

SNLO6



National Nuclear Security Administration
Sandia Site Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400



SEP 28 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Road East, Building 1
Santa Fe, NM 87505



Dear Mr. Bearzi:

On behalf of the Department of Energy (DOE) and Sandia Corporation (Sandia), DOE is notifying you of an increase in trichloroethene (TCE) concentrations at groundwater monitoring well TJA-3 in the Tijeras Arroyo Groundwater study area at Sandia National Laboratories/New Mexico (EPA ID No. NM5890110518). Although not strictly speaking a newly identified Solid Waste Management Unit, or Area of Concern under Section V of the Compliance Order on Consent, DOE and Sandia are providing these data for your information.

Under Section IV.C of the Compliance Order on Consent, DOE and Sandia are required to characterize groundwater within the Tijeras Arroyo Groundwater study area. Groundwater samples from the study area are routinely submitted for volatile organic compound analysis using EPA Method SW846 8260B. In the past, TJA-3 had been sampled on a quarterly basis; however, since August 2005, this well had been placed on a semi-annual sampling schedule.

As described in numerous annual groundwater monitoring reports previously submitted to NMED, groundwater monitoring well TJA-3 has been sampled for over seven years and has had detections of TCE below the U.S. Environmental Protection Agency (EPA) maximum contaminant level of 5.0 micrograms per liter ($\mu\text{g/L}$). TCE results between December 1998 and July 2006 are summarized on Table 1 and Figure 1. Groundwater sample results prior to August 2005 ranged from not detectable at method detection limits ranging from 0.06 to 0.36 $\mu\text{g/L}$, to a maximum concentration of 1.39 $\mu\text{g/L}$. The last two sampling events have shown a notable increase in TCE concentrations with values of 1.54 $\mu\text{g/L}$ in January 2006 and 2.88 $\mu\text{g/L}$ in July 2006.

Sandia will continue to perform semi-annual sampling at TJA-3 to monitor the TCE concentrations and will continue to report the results and trends to the New Mexico Environment Department (NMED). If future TCE concentrations exceed the 5 $\mu\text{g/L}$ MCL, Sandia will notify NMED, return to quarterly monitoring, and modify the Corrective Measures Evaluation process currently underway for the Tijeras Arroyo Groundwater study area.

Mr. James Bearzi

(2)

SEP 28 2006

If you have any questions, please call me at (505) 845-6036 or John Gould at (505) 845-6089.

Sincerely,



Patty Wagner
Manager

cc:

J. Kieling, NMED-HWB
W. Moats, NMED-HWB
L. King, EPA, Region 6
M. Martin, NNSA/NA-56
T. Skibitski, NMED-OB
D. Sleeman, NMED-OB
A. Blumberg, SNL, Org. 11100, MS 0141
F. Nimick, SNL, Org. 6140, MS 1087
D. Stockham, SNL, Org. 6140, MS 1087
M. Skelly, SNL, Org. 6146, MS 1087
M. Davis, SNL, Org. 6147, MS 1089
F. Lauffer, SNL, Org. 10333, MS 1042

CERTIFICATION STATEMENT FOR APPROVAL AND FINAL RELEASE OF DOCUMENTS

Document title: Notification of an Increase in Trichloroethene (TCE) Concentrations at
Groundwater Monitoring Well TJA-3 in the Tijeras Arroyo
Groundwater, September 2006

Document authors: Mike Skelly, Dept, 6146

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature: Peter B. Davies
Peter B. Davies
Director
Geoscience & Environment Center
Division 6100
Sandia National Laboratories/New Mexico
Albuquerque, New Mexico 87185
Operator

9/13/06
Date

and

Signature: Patty Wagner
Patty Wagner
Manager
U.S. Department of Energy
National Nuclear Security Administration
Sandia Site Office
Owner and Co-Operator

9-28-06
Date

Figure 1
Plot of TCE Results for TJA-3

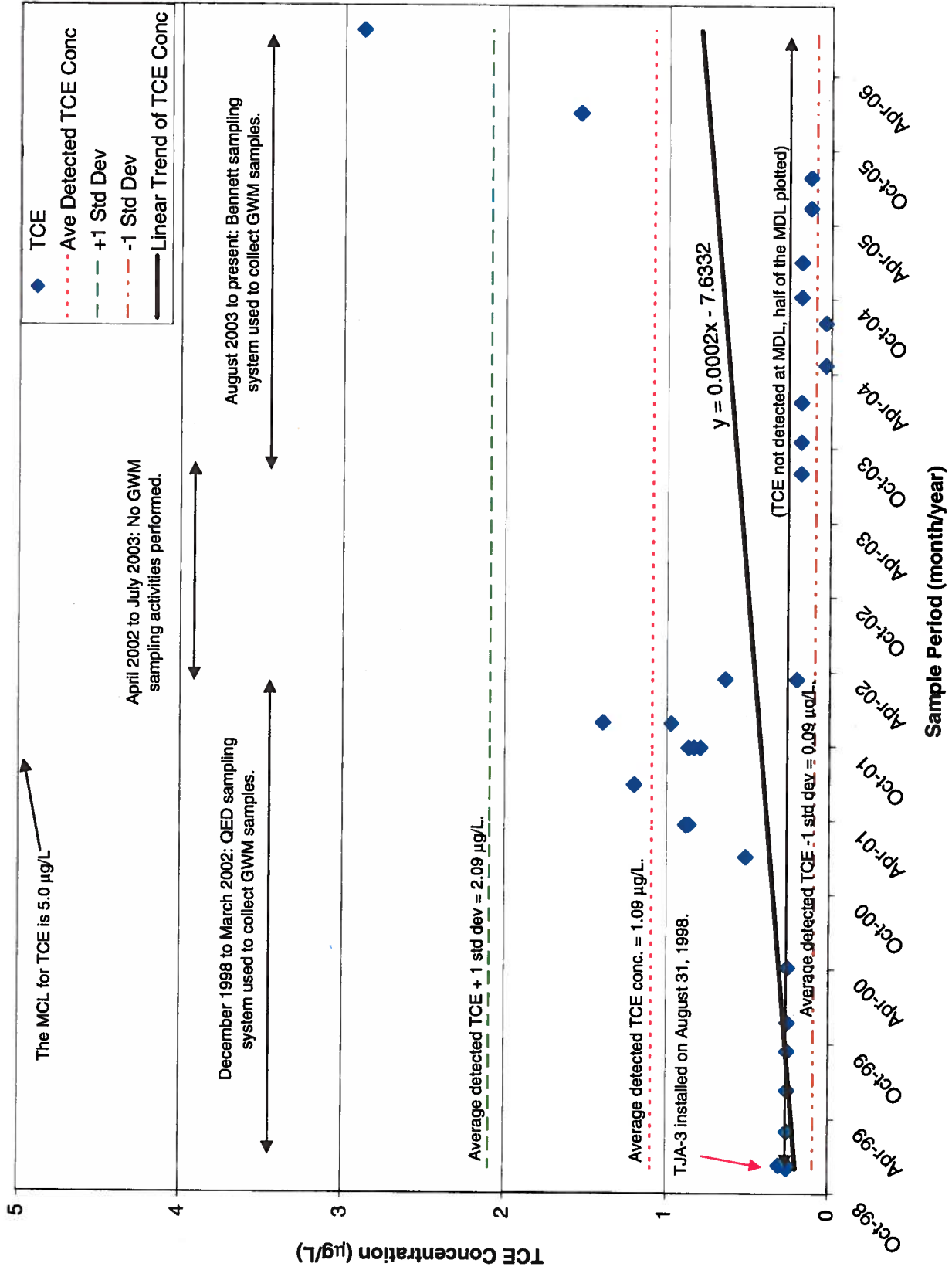


Table 1
Summary of Trichloroethene Analytical Results (Method^a 8260) in Monitoring Well TJA-3
Tijeras Arroyo Groundwater Investigation

December 1998 to July 2006

Well ID	Sample Date	ARCOC No.	Sample No.	Trichloroethene Result ^b (µg/L)	MDL ^c (µg/L)	PQL ^d (µg/L)	MCL ^e (µg/L)	Laboratory Qualifier ^f	Validation Qualifier ^g	Comments ^h
Environmental Sample										
TJA-3	07-Dec-98	600980	043136-001	ND	0.50	2.0	5.0	U		Low-Flow Sampling Method
	15-Dec-98	600955	043110-001	ND	0.50	2.0	5.0	U		Low-Flow Sampling Method
	08-Mar-99	601277	043238-001	ND	0.50	2.0	5.0	U		Low-Flow Sampling Method
	16-Jun-99	601480	044388-001	ND	0.50	2.0	5.0	U	P2	Low-Flow Sampling Method
	20-Sep-99	602307	048480-001	ND	0.50	2.0	5.0	U		Low-Flow Sampling Method
	29-Nov-99	602429	048555-001	ND	0.50	2.0	5.0	U	P2	Low-Flow Sampling Method
	11-Apr-00	602480	048643-001	ND	0.50	2.0	5.0	U		Low-Flow Sampling Method
	08-Jan-01	602712	049584-001	0.51	0.50	2.0	5.0	J		Low-Flow Sampling Method
	28-Mar-01	603489	049683-001	0.86	0.20	0.80	5.0	U		Low-Flow Sampling Method
	05-Jul-01	604107	048788-001	1.2	0.10	0.40	5.0	U		Low-Flow Sampling Method
	03-Oct-01	604783	049041-001	0.83	0.10	0.40	5.0	U		Low-Flow Sampling Method
	01-Dec-01	604985	049184-001	0.97	0.10	0.40	5.0	U		Low-Flow Sampling Method
	20-Mar-02	605314	049375-001	ND	0.40	1.6	5.0	U		Low-Flow Sampling Method
	06-Aug-03	606627	062711-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	22-Oct-03	606842	063296-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	27-Jan-04	607103	063889-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	27-Apr-04	607418	064587-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	09-Aug-04	607698	065397-001	ND	0.06	5.0	5.0	U		Conventional Sampling Method
	12-Oct-04	607934	066061-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	05-Jan-05	608131	066765-001	ND	0.36	1.0	5.0	U		Conventional Sampling Method
	18-May-05	608588	068498-001	ND	0.25	1.0	5.0	U		Conventional Sampling Method
	01-Aug-05	608734	069257-001	ND	0.25	1.0	5.0	U		Conventional Sampling Method
	04-Jan-06	609297	073696-001	1.54	0.25	1.0	5.0	U		Conventional Sampling Method
	24-Jul-06	610113	079799-001	2.88	0.25	1.0	5.0	U		Conventional Sampling Method
Duplicate Sample										
TJA-3	28-Mar-01	603489	049800-001	0.87	0.20	0.80	5.0			Low-Flow Sampling Method
	03-Oct-01	604783	049042-001	0.79	0.10	0.40	5.0			Low-Flow Sampling Method
Sample Split										
TJA-3	15-Dec-98	600954	043120-001	ND	0.60	1.0	5.0	U	None	Low-Flow Sampling Method
	28-Mar-01	603955	049683-A01	0.88	0.16	1.0	5.0	J	None	Low-Flow Sampling Method
	03-Oct-01	604806	049041-A01	0.862	0.16	1.0	5.0	J	None	Low-Flow Sampling Method
	03-Dec-01	605117	049184-A01	1.39	0.31	1.0	5.0	J	None	Low-Flow Sampling Method
	20-Mar-02	605328	049375-A01	0.639	0.31	1.0	5.0	J	None	Low-Flow Sampling Method

Footnotes for Table 1--Summary of Trichloroethene Analytical Results (Method 8260) in Monitoring Well TJA-3, Tijeras Arroyo Groundwater Investigation, December 1998 to July 2006

^aAnalytical Method

U.S. Environmental Protection Agency, 1986, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd ed. (and updates).

^bResult

ND = not detected (at method detection limit).
µg/L = micrograms per liter

^cMDL

Method detection limit. The minimum concentration that can be measured and reported with 99% confidence that the analyte is greater than zero, analyte is matrix specific.

^dPQL

Practical quantitation limit. The lowest concentration of analytes in a sample that can be reliably determined within specified limits of precision and accuracy by that indicated method under routine laboratory operating conditions.

^eMCL

Maximum contaminant level. Established by the U.S. Environmental Protection Agency Primary Water Regulations (40 CFR 141.11(b)), and subsequent amendments or the New Mexico Environmental Improvement Board in Title 20, Chapter 7, Part 1 of the New Mexico Administrative Code (20MAC 7.1).

^fLab Qualifier

J = Estimated value, the analyte concentration fell above the effective MDL and below the effective PQL.
U = The analyte was analyzed for but not detected below the effective MDL.

^gValidation Qualifier

If cell is blank, then all quality control samples meet acceptance criteria with respect to submitted samples.
P2 = Insufficient quality control data to determine laboratory precision.
None = Data was not validated.

^hComments

Low-flow sampling methods performed with dedicated QED Environmental Systems water sampling equipment.
Conventional sampling methods performed with portable Bennett Company water sampling equipment.