

# ENVIRON

January 23, 2012

UIC Compliance Coordinator  
Nevada Division of Environmental Protection  
901 South Stewart Street, Suite 4001  
Carson City, NV 89701-5249

Subject: UIC Permit # UNEV 94218 Permit – Third and Fourth Quarters 2011

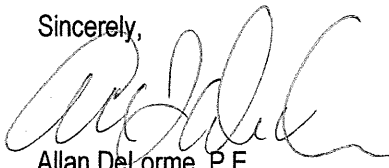
On January 12, 2009, Tronox Incorporated and 14 of its affiliates (collectively, "Tronox") filed petitions with the United States Bankruptcy Court, Southern District of New York under chapter 11 of the Bankruptcy Code. Pursuant to its joint plan of reorganization, Tronox entered into an environmental settlement agreement and related agreements by which Tronox transferred all of its right, title, and interest with respect to remedial obligations at Henderson, Nevada to the Nevada Environmental Response Trust (the "Trust"). This transfer occurred on February 14, 2011 and NDEP has in turn transferred Permit #UNEV 94218 to the Trust.

The Trust now maintains Underground Injection Control (UIC) Permit #UNEV 94218 for groundwater remediation at the Henderson, Nevada, facility. Note that injection of the stabilized Lake Mead water was suspended as of September 16, 2010 due to soil removal surrounding the recharge trench. This soil excavation is described in the NDEP-Bureau of Corrective Actions approved RZ-D Excavation Plan for the Tronox Henderson facility and is in response to soil remedial efforts which are on-going at the site. Resumption of the injection of stabilized Lake Mead water is under evaluation, but is currently not occurring. Pursuant to the permit's Section I.A.4 Attachment A samples of the Lake Mead water, which is permitted for injection into the recharge trenches, were collected and analyzed for the subject period. Please see Attachment 1 for the Lake Mead water analytical summary, the Permit's checklist and the Lake Mead water sample information form. Supporting electronic analytical reports are provided on the CD in Attachment 3.

Section I.A.4 Attachment A requires quarterly groundwater monitoring and collection of groundwater elevations. This information is provided in Attachment 2, together with a monitor well sample information form. The supporting electronic analytical reports are provided on the CD in Attachment 3. Section I.A.4 Attachment A requires monitoring of the injection and the extraction monthly rate averages. This information is included in Attachment 2. Section I.A.4 Attachment A requires preparation of a potentiometric surface map each quarter. Maps were prepared for both subject quarters, based upon water levels measured in the respective quarter and are included in Attachment 4.

Please feel free to contact Susan Crowley at (702) 592-7727 or [smcrowley@cox.net](mailto:smcrowley@cox.net) if you have any questions regarding this information. Thank you.

Sincerely,



Allan DeLorme, P.E.  
Managing Principal

Overnight Mail

cc: Please see attached distribution sheet

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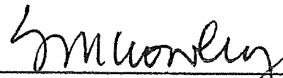
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Attachments

UIC Permit UNEV 94218 – 3<sup>rd</sup> and 4<sup>th</sup> Q 2011  
CEM Certification

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.

 1-23-12

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Susan Crowley  
CEM 1428, expires 3-8-13

## **ATTACHMENT 1**

### **Lake Mead Water Available to Add to Recharge Trenches Analytical Information (Analytical reports included on Attachment 3 CD)**

Stabilized - 3rd and  
4th Q - 1-17-12.xlsx  
**Analytical Summary**



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Documents\Word Doc

**UIC Permit - Attachment A Checklist**



Form U230 -  
Stabilized - 7-5-11 an

**Injected Water Sample Information Form**

**UIC Permit UNEV 94218 - 4th Q 2011 - Injected Water Analytical Summary**

<u>Sample Date</u>	<u>Sample ID</u>	<u>Analyte</u>	<u>Final</u>	<u>Units</u>	<u>MRL</u>	<u>Units</u>	<u>Method</u>
7/5/2011	Stabilized Water	1,1,1-Trichloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,1,2-Trichloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,1-Dichloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,1-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,2-Dichloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	1,2-Dichloropropane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	2-Butanone (MEK)	ND	ug/L	5	ug/L	EPA 624
7/5/2011	Stabilized Water	2-Hexanone	ND	ug/L	10	ug/L	EPA 624
7/5/2011	Stabilized Water	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	ug/L	EPA 624
7/5/2011	Stabilized Water	Acetone	ND	ug/L	10	ug/L	EPA 624
7/5/2011	Stabilized Water	Acrolein (Screen)	ND	ug/L	25	ug/L	EPA 624
7/5/2011	Stabilized Water	Acrylonitrile (Screen)	ND	ug/L	25	ug/L	EPA 624
7/5/2011	Stabilized Water	Alkalinity in CaCO3 units	130	mg/L	2	mg/L	SM 2320B
7/5/2011	Stabilized Water	Aluminum Total ICAP/MS	ND	ug/L	20	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Anion Sum - Calculated	9.9	meq/L	0.001	meq/L	SM 1030E
7/5/2011	Stabilized Water	Antimony Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Arsenic Total ICAP/MS	2.1	ug/L	1	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Barium Total ICAP/MS	120	ug/L	2	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Benzene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Beryllium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Bicarb.Alkalinity as HCO3calc	150	mg/L	2	mg/L	SM2330B
7/5/2011	Stabilized Water	Boron Total ICAP	0.13	mg/L	0.05	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Bromodichloromethane	0.9	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Bromoform	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Cadmium Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Calcium Total ICAP	67	mg/L	1	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Carbon Dioxide,Free(25C)-Calc.	ND	mg/L	2	mg/L	SM4500-CO2-D
7/5/2011	Stabilized Water	Carbon disulfide	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Carbon Tetrachloride	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Carbonate as CO3, Calculated	ND	mg/L	2	mg/L	SM2330B
7/5/2011	Stabilized Water	Cation Sum - Calculated	9.1	meq/L	0.001	meq/L	SM 1030E
7/5/2011	Stabilized Water	Chloride	86	mg/L	1	mg/L	EPA 300.0
7/5/2011	Stabilized Water	Chlorobenzene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Chlorodibromomethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Chloroethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Chloroform (Trichloromethane)	2.4	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Chromium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
7/5/2011	Stabilized Water	cis-1,2-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	cis-1,3-Dichloropropene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Copper Total ICAP/MS	370	ug/L	2	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Dichlorodifluoromethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Dichloromethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Dissolved Chloride	86.023	mg/L	Å	mg/L	EPA 300.0
7/5/2011	Stabilized Water	Ethyl benzene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Fluoride	0.32	mg/L	0.05	mg/L	SM 4500F-C
7/5/2011	Stabilized Water	Hydroxide as OH Calculated	ND	mg/L	2	mg/L	SM2330B
7/5/2011	Stabilized Water	Iron Total ICAP	ND	mg/L	0.02	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Lead Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
7/5/2011	Stabilized Water	m,p-Xylenes	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Magnesium Total ICAP	26	mg/L	0.1	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Manganese Total ICAP/MS	ND	ug/L	2	ug/L	EPA 200.8
7/5/2011	Stabilized Water	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Mercury	ND	ug/L	0.2	ug/L	EPA 245.1
7/5/2011	Stabilized Water	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Nickel Total ICAP/MS	ND	ug/L	5	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Nitrate as Nitrogen by IC	0.56	mg/L	0.1	mg/L	EPA 300.0
7/5/2011	Stabilized Water	Nitrate as NO3 (calc)	2.5	mg/L	0.44	mg/L	EPA 300.0

**UIC Permit UNEV 94218 - 4th Q 2011 - Injected Water Analytical Summary**

<u>Sample Date</u>	<u>Sample ID</u>	<u>Analyte</u>	<u>Final</u>	<u>Units</u>	<u>MRL</u>	<u>Units</u>	<u>Method</u>
7/5/2011	Stabilized Water	Nitrite Nitrogen by IC	ND	mg/L	0.05	mg/L	EPA 300.0
7/5/2011	Stabilized Water	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	o-Xylene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Perchlorate	ND	ug/L	4	ug/L	EPA 314.0
7/5/2011	Stabilized Water	PH (H3=past HT not compliant)	8.2	Units	0.1	Units	SM4500-HB
7/5/2011	Stabilized Water	pH of CaCO3 saturation(25C)	7.4	Units	0.1	Units	SM 2330B
7/5/2011	Stabilized Water	pH of CaCO3 saturation(60C)	7	Units	0.1	Units	SM 2330B
7/5/2011	Stabilized Water	Potassium Total ICAP	4.6	mg/L	1	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Selenium Total ICAP/MS	ND	ug/L	5	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Silver Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Sodium Total ICAP	81	mg/L	1	mg/L	EPA 200.7
7/5/2011	Stabilized Water	Specific Conductance, 25 C	950	umho/cm	2	umho/cm	SM2510B
7/5/2011	Stabilized Water	Styrene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Sulfate	230	mg/L	0.5	mg/L	EPA 300.0
7/5/2011	Stabilized Water	Tetrachloroethylene (PCE)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Tetrahydrofuran	ND	ug/L	10	ug/L	EPA 624
7/5/2011	Stabilized Water	Thallium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
7/5/2011	Stabilized Water	Toluene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Total 1,3-Dichloropropene	ND	ug/L	1	ug/L	EPA 624
7/5/2011	Stabilized Water	Total Dissolved Solids (TDS)	630	mg/L	10	mg/L	E160.1/SM2540C
7/5/2011	Stabilized Water	Total Hardness as CaCO3 by ICP (calc)	270	mg/L	3	mg/L	SM 2340B
7/5/2011	Stabilized Water	Total Nitrate, Nitrite-N, CALC	0.56	mg/L	0.1	mg/L	EPA 300.0
7/5/2011	Stabilized Water	trans-1,2-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	trans-1,3-Dichloropropene	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Trichloroethylene (TCE)	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Trichlorofluoromethane	ND	ug/L	0.5	ug/L	EPA 624
7/5/2011	Stabilized Water	Vinyl Acetate	ND	ug/L	10	ug/L	EPA 624
7/5/2011	Stabilized Water	Vinyl chloride (VC)	ND	ug/L	0.3	ug/L	EPA 624
7/5/2011	Stabilized Water	Weak Acid Dissociable Cyanide	ND	mg/L	0.005	mg/L	SM4500CN-I
7/5/2011	Stabilized Water	Zinc Total ICAP/MS	120	ug/L	20	ug/L	EPA 200.8
10/3/2011	Stabilized Water	1,1,1-Trichloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,1,2-Trichloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,1-Dichloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,1-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,2-Dichloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	1,2-Dichloropropane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	2-Butanone (MEK)	ND	ug/L	5	ug/L	EPA 624
10/3/2011	Stabilized Water	2-Hexanone	ND	ug/L	10	ug/L	EPA 624
10/3/2011	Stabilized Water	4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5	ug/L	EPA 624
10/3/2011	Stabilized Water	Acetone	ND	ug/L	10	ug/L	EPA 624
10/3/2011	Stabilized Water	Acrolein (Screen)	ND	ug/L	25	ug/L	EPA 624
10/3/2011	Stabilized Water	Acrylonitrile (Screen)	ND	ug/L	25	ug/L	EPA 624
10/3/2011	Stabilized Water	Alkalinity in CaCO3 units	130	mg/L	2	mg/L	SM 2320B
10/3/2011	Stabilized Water	Aluminum Total ICAP/MS	ND	ug/L	20	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Anion Sum - Calculated	8.3	meq/L	0.001	meq/L	SM 1030E
10/3/2011	Stabilized Water	Antimony Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Arsenic Total ICAP/MS	2	ug/L	1	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Barium Total ICAP/MS	98	ug/L	2	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Benzene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Beryllium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Bicarb.Alkalinity as HCO3calc	160	mg/L	2	mg/L	SM2330B
10/3/2011	Stabilized Water	Boron Total ICAP	0.098	mg/L	0.05	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Bromodichloromethane	2.7	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Bromoform	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Bromomethane (Methyl Bromide)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Cadmium Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Calcium Total ICAP	67	mg/L	1	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Carbon Dioxide,Free(25C)-Calc.	2.3	mg/L	2	mg/L	SM4500-CO2-D

**UIC Permit UNEV 94218 - 4th Q 2011 - Injected Water Analytical Summary**

<u>Sample Date</u>	<u>Sample ID</u>	<u>Analyte</u>	<u>Final</u>	<u>Units</u>	<u>MRL</u>	<u>Units</u>	<u>Method</u>
10/3/2011	Stabilized Water	Carbon disulfide	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Carbon Tetrachloride	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Carbonate as CO3, Calculated	ND	mg/L	2	mg/L	SM2330B
10/3/2011	Stabilized Water	Cation Sum - Calculated	8.5	meq/L	0.001	meq/L	SM 1030E
10/3/2011	Stabilized Water	Chloride	62	mg/L	1	mg/L	EPA 300.0
10/3/2011	Stabilized Water	Chlorobenzene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Chlorodibromomethane	0.96	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Chloroethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Chloroform (Trichloromethane)	4.5	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Chloromethane(Methyl Chloride)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Chromium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
10/3/2011	Stabilized Water	cis-1,2-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	cis-1,3-Dichloropropene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Copper Total ICAP/MS	370	ug/L	2	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Dichlorodifluoromethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Dichloromethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Ethyl benzene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Fluoride	0.27	mg/L	0.05	mg/L	SM 4500F-C
10/3/2011	Stabilized Water	Hydroxide as OH Calculated	ND	mg/L	2	mg/L	SM2330B
10/3/2011	Stabilized Water	Iron Total ICAP	ND	mg/L	0.02	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Lead Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
10/3/2011	Stabilized Water	m,p-Xylenes	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Magnesium Total ICAP	23	mg/L	0.1	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Manganese Total ICAP/MS	ND	ug/L	2	ug/L	EPA 200.8
10/3/2011	Stabilized Water	m-Dichlorobenzene (1,3-DCB)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Mercury	ND	ug/L	0.2	ug/L	EPA 245.1
10/3/2011	Stabilized Water	Methyl Tert-butyl ether (MTBE)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Nickel Total ICAP/MS	ND	ug/L	5	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Nitrate as Nitrogen by IC	ND	mg/L	0.05	mg/L	EPA 300.0
10/3/2011	Stabilized Water	Nitrate as NO3 (calc)	ND	mg/L	0.22	mg/L	EPA 300.0
10/3/2011	Stabilized Water	Nitrite Nitrogen by IC	ND	mg/L	0.05	mg/L	EPA 300.0
10/3/2011	Stabilized Water	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	o-Xylene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Perchlorate	ND	ug/L	4	ug/L	EPA 314.0
10/3/2011	Stabilized Water	PH (H3=past HT not compliant)	8	Units	0.1	Units	SM4500-HB
10/3/2011	Stabilized Water	pH of CaCO3 saturation(25C)	7.4	Units	0.1	Units	SM 2330B
10/3/2011	Stabilized Water	pH of CaCO3 saturation(60C)	7	Units	0.1	Units	SM 2330B
10/3/2011	Stabilized Water	Potassium Total ICAP	3.5	mg/L	1	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Selenium Total ICAP/MS	ND	ug/L	5	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Silver Total ICAP/MS	ND	ug/L	0.5	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Sodium Total ICAP	72	mg/L	1	mg/L	EPA 200.7
10/3/2011	Stabilized Water	Specific Conductance, 25 C	850	umho/cm	2	umho/cm	SM2510B
10/3/2011	Stabilized Water	Styrene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Sulfate	190	mg/L	0.5	mg/L	EPA 300.0
10/3/2011	Stabilized Water	Tetrachloroethylene (PCE)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Tetrahydrofuran	ND	ug/L	10	ug/L	EPA 624
10/3/2011	Stabilized Water	Thallium Total ICAP/MS	ND	ug/L	1	ug/L	EPA 200.8
10/3/2011	Stabilized Water	Toluene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Total 1,3-Dichloropropene	ND	ug/L	1	ug/L	EPA 624
10/3/2011	Stabilized Water	Total Dissolved Solids (TDS)	550	mg/L	10	mg/L	E160.1/SM2540C
10/3/2011	Stabilized Water	Total Hardness as CaCO3 by ICP (calc)	260	mg/L	3	mg/L	SM 2340B
10/3/2011	Stabilized Water	Total Nitrate, Nitrite-N, CALC	ND	mg/L	0.1	mg/L	EPA 300.0
10/3/2011	Stabilized Water	trans-1,2-Dichloroethylene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	trans-1,3-Dichloropropene	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Trichloroethylene (TCE)	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Trichlorofluoromethane	ND	ug/L	0.5	ug/L	EPA 624
10/3/2011	Stabilized Water	Vinyl Acetate	ND	ug/L	10	ug/L	EPA 624
10/3/2011	Stabilized Water	Vinyl chloride (VC)	ND	ug/L	0.3	ug/L	EPA 624
10/3/2011	Stabilized Water	Weak Acid Dissociable Cyanide	ND	mg/L	0.005	mg/L	SM4500CN-I



**UIC Permit UNEV 94218 - 4th Q 2011 - Injected Water Analytical Summary**

<u>Sample Date</u>	<u>Sample ID</u>	<u>Analyte</u>	<u>Final</u>	<u>Units</u>	<u>MRL</u>	<u>Units</u>	<u>Method</u>
10/3/2011	Stabilized Water	Zinc Total ICAP/MS	180	ug/L	20	ug/L	EPA 200.8

**ATTACHMENT A****UNEV 94218: Monitoring Report Requirements**

The Permittee shall submit **quarterly reports** on a continuous basis, **whether actively injecting or not**, which contain the following data (please check all information included in the attached report):

The UIC permit number and Attachment A.

The results of the chemical analyses as required by Table 1.

**Table 1**

<b>PARAMETER</b>	<b>FREQUENCY</b>	<b>LOCATION</b>	<b>LIMITATIONS</b>
VOCs, Total Perchlorate, and Profile I Analysis	Quarterly	Lake Mead Water at Discharge Pipe Prior to Injection	State and Federal Drinking Water Standards. Injectate must not degrade the Groundwater Quality
Total and Hexavalent Chromium	Quarterly	M-11, M-12A, M-36, M-37, M-44, M-84, M- 95, and M-100	Monitor and Report
Total Perchlorate, Including NaClO <sub>4</sub> and NH <sub>4</sub> ClO <sub>4</sub>	Quarterly	M-11, M-12A, M-36, M-37, M-44, M-84, M- 95, and M-100	Monitor and Report
TDS	Quarterly	M-11, M-12A, M-36, M-37, M-44, M-84, M- 95, and M-100	Monitor and Report
Injection Rate into Injection trenches and Total Volume injected	Continuously	Discharge Pipe Prior to Injection	100 gpm monthly average. Must be equivalent or less than total extraction rate and volume
Extraction Rate and Total Volume extracted	Continuously	Extraction Wells located Upgradient of Injection Trenches	Cumulative extraction rate must be equivalent or greater than injection rate and volume
Groundwater Elevation and Depth	Quarterly	M-25, M-38, M-80, M-82, M-86, M-95, M-96, M-98, M-99, M-100, and M-102	Monitor and Report

For each month in the reporting period document injection rate (gpm), volume, date, and time injected of Lake Mead water into two injection trenches.

Water level, contour map illustrating groundwater gradient and flow direction.

Summary narrative report of monitoring activities for that reporting period. The report shall include, but not be limited to, any problems encountered with the injection system, the results of any tests performed during that period, and any changes noted to the groundwater. If no injection has occurred, report the non-injection status and the reason the system is not in operation.



**Nevada Division of Environmental Protection**  
**Bureau of Water Pollution Control**  
**Underground Injection Control Program**  
 901 S. Stewart St Ste 4001  
 Carson City Nevada 89701  
 Ph: 775-687-9418 Fx: 775-687-4684



## UIC Form U230 – Field Sampling & Monitoring Summary

**This form is to be completed in the field while sampling to document the sampling location facts and events, and submitted with the sample results.**

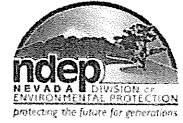
**Sample Date:** (mm/dd/yy) 07-05-11 and 10-03-11

**Complete All Applicable Blanks – Water samples can be rejected if information not provided.**

FACILITY AND PERMIT INFORMATION	
Well Name & No.: Injected stabilized Lake Mead water	UIC Permit No.: UNEV94218
Is there any well name or identification at the wellhead?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, label should be placed on or near wellhead
Project/Facility Name: Perchlorate Remediation - Nevada Environmental Response Trust, Henderson, NV	
Well Location (Section/TR or Lat/Long): Section 12 T22S - R62E	
City/Valley: Henderson, NV	County: Clark
Sample for (circle one): <del>NEW WELLS</del> ROUTINE REPORTING Other: _____	
Reporting Frequency: <input checked="" type="checkbox"/> Semi-annually <input type="checkbox"/> Annually <input type="checkbox"/> Other _____	
WELL or SAMPLE LOCATION INFORMATION	
(Note: If sample location is not a well (e.g. spring), please provide all relevant data on sample location in the space below)	
Well Type:	<del>Water Distribution</del> <del>Monitoring</del> <del>Geo-Pro</del> Geo-Injection <del>Geo-Observation</del>
Completion date of well: NA	
Diameter of casing: NA	Type of Casing: Steel PVC Other: ABS Plastic
Total depth of well: ~ 4 foot to horizontal distribution piping	
Bottom depth of cement for last cemented casing string: NA	
Screened or open hole interval (top/bottom depths): NA	
STATUS OF WELL	
Condition or Activity of well during past week/month, prior to sampling: operating normally	
Discuss any field conditions the Division should be aware of with regard to this sample: both samples (July 15, 2010 and October 4, 2010 taken during normal operations)	
Was the well secured upon arrival?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Was there any problems or damage to the well upon arrival	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Was well in an artesian condition prior to sampling? :	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
WATER LEVEL – WELL GAUGING	
Last date well gauged (mm/dd/yy): NA	Depth to water - last event: NA
Method used to gauge well? :	<del>Cap Tube</del> <del>Tape Measure</del> NA
Measured Water Level :	NA



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**UIC Form U230 – Field Sampling & Monitoring Summary**

SAMPLING INFORMATION			
Date sample collected (mm/dd/yy) :	07-05-11 and 10-03-11	Time Sampled :	morning
Name of Sampler :	Veolia Water NA operator		
Location sample taken (be specific) "sample port in pipeline 10 feet from wellhead" :	Sample port at the remedial process ~ 200 ft from injection point		
Type of Sample (circle one) :	Grab <del>Composite</del> other (specify):		
Collection method (circle one) :	<del>wellbaited</del> <del>water pumped</del> <del>artesian flow</del> <del>air gas lift</del> valved flow from active water supply		
How much fluid (gallons or well volumes) was discharged / purged before collecting sample? :	~ 1 gallon - this is an active supply line		
<b>Filtering Note:</b> UIC requirements specify water samples shall not be filtered, unless previously approved. If filtration is approved, sample shall be filtered with a 1.0 micron filter, not 0.45 micron. If approved, document date of approval: _____			
Was the sample filtered? :	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Was conductivity measured during discharge to establish stabilized conditions?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO this is an active water supply line		
Was decontamination procedures (reference O & M?) followed during sampling of multiple wells	<input type="checkbox"/> YES <input type="checkbox"/> NO NA		
FIELD MEASUREMENTS			
pH :			
S. Conductivity :			
Temperature :			
What UIC Sample List is required:	<del>XXXXXX</del>	<del>XXXXXX</del>	Other**: <u>VOC, perchlorate and Profile 1</u>
** Other constituent listed must have prior UIC approval before using			
Were any holding times exceeded?	pH	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
<b>In Final sample documentation, ensure all results are reported with appropriate units. If measurements are below detection limits, indicate detection limit value.</b>			
<b>DO NOT REPORT VALUES AS NON-DETECT OR ND, INSTEAD REPORT as &lt;(Detection Limit Value)</b>			
FORM PREPARATION			
Project Manager:	Susan Crowley		
Company:	Crowley Environmental on behalf of Trust		
Telephone No.:	702-592-7727	eMail Address:	smcrowley@cox.net
Signature:		Date:	January 23, 2012
Qualified Sample Person:	Michele Brown		
Company:	Veolia Water NA		
Telephone No.:	702-289-5533	eMail Address:	michele.brown@veoliawaterna.com
Signature:	Date:		

Attachments:

## **ATTACHMENT 2**

### **Groundwater Monitoring**

#### **Analytical Information (Analytical reports included on Attachment 3 CD)**



C:\SMC\My  
Documents\Excel Spr

**Water Levels – 3<sup>rd</sup> and 4<sup>th</sup> Quarter 2011**



UIC Monitoring  
Wells.xlsx



UIC Monitoring  
Wells.xlsx

**Summary of Monitoring Well Information**



Form U230 - Monitor  
Wells - 3rd n 4th Q 11

**Sample Information Form for Monitoring Wells**

Nevada Environmental Response Trust  
Henderson, Nevada Facility

UIC PERMIT MONITORING WELLS  
QUARTERLY GROUNDWATER ELEVATIONS (feet)

Date	M-25 TOC: 1759.93 DTW	M-38 TOC: 1759.73 DTW	M-50 TOC: 1745.04 DTW	M-79 TOC: 1740.21 DTW	M-86 TOC: 1744.23 DTW	M-95 TOC: 1693.49 DTW	M-95 TOC: 1693.49 DTW	M-95 TOC: 1693.49 DTW	M-95 TOC: 1693.49 DTW	M-96 TOC: 1683.49 DTW	M-98 TOC: 1731.91 DTW	M-99 TOC: 1730.74 DTW	M-100 TOC: 1730.93 DTW	M-102 TOC: 1740.24 DTW
	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	ELEV
Nov-04	32.63	1727.48	29.68	1716.37	27.34	1716.89	11.62	1681.9	33.02	1698.88	30.53	1700.21	28.83	1701.06
Feb-05	31.96	1727.97	27.16	1718.89	25.39	1718.84	10.2	1683.32	32.97	1698.93	29.96	1700.78	27.98	1702.51
May-05	32.73	1727.2	27.62	1718.43	28.73	1715.5	10.89	1682.63	32.98	1698.92	30.09	1700.65	28.47	1700.8
Aug-05	30.24	1729.69	27.38	1718.67	26.18	1718.05	9.79	1683.73	30.81	1701.09	28.74	1702	26.71	1703.73
Nov-05	31.09	1728.84	25.51	1720.54	27.98	1716.25	9.75	1683.77	30.4	1701.5	28.3	1702.44	26.22	1704.1
Feb-06	30.93	1729.00	25.33	1720.72	29.23	1715	10.1	1683.42	29.95	1701.95	27.97	1702.77	26	1703.76
May-06	31.15	1728.78	24.61	1721.44	29.34	1714.89	10.03	1683.49	28.66	1703.24	27.85	1702.89	25.98	1703.33
Aug-06	32.06	1727.87	24.97	1721.08	28.24	1714.99	10.1	1683.42	29.9	1702.2	27.89	1702.85	26.02	1702.91
Nov-06	32.18	1727.75	25.84	1720.21	29.89	1714.34	9.93	1683.59	30	1701.9	27.97	1702.77	26.27	1702.58
Feb-07	32.96	1727.37	27.31	1718.74	30	1714.23	10.25	1683.27	29.93	1701.97	28.07	1702.67	26.21	1702.48
May-07	32.97	1726.96	25.84	1716.89	31.09	1713.14	10.47	1683.05	30.11	1701.79	28.32	1702.42	26.77	1702.19
Aug-07	33.44	1726.49	29.06	1716.99	32.51	1711.72	10.2	1683.32	28.71	1703.19	28.66	1702.27	28.66	1702.86
Nov-07	33.97	1725.96	31.46	1714.59	34.13	1710.1	10.37	1683.15	33.13	1698.77	31.34	1699.4	30.47	1700.86
Feb-08	33.82	1726.11	32.92	1713.13	35.19	1709.04	11.32	1682.2	33.29	1698.61	32.68	1698.06	33.72	1698.25
May-08	33.64	1726.29	24.91	1721.14	32.33	1711.9	11.86	1681.66	33.19	1698.71	33.6	1697.14	32.72	1698.19
Aug-08	33.68	1726.25	25.15	1720.9	damaged	-	10.46	1683.06	33.38	1698.52	31.92	1698.82	30.77	1698.93
Nov-08	33.52	1726.35	28.35	1717.7	damaged	-	12.68	1680.84	33.1	1698.8	31.17	1699.57	30.42	1699.01
Feb-09	33.61	1726.32	29.77	1716.28	damaged	-	12.63	1680.86	damaged	-	31.58	1699.16	30.81	1697.13
May-09	33.58	1726.35	31.58	1714.47	damaged	-	12.85	1680.74	damaged	-	31.9	1698.84	31.27	1697.03
Aug-09	33.52	1726.41	28.98	1717.07	damaged	-	13.02	1680.5	damaged	-	32.66	1698.08	32.79	1696.79
Nov-09	33.27	1726.66	26.14	1719.91	damaged	-	13.35	1680.17	damaged	-	31.44	1699.3	30.23	1696.73
Feb-10	33.28	1726.65	24.31	1721.74	damaged	-	12.99	1680.53	damaged	-	30.31	1700.43	29.21	1696.93
May-10	32.48	1727.45	23.28	1722.77	damaged	-	12.85	1680.58	damaged	-	29.32	1701.42	27.72	1697.12
Aug-10	32.98	1726.95	23.94	1722.11	damaged	-	12.41	1681.11	damaged	-	28.68	1702.06	26.93	1697.78
Nov-10	33	1726.93	35.52	1710.53	damaged	-	13.3	1680.22	damaged	-	28.97	1701.77	27.84	1697.09
Feb-11	33.41	1726.52	32.64	1713.41	damaged	-	12.23	1681.26	damaged	-	30.71	1700.03	inaccessible	1703.09
May-11	33.56	1726.37	35.84	1710.21	damaged	-	12.83	1680.66	damaged	-	34.69	1696.05	33.3	1697.63
Aug-11	33.62	1726.31	35.98	1710.07	damaged	-	13.52	1680	damaged	-	34.8	1695.94	dry	1697.63
Nov-11	32.04	1727.89	36.07	1709.98	damaged	-	14.04	1679.48	damaged	-	34.78	1695.96	dry	1697.63

**UIC Permit UNEV94218 - 3rd and 4th Quarters 2011 - Monitor Wells Analytical Summary**

<u>Sample Date</u>	<u>Sample ID</u>	<u>Analyte</u>	<u>Final</u>	<u>Units</u>	<u>MRL</u>	<u>Units</u>	<u>Method</u>
8/1/2011	M-44	Chromium Total ICAP	0.75	mg/L	0.01	mg/L	EPA 6010
8/1/2011	M-44	Hexavalent chromium (Cr VI)	0.71	mg/L	0.005	mg/L	EPA 7196
8/1/2011	M-44	Perchlorate	650000	ug/L	4	ug/L	EPA 314.0
8/1/2011	M-44	pH	7.6	Units	0.1	Units	EPA 9040
8/1/2011	M-44	Total Dissolved Solids (TDS)	7700	mg/L	10	mg/L	E160.1/SM2540C
8/2/2011	M-37	Chromium Total ICAP	0.022	mg/L	0.01	mg/L	EPA 6010
8/2/2011	M-37	Hexavalent chromium (Cr VI)	0.01	mg/L	0.005	mg/L	EPA 7196
8/2/2011	M-37	Perchlorate	1400000	ug/L	4	ug/L	EPA 314.0
8/2/2011	M-37	pH	7.2	Units	0.1	Units	EPA 9040
8/2/2011	M-37	Total Dissolved Solids (TDS)	4300	mg/L	10	mg/L	E160.1/SM2540C
8/3/2011	M-11	Chromium Total ICAP	2	mg/L	0.01	mg/L	EPA 6010
8/3/2011	M-11	Hexavalent chromium (Cr VI)	1.8	mg/L	0.005	mg/L	EPA 7196
8/3/2011	M-11	Perchlorate	26000	ug/L	4	ug/L	EPA 314.0
8/3/2011	M-11	pH	8	Units	0.1	Units	EPA 9040
8/3/2011	M-11	Total Dissolved Solids (TDS)	2700	mg/L	10	mg/L	E160.1/SM2540C
8/3/2011	M-12A	Chromium Total ICAP	11	mg/L	0.01	mg/L	EPA 6010
8/3/2011	M-12A	Hexavalent chromium (Cr VI)	11	mg/L	0.005	mg/L	EPA 7196
8/3/2011	M-12A	Perchlorate	250000	ug/L	4	ug/L	EPA 314.0
8/3/2011	M-12A	pH	8	Units	0.1	Units	EPA 9040
8/3/2011	M-12A	Total Dissolved Solids (TDS)	7100	mg/L	10	mg/L	E160.1/SM2540C
8/3/2011	M-36	Chromium Total ICAP	30	mg/L	0.01	mg/L	EPA 6010
8/3/2011	M-36	Hexavalent chromium (Cr VI)	30	mg/L	0.005	mg/L	EPA 7196
8/3/2011	M-36	Perchlorate	1600000	ug/L	4	ug/L	EPA 314.0
8/3/2011	M-36	pH	7.4	Units	0.1	Units	EPA 9040
8/3/2011	M-36	Total Dissolved Solids (TDS)	15000	mg/L	10	mg/L	E160.1/SM2540C
10/31/2011	M-44	Chromium Total ICAP	0.8	mg/L	0.01	mg/L	EPA 6010
10/31/2011	M-44	Hexavalent chromium (Cr VI)	0.75	mg/L	0.005	mg/L	EPA 7196
10/31/2011	M-44	Perchlorate	610000	ug/L	4	ug/L	EPA 314.0
10/31/2011	M-44	pH	7.6	Units	0.1	Units	EPA 9040
10/31/2011	M-44	Total Dissolved Solids (TDS)	7800	mg/L	10	mg/L	E160.1/SM2540C
11/1/2011	M-37	Chromium Total ICAP	0.023	mg/L	0.01	mg/L	EPA 6010
11/1/2011	M-37	Hexavalent chromium (Cr VI)	0.014	mg/L	0.005	mg/L	EPA 7196
11/1/2011	M-37	Perchlorate	1200000	ug/L	4	ug/L	EPA 314.0
11/1/2011	M-37	pH	7.2	Units	0.1	Units	EPA 9040
11/1/2011	M-37	Total Dissolved Solids (TDS)	4200	mg/L	10	mg/L	E160.1/SM2540C
11/3/2011	M-11	Chromium Total ICAP	2.2	mg/L	0.01	mg/L	EPA 6010
11/3/2011	M-11	Hexavalent chromium (Cr VI)	2.2	mg/L	0.005	mg/L	EPA 7196
11/3/2011	M-11	Perchlorate	28000	ug/L	4	ug/L	EPA 314.0
11/3/2011	M-11	pH	7.8	Units	0.1	Units	EPA 9040
11/3/2011	M-11	Total Dissolved Solids (TDS)	2800	mg/L	10	mg/L	E160.1/SM2540C
11/3/2011	M-12A	Chromium Total ICAP	11	mg/L	0.01	mg/L	EPA 6010
11/3/2011	M-12A	Hexavalent chromium (Cr VI)	11	mg/L	0.005	mg/L	EPA 7196
11/3/2011	M-12A	Perchlorate	210000	ug/L	4	ug/L	EPA 314.0
11/3/2011	M-12A	pH	8	Units	0.1	Units	EPA 9040
11/3/2011	M-12A	Total Dissolved Solids (TDS)	6900	mg/L	10	mg/L	E160.1/SM2540C
11/3/2011	M-36	Chromium Total ICAP	28	mg/L	0.01	mg/L	EPA 6010
11/3/2011	M-36	Hexavalent chromium (Cr VI)	31	mg/L	0.005	mg/L	EPA 7196
11/3/2011	M-36	Perchlorate	1500000	ug/L	4	ug/L	EPA 314.0
11/3/2011	M-36	pH	7.4	Units	0.1	Units	EPA 9040
11/3/2011	M-36	Total Dissolved Solids (TDS)	15000	mg/L	10	mg/L	E160.1/SM2540C



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## UIC Form U230 – Field Sampling & Monitoring Summary

**This form is to be completed in the field while sampling to document the sampling location facts and events, and submitted with the sample results.**

**Sample Date:** (mm/dd/yy) 08-01-11 and 11-01-11

**Complete All Applicable Blanks – Water samples can be rejected if information not provided.**

FACILITY AND PERMIT INFORMATION	
Well Name & No.: M-11, M-12A, M-36, M-37, M-44, M-95, M-100	UIC Permit No.: UNEV 94218
Is there any well name or identification at the wellhead?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no, label should be placed on or near wellhead
Project/Facility Name: Perchlorate Remediation - Nevada Environmental Response Trust, Henderson, NV	
Well Location (Section/TR or Lat/Long): Section 12 T22S - R62E	
City/Valley: Henderson, NV	County: Clark
Sample for (circle one): <del>NEW</del> <del>WELL</del> ROUTINE REPORTING	Other: _____
Reporting Frequency: <input checked="" type="checkbox"/> Semi-annually <input type="checkbox"/> Annually <input type="checkbox"/> Other _____	
WELL or SAMPLE LOCATION INFORMATION	
(Note: If sample location is not a well (e.g. spring), please provide all relevant data on sample location in the space below)	
Well Type:	<del>Water Conservation</del> Monitoring <del>Geo Prod</del> <del>Geo Injection</del> <del>Geo Observation</del>
Completion date of well: 1983 to 1997	
Diameter of casing: 2 inch	Type of Casing: <del>Steel</del> PVC Other: _____
Total depth of well: ~ 45 foot	
Bottom depth of cement for last cemented casing string: NA	
Screened or open hole interval (top/bottom depths): ~ bottom 20 foot	
STATUS OF WELL	
Condition or Activity of well during past week/month, prior to sampling: operating normally	
Discuss any field conditions the Division should be aware of with regard to this sample: both month's samples taken during normal operations	
Was the well secured upon arrival?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Was there any problems or damage to the well upon arrival	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Was well in an artesian condition prior to sampling? :	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
WATER LEVEL – WELL GAUGING	
Last date well gauged (mm/dd/yy) : sample date - 12-15-11	Depth to water - last event:
Method used to gauge well? :	<del>Cap Tube</del> <del>Tap Measure</del> NA
Measured Water Level :	DTW .... M-11=42.95', M-36=32.71', M-37=31.82', M-44=21.81', M-95=14.03', M-100=dry





**Nevada Division of Environmental Protection**  
**Bureau of Water Pollution Control**  
**Underground Injection Control Program**  
 901 S. Stewart St Ste 4001  
 Carson City Nevada 89701  
 Ph: 775-687-9418 Fx: 775-687-4684



**UIC Form U230 – Field Sampling & Monitoring Summary**

SAMPLING INFORMATION			
Date sample collected (mm/dd/yy) :	08-01-11 and 11-1-11	Time Sampled :	daylight
Name of Sampler :	Veolia Water NA operator		
Location sample taken (be specific) "sample port in pipeline 10 feet from wellhead" :	monitor well head		
Type of Sample (circle one) :	Grab <del>Composite</del> other (specify):		
Collection method (circle one) :	<del>Hand collected</del> water pumped <del>Hand collected</del> <del>Other</del>		
How much fluid (gallons or well volumes) was discharged / purged before collecting sample? :	~ three casing volumes		
<b>Filtering Note:</b> UIC requirements specify water samples shall not be filtered, unless previously approved. If filtration is approved, sample shall be filtered with a 1.0 micron filter, not 0.45 micron. If approved, document date of approval: _____			
Was the sample filtered? :	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Was conductivity measured during discharge to establish stabilized conditions? :	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO this is an active water supply line		
Was decontamination procedures (reference O & M?) followed during sampling of multiple wells	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
FIELD MEASUREMENTS			
pH :			
S. Conductivity :			
Temperature :			
What UIC Sample List is required:	<del>XXXXXX</del>	<del>XXXXXX</del>	<del>XXXXXX</del> Other**: Cr, Cr+6, perchlorate, TDS _____
** Other constituent listed must have prior UIC approval before using			
Were any holding times exceeded?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
<b>In Final sample documentation, ensure all results are reported with appropriate units. If measurements are below detection limits, indicate detection limit value.</b>			
<b>DO NOT REPORT VALUES AS NON-DETECT OR ND, INSTEAD REPORT as &lt;(Detection Limit Value)</b>			
FORM PREPARATION			
Project Manager:	Susan Crowley		
Company:	Crowley Environmental on behalf of Tronox LLC		
Telephone No.:	702-592-7727	eMail Address:	smcrowley@cox.net
Signature:		Date:	January 23, 2012
Qualified Sample Person:	Michele Brown		
Company:	Veolia Water NA		
Telephone No.:	702-289-5533	eMail Address:	michele.brown@veoliawaterna.com
Signature:	Date:		

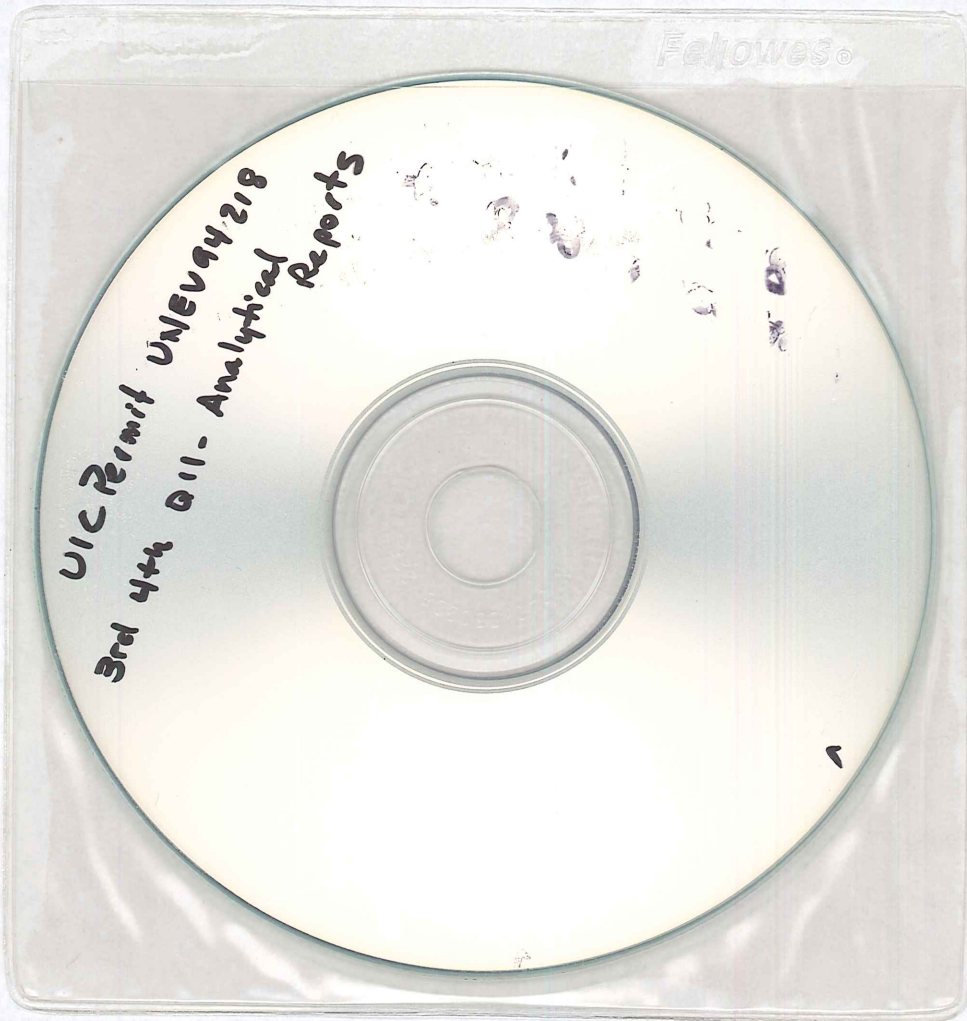
Attachments:

Nevada Environmental Response Trust  
Henderson, Nevada Facility

UIC PERMIT UNEV 94218  
EXTRACTION AND INJECTION RATES (gpm)

MONTH	EXTRACTION RATE	INJECTION RATE		
	(gpm)	(gpm)		
	Monthly Average	Monthly Average	Daily High	Daily Low
July 2011	68.2	0	0	0
August 2011	67.3	0	0	0
September 2011	65.8	0	0	0
October 2011	67.5	0	0	0
November 2011	67.9	0	0	0
December 2011	64.9	0	0	0

ATTACHMENT 3



**Supporting Electronic Analytical Reports  
UIC Permit UNEV 94218 Report – 3<sup>rd</sup> and 4<sup>th</sup> Q 2011**

I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein, exceptions and corresponding justifications are provided below.

Susan Crowley  
Susan Crowley, CEM 1428 exp 3-8-13

1-23-12  
Date

## ATTACHMENT 4

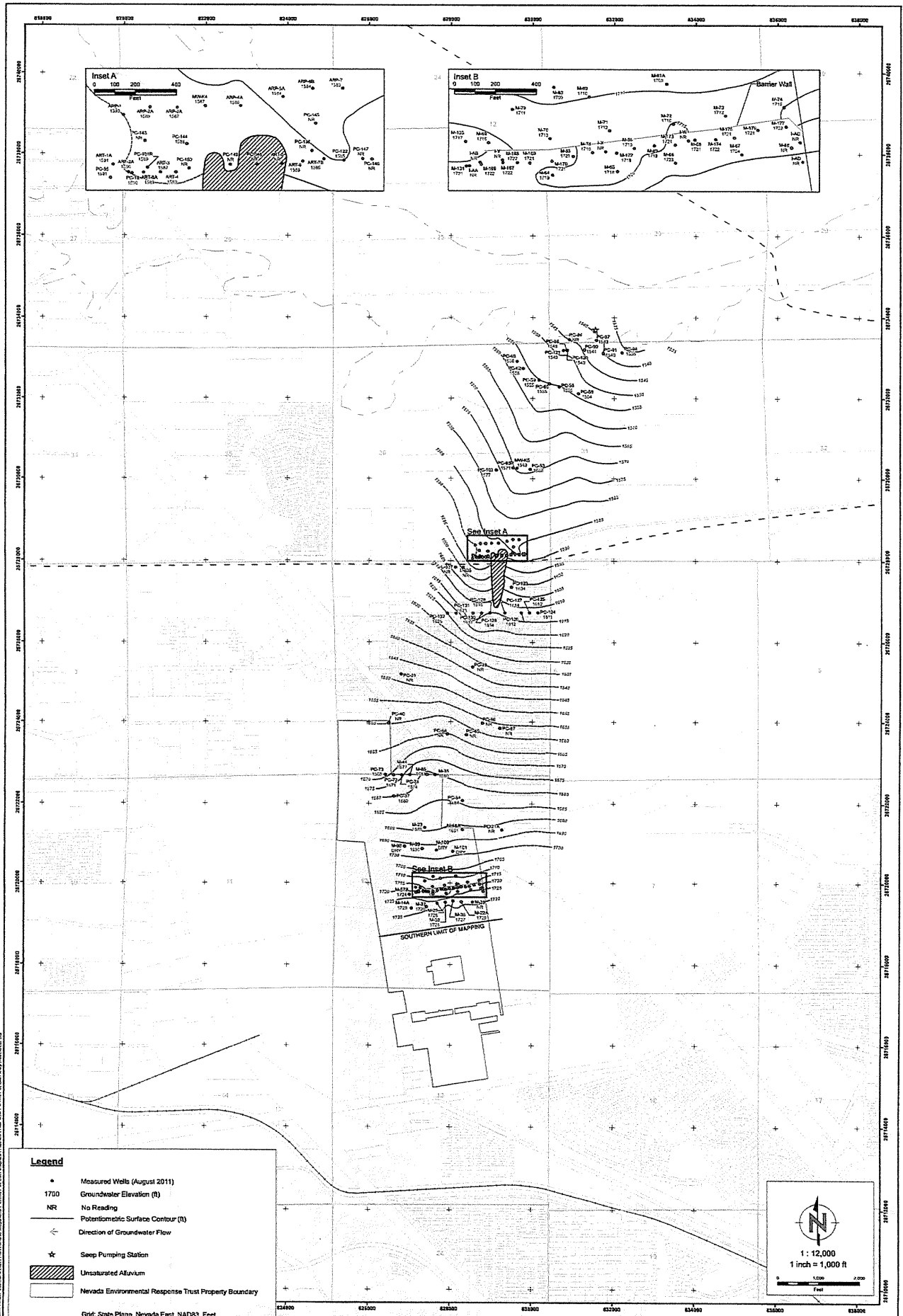


Potentiometric  
Surface Map - 1st Q



Potentiometric  
Surface Map - 2nd Q

**Potentiometric Surface Maps**



**Figure 1**

**POTENTIOMETRIC SURFACE MAP**  
**QUATERNARY ALLUVIUM AQUIFER**  
**THIRD QUARTER 2011**  
 UIC Permit BUNEVS4218 Report  
 Nevada Environmental Response Trust (NERT)  
 Henderson, Nevada

DESIGNED BY	NO.	DESCRIPTION	DATE	BY
EC	1	GENERATE APPROVED MAP	11/6/12	RS
CHECKED BY				
APPROVED BY				

**ENVIRON**

