SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
18 June 07	W. Jones	18 June 07	SWD	pCLP0716941098

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 #1

RECEIVED
JUN 18 2007
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

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	B. Wood	CONSULTANT	6-15-07

(505) 466-8120
FAX 466-9682

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? XXX 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 XXX No
If yes, give the Division order number authorizing the project:

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

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).

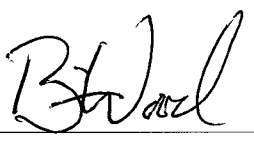
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: JUNE 15, 2007

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

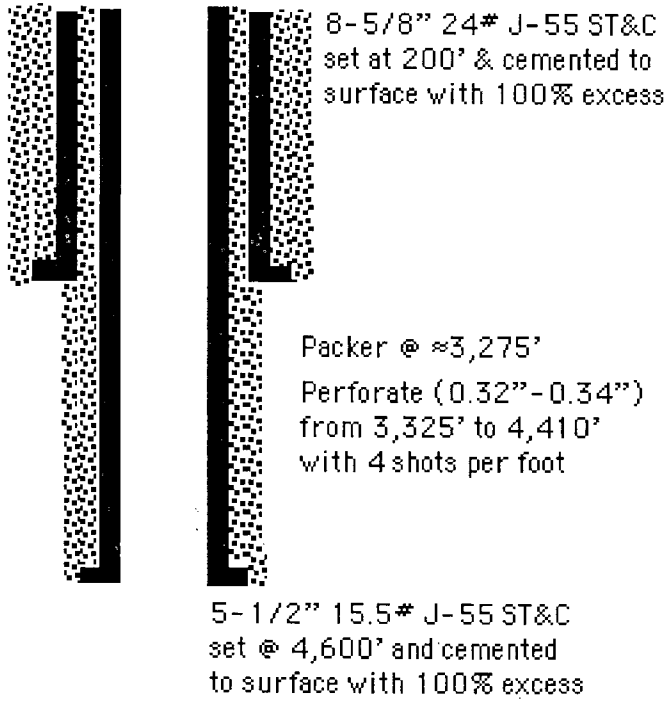
INJECTION WELL DATA SHEET

OPERATOR: ROSETTA RESOURCES OPERATING LP

WELL NAME & NUMBER: TSAH TAH SWD #1

WELL LOCATION:	1200' FNL & 1511' FEL	B	1	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

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: 820 sacks *or* 1,600 ft^3

Top of Cement: SURFACE Method Determine: VISUAL

Total Depth: 4,600'

Injection Interval

From ≈3,325 feet To ≈4,410 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? XXX Yes _____ No

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

2. Name of the Injection Formation: MENEFEE & POINT LOOKOUT

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. _____

   NOT YET DRILLED

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

   OVER: FRUITLAND (1,660') & PICTURED CLIFFS (1,710')

   UNDER: GALLUP (5,225') & DAKOTA (6,300')

I. Purpose is water disposal into the Menefee and Point Lookout zones.

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: 191'
Well Name & Number: Tsah Tah SWD #1 (API # 30-045-34282)
Well Location: 1200' FNL and 1511' FEL Sec. 1, 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. Surface casing will be cemented to the surface with ≈165 cubic feet (≈140 sacks) Class B with 1/4 pound per sack cellophane + 2% $CaCl_2$. Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Will use API casing dope.

Production casing (5-1/2", 15.5#, J-55, S T & C) will be at ≈4,600' in a 7-7/8" hole. Production casing will be cemented to the surface

with ≈1,600 cubic feet and ≈10 centralizers will be used. Volume = 100% excess. Lead with ≈1,482 cubic feet (≈720 sacks) Class B with 2% SMS + 1/4 pound per sack cellophane + 5 pounds per sack gilsonite. Lead 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.

A. (3) Tubing will be 2-7/8" 6.5# J-55 plastic lined injection string. It will be set at ≈3,275' (disposal interval will be ≈3,325' to ≈4,410').

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 ≈3,275' which will be ≈50' above the top perforation of ≈3,325'.

B. (1) Disposal zones will be the Menefee and Point Lookout sandstones. Both zones are in 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 ≈3,325' to ≈4,410' (well logs will determine exact interval after drilling). It will be perforated (0.32" or 0.34") with two to four shots per foot.

B. (3) Well has not yet been drilled. It will be for Rosetta's exclusive use and for the sole purpose of water disposal from present and future Rosetta wells. Water analyses from three Rosetta Basin Fruitland coal gas wells within a four mile radius are attached.

B. (4) Well bore has not yet been perforated since the well has not yet been drilled. It will be perforated from ≈3,325' to ≈4,410' (logs will determine exact interval after drilling).

B. (5) Top of the Menefee is predicted to be at ≈3,295'. Bottom of the Menefee is at ≈4,185'. Bottom of the closest potentially productive zone (Pictured Cliffs) is at ≈1,810'. There will be a

≈1,515' interval between the bottom of the Pictured Cliffs and the highest Menefee injection perforation. Top of the closest underlying potentially productive zone (Gallup) is at ≈5,225'. There will be a ≈1,040' interval between the bottom of the Menefee and the top of the Gallup. Within this ≈1,040' interval is the Point Lookout zone. The Point Lookout is currently being used for water disposal in the Sanchez O'Brien #1 which is 3,847' southeast and the Tsah Tah SWD #36 which is 5,263' northwest. Oil is being produced elsewhere in the San Juan Basin from the Menefee (≈37 miles south in 18-18n-10w at the Seven Lakes Menefee Field). Closest plugged Menefee well is ≈26 miles south in 30-20n-9w (wildcat with no production).

Top of the Point Lookout is predicted to be at ≈4,185'. Bottom of the Point Lookout is at ≈4,510'. Oil has been produced elsewhere in the San Juan Basin from the Point Lookout (≈32 miles east-southeast in 32-23n-4w at the Otero Point Lookout Field). Bottom of the closest potentially productive zone (Pictured Cliffs) is at ≈1,810'. There will be a ≈2,375' interval between the bottom of the Pictured Cliffs and the highest Point Lookout injection perforation. Top of the closest underlying actual productive zone (Gallup) is at ≈5,225'. There will be a ≈815' interval between the lowest Point Lookout injection perforation and the top of the Gallup.

IV. This is not an expansion of an existing injection project. It is an expansion (third well) of an existing water disposal project.

V. A map and diagram (Exhibits B) showing the one existing well (Rosetta's Tsah Tah 1 #2) within a half mile is attached. A map (Exhibit C) showing all 64 wells (34 P & A + 22 oil or gas producers + 6 water + 2 water disposal) within a two mile radius is attached. Details on the one well within a half mile are:

WELL	API #	T. 24 N., R. 10 W.	ZONE	TD	DISTANCE
Tsah Tah 1 #2	30-045-34134	SWNW Sec. 1	Fruitland coal	1935'	2,602'

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

AREA	LESSOR	LEASE #	LESSEE(S)
31-25n-9w	BLM	NMNM-16759	BP & McHugh
6-24n-9w	BLM	NMNM-97108	Dugan
W2NE4, NW4, & S2 1-24n-10w	BLM	NMNM-112955	Rosetta
E2NE4 1-24n-10w	BLM	NMNM-118138	Rosetta
NESE 36-25n-10w	NMSLO	EO-3148-0010	Rosetta & Speer
SESW & NWSE 36-25n-10w	NMSLO	EO-6644-0021	Rosetta & Kaiser-Francis
S2SE4 36-25n-10w	NMSLO	VO-6298-0000	Rosetta & Yates

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. The one well which is within a 1/2 mile radius does not penetrate the proposed injection zones. That well (Rosetta's Tsah Tah 1 #2) has a total depth of 1,935'. There will be a ≈1,390' interval between the bottom of that gas well and the highest proposed perforation (≈3,325').

VII.

1. Average injection rate will be ≈2,000 bwpd.
   Maximum injection rate will be ≈3,000 bwpd.
2. System is closed. (Rosetta laid water pipelines with its gas pipelines). Facilities will include a tank battery with skimmer and settling tanks, filters, meter, and an injection pump.
3. Average injection pressure will be ≈650 psi
   Maximum injection pressure will be ≈665 psi (≤0.2 psi x depth of top perforation)
4. Water source will be existing and future Rosetta wells in the San Juan Basin. Rosetta had 29 approved gas wells in Townships 24 and 25 North, Range 10 West as of June 15, 2007. Seventeen of the 29 have been drilled. All gas wells are or will be Fruitland coal gas with a maximum TD of ≈1,900'. The closest (332') is the proposed Tsah Tah 1 #1.

Water analyses from the La Ventana Cliff House, Menefee, and Point Lookout (Exhibit F) are attached. Three produced water analyses from the Basin Fruitland coal (Exhibit G) are also attached. A summary follows. All are Rosetta Tsah Tah wells. (The La Ventana is included for background data. There are no plans to dispose into it at this time.)

Well:	2-4	33-2	34-4	SWD 11	SWD 11	SWD 11
Where:	2-24n-10w	33-25n-10w	34-25n-10w	11-24n-11w	11-24n-11w	11-24n-11w
What Zone:	Fruitland	Fruitland	Fruitland	La Ventana	Menefee	Pt. Lookout
Parameter						
Barium	2.44	3.19	2.26	No	Analysis	Run
Bicarbonate	518.5	786.9	549.0	486	725	483
Calcium	800	400	960	56	63	40
Chloride	19,000	18,000	16,000	9,552	14,653	13,465
Iron	27.62	46.22	21.77	0.10	0.16	0.46
Magnesium	344.04	245.22	149.33	48	77	77
pH	7.3	6.8	7.0	8.5	9.0	10.0
Sodium	10,906	10,980	9,166	6,240	9,586	8,752
Sulfate	zero	zero	2.0	23	32	97
TDS	31,599	30,462	26,851	16,443	25,149	22,953

5. Neither the Menefee nor Point Lookout have been found to be productive within two miles of the well.

Oil is being produced elsewhere in the San Juan Basin from the Menefee (≈37 miles south at the Seven Lakes Menefee Field). Closest plugged Menefee well is 26 miles south in 30-20n-9w (a wildcat with no production).

Oil has been produced elsewhere in the San Juan Basin from the Point Lookout (≈32 miles east-southeast at the Otero Point Lookout Field).

Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico wrote that fluoride concentrations in Menefee wells near the Chaco River exceed safe drinking water limits. Stone also wrote, "The Point Lookout Sandstone is not widely used as a source of water ....". Analyses of the Menefee and Point Lookout are summarized in the above table.

VIII. The Menefee Formation consists of Late Cretaceous claystone, coal, siltstone, shale, and sandstone. The Formation is ≈890' thick in this well. Top is at ≈3,295'. Bottom is at ≈4,185'.

The Point Lookout is a very fine to medium grained coastal marine sandstone. It is estimated to be ≈325' thick in the well bore. Top is ≈4,185' and bottom is ≈4,510'.

Formation tops in this well are estimated to be at:

Nacimiento: 0'
Ojo Alamo Sandstone: 820'
Kirtland Shale: 910'
Fruitland Coal: 1,660'
Pictured Cliffs Sandstone: 1,710'
Lewis Shale: 1,810'
Cliff House Sandstone: 2,180'
La Ventana: 2,580'
Menefee: 3,295'
Point Lookout Sandstone: 4,185'
Mancos Shale: 4,510'
Total Depth: 4,600'

There are three water wells within a one mile radius. Two are at a mission and ≈4,500' away in the NENE Section 12. One Mission well is shut-in, but a sample was able to be collected at the second well. Mission director Duane Bristow said the wells are ≈850' deep. A third well is a plugged back (to 1,100') oil well which is used for oil field water supply by Dugan. There are six water wells within a two mile radius. All six water wells are believed to be above the Menefee. Likely aquifers are the Nacimiento and Ojo Alamo. From close to far, the five water wells are:

Mission wells ≈0.9 miles SSE in NENE Sec. 12
Dugan well ≈0.98 miles SE in NWNW Section 7
stock well ≈1.4 miles SW in NESW Section 12
well ≈1.8 miles SE in NWSE Section 7
stock well ≈1.85 miles SW in NWSE Section 11

No existing underground drinking water sources are below the Menefee and Point Lookout within a two mile radius. There will be ≈2,195' of vertical separation between the bottom of the deepest water well (Dugan) within two miles and the top of the Menefee.

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

X. IES Gamma Ray Density logs will be run and copies will be provided to the NMOCD.

XI. There are two ≈850' deep water wells within a one mile radius. They are ≈0.9 mile south at the mission in the NENE of Section 12. A water analysis from the one well available for sampling is attached as Exhibit H. (Rosetta has a signed agreement with the Mission to drill 3 gas wells on their property.) A third water well is an 1,100' deep Dugan water supply well in NWNW Section 7. Its analysis is also in Exhibit H.

XII. Rosetta is not aware of any geologic or engineering data which may indicate the Menefee or Point Lookout is in hydrologic connection with any underground sources of water. There will be ≈2,195' of vertical separation between the top (≈3,295') of the Menefee and the bottom (1,100') of the deepest water well within two miles. This interval includes at least two shale zones (Lewis and the Menefee).

XIII. Notice (this application) has been sent (Exhibit I) to the surface owner (BLM), operators of all wells (Rosetta), and lessees or lease operating right holders (BP, Dugan, Kaiser-Francis, McHugh, Speer, and Yates), and lessors (BLM and NM State Land Office) within a half mile. Legal ads (see Exhibit J) were published on November 15, 2006 and April 18, 2007.

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-045-	96160	SWD; MESA VERDE

Property Code	Property Name	Well Number
	TSAH TAH SWD	1

OGRID No.	Operator Name	Elevation
239235	ROSETTA RESOURCES OPERATING, L.P.	6810'

Surface Location

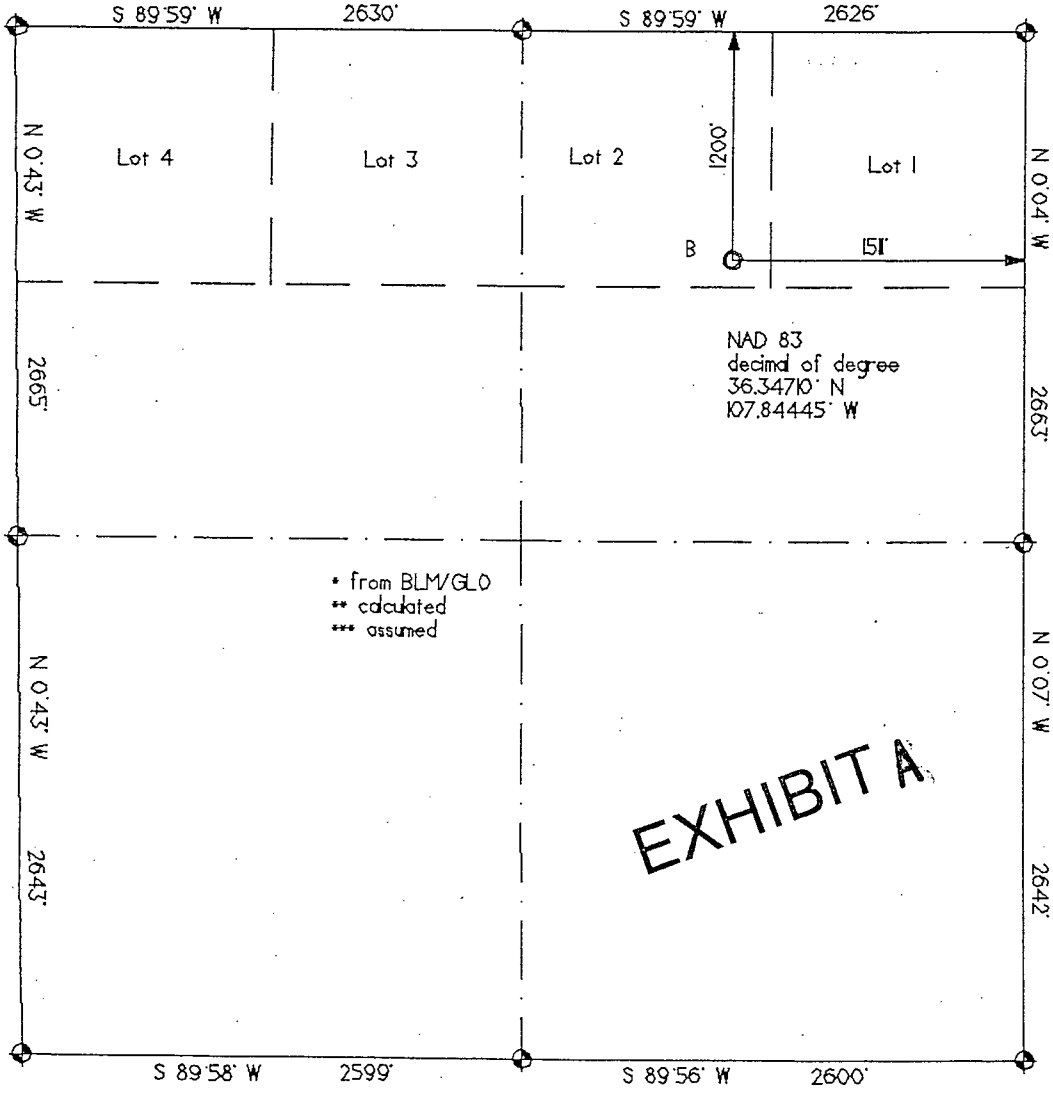
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County
B	1	24 N.	10 W.		1200'	NORTH	1511'	EAST	SAN JUAN

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County

Dedication	Joint ?	Consolidation	Order No.

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



OPERATOR CERTIFICATION

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

Signature: B. Wood

Printed Name: BRIAN WOOD

Title: CONSULTANT

Date: APR. 15, 2007

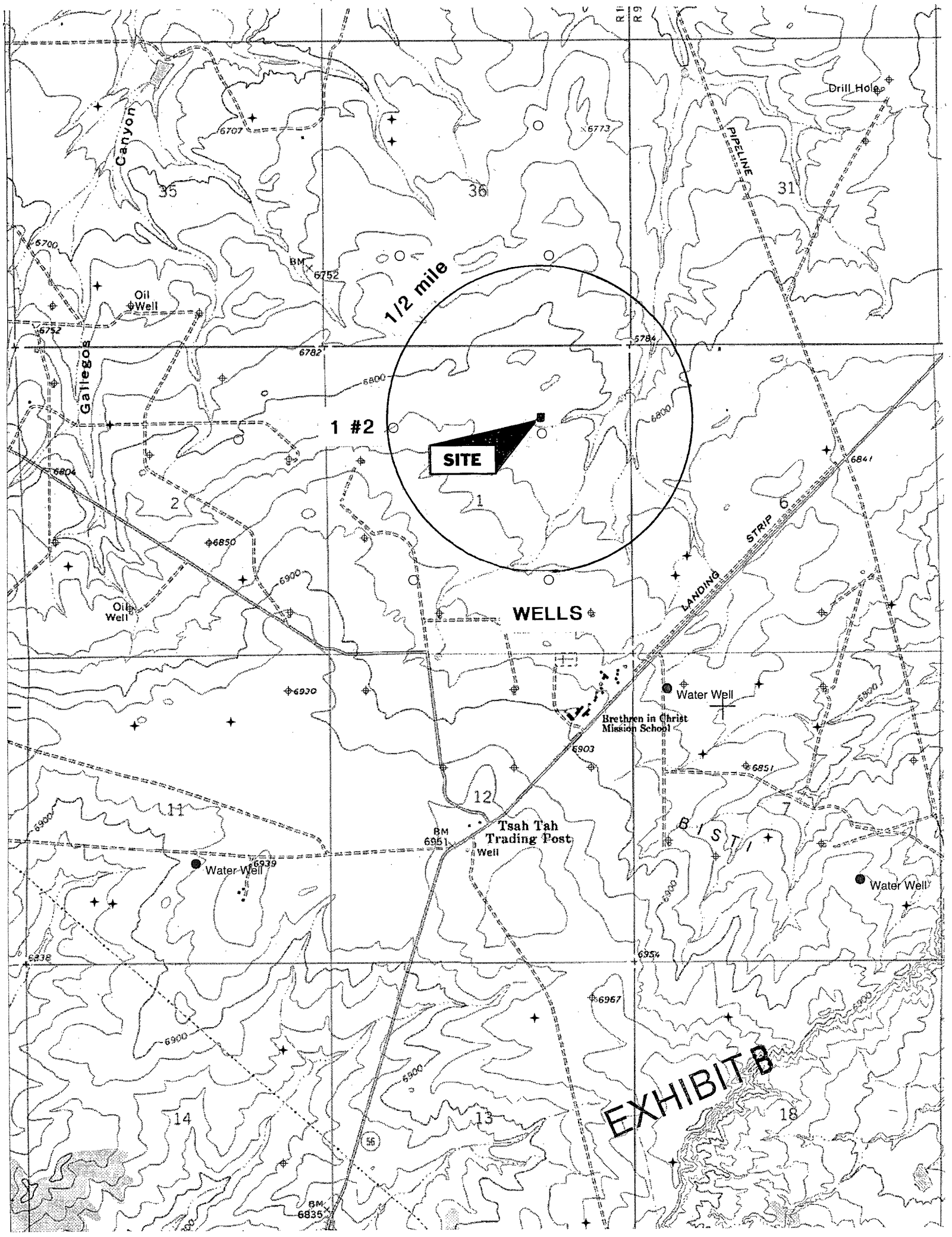
SURVEYOR CERTIFICATION

I hereby certify that the well location 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.

Date of Survey: 09/28/06

Signature and Seal of Professional Surveyor:

GERALD HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR


1/2 mile
SITE
1 #2
WELLS
Drill Hole
PIPELINE
Canyon
Gallegos
Oil Well
Oil Well
Water Well
Water Well
Water Well
Brethren in Christ Mission School
Tsah Tah Trading Post
Well
LANDING STRIP
BIST
BM 6752
BM 6951
BM 6835
6752
6782
5784
6773
6707
6700
6800
6900
6804
6850
6930
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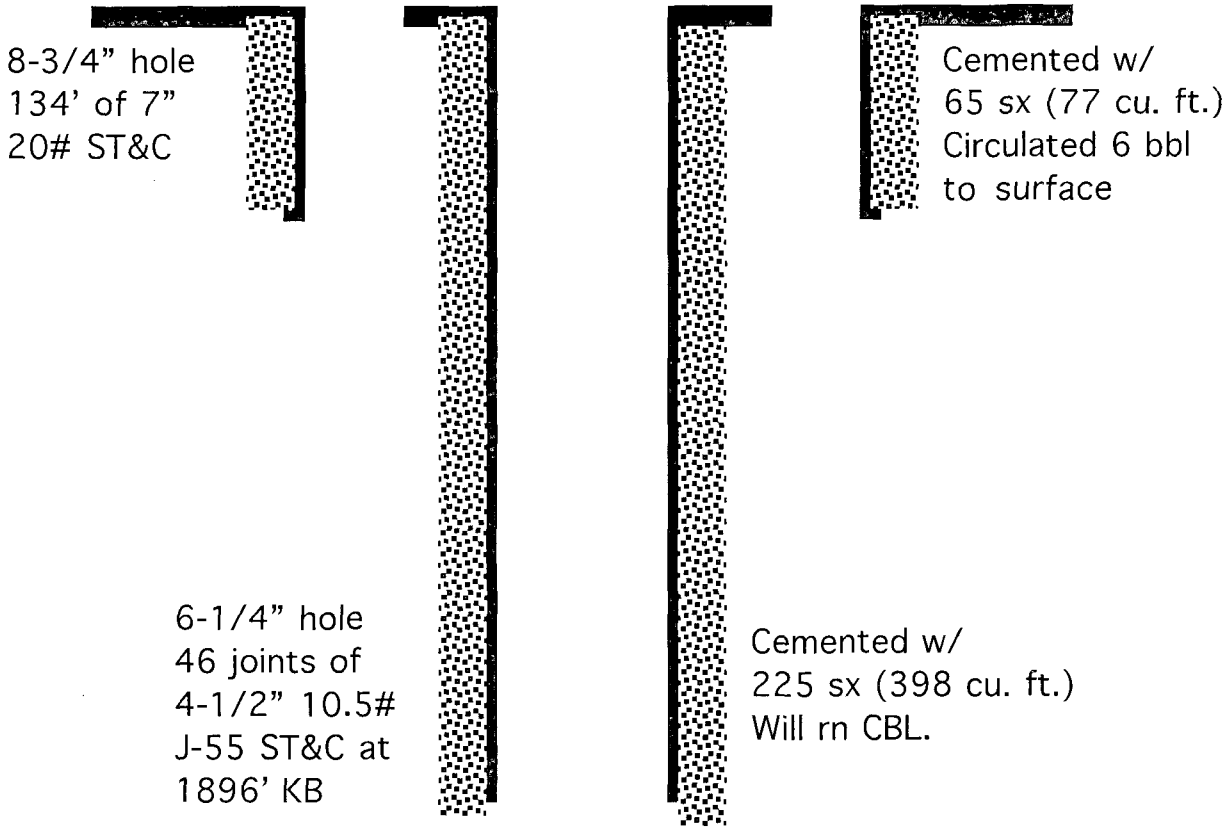
6851
6841
6939
6954
6967
6838
35
36
31
2
1
6
11
12
7
14
13
18
EXHIBIT B

TSAH TAH 1 #2

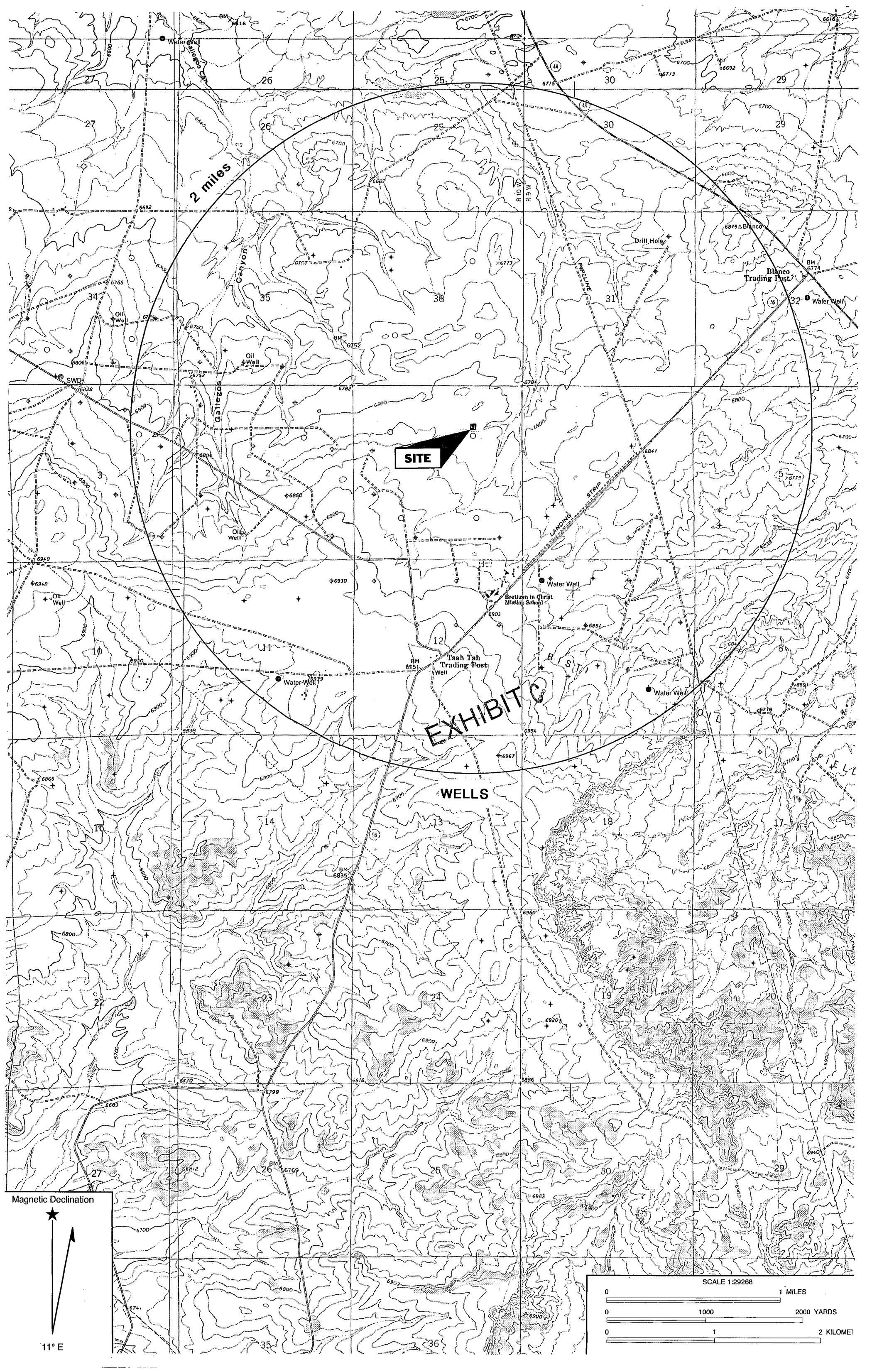
API# 30-045-34134

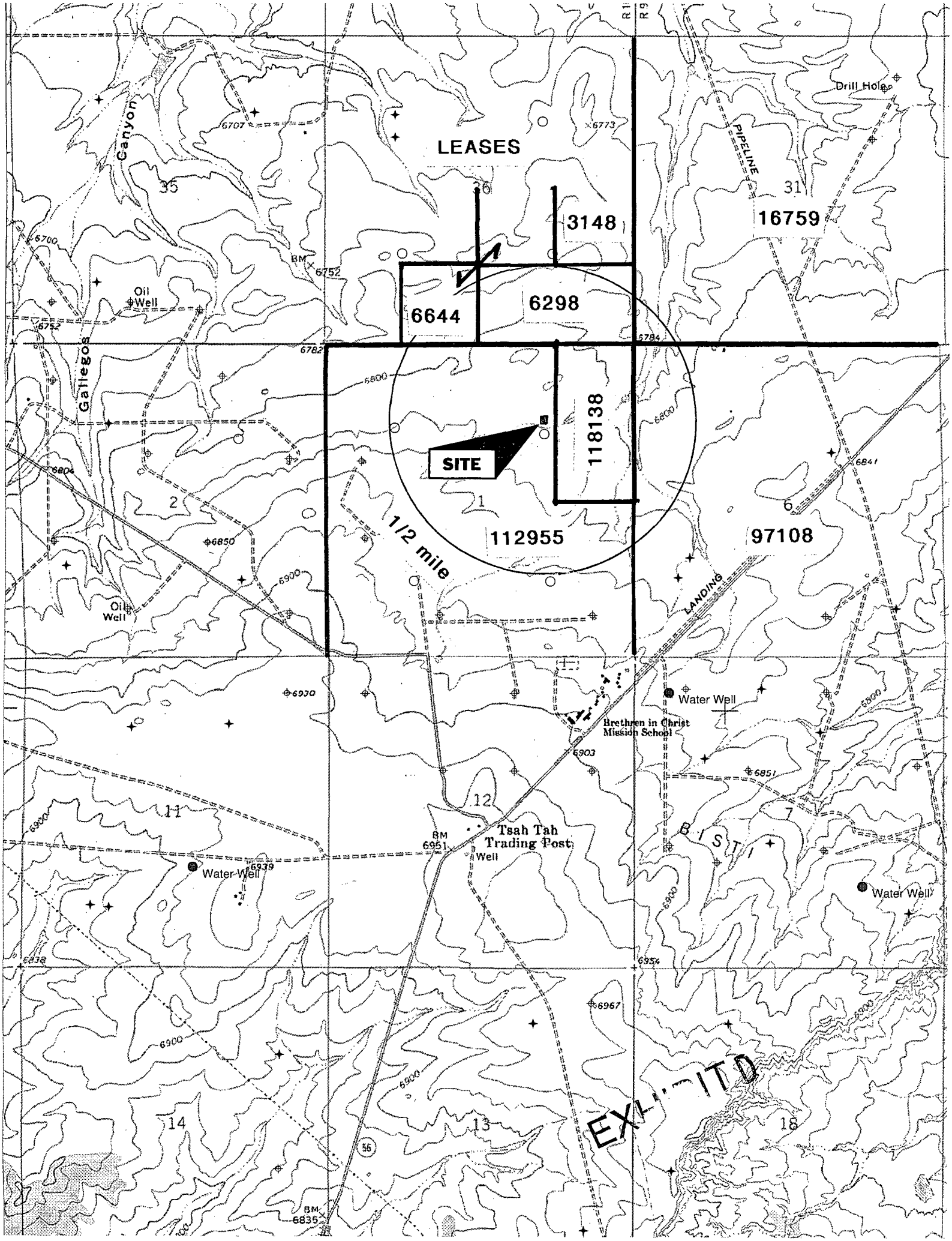


TD = 1935'

EXHIBIT B

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS


2 miles
SITE
EXHIBIT C
WELLS
Water Well
Gallegos Can
Canyon
Oil Well
SWD
Gallegos
Drill Hole
6875 Blanco
Blanco Trading Post
BM 6774
Water Well
PIPELINE
R10W
R9W
BM 6752
BM 6616
Tsah Tah Trading Post
Well
Water Well
Bretheren in Christ Mission School
Water Well
LANDING STRIP
BM 6691
BM 6835
BM 6769
Magnetic Declination
11° E
SCALE 1:29268
0 1 MILES
0 1000 2000 YARDS
0 1 2 KILOMET


LEASES
3148
16759
6644
6298
118138
SITE
112955
97108
1/2 mile
Canyon
Gallegos
PIPELINE
LANDING
Drill Hole
Oil Well
Oil Well
Water Well
Water Well
Water Well
Brethren in Christ Mission School
Tsah Tah Trading Post
Well
BM 6752
BM 6951
BM 6835
6707
6773
6700
6752
6782
6784
6800
6804
6850
6900
6930
6903
6851
6841
6939
6938
6954
6967
6900
35
36
31
2
1
6
12
11
7
14
13
18
56
R1
R9
EXHIBIT D

FIMO

NMSLO

NMSLO

SITE

NMSLO

BLM

LESSORS

2 mile

Water Well

Oil Well

SWD

Drill Hole

Blanco Trading Post

Water Well

Tsah Tah Trading Post Well

Water Well

Water Well

Brethren in Christ Mission School

Water Well

Gallegos Canyon

PIPELINE

STRIP

LANDING

Magnetic Declination

11° E

EXHIBIT E

SCALE 1:29268

0 1 MILES

0 1000 2000 YARDS

0 1 2 KILOMET

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

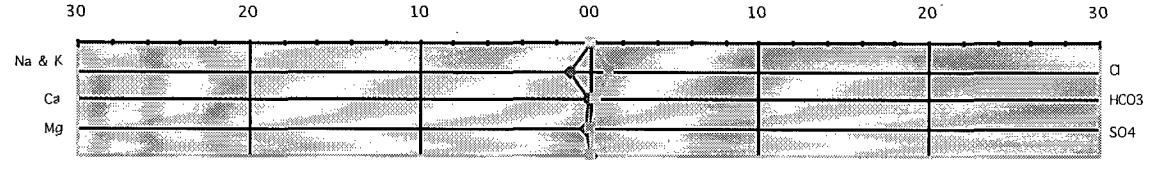
Operator:	Rosetta Resources	Sample Date:	March 15, 2007
		Analysis Date:	March 17, 2007
Well	Tsah Tah SWD # 11	District:	Farmington
Formation:	CLIFFHOUSE	Requested By:	RUSS McQUITTY
County:	SAN JUAN N.M.	Technician:	BEN BARELA
Depth:	2469	Source:	Swab Run #1

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY:	1.005 59 (°F)	S.G. (Corrected):	1.005
pH:	8.50	MAGNESIUM:	48 ppm
RESISTIVITY:	0.70 ohm/meter	CALCIUM:	56 ppm
IRON:	0.10 ppm	BICARBONATES:	486 ppm
H2S:	0 ppm	CHLORIDES:	9552 ppm
POTASSIUM:	38 ppm	SODIUM :	6240 ppm
SULFATES:	23 ppm	TDS:	16443 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.

EXHIBIT F

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

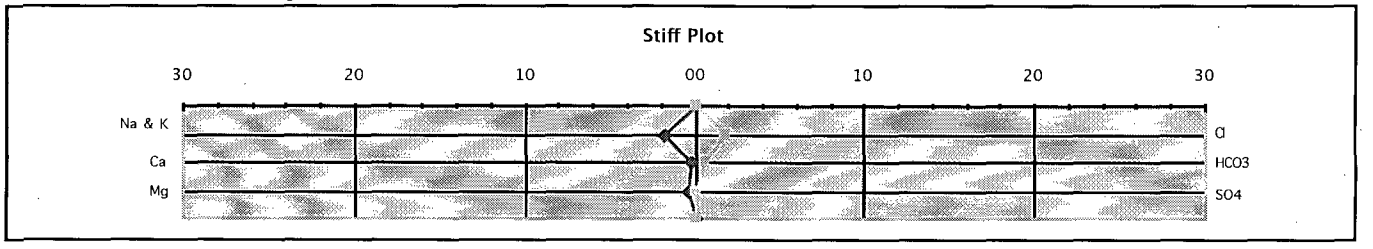
Operator:	Rosetta Resources	Sample Date:	March 15, 2007
		Analysis Date:	March 17, 2007
Well	Tsah Tah SWD # 11	District:	Farmington
Formation:	Menefee	Requested By:	RUSS McQUITTY
County:	SAN JUAN N.M.	Technician:	BEN BARELA
Depth:	3645	Source:	Swab Run #1

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY: 1.010 52 (°F) S.G. (Corrected): 1.010

pH:	9.00	MAGNESIUM:	77 ppm
RESISTIVITY:	0.80 ohm/meter	CALCIUM:	63 ppm
IRON:	0.16 ppm	BICARBONATES:	725 ppm
H2S:	0 ppm	CHLORIDES:	14653 ppm
POTASSIUM:	11 ppm	SODIUM :	9586 ppm
SULFATES:	32 ppm	TDS:	25149 ppm

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote



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

EXHIBIT F

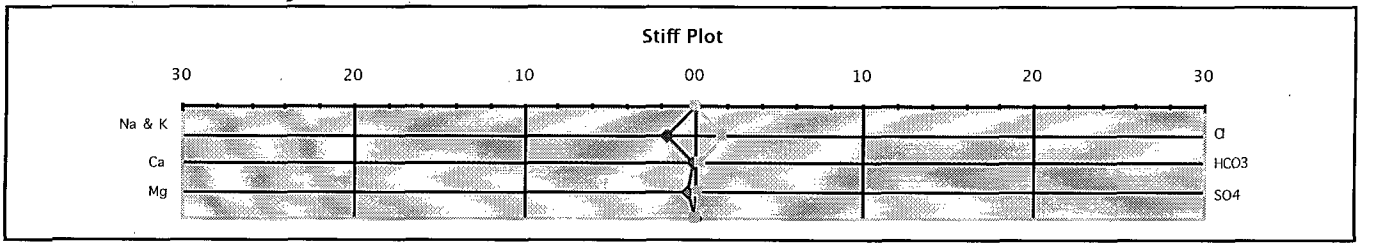
Key Pressure Pumping Services
Water Analysis Result Form
Farmington, NM.
708 S. Tucker
Phone:(505)325-4192
Fax:(505)564-3524
Zip:87401

Operator:	Rosetta Resources	Sample Date:	March 15, 2007
		Analysis Date:	March 17, 2007
Well	Tsah Tah SWD # 11	District:	Farmington
Formation:	POINT LOOKOUT	Requested By:	RUSS McQUITTY
County:	SAN JUAN N.M.	Technician:	BEN BARELA
Depth:	4181	Source:	Swab Run #6

P H Y S I C A L A N D C H E M I C A L D E T E R M I N A T I O N

SPECIFIC GRAVITY:	1.010 @ 47 (°F)	S.G. (Corrected):	1.010
pH:	10.00	MAGNESIUM:	77 ppm
RESISTIVITY:	0.40 ohm/meter	CALCIUM:	40 ppm
IRON:	0.46 ppm	BICARBONATES:	483 ppm
H2S:	0 ppm	CHLORIDES:	13465 ppm
POTASSIUM:	38 ppm	SODIUM :	8752 ppm
SULFATES:	97 ppm	TDS:	22953 ppm

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote



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

EXHIBIT F

Water Analysis

Analysis #: 1058

Company: Rosetta Resources

Lease: .

Location: Farmington, New Mexico

Date: January 16, 2007

Attention: Bryan Enns

Description:

Well: Tsah Tah 2 #4

Sample Point: 2 #4

MULTI-CHEM PRODUCTION CHEMICALS®

DISSOLVED SOLIDS

CATIONS	mg/l	meq/l
Sodium, Na (calc)	10,906.14	474.18
Calcium, Ca	800.00	39.80
Magnesium, Mg	344.04	28.20
Barium, Ba	2.44	0.04
Iron, Fe	27.62	1.48

ANIONS	mg/l	meq/l
Hydroxyl, OH		
Carbonate, CO3		
Bicarbonate, HCO3	518.50	8.49
Sulfate, SO4	0.00	0.00
Chloride, Cl	19,000.00	535.21
Sulfide, S		

OTHER PROPERTIES

pH	7.30
Specific Gravity	1.014
Dissolved Oxygen, (Mg/l)	
Dissolved Carbon Dioxide	19.80
Sulfide as H2S, (ppm)	0.00
Sample Temp	F. 72 C. 22
CO2 in Gas Phase (Mg/l)	
H2S in Gas Phase (Mg/l)	
Total Hardness (Me/l)	68.00

Total Dissolved Solids (Mg/l)	31,599
Total Ionic Strength	0.5784
Maximum CaSO4, (calc.)	0.00
Maximum BaSO4, (calc.)	0.00
Total SRB (colonies/cc)	
Total APB (colonies/cc)	
Total Aerobic (colonies/cc)	
Manganese (Mg/l):	0.84

Conclusion:

Calcium Carbonate scaling index is positive above 9 degrees Centigrade.
Calcium Sulfate scale is not indicated from 0 to 100 degrees Centigrade.
Barium Sulfate scale is not indicated from 0 to 100 degrees Centigrade.

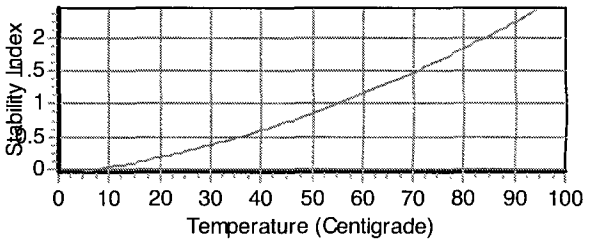
Remarks:

EXHIBIT G

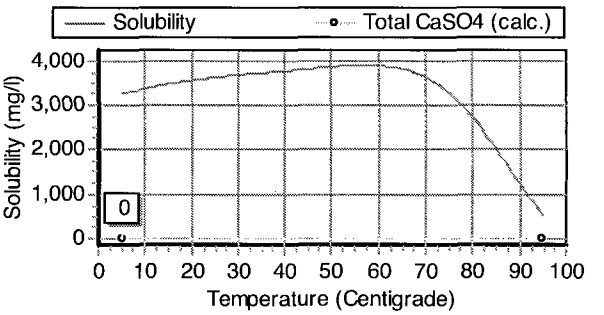
Fahrenheit Degrees 32 85 122 167 212
(C X 1.8) + 32
Centigrade Degrees 0 25 50 75 100

Scaling Indices vs. Temperature

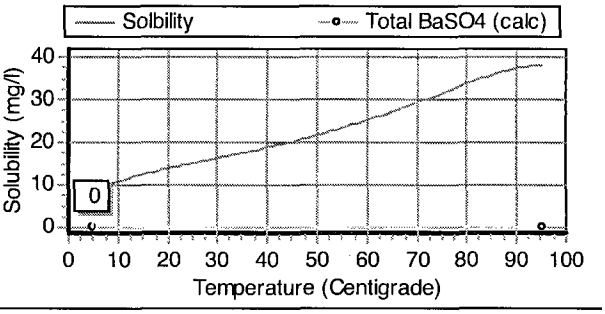
Calcium Carbonate Saturation Index



Calcium Sulfate Solubility



Barium Sulfate Solubility



Water Analysis

Analysis #: 1059

Company: Rosetta Resources

Lease: .

Location: Farmington, New Mexico

Date: January 16, 2007

Attention: Bryan Enns

Description:

Well: Tsah Tah 33 #2

Sample Point: 33 #2

MULTI-CHEM PRODUCTION CHEMICALS

DISSOLVED SOLIDS

CATIONS	mg/l	meq/l
Sodium, Na (calc)	10,979.97	477.39
Calcium, Ca	400.00	19.90
Magnesium, Mg	245.22	20.10
Barium, Ba	3.19	0.05
Iron, Fe	46.22	2.48

ANIONS	mg/l	meq/l
Hydroxyl, OH		
Carbonate, CO3		
Bicarbonate, HCO3	786.90	12.88
Sulfate, SO4	0.00	0.00
Chloride, Cl	18,000.00	507.04
Sulfide, S		

OTHER PROPERTIES

pH	6.80
Specific Gravity	1.014
Dissolved Oxygen, (Mg/l)	
Dissolved Carbon Dioxide	7.90
Sulfide as H2S, (ppm)	0.00
Sample Temp	F. 72 C. 22
CO2 in Gas Phase (Mg/l)	
H2S in Gas Phase (Mg/l)	
Total Hardness (Me/l)	40.00

Total Dissolved Solids (Mg/l)	30,462
Total Ionic Strength	0.5402
Maximum CaSO4, (calc.)	0.00
Maximum BaSO4, (calc.)	0.00
Total SRB (colonies/cc)	
Total APB (colonies/cc)	
Total Aerobic (colonies/cc)	
Manganese (Mg/l):	0.43

Conclusion:

Calcium Carbonate scaling index is positive above 41 degrees Centigrade.
Calcium Sulfate scale is not indicated from 0 to 100 degrees Centigrade.
Barium Sulfate scale is not indicated from 0 to 100 degrees Centigrade.

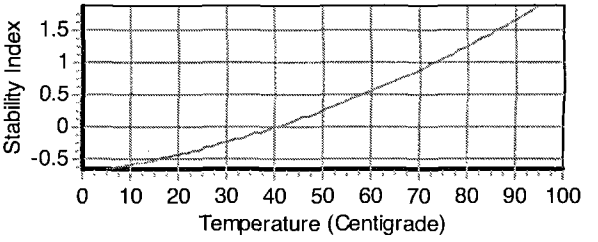
Remarks:

EXHIBIT G

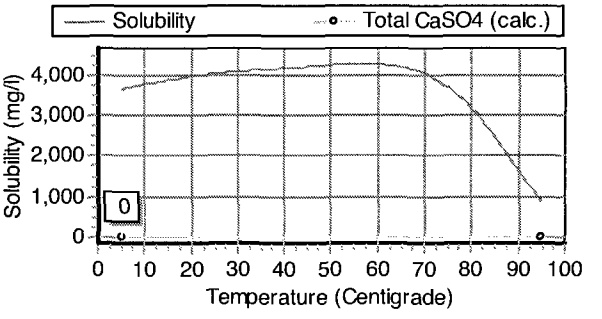
Fahrenheit Degrees 32 85 122 167 212
(C X 1.8) + 32
Centigrade Degrees 0 25 50 75 100

Scaling Indices vs. Temperature

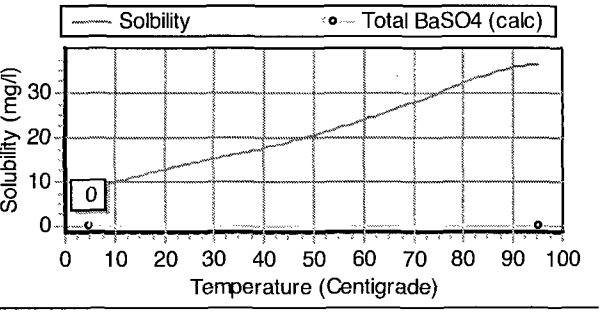
Calcium Carbonate Saturation Index



Calcium Sulfate Solubility



Barium Sulfate Solubility



Water Analysis

Analysis #: 1060

Company: Rosetta Resources

Lease: .

Location: Farmington, New Mexico

Date: January 16, 2007

Attention: Bryan Enns

Description:

Well: Tsah Tah 34 #4

Sample Point: 34 #4

MULTI-CHEM PRODUCTION CHEMICALS

DISSOLVED SOLIDS

CATIONS	mg/l	meq/l
Sodium, Na (calc)	9,166.19	398.53
Calcium, Ca	960.00	47.76
Magnesium, Mg	149.33	12.24
Barium, Ba	2.26	0.03
Iron, Fe	21.77	1.17

ANIONS	mg/l	meq/l
Hydroxyl, OH		
Carbonate, CO3		
Bicarbonate, HCO3	549.00	8.99
Sulfate, SO4	2.00	0.04
Chloride, Cl	16,000.00	450.70
Sulfide, S		

OTHER PROPERTIES

pH	7.00
Specific Gravity	1.014
Dissolved Oxygen, (Mg/l)	
Dissolved Carbon Dioxide	11.90
Sulfide as H2S, (ppm)	0.00
Sample Temp	F. 72 C. 22
CO2 in Gas Phase (Mg/l)	
H2S in Gas Phase (Mg/l)	
Total Hardness (Me/l)	60.00

Total Dissolved Solids (Mg/l)	26,851
Total Ionic Strength	0.4905
Maximum CaSO4, (calc.)	2.85
Maximum BaSO4, (calc.)	3.87
Total SRB (colonies/cc)	
Total APB (colonies/cc)	
Total Aerobic (colonies/cc)	
Manganese (Mg/l):	0.26

Conclusion:

Calcium Carbonate scaling index is positive above 19 degrees Centigrade.
Calcium Sulfate scale is not indicated from 0 to 100 degrees Centigrade.
Barium Sulfate scale is indicated below 5 degrees Centigrade.

Remarks:

EXHIBIT G

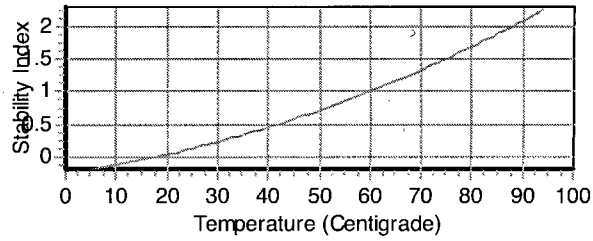
Fahrenheit Degrees: 32, 85, 122, 167, 212

(C X 1.8) + 32

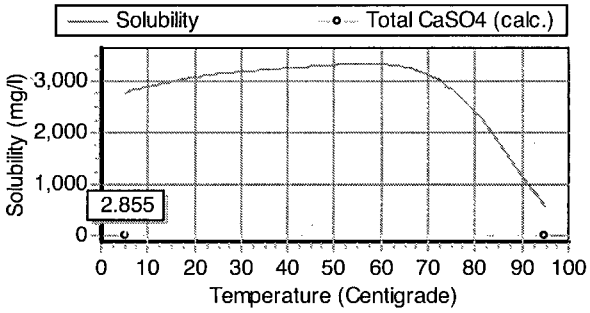
Centigrade Degrees: 0, 25, 50, 75, 100

Scaling Indices vs. Temperature

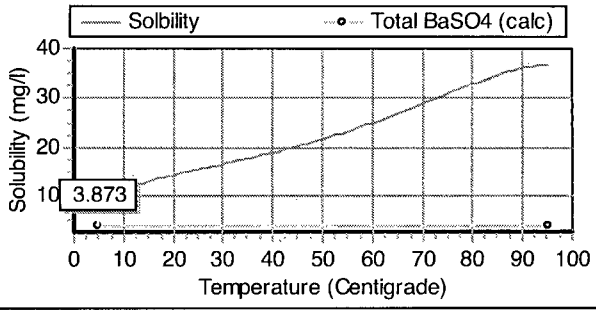
Calcium Carbonate Saturation Index



Calcium Sulfate Solubility



Barium Sulfate Solubility



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

January 03, 2007

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

TEL: 505-466-8120
FAX:

RE: BIC Mission Sec 12

Order No.: 0612022

Dear Brian Wood:

iiná bá received 1 sample on 12/13/2006 11:17:00 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

ORELAP Laboratory No. 100002
Arizona License No. AZ0691

EXHIBIT H

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:** *03-Jan-07*

CLIENT: Permits West
Project: BIC Mission Sec 12
Lab Order: 0612022

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 H

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: *03-Jan-07*

CLIENT:	Permits West	**Client Sample Info:**	
Work Order:	0612022	**Client Sample ID:**	BIC Mission Sec 12
Project:	BIC Mission Sec 12	**Collection Date:**	12/13/2006 10:30:00 AM
Lab ID:	0612022-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		**SW6010B**				Analyst: **jle**
Iron	< 0.021	0.021		mg/L	1	12/28/2006 9:24:41 AM
Magnesium	0.097	0.010		mg/L	1	12/28/2006 9:24:41 AM
Calcium	1.37	0.490		mg/L	10	12/27/2006 5:28:55 PM
Sodium	233	0.800		mg/L	10	12/27/2006 5:28:55 PM
Potassium	0.414	0.400		mg/L	10	12/27/2006 5:28:55 PM
ANIONS BY ION CHROMATOGRAPHY		**E300**				Analyst: **elc**
Chloride	6.18	0.100		mg/L	1	12/20/2006
Sulfate	160	3.00		mg/L	30	12/27/2006
ALKALINITY, TOTAL		**M2320 B**				Analyst: **elc**
Alkalinity, Bicarbonate (As CaCO3)	245	5		mg/L CaCO3	1	12/22/2006
Alkalinity, Carbonate (As CaCO3)	77	5		mg/L CaCO3	1	12/22/2006
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	12/22/2006
Alkalinity, Total (As CaCO3)	322	5		mg/L CaCO3	1	12/22/2006
HARDNESS, TOTAL		**M2340 B**				Analyst: **jem**
Hardness (As CaCO3)	4	1		mg/L	1	1/2/2007
PH		**E150.1**				Analyst: **elc**
pH	8.99	1.00		pH units	1	12/13/2006
Temperature	23.1	0		deg C	1	12/13/2006
RESISTIVITY (@ 25 DEG. C)		**M2510 C**				Analyst: **elc**
Resistivity	9.950	0.001		ohm-m	1	12/13/2006
SPECIFIC GRAVITY		**M2710 F**				Analyst: **elc**
Specific Gravity	1.002	0.001		Units	1	12/13/2006
TOTAL DISSOLVED SOLIDS		**E160.1**				Analyst: **elc**
Total Dissolved Solids (Residue, Filterable)	628	25		mg/L	1	12/14/2006
TOTAL DISSOLVED SOLIDS		**M1030F**				Analyst: **jem**
Total Dissolved Solids (Calculated)	591	5		mg/L	1	1/2/2007

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
* - 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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID: MBLK_061220A	SampType: MBLK	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061220A
Client ID: ZZZZZ	Batch ID: R8778	TestNo: E300		Analysis Date: 12/20/2006	SeqNo: 122742

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		

Sample ID: MB_061227A	SampType: MBLK	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123042

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	0.014	0.101	0	0	0	0	0	0	0		J

Sample ID: LCS_061220A	SampType: LCS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061220A
Client ID: ZZZZZ	Batch ID: R8778	TestNo: E300		Analysis Date: 12/20/2006	SeqNo: 122741

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.845	0.101	2.02	0	91.3	90	110	0	0		

Sample ID: LCS2_061227	SampType: LCS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123025

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.835	0.101	2.02	0	90.8	90	110	0	0		
Sulfate	2.036	0.101	2.02	0.014	100	90	109	0	0		

Sample ID: 0612028-001CMS	SampType: MS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061220A
Client ID: ZZZZZ	Batch ID: R8778	TestNo: E300		Analysis Date: 12/20/2006	SeqNo: 122753

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.86	0.500	10.1	9.165	96	80	117	0	0		

EXHIBIT

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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W

Sample ID: 0612020-001AMS	SampType: MS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123031

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1048	50.5	1010	109	93	90	112	0	0		

Sample ID: 0612045-002CMS	SampType: MS	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123039

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	3556	50.5	1010	2462	108	80	117	0	0		

Sample ID: 0612022-001AD	SampType: DUP	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061220A
Client ID: BIC Mission Sec 12	Batch ID: R8778	TestNo: E300		Analysis Date: 12/20/2006	SeqNo: 122743

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	6.121	0.100	0	0	0	0	0	6.183	1.01	12	

Sample ID: 0612028-001CD	SampType: DUP	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123035

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	697.8	20.2	0	0	0	0	0	698.4	0.0859	10.5	

Sample ID: 0612045-001CD	SampType: DUP	TestCode: 300_W	Units: mg/L	Prep Date:	Run ID: IC-761_061227A
Client ID: ZZZZZ	Batch ID: R8798	TestNo: E300		Analysis Date: 12/27/2006	SeqNo: 123038

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2156	50.5	0	0	0	0	0	2155	0.0696	12	

EXHIBIT H

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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: MB_061227C	SampType: MBLK	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061227C
Client ID: ZZZZZ	Batch ID: R8799	TestNo: SW6010B		Analysis Date: 12/27/2006	SeqNo: 123046

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: MB_061228A	SampType: MBLK	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061228A
Client ID: ZZZZZ	Batch ID: R8807	TestNo: SW6010B		Analysis Date: 12/28/2006	SeqNo: 123197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.006786	0.0210									J
Magnesium	< 0.0100	0.0100									

Sample ID: LCS_061227C	SampType: LCS	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061227C
Client ID: ZZZZZ	Batch ID: R8799	TestNo: SW6010B		Analysis Date: 12/27/2006	SeqNo: 123047

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4.983	0.0210	5	0	99.7	75	125	0	0		
Magnesium	4.894	0.0100	5	0	97.9	75	125	0	0		
Calcium	4.934	0.0490	5	0	98.7	75	125	0	0		
Sodium	4.882	0.0800	5	0	97.6	75	125	0	0		
Potassium	4.891	0.0400	5	0	97.8	75	125	0	0		

Sample ID: LCS_061228A	SampType: LCS	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061228A
Client ID: ZZZZZ	Batch ID: R8807	TestNo: SW6010B		Analysis Date: 12/28/2006	SeqNo: 123198

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.306	0.0210	5	0.006786	106	75	125	0	0		
Magnesium	4.841	0.0100	5	0	96.8	75	125	0	0		

EXHIBIT H

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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: LCSD_061227C	SampType: LCSD	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061227C
Client ID: ZZZZZ	Batch ID: R8799	TestNo: SW6010B		Analysis Date: 12/27/2006	SeqNo: 123048

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4.924	0.0210	5	0	98.5	75	125	4.983	1.18	20	
Magnesium	4.837	0.0100	5	0	96.7	75	125	4.894	1.16	20	
Calcium	4.887	0.0490	5	0	97.7	75	125	4.934	0.952	20	
Sodium	4.81	0.0800	5	0	96.2	75	125	4.882	1.48	20	
Potassium	4.884	0.0400	5	0	97.7	75	125	4.891	0.152	20	

Sample ID: LCSD_061228A	SampType: LCSD	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061228A
Client ID: ZZZZZ	Batch ID: R8807	TestNo: SW6010B		Analysis Date: 12/28/2006	SeqNo: 123199

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.317	0.0210	5	0.006786	106	75	125	5.306	0.196	20	
Magnesium	4.843	0.0100	5	0	96.9	75	125	4.841	0.0269	20	

Sample ID: 0612013-006AMS	SampType: MS	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061227C
Client ID: ZZZZZ	Batch ID: R8799	TestNo: SW6010B		Analysis Date: 12/27/2006	SeqNo: 123051

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	489.7	2.10	500	0	97.9	75	125	0	0		
Magnesium	2404	1.00	500	1926	95.5	75	125	0	0		
Calcium	846.4	4.90	500	368.6	95.5	75	125	0	0		
Sodium	942.2	8.00	500	449.7	98.5	75	125	0	0		
Potassium	519.2	4.00	500	33.72	97.1	75	125	0	0		

Sample ID: 0612022-001AMS	SampType: MS	TestCode: 6010B_CATI	Units: mg/L	Prep Date:	Run ID: ICP_1_061228A
Client ID: BIC Mission Sec 12	Batch ID: R8807	TestNo: SW6010B		Analysis Date: 12/28/2006	SeqNo: 123201

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.355	0.0210	5	0.008647	107	75	125	0	0		
Magnesium	4.943	0.0100	5	0.0973	96.9	75	125	0	0		

EXHIBIT H

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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010B_CATIONS

Sample ID: **0612013-006AMSD**	SampType: **MSD**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061227C**
Client ID: **ZZZZZ**	Batch ID: **R8799**	TestNo: **SW6010B**		Analysis Date: **12/27/2006**	SeqNo: **123052**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	484.9	2.10	500	0	97	75	125	489.7	0.982	20	
Magnesium	2400	1.00	500	1926	94.7	75	125	2404	0.161	20	
Calcium	850.4	4.90	500	368.6	96.4	75	125	846.4	0.475	20	
Sodium	943.8	8.00	500	449.7	98.8	75	125	942.2	0.169	20	
Potassium	519.8	4.00	500	33.72	97.2	75	125	519.2	0.104	20	

Sample ID: **0612022-001AMSD**	SampType: **MSD**	TestCode: **6010B_CATI**	Units: **mg/L**	Prep Date:	Run ID: **ICP_1_061228A**
Client ID: **BIC Mission Sec 12**	Batch ID: **R8807**	TestNo: **SW6010B**		Analysis Date: **12/28/2006**	SeqNo: **123202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.077	0.0210	5	0.008647	101	75	125	5.355	5.34	20	
Magnesium	4.635	0.0100	5	0.0973	90.7	75	125	4.943	6.45	20	

EXHIBIT H

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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: ALK_W

Sample ID: MBLK_061222A	SampType: MBLK	TestCode: ALK_W	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM_061222A
Client ID: ZZZZZ	Batch ID: R8784	TestNo: M2320 B		Analysis Date: 12/22/2006	SeqNo: 122807

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1.2	5.00									J
Alkalinity, Carbonate (As CaCO3)	ND	5.00									
Alkalinity, Hydroxide	ND	5.00									
Alkalinity, Total (As CaCO3)	1.2	5.00									J

Sample ID: LCS_061222A	SampType: LCS	TestCode: ALK_W	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM_061222A
Client ID: ZZZZZ	Batch ID: R8784	TestNo: M2320 B		Analysis Date: 12/22/2006	SeqNo: 122808

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	974	5.00	1000	1.2	97.3	80	120	0	0		

Sample ID: 0612022-001AD	SampType: DUP	TestCode: ALK_W	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM_061222A
Client ID: BIC Mission Sec 12	Batch ID: R8784	TestNo: M2320 B		Analysis Date: 12/22/2006	SeqNo: 122813

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	249	5.00	0	0	0	0	0	244.7	1.76	20	
Alkalinity, Carbonate (As CaCO3)	74	5.00	0	0	0	0	0	77.34	4.41	20	
Alkalinity, Hydroxide	ND	5.00	0	0	0	0	0	0	0	20	
Alkalinity, Total (As CaCO3)	323	5.00	0	0	0	0	0	322	0.310	20	

EXHIBIT H

Qualifiers:
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B - Analyte detected in the associated Method Blank

CLIENT: Permits West
Work Order: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: PH_W

Sample ID: **LCS_061213C**	SampType: **LCS**	TestCode: **PH_W**	Units: **pH units**	Prep Date:	Run ID: **WET CHEM_061213C**
Client ID: **ZZZZZ**	Batch ID: **R8763**	TestNo: **E150.1**		Analysis Date: **12/13/2006**	SeqNo: **122502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.298	1.00	7.38	0	98.9	98	102	0	0		

Sample ID: **0612028-001CD**	SampType: **DUP**	TestCode: **PH_W**	Units: **pH units**	Prep Date:	Run ID: **WET CHEM_061213C**
Client ID: **ZZZZZ**	Batch ID: **R8763**	TestNo: **E150.1**		Analysis Date: **12/13/2006**	SeqNo: **122506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.667	1.00	0	0	0	0	0	6.632	0.526	2	
Temperature	16.2	0	0	0	0	0	0	15.1	7.03	0	

EXHIBIT H

Qualifiers:
ND - Not Detected at the Reporting Limit
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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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: RES_W

Sample ID: **LCS_061213B**	SampType: **LCS**	TestCode: **RES_W**	Units: **ohm-m**	Prep Date:	Run ID: **WET CHEM_061213B**
Client ID: **ZZZZZ**	Batch ID: **R8761**	TestNo: **M2510 C**		Analysis Date: **12/13/2006**	SeqNo: **122483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Resistivity	10.01	0.00100	10.02	0	99.9	90	110	0	0		

Sample ID: **0612022-001AD**	SampType: **DUP**	TestCode: **RES_W**	Units: **ohm-m**	Prep Date:	Run ID: **WET CHEM_061213B**
Client ID: **BIC Mission Sec 12**	Batch ID: **R8761**	TestNo: **M2510 C**		Analysis Date: **12/13/2006**	SeqNo: **122485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Resistivity	9.98	0.00100	0	0	0	0	0	9.95	0.301	10	

EXHIBIT H

Qualifiers:
ND - Not Detected at the Reporting Limit
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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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: SPGR_W

Sample ID: **LCS_061213A**	SampType: **LCS**	TestCode: **SPGR_W**	Units: **Units**	Prep Date:	Run ID: **WET CHEM_061213A**
Client ID: **ZZZZZ**	Batch ID: **R8760**	TestNo: **M2710 F**		Analysis Date: **12/13/2006**	SeqNo: **122477**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Gravity	1.001	0.001000	1	0	100	80	120	0	0		

Sample ID: **0612020-001AD**	SampType: **DUP**	TestCode: **SPGR_W**	Units: **Units**	Prep Date:	Run ID: **WET CHEM_061213A**
Client ID: **ZZZZZ**	Batch ID: **R8760**	TestNo: **M2710 F**		Analysis Date: **12/13/2006**	SeqNo: **122481**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Gravity	1.214	0.001000	0	0	0	0	0	1.216	0.165	15	

EXHIBIT H

Qualifiers:
ND - Not Detected at the Reporting Limit
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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: 0612022
Project: BIC Mission Sec 12

ANALYTICAL QC SUMMARY REPORT

TestCode: TDS_W

Sample ID: **MBLK_061214B**	SampType: **MBLK**	TestCode: **TDS_W**	Units: **mg/L**	Prep Date:	Run ID: **WET CHEM_061214B**
Client ID: **ZZZZZ**	Batch ID: **R8785**	TestNo: **E160.1**		Analysis Date: **12/14/2006**	SeqNo: **122814**

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_061214B**	SampType: **LCS**	TestCode: **TDS_W**	Units: **mg/L**	Prep Date:	Run ID: **WET CHEM_061214B**
Client ID: **ZZZZZ**	Batch ID: **R8785**	TestNo: **E160.1**		Analysis Date: **12/14/2006**	SeqNo: **122815**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1156	25.0	1170	0	98.8	80	120	0	0		

Sample ID: **0612022-001AD**	SampType: **DUP**	TestCode: **TDS_W**	Units: **mg/L**	Prep Date:	Run ID: **WET CHEM_061214B**
Client ID: **BIC Mission Sec 12**	Batch ID: **R8785**	TestNo: **E160.1**		Analysis Date: **12/14/2006**	SeqNo: **122825**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	630	25.0	0	0	0	0	0	628	0.318	10	

EXHIBIT H

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

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Sample Receipt Checklist

Client Name: **PW1001**

Date and Time Received: **12/13/2006 11:17:00 AM**

Work Order Number: **0612022**

Received by: jem

Checklist completed by: J Moore 12/13/06 (Signature / Date)

Reviewed by: JK 12/13/06 (Initials / Date)

Matrix:

Carrier name: Courier

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 ☒ JK 15.5°C	
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 RECEIVED LESS THAN ONE AFTER SAMPLING EVENT, IN A COOLER WITH NO ICE.

Corrective Action: _____

EXHIBIT H

CHAIN OF CUSTODY RECORD

5662

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

Date 12-13-06 Page _____ of _____

REPORT RESULTS TO:

Report to: Brian Wood
Company: Permits West
Address: 37 Verano Loop
City: Santa Fe, NM 87508
Phone: 466-8120 Fax: Email:

SEND INVOICE TO:

PO No.: Job No.:
Name: Same
Company:
Address:
City:

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

Sample Integrity
Intact X
On Ice 15.5° NO

Subcontract
Yes _____
No X

Sampling Location:
BIC Mission Sec 12

NUMBER OF CONTAINERS:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Matrix	Pres.	API	Lab ID
BIC Mission Sec 12	12/13	10:30	H_2O	cool		0612022-001

EXHIBIT H

Relinquished by: Chas Blanco	Date/Time: 12/13/06 11:45	Received by: J Moore	Date/Time: 12/13/06 11:17
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Comments:

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

san juan reproduction-i

SMITH ENERGY SERVICES
A DIVISION OF ALLIED PRODUCTS CORPORATION

2198 East Bloomfield Highway
Farmington, New Mexico 87401
Phone (505) 327-7281

SMITH ENERGY SERVICES a division of Allied Products
WATER ANALYSIS

Jun. 11, 1990 Page 1

06-11-90
DUGAN PRODUCTION
JOHN ALEXANDER
Date Sampled: 06-05-90
Well: GOOD TIMES FIELD H20 WELL
SIXTEEN G's WATER well
OJO ALAMO

Formation:
Legals:
County:
Report No.: 90054

Specific Gravity:	1.000	pH:	8.50
Chloride:	1,200.0 mg/l	Calcium:	281 mg/l
Bicarbonate:	85.4 mg/l	Magnesium:	388 mg/l
Sulfate:	110 mg/l	Total Iron:	.0 mg/l
Sulfide:	0 mg/l	Sodium:	-251 mg/l
Total Hardness:	2,300 mg/l	Total Diss Solids:	1,913 mg/l
Potassium:	100 mg/l		
Resistivity:	11.80 Ohm Meters at 60 Degrees F		

Sample Source:

Remarks:

Your water report was prepared by: WALLACE W. WALTERS

OJO ALAMO WATER WELL

EXHIBIT H

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

June 15, 2007

BLM
1235 LaPlata Highway
Farmington, NM 87401

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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 #1 Total Depth: ≈4,600'
Proposed Disposal Zones: Menefee & Pt. Lookout (from ≈3,325' to ≈4,410')
Location: 1200' FNL & 1511' FEL Sec. 1, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈26 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

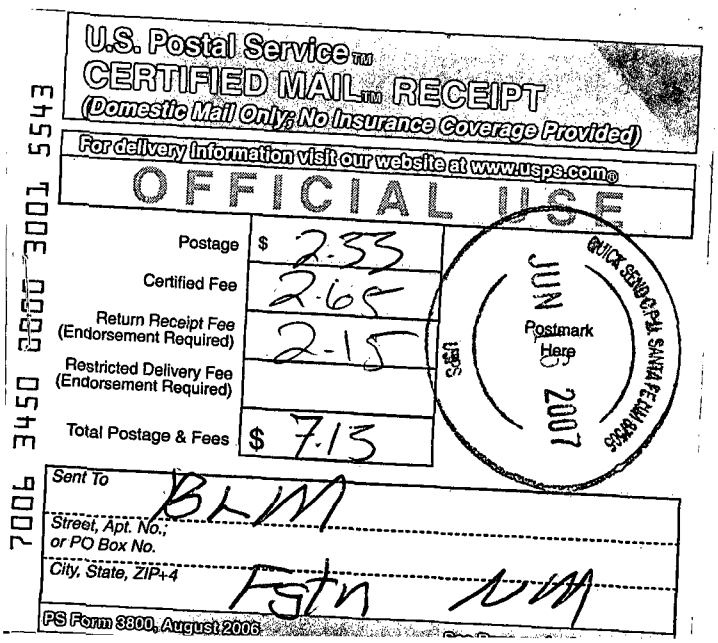

EXHIBIT 1

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

June 15, 2007

Joe Mraz
NM State Land Office
P. O. Box 1148
Santa Fe, NM 87504

Dear Joe,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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 #1 Total Depth: ≈4,600'
Proposed Disposal Zones: Menefee & Pt. Lookout (from ≈3,325' to ≈4,410')
Location: 1200' FNL & 1511' FEL Sec. 1, T. 24 N., R. 10 W.,
San Juan County, NM on BLM lease NMNM-112955
Approximate Location: ≈26 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

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JUN 19 2007
QUICK SEND C.M. SANTA FE, NM 87505

Sent To: Joe Mraz - SLO
Street, Apt. No.; or PO Box No.
City, State, ZIP+4 Santa Fe, NM

PS Form 3800, August 2006 See Reverse for Instructions

7005 1160 0005 3454 8005

EXHIBIT 1

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

June 15, 2007

Cherry Hlava
BP America Production Company
P. O. Box 3092
Houston, Tx. 77253-3092

Dear Cherry,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Please call me if you have any questions.

Sincerely,

Brian Wood

7006 3450 0000 3001 5512

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Street, Apt. No.; or PO Box No.:
City, State, ZIP+4: Houston

EXHIBIT 1

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

June 15, 2007

John Alexander
Dugan Production Corp.
P. O. Box 420
Farmington, NM 87499

Dear John,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

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Please call me if you have any questions.

Sincerely,

Brian Wood

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City, State, ZIP+4 Farm
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7001 0320 0005 9468

EXHIBIT 1

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

June 15, 2007

Kaiser-Francis Oil Co.
P. O. Box 21468
Tulsa, OK 74121

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Applicant's Address: 1200 17th St., Suite 770, Denver, CO 80202

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Please call me if you have any questions.

Sincerely,

Brian Wood

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Total Postage & Fees	$ 6.45

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Sent To: Kaiser-Francis Oil
Street, Apt. No.; or PO Box No.:
City, State, ZIP+4: Tulsa OK

See Reverse for Instructions

EXHIBIT 1

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

June 15, 2007

McHugh Co.
650 S. Cherry,#1225
Denver, CO 80246

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Please call me if you have any questions.

Sincerely,

Brian Wood

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Total Postage & Fees	$ 6.45

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Sent To McHugh Co
Street, Apt. No.; or PO Box No.
City, State, ZIP+4 Denver CO

PS Form 3800, August 2006 See Reverse for Instructions

EXHIBIT I

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

June 15, 2007

Bill Speer
900 Crestview Dr.
Farmington, NM 87401

Dear Bill,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Please call me if you have any questions.

Sincerely,

Brian Wood

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City, State, ZIP+4 Fgtn

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7004 3450 0008 0545 6445

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

June 15, 2007

Clifton May
Yates Petroleum Corporation
105 south 4th St.
Artesia, NM 88210

Dear Cliff,

Rosetta Resources Operating LP is applying (see attached application) to drill its Tsah Tah SWD #1 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.

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Please call me if you have any questions.

Sincerely,

Brian Wood

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USPS

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7006 0000 0001 5451 0547

EXHIBIT I

AFFIDAVIT OF PUBLICATION

Ad No. 54986

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, April 18, 2007

And the cost of the publication is $46.55

Robin Allison

ON 4/26/07 ROBIN ALLISON appeared before me, whom I know personally to be the person who signed the above document.

Wynell Coney

My Commission Expires Nov. 17, 2008

COPY OF PUBLICATION

325

Rosetta Resources Operating LP is applying to drill the Tsah Tah SWD #1 as a water disposal well. The Tsah Tah SWD #1 will be located at 1200' FNL & 1151' FEL, Sec. 1, T. 24 N., R. 10 W., San Juan County, NM. The well will dispose of water produced from oil and gas wells into the La Ventana, Menefee, and Point Lookout zones at a depth of 2,600' to 4,410' at a maximum rate of 3,000 barrels of water per day and at a maximum pressure of 520 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. 54986 published in The Daily Times, Farmington, New Mexico, Wednesday April 18,2007

EXHIBIT J

AFFIDAVIT OF PUBLICATION

Ad No. 54227

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 15, 2006

And the cost of the publication is $44.14

Robin Allison

ON 11/22/06 ROBIN ALLISON appeared before me, whom I know personally to be the person who signed the above document.

Wynell Corey

My Commission Expires Nov 17, 2008

COPY OF PUBLICATION

Rosetta Resources Operating LP is applying to drill the Tsah Tah SWD #1 as a water disposal well. The Tsah Tah SWD #1 will be located at 1200' FNL & 1151' FEL, Sec. 1, T. 24 N., R. 10 W., San Juan County, NM. The well will dispose of water produced from oil and gas wells into the Point Lookout sandstone at a depth of 4,260' to 4,410' at 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. 54227, published in The Daily Times, Farmington, New Mexico on Wednesday, November 15, 2006

EXHIBIT J

Injection Permit Checklist 2/8/07

SWD Order Number 1087 Dates: Division Approved _____ District Approved _____

Well Name/Num: BAH TAH SWD #1 Date Spudded: new well

API Num: (30-) 45-34282 County: San Juan

Footages 1200 FNL / 1511 FEL (Lot 2) Sec 1 Tsp 24N Rge 10W

Operator Name: Rosetta Resources Operating LP Contact Brian Wood (w/ Permits West, Inc)

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

Current Status of Well: Not Drilled Planned Work: _____ Inj. Tubing Size: 2 7/8 @ 3275

OGRID 239235

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	12 1/4 8 5/8	200'	145x	will CIRC
Intermediate				
Production	7 7/8 5 1/2	4,500'	XLD: 2.06 1.18 760+100	will 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 No - Less Yet

Intervals:	Depths	Formation	Producing (Yes/No)	
~~Salt/Potash~~				
~~Capitan Reef~~				
Cliff House, Etc:	2150 (above)	Menefee		
Formation Above	3295	Menefee TO 4185'		
Top Inj Interval	3325	Menefee		665 PSI Max. WHIP
Bottom Inj Interval	4410	Point Lookout		No Open Hole (Y/N)
Formation Below	4185	P.L.O. TO 4510		No Deviated Hole (Y/N)

0-1100'

3325 - 3650

Fresh Water: Depths: 0-850 Wells(Y/N) ~~Yes~~ Analysis Included (Y/N): ✓ Affirmative Statement ✓

Salt Water Analysis: Injection Zone (Y/N/NA) ___ DispWaters (Y/N/NA) ___ Types: FRC

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

Other Affected Parties: BP, McHugh, Dugan, Spoor, Yates, Kaiser Francis, ~~Elm~~

AOR/Repairs: NumActiveWells 0 Repairs? ___ Producing in Injection Interval in AOR —

AOR Num of P&A Wells 0 Repairs? — Diagrams Included? — RBDMS Updated (Y/N) ✓

Well Table Adequate (Y/N) ✓ AOR STRs: Sec ___ Tsp ___ Rge ___ UIC Form Completed (Y/N) ✓

New AOR Table Filename — Sec ___ Tsp ___ Rge ___ This Form completed 7/3/07

Conditions of Approval: Sec ___ Tsp ___ Rge ___ Data Request Sent ___

AOR Required Work: _____

Required Work to this Well: _____