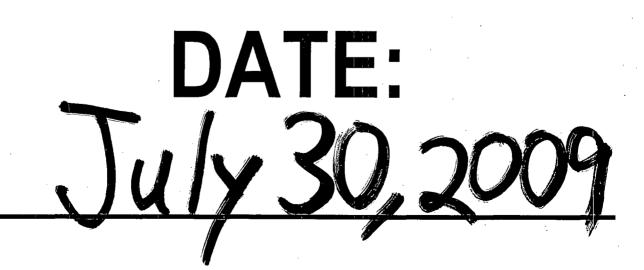
AP -

STAGE 2 REPORTS



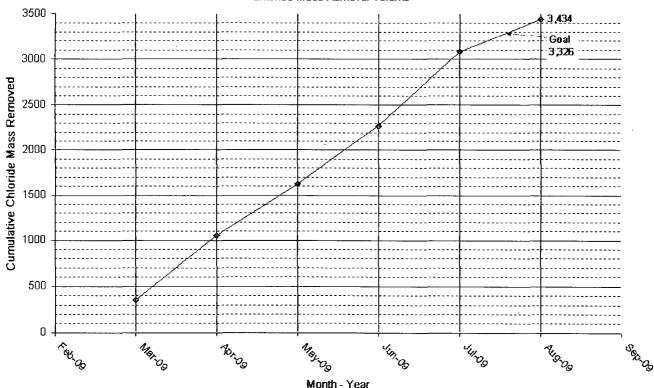
From: "Gil Van Deventer" <gilbertvandeventer@suddenlink.net>
To: "Hansen, Edward J., EMNRD" <edwardj.hansen@state.nm.us>
Cc: "Katie Jones" <kjones@riceswd.com>; "Haskell Conder" <hconder@riceswd.com>; "Buddy
Hill" <larry.hill@state.nm.us>; "Geoffrey Leking" <GeoffreyR.Leking@state.nm.us>
Sent: Wednesday, August 19, 2009 11:02 AM
Attach: Lab 8.3.09 K-6.pdf
Subject: EME Jct. K-6 Site (AP-46) - Termination Request

Attention: Edward Hansen, New Mexico Oil Conservation Division - Environmental Bureau Subject: Termination Request Site Name: EME Jct. K-6 Site (AP- 46) Site Agent: RICE Operating Company (ROC)Site Location: T20S-R37E-Section 6, Unit Letter K, Lea County, New Mexico

Greetings Edward:

In accordance with the Stage 2 Final Report and Termination Request submitted to you on July 30, 2009, the following is an update of the completed chloride removal program which has been performed at the above-referenced site.

As of August 13, 2009, a total of 83,065 gallons (1,978 barrels) of groundwater with an average chloride concentration of 10,920 mg/L has been recovered at the site. The most recent laboratory analytical results for the groundwater recovered from recovery well RW-1 are attached. The groundwater recovered at this site has resulted in the femoval-of 3,434 kg of chlorides. As stated in the NMOCD-approved Stage 2 Abatement Plan, the goal of groundwater recovery was to remove 3,326 kg of chloride mass. The graph below depicts the cumulative chloride mass removed at the site since recovery operations began on February 18, 2009.



Chloride Mass Removal Volume

ROC is the service provider (agent) for the EME SWD System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

ROC has met all abatement requirements in accordance with 19.15.30 NMAC, and respectfully requests closure/termination of the regulatory file for this site. Approval of this request will allow ROC to re-mobilize the groundwater recovery system to the next available site in the Monument area and continue the success of their chloride mass removal program. If you have any questions, please contact me at (432) 638-8740 or Hack Conder at (575) 393-9174.

Thanks - Gil

Gilbert J. Van Deventer, PG, REM Trident Environmental P. O. Box 7624, Midland TX 79708 Work/Mobile: 432-638-8740 Fax: 413-403-9968 Home: 432-682-0727

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ANALYTICAL RESULTS FOR **RICE OPERATING COMPANY** ATTN: HACK CONDER 122 W. TAYLOR STREET HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 08/03/09 Reporting Date: 08/05/09 Project Number: NOT GIVEN Project Name: RW-1 Project Location: EME K-6

Sampling Date: 08/03/09 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: HM

LAB NUMBI SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (<i>u</i> S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:	08/04/09	08/04/09	08/04/09	08/04/09	08/04/09	08/04/09
H17914-1 RW-1	7,200	962	340	21.6	29,200	480
Quality Control	NR	49.7	51.5	2.95	1,426	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	99.4	103	98.3	101	NR
Relative Percent Difference	NR	< 0.1	1.9	0.3	0.6	NR

METHODS:

SM3500-Ca-D//3500-Mg E

8049

120.1

310.1

	CI	SO₄	CO3	HCO ₃	pН	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DATE:	08/04/09	08/04/09	08/04/09	08/04/09	08/04/09	. 08/04/09
H17914-1 RW-1	10,800	3,640	0	586	6.74	23,900
Quality Control	500	38.5	NR	1000	7.03	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	100	96.3	NR	100	100	NR
Relative Percent Difference	< 0.1	3.7	NR	3.7	0.1	9

375.4 310.1 METHODS: SM4500-CI-B 310.1 150.1 160.1 "LIS Date

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CERTIFIED MAIL RETURN RECEIPT NO. 7099 3400 0017 1759

July 30, 2009

Mr. Edward Hansen New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87504

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RE: Stage 2 Final Report and Termination Request EME Jct. K-6 Site (AP-46) T20S-R37E-Section 6, Unit Letter K Lea County, New Mexico

Mr. Hansen:

On behalf of Rice Operating Company (ROC), Trident Environmental (Trident) is submitting this Stage 2 Final Report and Termination Request for the above-referenced site in accordance with 19.15.29 NMAC. This report documents the completion of abatement actions which were performed in accordance with the NMOCD-approved Stage 2 Abatement Plan.

A four-inch diameter recovery well (RW-1) was installed at the site on October 9, 2008 (Attachment A) and groundwater recovery operations were initiated on February 18, 2009. The groundwater recovery system consists of the following major components:

- A solar-powered submersible pump installed in RW-1,
- Three 3,000 gallon (gal) polyethylene bulk storage tanks,
- One 1,200 gal. water tank for reverse osmosis-treated water
- One 1,200 gal. water tank and a 200 gal. trough for livestock watering
- Plastic-lined earthen berm for secondary containment
- Associated polyethylene piping, valves, metering devices, and telemetry

Stage 2 Final Report and Termination Request EME Jct. K-6 Site (AP-46) T20S-R37E - Section 6, Unit Letter K

Photographs of the groundwater recovery system are included in Attachment B. A total of 67,872 gallons (1,616 barrels) of water and 2,813 kg of chlorides were recovered from the well over a five month period. Recovered groundwater was either utilized for pipeline maintenance or treated with a reverse osmosis system and pumped to a livestock watering tank located approximately 650 ft east of the groundwater recovery system within the right-of-way. During groundwater recovery operations, four groundwater recovery samples were collected for laboratory analysis of chloride concentrations (Attachment C) which averaged 10,950 mg/L. An estimated 1,853 bbls will need to be removed in order to remove a chloride mass of 3,326 kg. The remaining 237 bbls will be removed by mid August. NMOCD will receive an email notification when the appropriate number of barrels has been removed. A site map with the most recent sampling results is depicted in Figure 1.

As stated in the approved Stage 2 Abatement Plan, the goal of groundwater recovery was to remove 3,326 kg of chloride mass which will be achieved in mid August. In addition, the healthy growth of native vegetation has been established as documented in Attachment B. In mid August, when all abatement requirements have been met in accordance with 19.15.30 NMAC, ROC respectfully requests closure/termination of the regulatory file for this site.

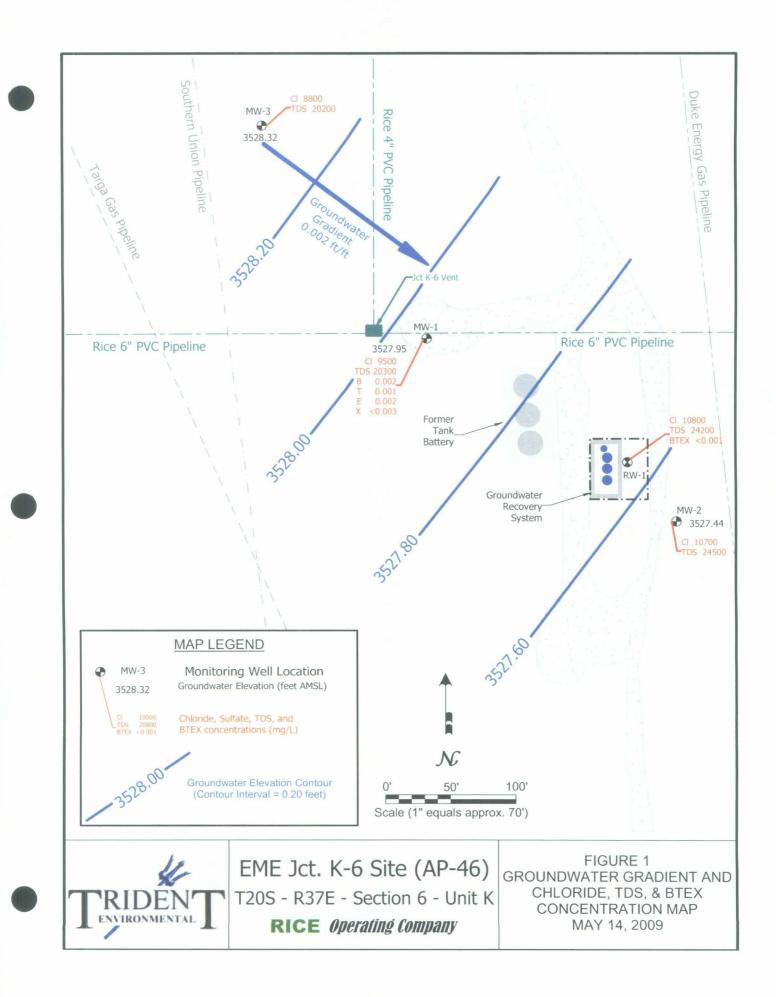
Thank you for your consideration concerning this final report and request for site termination. If you have any questions, please contact me at (432) 638-8740 or Hack Conder at (575) 393-9174.

Sincerel

Gilbert J. Van Deventer, PG, REM

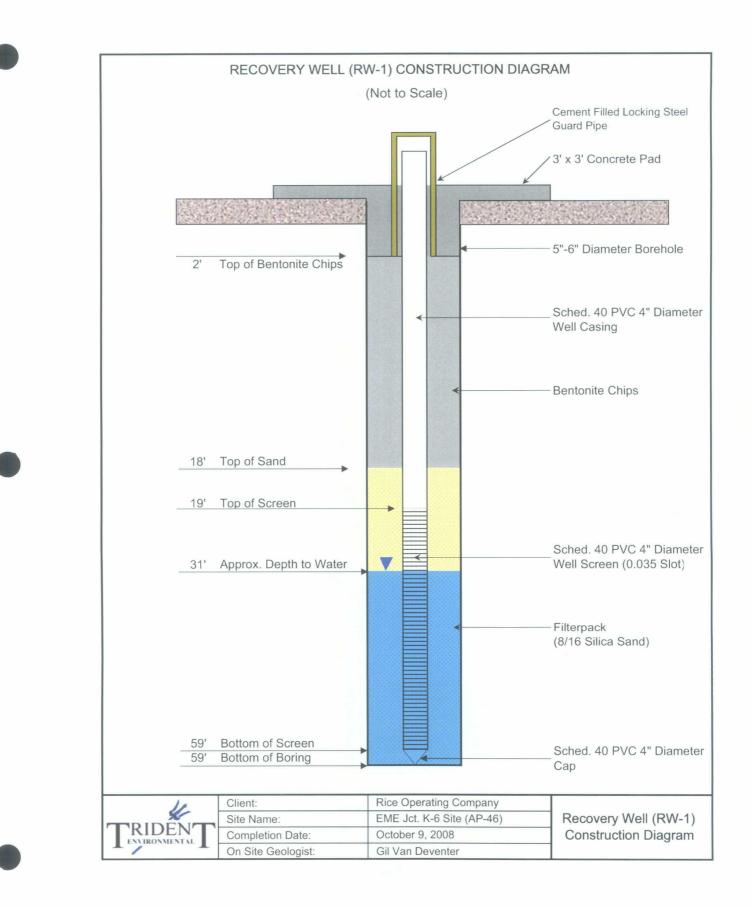
Attachments (site map, well diagram, photo documentation, laboratory reports)

cc: Hack Conder (ROC) Brad Jones (NMOCD Santa Fe) Buddy Hill (NMOCD-District 1)



ATTACHMENT A

Recovery Well Construction Diagram



ATTACHMENT B

Photo Documentation

(Groundwater Recovery System and Vegetation Restoration)

Stage 2 Final Report and Termination Request EME Jct. K-6 Site (AP-46) T20S-R37E - Section 6, Unit Letter K



View facing northwest showing groundwater recovery system at RW-1



View facing west showing livestock water tank and trough in foreground and groundwater recovery system in background.

Stage 2 Final Report and Termination Request EME Jct. K-6 Site (AP-46) T20S-R37E - Section 6, Unit Letter K



View facing south showing healthy growth of native vegetation.



View facing east showing healthy growth of native vegetation.

ATTACHMENT C

Laboratory Analytical Reports

And

Chain of Custody Documentation



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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 04/09/09 Reporting Date: 04/13/09 Project Number: NOT GIVEN Project Name: EME K-6 Project Location: NOT GIVEN Analysis Date: 04/13/09 Sampling Date: 04/09/09 Sample Type: GROUNDWATER Sample Condition: INTACT Sample Received By: ML Analyzed By: TR

LAB NO.	SAMPLE ID	(mg/L)
H17226-1	EME K-6	10,900

H17226-1	EME K-6	10,900
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Quality Control	₩	500
True Value QC		500
% Recovery		100
Relative Percent Differ	rence	<0.1
METHOD: Standard Met	hods	4500-CFB

METHOD: Standard Methods 450

Chemist

04/13/09

H17226 RICE

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Centrered by: ICITCLE One) Sample Condition CHECKED BY: Cool intect (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 05/15/09 Reporting Date: 05/19/09 Project Number: NOT GIVEN Project Name: EME JUNCTION K-6 Project Location: T20S-R37E-SEC6 K ~ LEA CO., NM Sampling Date: 05/14/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: HM

		CI	SO₄	TDS
LAB NO.	SAMPLE ID	(mg/L)	(mg/L)	(mg/L)
Analysis Date:		05/19/09	05/19/09	05/18/09
H17442-1	MONITOR WELL #1	9,500	3,080	20,300
H17442-2	MONITOR WELL #2	10,700	4,260	24,500
H17442-3	MONITOR WELL #3	8,800	3,530	20,200
H17442-4	RECOVERY WELL #1	10,800	4,290	24,200
Quality Control		490	42.0	NR
True Value QC		500	40.0	NR
% Recovery		98.0	105	NR
Relative Perce	nt Difference	2.0	1.0	0.4
				·····
METHOD: Stand	ard Methods, EPA	4500-CI ⁻ B	375.4	160.1

05/22/09

Date

H17442 RICE

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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 05/15/09 Reporting Date: 05/21/09 Project Number: NOT GIVEN Project Name: EME JUNCTION K-6 Project Location: T20S-R37E-SEC6 K~ LEA CO., NM Sampling Date: 05/14/09 Sample Type: WATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: ZL

			ETHYL	TOTAL
	BENZENE	TOLUENE	BENZENE	XYLENES
LAB NUMBEISAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)
ANALYSIS DATE	05/20/09	05/20/09	05/20/09	05/20/09
H17442-1 MONITOR WELL #1	0.002	0.001	0.002	<0.003
H17442-4 RECOVERY WELL #1	<0.001	<0.001	<0.001	<0.003
Quality Control	0.044	0.057	0.050	0.150
True Value QC	0.050	0.050	0.050	0.150
% Recovery	88.0	114	100	100
Relative Percent Difference	5.3	8.2	8.9	7.5

METHOD: EPA SW-846 8021 B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES.,

Chemist

05/22/08

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ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 WEST TAYLOR HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 05/21/09 Reporting Date: 05/22/09 Project Number: NOT GIVEN Project Name: RW-1 Project Location: EME K-6 Analysis Date: 05/22/09 Sampling Date: 05/21/09 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: AB Analyzed By: HM

LAB NO.	SAMPLE ID	CI [–] (mg/L)
H17479-1	RW-1	10,700
·····		
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent	Difference	2.0
METHOD: Standar	d Methods	4500-CI'B

Chemist

05/22/09 Date

Date

H17479 RICE

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(505) 393-2326 Company Name: $R_{22} = O$	Hack C	Address: 122 W. Tay	Clty: Hobbs	Phone #: 5-75) 393. 9174	Project #:	Project Name: R CJ -	Project Location: $E^{M}E$	Sampler Name: Noc/		Lab I.D. Sample I.D.	H17479-1 RW-(.EASE NOTE: Liability and Darnages. Cardinafa liability an ubyses. All claims including those for negligence and any o	and the second second second second second and consequential compages, including wheat that that and athliaded second seco Real including second	Relinquished-By:	Delivered Bv: (Circle One)	Sampier - UPS - Bus - Other:



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR STREET HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 06/12/09 Reporting Date: 06/19/09 Project Number: NOT GIVEN Project Name: RW-I WELL Project Location: EME K-6

Sampling Date: 06/12/09 Sample Type: GROUNDWATER Sample Condition: INTACT Sample Received By: ML Analyzed By: AB/CK/HM

	Na	Ca	Mg	К	Conductivity	T-Alkalinity
LAB NUMBI SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(<i>u</i> S/cm)	(mgCaCO ₃ /L)
ANALYSIS DATE:	06/19/09	06/18/09	06/18/09	06/19/09	06/16/09	06/16/09
H17622-1 RW-1 WELL	7,460	1,160	364	23.8	36,200	492
H17622-2 RW-1 RO	70	3.2	1.9	1.2	395	12
Quality Control	NR	49.7	52.5	2.46	1,410	. NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	99.4	105	82.0	99.7	NR
Relative Percent Difference	NR	3.3	2.8	12.2	0.1	NR

METHODS

SM3500-Ca-D/13500-Mg E

3500-Mg E 8049

310.1

120.1

	CI	SO₄	CO_3	HCO3	pН	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DATE:	06/15/09	06/15/09	06/16/09	06/16/09	06/16/09	06/17/09
H17622-1 RW-1 WELL	11,500	3,790	0	600	6.73	24,600
H17622-2 RW-1 RO	112	< 10	0	14.6	6.26	194
Quality Control	490	38.8	NR	1000	7.07	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	98.0	97.1	NR	100	101	NR
Relative Percent Difference	2.0	2.3	NR	1.2	0.7	3.2

375.4 METHODS SM4500-CI-B 310.1 310.1 150.1 160.1 06/24/19 une Chemist Date

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Company Name:	Rice Operating	.o.	BILL TO	ro	ANALYSIS REQUEST	Γ
Project Manager:	Hack Com		P.O. #:			Γ
Address: / 6	2 W. Taylor		Company:			
city: Ho b h	State: ALM.	Zip: SR240	Attn:			
Phone #: 5-75)) 393-9174 Fax #: 575)	397-1471	Address:			
Project #:	Project Owner:		city:			
Project Name:	RW. 1 well		State: Zip:			
Project Location:	EME K-6		:# 0			
Sampler Name:	Abel Carmon		Fax #:			
FOR LAB USE CNLY		MATRIX	ESERV	SAMPLING	······································	
Lab I.D.	Sample I.D.	C) AAB OR (C) OMP. CONTRINERS ROUNDWATER VASTEWATER OIL SOIL	ither: CID/Base: CE / Cool Seither: Seither:	DATE Time	· · ·	
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t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 122 W. TAYLOR STREET HOBBS, NM 88240 FAX TO: (575) 397-1471

Receiving Date: 07/01/09 Reporting Date: 07/08/09 Project Number: NOT GIVEN Project Name: R-W-1 WELL Project Location: EME K-6

Sampling Date: 07/01/09 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: ML Analyzed By: HM

	Na	Ca	Mg	к	Conductivity	T-Alkalinity
LAB NUMBI SAMPLE ID	(mg/L)	(m g /L)	(mg/L)	(mg/L)	(<i>u</i> S/cm)	(mgCaCO ₃ /L)
ANALYSIS DATE:	07/08/09	07/07/09	07/07/09	07/07/09	07/06/09	07/06/09
H17739-1 RW-1 WELL	7,190	942	377	28.6	28,300	500
Quality Control	NR	49.7	52.5	2.46	1,412	NR
True Value QC	NR	50.0	50.0	3.00	1,413	NR
% Recovery	NR	99.4	105	82.0	99.9	NR
Relative Percent Difference	NR	3.3	2.8	12.2	0.3	NR

METHODS:

SM3500-Ca-D/3500-Mg E

8049

120.1

310.1

	CI	SO4	CO_3	HCO3	pН	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DATE:	07/06/09	07/07/09	07/06/09	07/06/09	07/06/09	07/06/09
H17739-1 RW-1 WELL	10,700	3,850	0	610	6.58	23,900
Quality Control	490	38.8	NR	964	7.02	NR
True Value QC	500	40.0	NR	1000	7.00	NR
% Recovery	98.0	97.1	NR	96.4	100	NR
Relative Percent Difference	2.0	4.0	NR	3.7	0.3	0.3

375.4 310.1 METHODS SM4500-CI-B 310.1 150.1 160.1 07/09/ UN Chemist Date

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