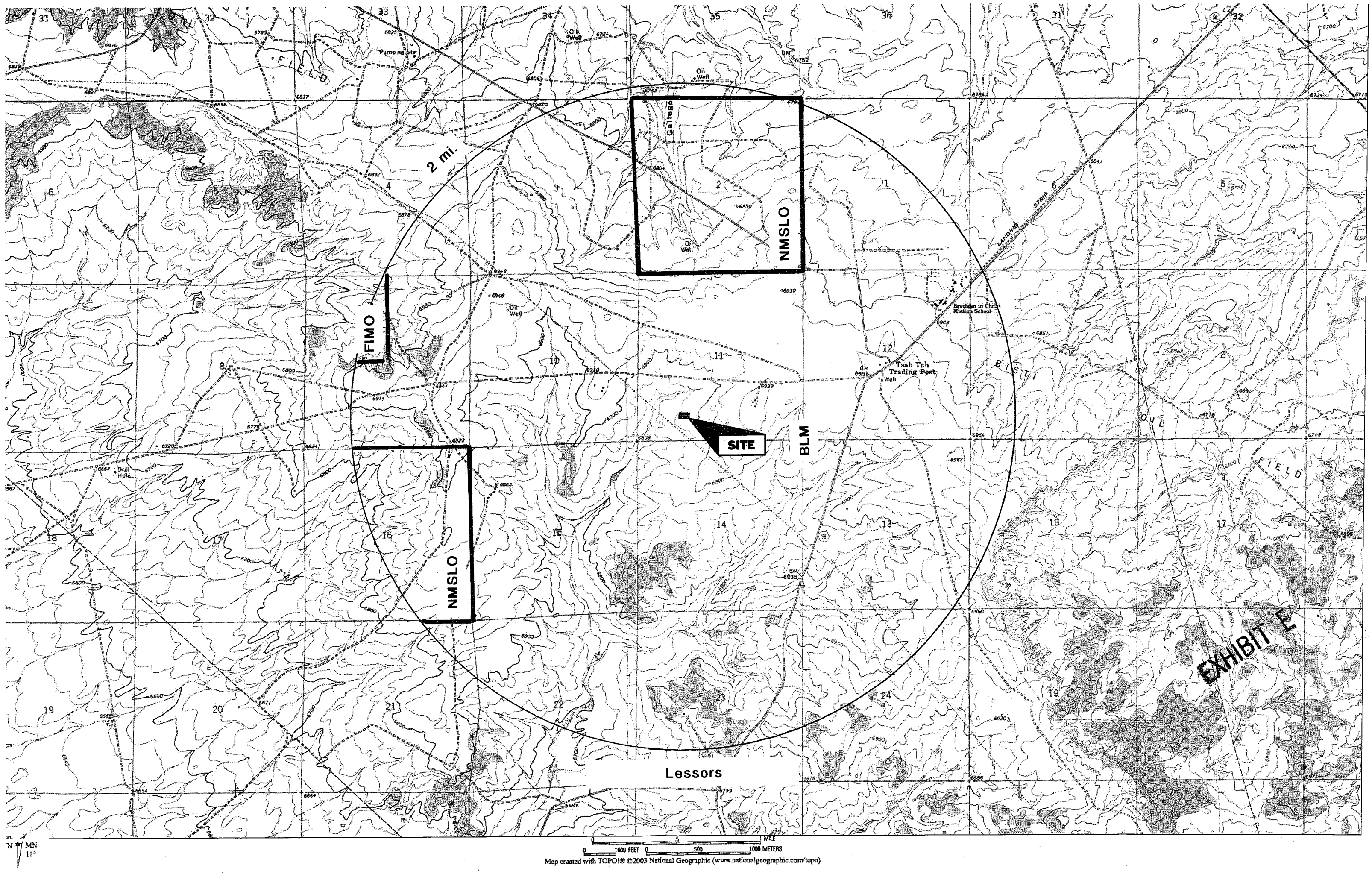
SCALE 1:30000

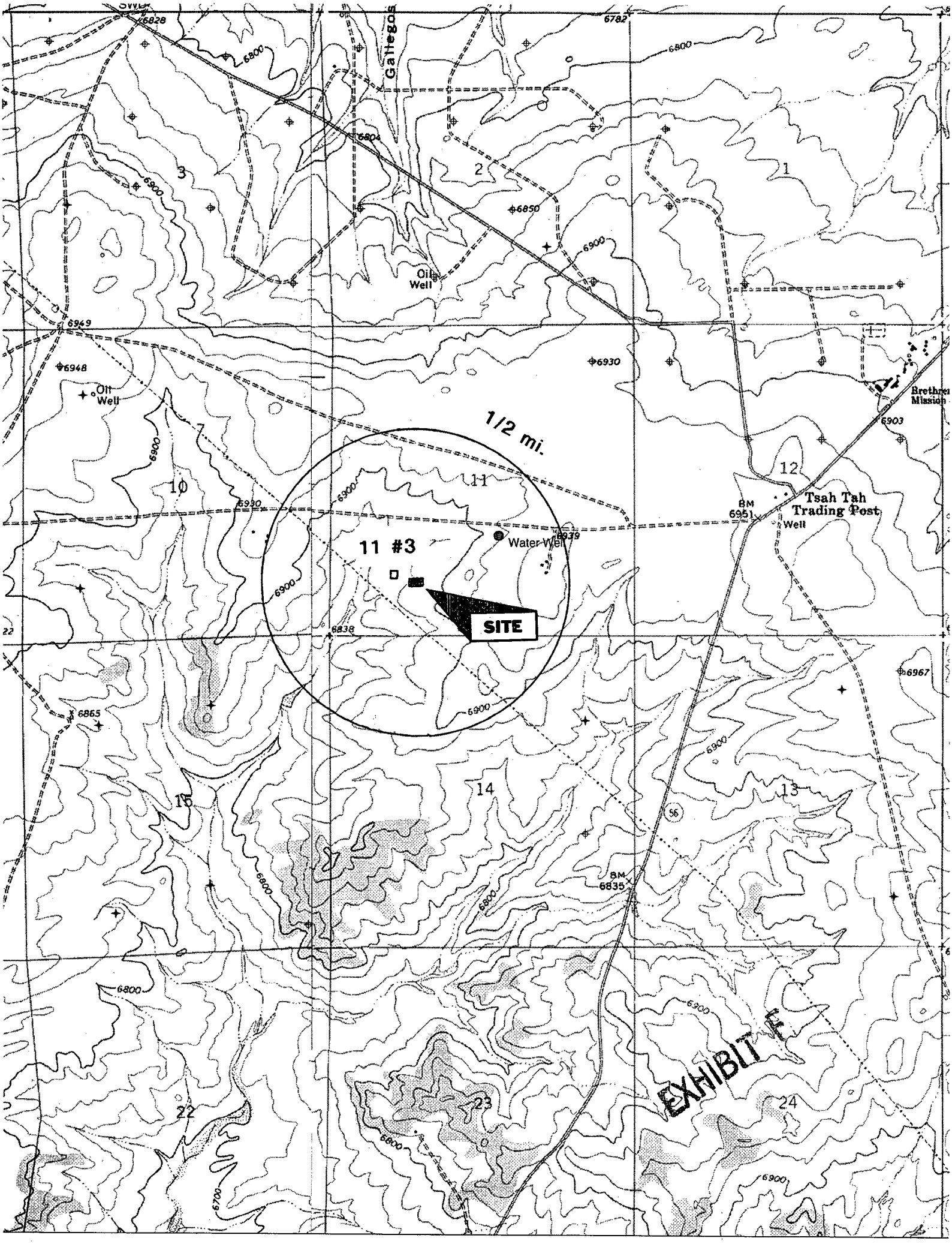
0 1 MILES

0 1000 2000 YARDS

0 1 2 KILOMET


NM-112955
NM-104606
NM-114376
NM-100807
NM-016760
1/2 mi.
SITE
Water Well
Oil Well
Oil Well
Tsah Tah Trading Post
Well
BM 6951
BM 6835
Gallegos
Existing Leases
EXHIBIT D




1/2 mi.
11 #3
SITE
Water Well
Oil Well
Oil Well
Tsah Tah Trading Post
Well
BM 6951
BM 6835
Gallegos
EXHIBIT E

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Coleman Oil & Gas	Project #:	05206-001
Sample ID:	Menefee # Point Lookout	Date Reported:	03-16-06
Laboratory Number:	36459	Date Sampled:	03-14-06
Chain of Custody:	15676	Date Received:	03-16-06
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-16-06
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	7.06	s.u.		
Conductivity @ 25° C	35,300	umhos/cm		
Total Dissolved Solids @ 180C	21,520	mg/L		
Total Dissolved Solids (Calc)	21,750	mg/L		
SAR	88.4	ratio		
Total Alkalinity as CaCO3	814	mg/L		
Total Hardness as CaCO3	1,460	mg/L		
Bicarbonate as HCO3	814	mg/L	13.34	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	2.50	mg/L	0.04	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	12,450	mg/L	351.21	meq/L
Fluoride	2.48	mg/L	0.13	meq/L
Phosphate	25.2	mg/L	0.80	meq/L
Sulfate	326	mg/L	6.79	meq/L
Iron	57.1	mg/L	2.04	meq/L
Calcium	417	mg/L	20.81	meq/L
Magnesium	106	mg/L	8.72	meq/L
Potassium	118	mg/L	3.02	meq/L
Sodium	7,810	mg/L	339.74	meq/L
Cations			372.28	meq/L
Anions			372.31	meq/L
Cation/Anion Difference			0.01%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Juniper #4 SWD. 17-24n-10w

660 FS

2015 FW

EXHIBIT G

Analyst

Review

FW01W027

BJ SERVICES COMPANY

WATER ANALYSIS #FW01W027

FARMINGTON LAB

GENERAL INFORMATION			
OPERATOR:	DUGAN PRODUCTION	DEPTH:	
WELL:	SANCHEZ O'BRIEN #1	DATE SAMPLED:	12/03/97
FIELD:	SEC.6/T24N/R9W	DATE RECEIVED:	12/03/97
SUBMITTED BY:	JOHN ALEXANDER	COUNTY:	SAN JUAN STATE: NM
WORKED BY :	D. SHEPHERD	FORMATION:	MESAVERDE
PHONE NUMBER:			

SAMPLE DESCRIPTION

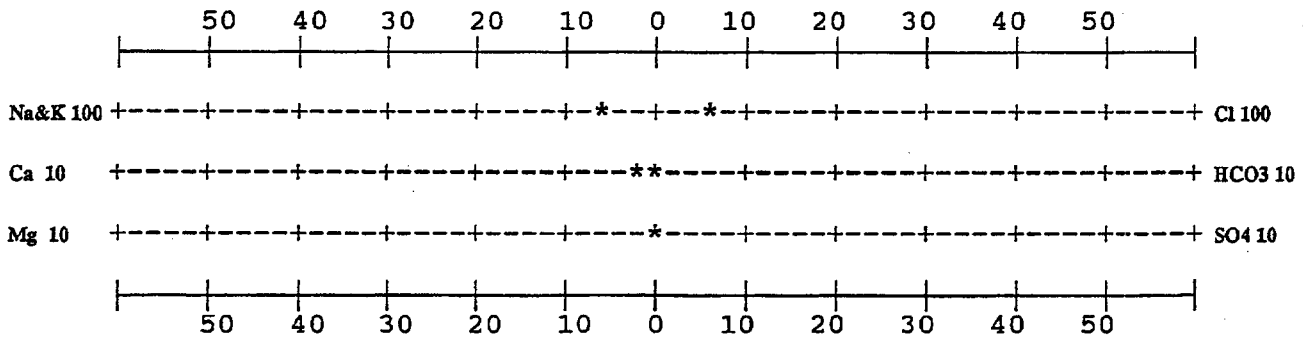
SWAB SAMPLE AFTER 200 BBL.

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.025 @ 76°F	PH:	7.23
RESISTIVITY (MEASURED):	0.160 ohms @ 76°F		
IRON (FE++) :	3 ppm	SULFATE:	0 ppm
CALCIUM:	336 ppm	TOTAL HARDNESS	1,074 ppm
MAGNESIUM:	57 ppm	BICARBONATE:	548 ppm
CHLORIDE:	22,137 ppm	SODIUM CHLORIDE(Calc)	36,415 ppm
SODIUM+POTASS:	14,065 ppm	TOT. DISSOLVED SOLIDS:	37,823 ppm
H2S: NO TRACE		POTASSIUM (PPM): 84	

REMARKS

STIFF TYPE PLOT (IN MEQ/L)



ANALYST _____
D. SHEPHERD

EXHIBIT G

15-24a-10W * Basin Fruitland coal

612 E. Murray Drive
Farmington, NM 87499
Off: (505) 327-1072

iiná bá ANALYTICAL REPORT

P.O. Box 3788
Shiprock, NM 87420
Off: (505) 368-4065

Date: 02-Sep-05

CLIENT:	Coleman Oil and Gas Company	**Client Sample Info:**	Well Head
Work Order:	0508043	**Client Sample ID:**	Juniper #24-15 *
Project:	Well Head	**Collection Date:**	8/26/2005 10:45:00 AM
Lab ID:	0508043-002A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B		(SW6010B)		Analyst: JLE
Iron	0.749	0.225		mg/L	1.25	8/29/2005 1:52:33 PM
Magnesium	31.6	1.30		mg/L	100	8/29/2005 11:01:45 AM
Calcium	133	4.10		mg/L	100	8/29/2005 11:01:45 AM
Sodium	5410	13.0		mg/L	100	8/29/2005 11:01:45 AM
Potassium	75.8	11.0		mg/L	100	8/29/2005 11:01:45 AM
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: JLE
Chloride	8840	100		mg/L	1000	8/30/2005
Sulfate	0.206	0.100		mg/L	1	8/29/2005
ALKALINITY, TOTAL		M2320 B				Analyst: JEM
Alkalinity, Bicarbonate (As CaCO3)	411	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Total (As CaCO3)	411	5		mg/L CaCO3	1	8/29/2005
HARDNESS, TOTAL		M2340 B				Analyst: JEM
Hardness (As CaCO3)	460	1		mg/L	1	9/2/2005
PH		E150.1				Analyst: JEM
pH	7.34	1.00		pH units	1	8/26/2005
Temperature	25.5	0		Deg C	1	8/26/2005
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: JEM
Resistivity	0.408	0.001		ohm-m	1	8/26/2005
SPECIFIC GRAVITY		M2710 F				Analyst: JEM
Specific Gravity	1.009	0.001		Units	1	8/26/2005
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: JEM
Total Dissolved Solids (Residue, Filterable)	14300	40		mg/L	1	8/30/2005
TOTAL DISSOLVED SOLIDS		M1030F				Analyst: JEM
Total Dissolved Solids (Calculated)	14700	5		mg/L	1	9/2/2005

EXHIBIT H

Qualifiers:	ND - Not Detected at the Practical Quantitation Limit
	J - Analyte detected below Practical Quantitation Limit
	B - Analyte detected in the associated Method Blank
	H - Parameter exceeded Maximum Allowable Holding Time
	S - Spike Recovery outside accepted recovery limits
	R - RPD outside accepted precision limits
	E - Value above Upper Quantitation Limit - UQL

16 - 24hr - KO

* Basin Fruitland coal

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072

ANALYTICAL REPORT

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

Date: 02-Sep-05

CLIENT:	Coleman Oil and Gas Company	**Client Sample Info:**	Well Head
Work Order:	0508043	**Client Sample ID:**	Juniper #1 *
Project:	Well Head	**Collection Date:**	8/26/2005 10:00:00 AM
Lab ID:	0508043-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B		(SW6010B)		Analyst: JLE
Iron	ND	0.225		mg/L	1.25	8/29/2005 1:47:05 PM
Magnesium	27.3	1.30		mg/L	100	8/29/2005 10:52:19 AM
Calcium	121	4.10		mg/L	100	8/29/2005 10:52:19 AM
Sodium	4910	13.0		mg/L	100	8/29/2005 10:52:19 AM
Potassium	21.6	11.0		mg/L	100	8/29/2005 10:52:19 AM
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: JLE
Chloride	8340	100		mg/L	1000	8/30/2005
Sulfate	0.210	0.100		mg/L	1	8/29/2005
ALKALINITY, TOTAL		M2320 B				Analyst: JEM
Alkalinity, Bicarbonate (As CaCO3)	469	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	8/29/2005
Alkalinity, Total (As CaCO3)	469	5		mg/L CaCO3	1	8/29/2005
HARDNESS, TOTAL		M2340 B				Analyst: JEM
Hardness (As CaCO3)	420	1		mg/L	1	9/2/2005
PH		E150.1				Analyst: JEM
pH	7.59	1.00		pH units	1	8/26/2005
Temperature	25.1	0		Deg C	1	8/26/2005
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: JEM
Resistivity	0.426	0.001		ohm-m	1	8/26/2005
SPECIFIC GRAVITY		M2710 F				Analyst: JEM
Specific Gravity	1.008	0.001		Units	1	8/26/2005
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: JEM
Total Dissolved Solids (Residue, Filterable)	13900	40		mg/L	1	8/30/2005
TOTAL DISSOLVED SOLIDS		M1030F				Analyst: JEM
Total Dissolved Solids (Calculated)	13700	5		mg/L	1	9/2/2005

EXHIBIT H

Qualifiers:	ND - Not Detected at the Practical Quantitation Limit
	J - Analyte detected below Practical Quantitation Limit
	B - Analyte detected in the associated Method Blank
	H - Parameter exceeded Maximum Allowable Holding Time
	S - Spike Recovery outside accepted recovery limits
	R - RPD outside accepted precision limits
	E - Value above Upper Quantitation Limit - UQL

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072
Fax: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

November 17, 2006

Brian Wood
Permits West
37 Verano Loop
Santa Fe, NM 87508

TEL: 505-466-8120
FAX:

RE: Section 11

Order No.: 0611009

Dear Brian Wood:

iiná bá received 1 sample on 11/8/2006 9:40:00 AM for the analyses presented in the following report.

This certificate of analysis includes the Analytical Report(s) for the sample(s) received by the laboratory. A Quality Control Summary Report, the Sample Receipt Checklist and an executed Chain of Custody are included as an addendum to this report.

Should you have any questions regarding this certificate of analysis, please contact the laboratory at your convenience.

Report Approved By: Jeffrey L Engels
Jeffrey L. Engels, Laboratory Manager
Edwina F. Aspaas, Quality Assurance Officer

EXHIBIT L

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá **Date:** *17-Nov-06*

CLIENT: Permits West
Project: Section 11
Lab Order: 0611009

CASE NARRATIVE

Samples were analyzed using the methods outlined in one or more of the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.
Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.
Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
Methods for the Determination of Metals in Environmental Samples, Supplement I, EPA-600/R-94/111,
May 1994.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

EXHIBIT L

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *17-Nov-06*

CLIENT:	Permits West	**Client Sample Info:**	
Work Order:	0611009	**Client Sample ID:**	Section 11 NW to SE
Project:	Section 11	**Collection Date:**	11/8/2006 9:00:00 AM
Lab ID:	0611009-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		**SW6010B**				Analyst: **jle**
Iron	< 0.021	0.021		mg/L	1	11/9/2006 4:04:02 PM
Magnesium	2.64	0.010		mg/L	1	11/9/2006 4:04:02 PM
Calcium	16.8	0.490		mg/L	10	11/10/2006 10:31:04 AM
Sodium	98.0	0.800		mg/L	10	11/10/2006 10:31:04 AM
Potassium	1.43	0.040		mg/L	1	11/9/2006 4:04:02 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **elc**
Chloride	10.1	2.00		mg/L	20	11/15/2006
Sulfate	74.5	2.00		mg/L	20	11/15/2006
ALKALINITY, TOTAL		**M2320 B**				Analyst: **elc**
Alkalinity, Bicarbonate (As CaCO3)	169	5		mg/L CaCO3	1	11/8/2006
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	11/8/2006
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	11/8/2006
Alkalinity, Total (As CaCO3)	169	5		mg/L CaCO3	1	11/8/2006
HARDNESS, TOTAL		**M2340 B**				Analyst: **jem**
Hardness (As CaCO3)	53	1		mg/L	1	11/17/2006
PH		**E150.1**				Analyst: **elc**
pH	7.92	1.00		pH units	1	11/8/2006
Temperature	20.3	0		deg C	1	11/8/2006
RESISTIVITY (@ 25 DEG. C)		**M2510 C**				Analyst: **elc**
Resistivity	18.900	0.001		ohm-m	1	11/8/2006
SPECIFIC GRAVITY		**M2710 F**				Analyst: **elc**
Specific Gravity	1.001	0.001		Units	1	11/8/2006
TOTAL DISSOLVED SOLIDS		**E160.1**				Analyst: **elc**
Total Dissolved Solids (Residue, Filterable)	330	25		mg/L	1	11/13/2006
TOTAL DISSOLVED SOLIDS		**M1030F**				Analyst: **jem**
Total Dissolved Solids (Calculated)	305	5		mg/L	1	11/17/2006

EXHIBIT 1

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID: **MBLK_061115A**	SampType: **MBLK**	TestCode: **300_W**	Units: **mg/L**	Prep Date:	Run ID: **IC-761_061115A**
Client ID: **ZZZZZ**	Batch ID: **R8698**	TestNo: **E300**		Analysis Date: **11/15/2006**	SeqNo: **121608**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	< 0.101	0.101	0	0	0	0	0	0	0		
Sulfate	0.021	0.101	0	0	0	0	0	0	0		J

Sample ID: **LCS2_06115A**	SampType: **LCS**	TestCode: **300_W**	Units: **mg/L**	Prep Date:	Run ID: **IC-761_061115A**
Client ID: **ZZZZZ**	Batch ID: **R8698**	TestNo: **E300**		Analysis Date: **11/15/2006**	SeqNo: **121607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.82	0.101	2.02	0	90.1	90	110	0	0		
Sulfate	1.983	0.101	2.02	0.021	97.1	90	109	0	0		

Sample ID: **0611009-001AMS**	SampType: **MS**	TestCode: **300_W**	Units: **mg/L**	Prep Date:	Run ID: **IC-761_061115A**
Client ID: **Section 11 NW to SE**	Batch ID: **R8698**	TestNo: **E300**		Analysis Date: **11/15/2006**	SeqNo: **121613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	46.98	2.00	40.4	10.14	91.2	80	117	0	0		
Sulfate	115.1	2.00	40.4	74.48	101	90	112	0	0		

Sample ID: **0611009-001AD**	SampType: **DUP**	TestCode: **300_W**	Units: **mg/L**	Prep Date:	Run ID: **IC-761_061115A**
Client ID: **Section 11 NW to SE**	Batch ID: **R8698**	TestNo: **E300**		Analysis Date: **11/15/2006**	SeqNo: **121612**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	9.64	2.00	0	0	0	0	0	10.14	5.06	12	
Sulfate	74.28	2.00	0	0	0	0	0	74.48	0.269	10.5	

EXHIBIT C

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: **MB_061109B**	SampType: **MBLK**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061109B**
Client ID: **ZZZZZ**	Batch ID: **R8673**	TestNo: **SW6010B**		Analysis Date: **11/9/2006**	SeqNo: **121298**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	< 0.0210	0.0210									
Magnesium	< 0.0100	0.0100									
Calcium	< 0.0490	0.0490									
Sodium	< 0.0800	0.0800									
Potassium	< 0.0400	0.0400									

Sample ID: **MB2_061110A**	SampType: **MBLK**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061110A**
Client ID: **ZZZZZ**	Batch ID: **R8672**	TestNo: **SW6010B**		Analysis Date: **11/10/2006**	SeqNo: **121337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	0.01121	0.0490									J
Sodium	< 0.0800	0.0800									

Sample ID: **LCS_061109B**	SampType: **LCS**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061109B**
Client ID: **ZZZZZ**	Batch ID: **R8673**	TestNo: **SW6010B**		Analysis Date: **11/9/2006**	SeqNo: **121299**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.094	0.0210	5	0	102	75	125	0	0		
Magnesium	4.871	0.0100	5	0	97.4	75	125	0	0		
Calcium	4.593	0.0490	5	0	91.9	75	125	0	0		
Sodium	4.994	0.0800	5	0	99.9	75	125	0	0		
Potassium	4.904	0.0400	5	0	98.1	75	125	0	0		

Sample ID: **LCS2_061110A**	SampType: **LCS**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061110A**
Client ID: **ZZZZZ**	Batch ID: **R8672**	TestNo: **SW6010B**		Analysis Date: **11/10/2006**	SeqNo: **121338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	4.74	0.0490	5	0.01121	94.6	75	125	0	0		
Sodium	4.88	0.0800	5	0	97.6	75	125	0	0		

EXHIBIT 4

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: LCSD_061109B	SampType: LCSD	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061109B
Client ID: ZZZZZ	Batch ID: R8673	TestNo: SW6010B		Analysis Date: 11/9/2006	SeqNo: 121300

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.038	0.0210	5	0	101	75	125	5.094	1.11	20	
Magnesium	4.826	0.0100	5	0	96.5	75	125	4.871	0.928	20	
Calcium	4.573	0.0490	5	0	91.5	75	125	4.593	0.443	20	
Sodium	4.955	0.0800	5	0	99.1	75	125	4.994	0.787	20	
Potassium	4.878	0.0400	5	0	97.6	75	125	4.904	0.535	20	

Sample ID: LCSD2_061110A	SampType: LCSD	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061110A
Client ID: ZZZZZ	Batch ID: R8672	TestNo: SW6010B		Analysis Date: 11/10/2006	SeqNo: 121339

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	4.631	0.0490	5	0.01121	92.4	75	125	4.74	2.33	20	
Sodium	4.722	0.0800	5	0	94.4	75	125	4.88	3.29	20	

Sample ID: 0611008-001AMS	SampType: MS	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061109B
Client ID: ZZZZZ	Batch ID: R8673	TestNo: SW6010B		Analysis Date: 11/9/2006	SeqNo: 121305

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1119	2.10	500	607.5	102	75	125	0	0		
Magnesium	561.1	1.00	500	74.65	97.3	75	125	0	0		
Calcium	1021	4.90	500	547.4	94.7	75	125	0	0		
Sodium	1008	8.00	500	501	101	75	125	0	0		
Potassium	520.5	4.00	500	30.99	97.9	75	125	0	0		

Sample ID: 0611008-001AMSD	SampType: MSD	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061109B
Client ID: ZZZZZ	Batch ID: R8673	TestNo: SW6010B		Analysis Date: 11/9/2006	SeqNo: 121306

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1117	2.10	500	607.5	102	75	125	1119	0.221	20	
Magnesium	562.2	1.00	500	74.65	97.5	75	125	561.1	0.189	20	
Calcium	1014	4.90	500	547.4	93.3	75	125	1021	0.669	20	
Sodium	1003	8.00	500	501	100	75	125	1008	0.511	20	

EXHIBIT 1

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: **0611008-001AMSD**	SampType: **MSD**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061109B**
Client ID: **ZZZZZ**	Batch ID: **R8673**	TestNo: **SW6010B**		Analysis Date: **11/9/2006**	SeqNo: **121306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	522.9	4.00	500	30.99	98.4	75	125	520.5	0.452	20	

EXHIBIT I

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: ALK_W

Sample ID: **LCS_061108H**	SampType: **LCS**	TestCode: **ALK_W**	Units: **mg/L CaCO3**	Prep Date:	Run ID: **WET CHEM_061108H**
Client ID: **ZZZZZ**	Batch ID: **R8666**	TestNo: **M2320 B**		Analysis Date: **11/8/2006**	SeqNo: **121212**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	451	5.0	459.2	0	98.2	80	120	0	0		

Sample ID: **0611007-001AD**	SampType: **DUP**	TestCode: **ALK_W**	Units: **mg/L CaCO3**	Prep Date:	Run ID: **WET CHEM_061108H**
Client ID: **ZZZZZ**	Batch ID: **R8666**	TestNo: **M2320 B**		Analysis Date: **11/8/2006**	SeqNo: **121223**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1501	5.0	0	0	0	0	0	1474	1.82	20	
Alkalinity, Carbonate (As CaCO3)	40	5.0	0	0	0	0	0	48	18.2	20	
Alkalinity, Hydroxide	ND	5.0	0	0	0	0	0	0	0	20	
Alkalinity, Total (As CaCO3)	1541	5.0	0	0	0	0	0	1522	1.24	20	

Exhibit 1

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: PH_W

Sample ID: **LCS_061108C**	SampType: **LCS**	TestCode: **PH_W**	Units: **pH units**	Prep Date:	Run ID: **WET CHEM_061108C**
Client ID: **ZZZZZ**	Batch ID: **R8659**	TestNo: **E150.1**		Analysis Date: **11/8/2006**	SeqNo: **121176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.29	1.00	7.38	0	98.8	98	102	0	0		

Sample ID: **0611009-001AD**	SampType: **DUP**	TestCode: **PH_W**	Units: **pH units**	Prep Date:	Run ID: **WET CHEM_061108C**
Client ID: **Section 11 NW to SE**	Batch ID: **R8659**	TestNo: **E150.1**		Analysis Date: **11/8/2006**	SeqNo: **121179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.967	1.00	0	0	0	0	0	7.925	0.529	2	
Temperature	20.5	0	0	0	0	0	0	20.3	0.980	0	

EXHIBIT 1

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: RES_W

Sample ID: **LCS_061108B**	SampType: **LCS**	TestCode: **RES_W**	Units: **ohm-m**	Prep Date:	Run ID: **WET CHEM_061108B**
Client ID: **ZZZZZ**	Batch ID: **R8658**	TestNo: **M2510 C**		Analysis Date: **11/8/2006**	SeqNo: **121172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Resistivity	10	0.00100	10.02	0	99.8	90	110	0	0		

Sample ID: **0611009-001AD**	SampType: **DUP**	TestCode: **RES_W**	Units: **ohm-m**	Prep Date:	Run ID: **WET CHEM_061108B**
Client ID: **Section 11 NW to SE**	Batch ID: **R8658**	TestNo: **M2510 C**		Analysis Date: **11/8/2006**	SeqNo: **121174**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Resistivity	18.83	0.00100	0	0	0	0	0	18.9	0.371	10	

EXHIBIT F

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: SPGR_W

Sample ID: **LCS_061108A**	SampType: **LCS**	TestCode: **SPGR_W**	Units: **Units**	Prep Date:	Run ID: **WET CHEM_061108A**
Client ID: **ZZZZZ**	Batch ID: **R8657**	TestNo: **M2710 F**		Analysis Date: **11/8/2006**	SeqNo: **121168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Gravity	1	0.001000	1	0	100	80	120	0	0		

Sample ID: **0611009-001AD**	SampType: **DUP**	TestCode: **SPGR_W**	Units: **Units**	Prep Date:	Run ID: **WET CHEM_061108A**
Client ID: **Section 11 NW to SE**	Batch ID: **R8657**	TestNo: **M2710 F**		Analysis Date: **11/8/2006**	SeqNo: **121170**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Gravity	1.001	0.001000	0	0	0	0	0	1.001	0	15	

EXHIBIT 1

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0611009
Project: Section 11

ANALYTICAL QC SUMMARY REPORT

TestCode: TDS_W

Sample ID: MBLK_061113C	SampType: MBLK	TestCode: TDS_W	Units: mg/L	Prep Date:	Run ID: WET CHEM_061113C
Client ID: ZZZZZ	Batch ID: R8704	TestNo: E160.1		Analysis Date: 11/13/2006	SeqNo: 121686

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	25.0									

Sample ID: LCS_061113C	SampType: LCS	TestCode: TDS_W	Units: mg/L	Prep Date:	Run ID: WET CHEM_061113C
Client ID: ZZZZZ	Batch ID: R8704	TestNo: E160.1		Analysis Date: 11/13/2006	SeqNo: 121687

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1153	25.0	1170	0	98.5	80	120	0	0		

Sample ID: 0611014-005AD	SampType: DUP	TestCode: TDS_W	Units: mg/L	Prep Date:	Run ID: WET CHEM_061113C
Client ID: ZZZZZ	Batch ID: R8704	TestNo: E160.1		Analysis Date: 11/13/2006	SeqNo: 121694

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	908	25.0	0	0	0	0	0	896	1.33	10	

Sample ID: 0611009-001AD	SampType: DUP	TestCode: TDS_W	Units: mg/L	Prep Date:	Run ID: WET CHEM_061113C
Client ID: Section 11 NW to SE	Batch ID: R8704	TestNo: E160.1		Analysis Date: 11/13/2006	SeqNo: 121697

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	334	25.0	0	0	0	0	0	330	1.20	10	

EXHIBIT 1

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

iiná bá

Sample Receipt Checklist

Client Name: **PW1001**

Date and Time Received: **11/8/2006 9:40:00 AM**

Work Order Number: **0611009**

Received by: jem

Checklist completed by: D Moore 11/8/06 (Signature / Date)

Reviewed by: JH 11/8/06 (Initials / Date)

Matrix:

Carrier name: Charles Black

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☐	No ☑	
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked by: _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: Sample in cooler not on ice. Sample received within the 8 hr sampling event

Corrective Action: _____

EXHIBIT 1

CHAIN OF CUSTODY RECORD

5569

Hinā bā (for life's sake)
612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
Phone: (505) 327-1072 • Fax: (505) 327-1496

Date 11/8/06 Page _____ of _____

REPORT RESULTS TO:

Report to: Brian Wood
Company: Permits West
Address: 37 Verano Loop
City: Santa Fe, NM 87508
Phone: [illegible] 7120 Fax: Email:

SEND INVOICE TO:

PO No.: Job No.:
Name: Permits West
Company: 37 Verano Loop
Address: Santa Fe, NM 87508
City:

Turnaround Time:
10 days (normal) _____
24-48 hours (100%) X
3-5 days (50%) _____

Sample Integrity
Intact X
On Ice NW 16°C

Subcontract
Yes _____
No X

Sampling Location:

NUMBER OF CONTAINERS:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Matrix	Pres.	APL	Lab ID
Section 11 - NW 1/4 SE	11/8/06	9:00	H_2O	4°		0611009-001

Relinquished by: [illegible]	Date/Time: 11/8/06, 9:30	Received by: J Moore	Date/Time: 11/8/06 9:40
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Comments:

EXHIBIT 1

DISTRIBUTION WHITE - Lab • YELLOW - Client • PINK - Courier

san juan reproduction-i

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

Baseline Minerals Inc.
1645 Court Place, Suite 422
Denver, CO 80202

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
DENVER CO 80202
OFFICIAL USE

Postage	$	$1.59
Certified Fee		$2.40
Return Receipt Fee (Endorsement Required)		$1.85
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$5.84

0991 05 Postmark Here DEC 01 2006 12/01/2006 87505 NM

Sent To Baseline
Street, Apt. No.; or PO Box No. 1645 Court Pl #422
City, State, ZIP+4 Denver 80202

PS Form 3800, June 2002 See Reverse for Instructions

EXHIBIT J

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

BLM
1235 LaPlata Highway
Farmington, NM 87401

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
OFFICIAL USE
FARMINGTON NM 87401

Postage	$ $4.05	0991
Certified Fee	$2.40	03
Return Receipt Fee (Endorsement Required)	$1.85	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $8.30	12/01/2006

Sent To BLM
Street, Apt. No.; or PO Box No. 1235 LaPlata
City, State, ZIP+4 Farmington 87401
PS Form 3800, June 2002 See Reverse for Instructions

EXHIBIT J

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

Mike Hanson
Coleman Oil & Gas Inc.
P. O. Drawer 3337
Farmington, NM 87499-3337

Dear Mike,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

EXHIBIT J

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
FARMINGTON NM 87499
OFFICIAL USE

Postage	$	$1.59
Certified Fee		$2.40
Return Reciept Fee (Endorsement Required)		$1.85
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$5.84

POST OFFICE EXPRESS 03
Postmark Here
DEC 01 2006
USPS

Sent To Coleman
Street, Apt. No.; or PO Box No. PO 3337
City, State, ZIP+4 Farmington 87499

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

Ty Stillman
EOG Resources, Inc.
600 17th St., Suite 1100-N
Denver, CO 80202-5402

Dear Ty,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

EXHIBIT 4

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
DENVER CO 80202
OFFICIAL USE

Postage	$	$1.59
Certified Fee		$2.40
Return Reciept Fee (Endorsement Required)		$1.85
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$5.84

0991
Postmark Here
DEC 01 2006
POST OFFICE EXPRESS
USPS 87505 FT
12/01/2006 PM

Sent To: EOG
Street, Apt. No.; or PO Box No.: 600 17th, Suite 1100 N
City, State, ZIP+4: Denver 80202

7006 1760 0004 4050 5227

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

North American Petro. Corp. USA
16191 Highway 40
Folsom, LA 70437

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
FOLSOM LA 70437
OFFICIAL USE

Postage	$ $1.59
Certified Fee	$2.40
Return Reciept Fee (Endorsement Required)	$1.85
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $5.84

Postmark Here
DEC 01 2006
USPS SANTA FE NM 87504

Sent To N. Amer. Petro
Street, Apt. No.; or PO Box No. 16191 Hwy 40
City, State, ZIP+4 Folsom LA 70437

7190 5447 4000 0000 6000

EXHIBIT J

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

December 1, 2006

Jane Seiler
Questar Market Resources
1050 17th St., Suite 500
Denver, Co. 80265

Dear Jane,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #11 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Tsah Tah SWD #11 Total Depth: ≈4,500'
Proposed Disposal Zone: Point Lookout (from ≈4,100' to ≈4,250')
Location: 970' FSL & 1510' FWL Sec. 11, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈27 air miles south of Bloomfield, NM
Applicant Name: Rosetta Resources Operating LP (720) 359-9144
Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
DENVER CO 80265 OFFICIAL USE

Postage	$ $1.59	0991
Certified Fee	$2.40	Postmark Here
Return Receipt Fee (Endorsement Required)	$1.85	DEC 01 2006
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $5.84	12/01/2006

Sent To Questar
Street, Apt. No.; or PO Box No. 1050 17th # 500
City, State, ZIP+4 Denver CO 80265
PS Form 3800, June 2002

7159 9141 1400 0152 4007

EXHIBIT J

Injection Permit Checklist 12/7/06

SWD Order Number 1063 Dates: Division Approved _____ District Approved _____

Well Name/Num: Tsah Tah SWD #11 Date Spudded: New

API Num: (30-) 045- County: San Juan

Footages 970 FSL/1510 FWL Sec 11 Tsp 24N Rge 10W

Operator Name: Rosetta Resources Oper. LP Contact Brian Wood (Agent Permits Westward)

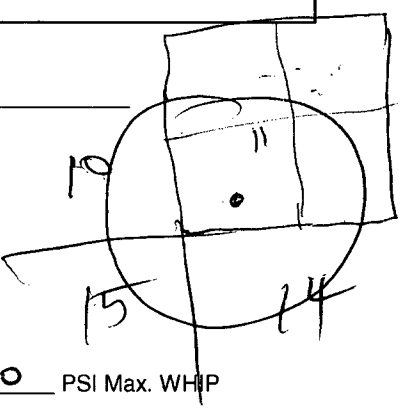
Operator Address: 1200 17th St Suite 770 Denver, CO 80202

Current Status of Well: New Well Planned Work: Drill for INJ Inj. Tubing Size: 2 7/8"

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	12 1/4 8 5/8	200'	140 SX	CIRC.
Intermediate				
Production	7 7/8 5 1/2	4500'	800 SX	CIRC
Last DV Tool				
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion ✓ After Conversion ✓

Checks (Y/N): Well File Reviewed _____ ELogs in Imaging —



Intervals:	Depths	Formation	Producing (Yes/No)
~~Salt/Potash~~	1386	FRC.	
~~Capitan Reef~~	1636	P.C.	
Cliff House, ~~Etc~~	2411	CLIFF HOUSE	
Formation Above	2986	Menefee	
Top Inj Interval	4100	Point Lookout	No
Bottom Inj Interval	4250'	" "	No
Formation Below	5186'	Gallup.	

820 PSI Max. WHIP

NO Open Hole (Y/N)

No Deviated Hole (Y/N)

Fresh Water: Exists (Y/N) Yes Wells(Y/N) Yes Analysis Included (Y/N): No, Affirmative Statement ✓

Salt Water Analysis: Injection Zone (Y/N/NA) No DispWaters (Y/N/NA) Yes Types: FRC

Notice: Newspaper(Y/N) ✓ Surface Owner BLM Mineral Owner(s) BLM

Other Affected Parties: Rosetta, Yazzie, Bonalin, Colom, EOG, NA Petro Eq, Questa

AOR/Repairs: NumActiveWells 0 Repairs? _____ Producing in Injection Interval in AOR _____

AOR Num of P&A Wells 0 Repairs? _____ Diagrams Included? —

Required Work to this Well: _____

Well Table Adequate (Y/N) ✓ AOR STRs: Sec 11 Tsp 24 Rge 10 RBDMS Updated (Y/N) 12/11/06

New AOR Table Filename _____ Sec _____ Tsp _____ Rge _____ UIC Form Completed (Y/N) ✓

Conditions of Approval: Sec _____ Tsp _____ Rge _____ This Form completed 12/11/06

Allowed To Run Open Hole Resis. Logs Data Request Sent _____

(Get API)

Inactive Well List

Total Well Count:22 Inactive Well Count:0 Since:9/17/2005

Printed On: Monday, December 11 2006

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	Days in TA

WHERE Ogrid:239235, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15

AFFIDAVIT OF PUBLICATION

Ad No. 54160

STATE OF NEW MEXICO
County of San Juan:

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

Wednesday, November 01, 2006

And the cost of the publication is $44.95.

Robin Allison

ON 11-3-2006 ROBIN ALLISON appeared before me, whom I know personally to be the person who signed the above document.

Yvette R Bleay

My Commission Expires August 30, 2010

COPY OF PUBLICATION

Rosetta Resources Operating LP is applying to drill the Tsah Tah SWD 11 as a water disposal well. The Tsah Tah SWD 11 will be located at 970' FSL & 1510' FWL SEC. 11 T. 24 N., R. 10 W., San Juan County, NM. The well will arpose of water produced from oil and gas wells into the Point Lookout sandstone at a depth of 4,100' to 4,250' at a maximum rate of 2,000 barrels of water per day and a maximum rate of 2,000 barrels of water per day and at a maximum pressure of 820 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Brian Wood Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120.

Legal No. 54160, published in The Daily Times, Farmington, New Mexico on Wednesday, October 01, 2006

EXHIBIT K