3R - 417

CORRESPONDENCE

2010

Griswold, Jim, EMNRD

From: Griswold, Jim, EMNRD
Sent: Monday, April 12, 2010 8:59 AM
To: 'Smith, David'; Powell, Brandon, EMNRD; Lowe, Leonard, EMNRD
Cc: Sartor, Rodney; Fernald, Donald; Seale, Runell; 'Cindy Gray'; 'Loren Diede (SMA)'
Subject: RE: CPS 1989 - 1003638 / Analytical Results

With the elevated sulfates across the board, additional investigation farther out from the cathodic wellsite appears to be on the horizon. It is plausible the elevated sodium and high pH are the result of Ca/Na exchange between the bentonite and cement with excess hydroxyl ions floating around if the bentonite was not adequately hydrated before the cement was emplaced. If such is the case, the sodium levels would recede over time, but the pH is most likely going to drop and end up acidic again. Be sure to adequately purge the wells before the next sampling. The sooner the better from my point of view, maybe even the end of this month rather than waiting until the end of May.

Jim Griswold, OCD

From: Smith, David [mailto:DRSmith@eprod.com]
Sent: Friday, April 09, 2010 8:27 AM
To: Powell, Brandon, EMNRD; Griswold, Jim, EMNRD; Lowe, Leonard, EMNRD
Cc: Sartor, Rodney; Fernald, Donald; Seale, Runell; 'Cindy Gray'; 'Loren Diede (SMA)'
Subject: FW: CPS 1989 - 1003638 / Analytical Results

Brandon, I have attached the analytical results from the recent CPS-1989 monitor well sampling event. We are currently preparing a report that will include the well installations and analytical results. An additional monitoring event is currently being planned, and we request that it be conducted at the end of May. Please give me a call if you have any questions.

From: Cindy Gray [mailto:cindy.gray@soudermiller.com]
Sent: Wednesday, April 07, 2010 10:59 AM
To: Smith, David
Cc: 'Loren Diede'
Subject: FW: CPS 1989 - 1003638

Good morning. Attached are the laboratory results regarding the first Sampling Event for the CPS1989 Monitoring Wells 1, 2, and 3. As you will see, there are also results for a MW 4. The MW 4 sample was a blind duplicate taken from MW2 a short time after the initial sample and the results are essentially within an acceptable variance. The recovery rate for MW1 was extremely slow, resulting in potentially inadequate purging prior to sampling. The results for MW1 indicate that there was still drilling mud and so forth present in the well, thus the pH of 10.66.

It is of note that the TDS on all are a bit below the 10,000 mg/L definition of protectable ground water. However, MW2, the duplicate and MW3 all exhibit an essentially neutral pH. Given the general characteristics of the San Juan Basin, a slightly alkaline pH would be expected such as the 7.18 and 7.34 in MW2 as well as the 7.75 result in MW3.

Please call with any questions. A more formal report regarding the sampling event, equipment used, quantities purged, etc., will be forthcoming in the next week or two. NMOCD has not seen these results. Please note that a second sampling event was programmed to follow the initial event soon. So I guess we need a go / no-go decision or a choice to delay the next event.

Talk to you later?

Cindy Gray, CHMM

Sr. Scientist
SMA
cindy.gray@soudermiller.com
cell (505) 320-0912 off. (505) 325-5667
P.O. Box 248, Farmington, NM 87499
612 E. Murray Drive, Farmington, NM 87401

From: Vicki Brown [mailto:vickie@hallenvironmental.com]
Sent: Tuesday, April 06, 2010 4:04 PM
To: tom.long@soudermiller.com
Cc: cindy.gray@soudermiller.com
Subject: CPS 1989 - 1003638

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HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, April 06, 2010

Loren Diede
Souder, Miller and Associates
612 E Murray Dr.
Farmington, NM 87401

TEL: (505) 325-5667
FAX (505) 327-1496

RE: CPS 1989

Order No.: 1003638

Dear Loren Diede:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/26/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Apr-10*

CLIENT:	Souder, Miller and Associates	**Client Sample ID:**	MW-1
Lab Order:	1003638	**Collection Date:**	3/25/2010 9:15:00 AM
Project:	CPS 1989	**Date Received:**	3/26/2010
Lab ID:	1003638-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MMS**
Chloride	1000	50		mg/L	100	4/2/2010 7:50:02 PM
Sulfate	4200	50		mg/L	100	4/2/2010 7:50:02 PM
EPA 6010B: HARDNESS						Analyst: **SNV**
Hardness (As CaCO3)	320	1.0		mg/L	1	3/31/2010
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	130	5.0		mg/L	5	3/31/2010 1:06:42 PM
Iron	0.23	0.020		mg/L	1	3/31/2010 11:16:24 AM
Magnesium	1.5	1.0		mg/L	1	3/31/2010 11:16:24 AM
Potassium	360	5.0		mg/L	5	3/31/2010 1:06:42 PM
Sodium	2400	50		mg/L	50	3/31/2010 1:10:41 PM
SM 2320B: ALKALINITY						Analyst: **NSB**
Alkalinity, Total (As CaCO3)	100	20		mg/L CaCO3	1	3/26/2010 5:33:00 PM
Carbonate	73	2.0		mg/L CaCO3	1	3/26/2010 5:33:00 PM
Bicarbonate	ND	20		mg/L CaCO3	1	3/26/2010 5:33:00 PM
Hydroxide	31	2.0		mg/L CaCO3	1	3/26/2010 5:33:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	8600	0.010		µmhos/cm	1	3/26/2010 5:33:00 PM
SM4500-H+B: PH						Analyst: **NSB**
pH	10.66	0.1		pH units	1	3/26/2010 5:33:00 PM
SPECIFIC GRAVITY BY SM 2710F						Analyst: **TAF**
Specific Gravity	1.0	0			1	3/29/2010 10:27:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	7860	100		mg/L	1	4/2/2010 1:39:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Apr-10*

CLIENT:	Souder, Miller and Associates	**Client Sample ID:**	MW-2
Lab Order:	1003638	**Collection Date:**	3/25/2010 10:45:00 AM
Project:	CPS 1989	**Date Received:**	3/26/2010
Lab ID:	1003638-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MMS**
Chloride	22	10		mg/L	20	4/1/2010 3:43:23 AM
Sulfate	7000	100		mg/L	200	4/2/2010 8:24:51 PM
EPA 6010B: HARDNESS						Analyst: **SNV**
Hardness (As CaCO3)	1000	1.0		mg/L	1	3/31/2010
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	320	5.0		mg/L	5	3/31/2010 1:26:24 PM
Iron	34	1.0		mg/L	50	3/31/2010 1:30:15 PM
Magnesium	45	1.0		mg/L	1	3/31/2010 11:20:15 AM
Potassium	19	1.0		mg/L	1	3/31/2010 11:20:15 AM
Sodium	2800	50		mg/L	50	3/31/2010 1:30:15 PM
SM 2320B: ALKALINITY						Analyst: **NSB**
Alkalinity, Total (As CaCO3)	880	20		mg/L CaCO3	1	3/26/2010 5:49:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	3/26/2010 5:49:00 PM
Bicarbonate	880	20		mg/L CaCO3	1	3/26/2010 5:49:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	3/26/2010 5:49:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	9300	0.010		µmhos/cm	1	3/26/2010 5:49:00 PM
SM4500-H+B: PH						Analyst: **NSB**
pH	7.18	0.1		pH units	1	3/26/2010 5:49:00 PM
SPECIFIC GRAVITY BY SM 2710F						Analyst: **TAF**
Specific Gravity	1.0	0			1	3/29/2010 10:27:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	9810	100		mg/L	1	4/2/2010 1:39:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Apr-10*

CLIENT:	Souder, Miller and Associates	**Client Sample ID:**	MW-4
Lab Order:	1003638	**Collection Date:**	3/25/2010 11:30:00 AM
Project:	CPS 1989	**Date Received:**	3/26/2010
Lab ID:	1003638-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MMS**
Chloride	21	10		mg/L	20	4/1/2010 4:18:13 AM
Sulfate	6600	100		mg/L	200	4/2/2010 8:42:15 PM
EPA 6010B: HARDNESS						Analyst: **SNV**
Hardness (As CaCO3)	1000	1.0		mg/L	1	3/31/2010
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	330	5.0		mg/L	5	3/31/2010 1:33:29 PM
Iron	35	1.0		mg/L	50	3/31/2010 1:37:19 PM
Magnesium	47	1.0		mg/L	1	3/31/2010 11:24:04 AM
Potassium	18	1.0		mg/L	1	3/31/2010 11:24:04 AM
Sodium	2900	50		mg/L	50	3/31/2010 1:37:19 PM
SM 2320B: ALKALINITY						Analyst: **NSB**
Alkalinity, Total (As CaCO3)	870	20		mg/L CaCO3	1	3/26/2010 6:28:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	3/26/2010 6:28:00 PM
Bicarbonate	870	20		mg/L CaCO3	1	3/26/2010 6:28:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	3/26/2010 6:28:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	9300	0.010		µmhos/cm	1	3/26/2010 6:28:00 PM
SM4500-H+B: PH						Analyst: **NSB**
pH	7.34	0.1		pH units	1	3/26/2010 6:28:00 PM
SPECIFIC GRAVITY BY SM 2710F						Analyst: **TAF**
Specific Gravity	1.0	0			1	3/29/2010 10:27:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	9910	100		mg/L	1	4/2/2010 1:39:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *06-Apr-10*

CLIENT:	Souder, Miller and Associates	**Client Sample ID:**	MW-3
Lab Order:	1003638	**Collection Date:**	3/25/2010 5:05:00 PM
Project:	CPS 1989	**Date Received:**	3/26/2010
Lab ID:	1003638-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MMS**
Chloride	12	0.50		mg/L	1	4/1/2010 4:35:37 AM
Sulfate	6600	100		mg/L	200	4/2/2010 8:59:40 PM
EPA 6010B: HARDNESS						Analyst: **SNV**
Hardness (As CaCO3)	930	1.0		mg/L	1	3/31/2010
EPA METHOD 6010B: DISSOLVED METALS						Analyst: **SNV**
Calcium	350	5.0		mg/L	5	3/31/2010 1:41:17 PM
Iron	0.43	0.020		mg/L	1	3/31/2010 11:29:55 AM
Magnesium	14	1.0		mg/L	1	3/31/2010 11:29:55 AM
Potassium	7.9	1.0		mg/L	1	3/31/2010 11:29:55 AM
Sodium	2600	50		mg/L	50	3/31/2010 1:45:16 PM
SM 2320B: ALKALINITY						Analyst: **NSB**
Alkalinity, Total (As CaCO3)	58	20		mg/L CaCO3	1	3/26/2010 7:05:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	3/26/2010 7:05:00 PM
Bicarbonate	58	20		mg/L CaCO3	1	3/26/2010 7:05:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	3/26/2010 7:05:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	8500	0.010		µmhos/cm	1	3/26/2010 7:05:00 PM
SM4500-H+B: PH						Analyst: **NSB**
pH	7.75	0.1		pH units	1	3/26/2010 7:05:00 PM
SPECIFIC GRAVITY BY SM 2710F						Analyst: **TAF**
Specific Gravity	1.0	0			1	3/29/2010 10:27:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	8820	100		mg/L	1	4/2/2010 1:39:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E *Estimated value*
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H *Holding times for preparation or analysis exceeded*
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates
Project: CPS 1989 **Work Order:** 1003638

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R38021**	Analysis Date:	3/31/2010 3:49:33 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R38064**	Analysis Date:	4/2/2010 11:42:32 AM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R38021**	Analysis Date:	3/31/2010 4:06:58 PM		
Chloride	4.661	mg/L	0.50	5	0	93.2	90	110			
Sulfate	9.617	mg/L	0.50	10	0	96.2	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R38064**	Analysis Date:	4/2/2010 11:59:57 AM		
Chloride	4.925	mg/L	0.50	5	0	98.5	90	110			
Sulfate	10.10	mg/L	0.50	10	0	101	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB		*MBLK*				Batch ID:	**R37953**	Analysis Date:	3/26/2010 4:39:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: 80PPM LCS		*LCS*				Batch ID:	**R37953**	Analysis Date:	3/26/2010 4:45:00 PM		
Alkalinity, Total (As CaCO3)	79.49	mg/L Ca	20	80	0	99.4	92.5	110			
Method: EPA Method 6010B: Dissolved Metals											
Sample ID: MB		*MBLK*				Batch ID:	**R38000**	Analysis Date:	3/31/2010 11:07:49 AM		
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Potassium	ND	mg/L	1.0								
Sample ID: MB		*MBLK*				Batch ID:	**R38000**	Analysis Date:	3/31/2010 12:58:00 PM		
Sodium	ND	mg/L	1.0								
Sample ID: LCS		*LCS*				Batch ID:	**R38000**	Analysis Date:	3/31/2010 11:10:40 AM		
Calcium	50.72	mg/L	1.0	50.5	0	100	80	120			
Iron	0.5350	mg/L	0.020	0.5	0	107	80	120			
Magnesium	51.30	mg/L	1.0	50.5	0	102	80	120			
Potassium	54.51	mg/L	1.0	55	0	99.1	80	120			
Sample ID: LCS		*LCS*				Batch ID:	**R38000**	Analysis Date:	3/31/2010 1:00:49 PM		
Sodium	51.79	mg/L	1.0	50.5	0.3355	102	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates
Project: CPS 1989 **Work Order:** 1003638

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-21790		*MBLK*				Batch ID:	**21790**	Analysis Date:	3/31/2010 12:54:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: MB-21821		*MBLK*				Batch ID:	**21821**	Analysis Date:	4/2/2010 1:39:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-21790		*LCS*				Batch ID:	**21790**	Analysis Date:	3/31/2010 12:54:00 PM		
Total Dissolved Solids	1023	mg/L	20.0	1000	0	102	80	120			
Sample ID: LCS-21821		*LCS*				Batch ID:	**21821**	Analysis Date:	4/2/2010 1:39:00 PM		
Total Dissolved Solids	1020	mg/L	20.0	1000	0	102	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **SMA-FARM** Date Received: **3/26/2010**

Work Order Number **1003638** Received by: TLS

Checklist completed by: _____ 3/26/10 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
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 ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**4.3°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 4

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Souder, Miller & Associates

Mailing Address: 612 E. Murray Drive
Farmington, NM 87401

Phone #: 505-325-5667

email or Fax#: tom.long@soudermiller.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: CPS 1989

Project #: 5119748

Project Manager: Loren Dede

Sampler: Thomas Long

On Ice: ☑ Yes ☐ No

Sample Temperature: 4.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1003033	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	APZ-Water Suite				Air Bubbles (Y or N)
3-25-10	0915	Water	MW-1	4 HCl	HNO3, H2SO4	1												X				
	1045		MW-2			2												X				
	1130		MW-4			3												X				
↓	1705	↓	MW-3	↓	↓	4												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-25-10	1730			03/25/10	1800
Date:	Time:	Relinquished by:	Received by:	Date	Time
				3/26/10	805

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO. **Nearest Producing Well: 30-045-07513**	
5. Indicate Type of Lease **Federal X** STATE ☐ FEE ☐	
6. State Oil & Gas Lease No. **N/A**	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	7. Lease Name or Unit Agreement Name **Enterprise Cathodic Protection Station**
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	8. Well Number **1989**
2. Name of Operator **Enterprise Field Services, LLC.**	9. OGRID Number **N/A**
3. Address of Operator **1100 Louisiana Street, Houston, TX 77002-5227**	10. Pool name or Wildcat **N/A**
4. Well Location Unit Letter **A** : **620** feet from the **North** line and **60** feet from the **East** line Section **13** Township **28N** Range **10W** NMPM County **San Juan, NM**	
	11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* **5696' GR**

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

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

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

10-30-09; Excavated around 8" PVC casing, Placed 9 5/8" steel casing over PVC to a depth of 10' BGL. Cemented 9 5/8" casing with 11 yd concrete, back-filled excavated area. **11-02-09;** MIRU A Plus Well Services. **11-03-09 thru 11-05-09;** Drilled out 20' cement, cables and 1" PVC vent pipe from inside the 8" PVC casing. Drilled bentonite, cables and 1" PVC vent pipe to 62'. Entered coke breeze ground bed fill at 62'. **11-06-09 thru 11-19-09;** Circulated coke breeze out of well, fished cables with various bits, wash pipes, corkscrews and grapples. The bottom of the 8" PVC was found at 96'. Good progress made to 196'. After 196' the progress became more difficult due to deteriorating hole conditions. None of the 30 anodes were recovered (2" x5' steel anodes) An area from 196' to 206' caused a great deal of problems, anode(s) may have fallen into a washed-out section. Eventually a depth of 242' was reached. Wash pipe and fishing tools could not pass beyond the cables and anodes lying on top of the coke breeze at 242'. 2 7/8" tubing with a 2 3/8" muleshoe was forced down to 262' but no coke breeze, cable or anodes were recovered from that depth. **11-20-09;** TIH with wash pipe, formation sloughing had occurred and tool could not go below 230'. Enterprise stopped fishing operations due to deteriorating hole conditions. NMOCD granted conditional approval to P&A the well. MIRU logging truck, ran GR/Elog/Cal/Neu logs from 200' to surface. Dropped 46 cu ft bentonite "Hole Plug". top of bentonite @ 168'. **11-23-09;** Dropped 44 cu ft bentonite "Hole Plug", top of bentonite @ 108'. **11-24-09;** Rig down and move out rig. **12-05-09;** Dropped 10 cu ft bentonite "Hole Plug",top of bentonite @ 69'. **12-09-09;** MIRU cement pump, pumped 20 sx Class B cement (24 cu ft.) with 1 ½" plastic tubing from 69' to surface. **12-10-09;** Top of cement found at 2.5' below GL inside 9 5/8" / 8" casing. **12-17-09;** Welded P&A marker on well, installed pressure gauge on 9 5/8" casing.
See attached report(s) for more details.

Spud Date: | Rig Release Date: **11-24-2009**

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

SIGNATURE [signature] TITLE: Sr. Environmental Scientist DATE: 1/20/10

Type or print name: David R. Smith, P.G. E-mail address: drsmith@eprod.com PHONE: (713) 381-2286

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APPROVED BY: TITLE DATE

Conditions of Approval (if any):