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2330208

George Air Force Base
Basewide Groundwater Monitoring Program
April 2006
Split Sample Report

Introduction:

On April 10th, 11th, and 12th of 2006, Greg Nagle of the USEPA Region 9 Laboratory Field and Biology (FAB) team obtained split samples in support of the George Air Force Base (GAFB) Groundwater Monitoring Program. Mr. Nagle also performed a field audit during the course of split sampling activities, reviewed the data, and prepared this report. The GAFB team executed the sampling in accordance with the following documents:

Basewide Sampling and Analysis Plan (SAP), George Air Force Base, California HydroGeoLogic 1998.

Final 2003 Annual Sampling and Analysis Plan (SAP) Addendum Basewide Groundwater Monitoring Events, Operable Units 1, 2, and 3 George Air Force Base, California MWH Americas, Inc. July 2003.

Final Split Sampling Plan (SSP) Basewide Groundwater Monitoring Program, George Air Force Base, Victorville, California. (EPA Region 9 Field and Biology Team, April 2006.)

The EPA FAB team obtained split samples at the following locations as specified in the SSP.

Well ID	Parameters	Description
FT-03	VOCs	OU 1/OU 3/FT-19 Upper Aquifer
MW-49	VOCs	OU 2/OU 3 Upper Aquifer
MW-69	VOCs	OU 2/OU 3 Upper Aquifer
NZ-27	VOCs	OU 1 Upper Aquifer
NZ-89	OCPs	OU 3 Upper Aquifer
NZ-107	VOCs, LF Surrogates	OU 1/OU 3 Lower Aquifer - Landfill
WZ-06	VOCs, Nat Att. Par	OU 3/Site OT-51 Upper Aquifer
MW-200	VOCs, Anions, TDS	Performance Evaluation (PE) Sample

Notes:
VOCs – Volatile Organic Compounds
OCPs – Organochlorine Pesticides
LF – Landfill Surrogates (i.e., Chloride, Nitrate, Sulfate)
Nat Att. Par. – Natural Attenuation Parameters (Total Organic Carbon, Alkalinity, Nitrate, Total Dissolved Solids)

Participants

A few day's prior to sampling, GAFBs' primary contract laboratory, Applied Physics and Chemistry Laboratory (APCL), Chino California unexpectedly announced it would no longer accept samples for environmental analysis effective April 1st, 2006. The GAFB team arranged for another laboratory immediately prior to sampling.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX LABORATORY
1337 S. 46TH STREET BLDG 201
RICHMOND, CA 94804-4698

MEMORANDUM

SUBJECT: Split Sample Report
Basewide Groundwater Monitoring Program,
George Air Force Base, Victorville, CA

FROM: Greg Nagle, Environmental Scientist
EPA Region 9 Laboratory (MTS-2)

THROUGH: Brenda Bettencourt, Director
EPA Region 9 Laboratory (MTS-2)

TO: James Chang, Remedial Project Manager
Superfund Division (SFD-8-1)

The EPA Region 9 Laboratory Field and Biology team collected groundwater split samples at George Air Force Base, Victorville, California the week of April 10th 2006. Attached is the Split Sample Report.

ATTACHMENT: Split Sample Report

George Air Force Base
Montgomery-Watson-Harza (MWH) – Field Oversight (under contract to GAFB)
M&M Environmental –Sample Collection (under contact to MWH)
EMAX Laboratories, Torrance, California – Chemical Testing (under contract to MWH)

EPA Region 9
Field and Biology – Field Oversight
A-4 Scientific, The Woodlands, Texas – VOC and OCPs (under contract to EPA)
Regional Laboratory, Richmond, California – Alkalinity, Anions, TOC, TDS

Split Sample Collection
M&M Environmental used a single portable centrifugal submersible pump, decontaminated between each well, prior to collection of the samples. At MWH's direction, M&M, collected primary and split samples from each well into pre-preserved containers alternately (i.e., GAFB-EPA-GAFB-etc...,). Immediately thereafter, the FAB team placed the samples on ice, and maintained chain-of-custody until shipment to the respective laboratories.

Quality Control Sample Collection
Trip blanks provided by MWH field office accompanied the sample containers to and from the field. The FAB team requested additional sample volume at wells NZ-107, WZ-06, and NZ-89 for matrix spike, and duplicate purposes at the respective EPA laboratories. While in the field, the EPA Region 9 Quality Assurance Office provided performance evaluation (PE) samples for VOC, OCP, alkalinity, and nitrate analysis (MW-200) for double-blind submission to appropriate laboratories.

Methods of Analysis

Volatile Organics
The method used for VOC analysis varied between the GAFB and EPA laboratories. EMAX (GAFB) analyzed the primary samples by SW8260B in accordance with project guidance documents, and A4 Scientific (EPA) analyzed the split samples by SOM01.1 in accordance with the contract laboratory program (CLP) statement of work (SOW) and the George AFB SSP. While the analytical technique used by both laboratories is essentially the same, Gas Chromatography/Mass Spectroscopy, there are differences in compounds reported.

Reported under SW8260B (but not on the SOM01.1 list)		**Reported under SOM01.1 (but not on the 8260B list)**
1,1,1,2-Tetrachloroethane	Dibromomethane	Freon 113 (1,1,2-Trichloro-1,2,2-trifluoroethane)
1,1-Dichloropropane	Hexachlorobutadiene	1,4-Dioxane
1,2,3-Trichlorpropane	Isopropylbenzene	2-Butanone
1,2,4-Trimethylbenzene	n-Butylbenzene	4-Methyl-2-Pentanone
1,3,5-Trimethylbenzene	n-Propylbenzene	Acetone
1-Chlorohexane	Naphthalene	Methyl Acetate
2,2-Dichloropropane	p-Cymene	
2-Chlorotoluene	s-Butylbenzene	
4-Chlorotoluene	t-Butylbenzene	
Bromobenzene		

The split sample comparison (Table 1) addresses only those compounds analyzed under SW8260B.

Compounds not reported by the EPA contract lab are identified by an NR in the result field. Notably, Freon 113 (4.3 µg/L) reported under SOM01.1, is not reported under SW8260B, and n-Butylbenzene (7.5 µg/L) reported under SW8260B, is not reported under SOM01.1. This is most evident in the PE sample (MW-200).

Organochlorine Pesticides

The method used for OCP analysis also varied between the two laboratories. EMAX analyzed the primary samples by SW8081A in accordance with project guidance documents, and A4 Scientific analyzed the split samples by SOM01.1 in accordance with the CLP SOW and the SSP. While the analytical technique used by both laboratories is essentially the same, Gas Chromatography/Electron Capture Detector, there is a notable reporting difference. Under SW8081A, the laboratory reports the sum of the chlordane isomers. This is not required under SOM01.1. Neither laboratory reported chlordane in any of the samples.

Split Sample Data Calculation/Evaluation

The EPA R9 FAB team reviewer calculated the relative percent difference (RPD) and evaluated the data as follows:

Calculation:

$$RPD = Abs([R1 - R2]/[R1+R2]/2) * 100\%$$

Where, R1 = primary result (GAFB)
R2 = split result (EPA)
Abs = absolute value

Evaluation:

Disagreement

- Difference in results is greater than two times the MDL when one result is less than the MDL
- RPD of results is greater than 100% if either result is greater than 2 times the MDL
- RPD of results is greater than 30% if both results are greater than 5 times the MDL

Major Disagreement

- Difference in results is greater than four times the MDL when one result is less than the MDL
- RPD of results is greater than 200% if either result is greater than 2 times the MDL
- RPD of results is greater than 60% if both results are greater than 5 times the MDL

1) The RPD is not calculated (NC) when no value is reported by either laboratory (both not detected).

2) The RPD is calculated using method detection limit (MDL) value when a positive result is reported by the one laboratory, and not detected by the other.

A summary of outliers and a complete tabulation of primary and split results by parameter are provided in Table 1, Split Sample Comparison.

Summary

The primary results (GAFB) agree with the split results (EPA) as defined above for all parameters except VOCs. Overall, the VOC split sample results were consistently lower than the primary results. While lower, the split sample results for field samples agreed with primary values with the exception of the trichloroethylene (TCE) and chloroform results reported for MW-49 and NZ-27. Additionally, the majority of the results for the VOC PE sample (MW-200) did not agree. Twelve of the 15 compounds reported had values greater than 5 times the MDL, and an RPD exceeding 30 percent. Pending review of the PE sample scoring, no further action is necessary

Trichloroethylene

At MW-49, both laboratories reported TCE values at greater than 5 times the MDL, and the RPD exceeded 30 percent. The deviation from the control limit for TCE is slight, about 5 percent and the disagreement is minor. Based on follow-up data provided by MWH, the primary values compare more closely to historic values (Attachment A – Follow-Up Data). The VOC values for the EPA split results reported by A4 – Scientific appear to be low.

Chloroform

At MW-69 and NZ-27, the primary laboratory reported chloroform at just over 5 times the MDL, while the split laboratory did not detect chloroform in any of the samples. Although potentially a field contaminant from tap water used for decontamination, chloroform was not detected in the associated field blank. However, MWH reported that chloroform was detected at 0.22 μg/L in a non-associated equipment blank on April 28, 2006. Additionally, chloroform was not detected in the source water used for the final decontamination rinse, or any other associated laboratory blank (i.e., method or storage) or field blank (i.e., trip or equipment rinse). MWH has reported chloroform at these locations for the last two or more quarters (Attachment A – Follow-Up Data).

Methylene Chloride

The EPA FAB team reviewer considered the methylene chloride reported in the split samples a laboratory contaminant as it was present at less than 5 times the concentration found in associated laboratory blanks (i.e., method and storage). Methylene chloride was not detected in the primary samples.

Performance Evaluation (PE) Sample

As stated above, 12 of the 15 compounds reported had values greater than 5 times the MDL, and an RPD exceeding 30 percent. The deviation from the control limit ranged from 2 to 14 percent. Again, the split results (EPA) are consistently lower than the primary results (GAFB). The EPA QAO scores and provides an assessment of each PE sample result based on a comparison to a nominal (calculated or "true") value.

Table 1

Split Sample Comparison

SPLIT SAMPLE DATA OUTLIERS
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

MW-49
4/12/2006

	Primary (µg/L)			EPA Split (µg/L)				RPD
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**	**Limit**
Trichloroethylene (TCE)	**20**	0.5	0.2	**11**	0.5	0.2	**35**	**30**
Chloroform	**0.7**	0.4	0.2	ND	0.5	**0.2**	**63**	**30**

NZ-27
4/12/2006

	Primary (µg/L)			EPA Split (µg/L)				
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**	
Chloroform	**0.62**	0.4	0.2	ND	0.5	**0.2**	**58**	**30**

MW-200 (PE)
4/12/2006

	Primary (µg/L)			EPA Split (µg/L)				
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**	
1,2,3-Trichlorobenzene	**3.9**	0.5	0.2	**2.1**	0.5	0.2	**36**	**30**
1,2-Dichloropropane	**3.6**	0.4	0.2	**2.1**	0.5	0.2	**32**	**30**
1,3-Dichlorobenzene	**1.7**	1.2	0.78	**0.78**	0.5	0.2	**44**	**30**
Benzene	**3.7**	0.4	0.2	**2.0**	0.5	0.2	**36**	**30**
Carbon tetrachloride	**2.4**	0.4	0.2	**1.3**	0.5	0.2	**36**	**30**
Chlorobenzene	**4.4**	0.4	0.2	**2.5**	0.5	0.2	**34**	**30**
Ethylbenzene	**5.3**	0.6	0.2	**2.9**	0.5	0.2	**36**	**30**
m,p-Xylene	**5.3**	0.8	0.37	**3.1**	0.5	0.2	**32**	**30**
o-Xylene	**3.5**	1.1	0.2	**1.8**	0.5	0.2	**39**	**30**
Tetrachloroethylene (PCE)	**8.3**	1.4	0.2	**4.6**	0.5	0.2	**35**	**30**
Toluene	**7.3**	1.1	0.2	**4.2**	0.5	0.2	**33**	**30**
Trichloroethylene (TCE)	**13**	0.5	0.2	**7.3**	0.5	0.2	**34**	**30**

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	FT-03 4/11/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	**0.36**	0.4	0.2	ND	0.5	**0.2**	**35**
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	ND	1.2	0.2	ND	0.5	0.2	NC
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.42B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	ND	0.5	0.2	ND	0.5	0.2	NC
Tetrachloroethylene (PCE)	**1.0**	1.4	0.2	**0.98**	0.5	0.2	**1.3**
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	**6.2**	0.5	0.2	**6**	0.5	0.2	**2.2**
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

B - Laboratory Contaminant

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	MW-49 4/12/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	**0.7**	0.4	0.2	ND	0.5	**0.2**	**63**
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	ND	1.2	0.2	ND	0.5	0.2	NC
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.39B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	ND	0.5	0.2	ND	0.5	0.2	NC
Tetrachloroethylene (PCE)	ND	1.4	0.2	ND	0.5	0.2	NC
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	**20**	0.5	0.2	**11**	0.5	0.2	**35**
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

MW-69
4/11/2006

	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	ND	0.4	0.2	ND	0.5	0.2	NC
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	ND	1.2	0.2	ND	0.5	0.2	NC
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.35B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	**24**	0.5	0.2	**30**	0.5	0.2	**15**
Tetrachloroethylene (PCE)	ND	1.4	0.2	ND	0.5	0.2	NC
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	ND J	0.5	0.2	ND	0.5	0.2	NC
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	NZ-107 4/10/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	**0.22**	0.4	0.2	**0.17**	0.5	0.2	**16**
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	**0.21**	0.4	0.2	ND	0.5	**0.2**	**3**
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	**0.22**	1.2	0.2	**0.2**	0.5	0.2	**6**
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.33B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	ND	0.5	0.2	ND	0.5	0.2	NC
Tetrachloroethylene (PCE)	ND	1.4	0.2	ND	0.5	0.2	NC
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	**7.3**	0.5	0.2	**5.3**	0.5	0.2	**20**
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	NZ-27 4/12/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	**0.62**	0.4	0.2	ND	0.5	**0.2**	**58**
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	**2.7**	1.2	0.2	**1.9**	0.5	0.2	**22**
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND R	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.37B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	ND	0.5	0.2	ND	0.5	0.2	NC
Tetrachloroethylene (PCE)	ND	1.4	0.2	ND	0.5	0.2	NC
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	**140**	5	2	**91**	0.5	0.2	**26**
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	WZ-06 4/12/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	ND	0.5	0.2	ND	0.5	0.2	NC
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	ND	0.3	0.2	ND	0.5	0.2	NC
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	1.2	0.2	ND	0.5	0.2	NC
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	ND	0.4	0.2	ND	0.5	0.2	NC
Bromobenzene	ND	0.4	0.2	NA	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	ND	0.4	0.2	ND	0.5	0.2	NC
Chlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
Chloroethane	ND	1	0.2	ND	0.5	0.2	NC
Chloroform	ND	0.4	0.2	ND	0.5	0.2	NC
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	ND	1.2	0.2	ND	0.5	0.2	NC
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	ND	0.6	0.2	ND	0.5	0.2	NC
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	ND	0.8	0.37	ND	0.5	0.2	NC
Methylene chloride	ND	2.5	0.5	ND	**0.24B**	0.2	NC
n-Butylbenzene	ND	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	ND	1.1	0.2	ND	0.5	0.2	NC
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	ND	0.5	0.2	ND	0.5	0.2	NC
Tetrachloroethylene (PCE)	ND	1.4	0.2	ND	0.5	0.2	NC
Toluene	ND	1.1	0.2	ND	0.5	0.2	NC
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	ND	0.5	0.2	ND	0.5	0.2	NC
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected
B - Detected in associated laboratory blank

SPLIT SAMPLE DATA COMPARISON FOR VOLATILES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	MW-200 (PE) 4/12/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
1,1,1,2-Tetrachloroethane	ND	0.5	0.2	NA	NA	NA	NA
1,1,1-Trichloroethane	ND	0.8	0.2	ND	0.5	0.2	NC
1,1,2,2-Tetrachloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1,2-Trichloroethane	ND	1	0.2	ND	0.5	0.2	NC
1,1-Dichloroethane	ND	0.4	0.2	ND	0.5	0.2	NC
1,1-Dichloroethene	ND	1.2	0.2	ND	0.5	0.2	NC
1,1-Dichloropropene	ND	1	0.2	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**3.9**	0.5	0.2	**2.1**	0.5	0.2	**36**
1,2,3-Trichloropropane	ND	3.2	0.5	ND	0.5	0.2	NC
1,2,4-Trichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1,2,4-Trimethylbenzene	ND	1.3	0.2	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	ND	2.6	0.5	ND	0.5	0.2	NC
1,2-Dibromoethane (EDB)	ND	0.6	0.2	ND	0.5	0.2	NC
1,2-Dichlorobenzene	**6.2**	0.3	0.2	**3.8**	0.5	0.2	**30**
1,2-Dichloroethane	ND	0.5	0.2	ND	0.5	0.2	NC
1,2-Dichloropropane	**3.6**	0.4	0.2	**2.1**	0.5	0.2	**32**
1,3,5-Trimethylbenzene	ND	0.5	0.2	NA	NA	NA	NA
1,3-Dichlorobenzene	**1.7**	1.2	0.78	**0.78**	0.5	0.2	**44**
1,3-Dichloropropane	ND	0.4	0.2	ND	0.5	0.2	NC
1,4-Dichlorobenzene	ND	0.4	0.2	ND	0.5	0.2	NC
1-Chlorohexane	ND	0.5	0.2	NA	NA	NA	NA
2,2-Dichloropropane	ND	3.5	0.2	NA	NA	NA	NA
2-Chlorotoluene	ND	0.4	0.2	NA	NA	NA	NA
4-Chlorotoluene	ND	0.6	0.2	NA	NA	NA	NA
Benzene	**3.7**	0.4	0.2	**2.0**	0.5	0.2	**36**
Bromobenzene	**4.6**	0.4	0.2	**3.7 (TIC)**	NA	NA	NA
Bromochloromethane	ND	0.4	0.2	ND	0.5	0.2	NC
Bromodichloromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Bromoform	ND	1.2	0.3	ND	0.5	0.2	NC
Bromomethane	ND	1.1	0.2	ND	0.5	0.2	NC
Carbon tetrachloride	**2.4**	0.4	0.2	**1.3**	0.5	0.2	**36**
Chlorobenzene	**4.4**	0.4	0.2	**2.5**	0.5	0.2	**34**
Chloroethane	**8.9**	1	0.2	**7.2**	0.5	0.2	**14**
Chloroform	ND	0.4	0.2	ND	0.5	0.2	NC
Chloromethane	ND	1.3	0.2	ND	0.5	0.2	NC
cis-1,2-Dichloroethylene	ND	1.2	0.2	ND	0.5	0.2	NC
cis-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromochloromethane	ND	0.5	0.2	ND	0.5	0.2	NC
Dibromomethane	ND	2.4	0.2	NA	NA	NA	NA
Dichlorodifluoromethane	ND	1	0.3	ND	0.5	0.2	NC
Ethylbenzene	**5.3**	0.6	0.2	**2.9**	0.5	0.2	**36**
Hexachlorobutadiene	ND	1.1	0.2	NA	NA	NA	NA
Isopropylbenzene (Cumene)	ND	0.5	0.2	NA	NA	NA	NA
m,p-Xylene	**5.3**	0.8	0.37	**3.1**	0.5	0.2	**32**
Methylene chloride	ND	2.5	0.5	ND	**0.3B**	0.2	NC
n-Butylbenzene	**7.5**	1.1	0.2	NA	NA	NA	NA
n-Propylbenzene	ND	0.4	0.2	NA	NA	NA	NA
Naphthalene	ND	1	0.5	NA	NA	NA	NA
o-Xylene	**3.5**	1.1	0.2	**1.8**	0.5	0.2	**39**
p-Cymene (p-isopropyltoluene)	ND	1.2	0.2	NA	NA	NA	NA
sec-Butylbenzene	ND	1.3	0.2	NA	NA	NA	NA
Styrene	ND	0.4	0.2	ND	0.5	0.2	NC
t-Butylbenzene	ND	1.4	0.2	NA	NA	NA	NA
Tert-Butyl methyl ether	**15**	0.5	0.2	**12**	0.5	0.2	**14**
Tetrachloroethylene (PCE)	**8.3**	1.4	0.2	**4.6**	0.5	0.2	**35**
Toluene	**7.3**	1.1	0.2	**4.2**	0.5	0.2	**33**
trans-1,2-Dichloroethene	ND	0.6	0.2	ND	0.5	0.2	NC
trans-1,3-Dichloropropene	ND	0.5	0.2	ND	0.5	0.2	NC
Trichloroethylene (TCE)	**13**	0.5	0.2	**7.3**	0.5	0.2	**34**
Trichlorofluoromethane	ND	0.8	0.2	ND	0.5	0.2	NC
Vinyl chloride	ND	0.5	0.2	ND	0.5	0.2	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR OC PESTICIDES
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

	NZ-89 4/11/2006						
	Primary (µg/L)			EPA Split (µg/L)			
Analyte	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
Aldrin	ND	0.0094	0.0038	ND	0.05	0.025	NC
Alpha endosulfan	ND	0.0094	0.0038	ND	0.05	0.025	NC
alpha-BHC	ND	0.0094	0.0038	ND	0.05	0.025	NC
alpha-Chlordane	ND	0.0094	0.0038	ND	0.05	0.025	NC
Beta endosulfan	ND	0.0094	0.0038	ND	0.05	0.025	NC
beta-BHC	ND	0.0094	0.0038	ND	0.05	0.025	NC
delta-BHC	ND	0.0094	0.0038	ND	0.05	0.025	NC
Dieldrin	**0.21**	0.0094	0.0038	**0.26**	0.1	0.05	**15**
Endosulfan sulfate	ND	0.0094	0.0038	ND	0.05	0.025	NC
Endrin	ND	0.0094	0.0038	ND	0.05	0.025	NC
Endrin aldehyde	ND	0.0094	0.0038	ND	0.05	0.025	NC
gamma-BHC (Lindane)	ND	0.0094	0.0038	ND	0.05	0.025	NC
gamma-Chlordane	ND	0.0094	0.0038	ND	0.05	0.025	NC
Heptachlor	ND	0.0094	0.0038	ND	0.05	0.025	NC
Heptachlor epoxide	ND	0.0094	0.0038	ND	0.05	0.025	NC
Methoxychlor	ND	0.047	0.0094	ND	0.1	0.05	NC
p,p'-DDD	ND	0.0094	0.0038	ND	0.05	0.025	NC
p,p'-DDE	ND	0.0094	0.0038	ND	0.05	0.025	NC
p,p'-DDT	ND	0.0094	0.0038	ND	0.05	0.025	NC
Sum Of Chlordane Isomers By Eia	ND	0.094	0.056	NA	NA	0.025	NC
Toxaphene	ND	2.8	0.19	ND	0.5	0.25	NC

Notes:
µg/L - micrograms per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR WET CHEMISTRY
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

		NZ-107 4/10/2006						
		Primary (mg/L)			EPA Split (mg/L)			
Analyte	**Method**	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
Chloride	SW9056	**55.9**	10	1	**57**	10	5	**1**
Nitrogen, nitrate	SW9056	**11.6**	10	0.5	**13**	10	5	**8**
Sulfate	SW9056	**83.9**	10	2.5	**85**	10	5	**1**
Total dissolved solids	E160.1	**540**	10	5	**520**	10	5	**3**
Alkalinity, total (as CaCO3)	E310.1	NA	NA	NA	NA	NA	NA	NC
TOC	SW9060	NA	NA	NA	NA	NA	NA	NC

Notes:
mg/L - milligrams per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR WET CHEMISTRY
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

		WZ-06 4/12/2006						
		Primary (mg/L)			EPA Split (mg/L)			
Analyte	**Method**	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
Chloride	SW9056	NA	NA	NA	NA	NA	NA	NC
Nitrogen, nitrate	SW9056	**4.63**	1	0.05	**4.9**	0.1	0.05	**4**
Sulfate	SW9056	NA	NA	NA	NA	NA	NA	NC
Total dissolved solids	E160.1	NA	NA	NA	NA	NA	NA	NC
Alkalinity, total (as CaCO3)	E310.1	**120**	5	1	**130**	10	5	**5**
TOC	SW9060	ND	1	0.5	ND	2	1	**NC**

Notes:
mg/L - milligrams per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

SPLIT SAMPLE DATA COMPARISON FOR WET CHEMISTRY
APRIL 2006 BASEWIDE GROUNDWATER MONITORING EVENT
GEORGE AIR FORCE BASE, CALIFORNIA

		MW-200 4/12/2006						
		Primary (mg/L)			EPA Split (mg/L)			
Analyte	**Method**	**Result**	**RL**	**MDL**	**Result**	**RL**	**MDL**	**RPD**
Chloride	SW9056	NA	NA	NA	NA	NA	NA	NC
Nitrogen, nitrate	SW9056	**2**	1	0.05	**2.2**	0.1	0.05	**6**
Sulfate	SW9056	NA	NA	NA	NA	NA	NA	NC
Total dissolved solids	E160.1	NA	NA	NA	NA	NA	NA	NC
Alkalinity, total (as CaCO3)	E310.1	**136**	5	1	**150**	10	5	**7**
TOC	SW9060	NA	NA	NA	NA	NA	NA	NC

Notes:
mg/L - milligrams per liter
NA - Not Analyzed
NC - Not Calculated
ND - Not detected

Attachment A

Follow-Up Data

Follow-up Data Provided by Montgomery Watson Harza

MW-49	4/20/2004	Trichloroethylene (TCE)	**26.7**	UG/L
	10/15/2004	Trichloroethylene (TCE)	**33.1 M**	UG/L
	4/7/2005	Trichloroethylene (TCE)	**18.4**	UG/L
	10/13/2005	Trichloroethylene (TCE)	**18.3**	UG/L
	4/12/2006	Trichloroethylene (TCE)	**20**	UG/L
NZ-27	5/10/2004	Trichloroethylene (TCE)	**177**	UG/L
	11/4/2004	Trichloroethylene (TCE)	**232**	UG/L
	4/26/2005	Trichloroethylene (TCE)	**154**	UG/L
	10/28/2005	Trichloroethylene (TCE)	**136**	UG/L
	4/12/2006	Trichloroethylene (TCE)	**140**	UG/L
FT-03	4/28/2004	Chloroform	< 0.3	UG/L
	10/22/2004	Chloroform	< 0.3	UG/L
	4/14/2005	Chloroform	< 0.3	UG/L
	10/20/2005	Chloroform	< 0.3	UG/L
	4/11/2006	Chloroform	**0.36 F**	UG/L
MW-49	4/20/2004	Chloroform	**0.76**	UG/L
	10/15/2004	Chloroform	**0.48**	UG/L
	4/7/2005	Chloroform	**0.58**	UG/L
	10/13/2005	Chloroform	**0.57**	UG/L
	4/12/2006	Chloroform	**0.7**	UG/L
MW-69	4/30/2004	Chloroform	< 0.3	UG/L
	10/28/2004	Chloroform	< 0.3	UG/L
	4/18/2005	Chloroform	< 0.3	UG/L
	10/24/2005	Chloroform	< 0.3	UG/L
	4/11/2006	Chloroform	< 0.40	UG/L
NZ-107	4/16/2004	Chloroform	< 0.3	UG/L
	10/12/2004	Chloroform	< 0.3	UG/L
	4/5/2005	Chloroform	< 0.3	UG/L
	10/17/2005	Chloroform	< 0.3	UG/L
	4/10/2006	Chloroform	**0.21 F**	UG/L
NZ-27	5/10/2004	Chloroform	< 0.3	UG/L
	11/4/2004	Chloroform	< 0.3	UG/L
	4/26/2005	Chloroform	**0.52**	UG/L
	10/28/2005	Chloroform	**0.49**	UG/L
	4/12/2006	Chloroform	**0.62**	UG/L
WZ-06	4/29/2004	Chloroform	< 0.3	UG/L
	11/2/2004	Chloroform	< 0.3	UG/L
	4/21/2005	Chloroform	< 0.3	UG/L
	10/28/2005	Chloroform	< 0.3	UG/L
	4/12/2006	Chloroform	< 0.40	UG/L

GEORGE AFB – FULL-VOLUME DOUBLE BLIND PES – ALKALINITY AND NITRATE AS –N- SDG 06101A CLJ 6-22-06

LAB ID	SAMPLE ID	DETERMINATION	RESULTS FROM SDG 06101A -	NOMINAL MG/L	AL	AH	SCORING
0604011-01	Y2FX1	ALKALINITY	NOT REPORTED	150	105	195	--
0604011-01	Y2FX1	NITRATE AS –N-	13	2.26	1.58	2.94	High
0604016-01	Y2FX6	ALKALINITY	150	150	105	195	Within Action Limits
0604016-01	Y2FX6	NITRATE AS –N-	2.2	2.26	1.58	2.94	Within Action Limits
0604016-02	Y2FX7	ALKALINITY	130	150	105	195	Within Action Limits
0604016-02	Y2FX7	NITRATE AS –N-	4.9	2.26	1.58	2.94	High

EMAX BELOW

GEORGE AFB – FULL-VOLUME DOUBLE BLIND PES – ALKALINITY AND NITRATE AS –N- EMAX Results CLJ 6-23-06

LAB ID	SAMPLE ID	DETERMINATION	RESULTS FROM SDG e-mail -	NOMINAL MG/L	AL	AH	SCORING
NA	NA	ALKALINITY	136	150	105	195	Within Action Limits
NA	NA	NITRATE AS –N-	2	2.26	1.58	2.94	Within Action Limits